Collective action and community resilience:
specific, general and transformative capacity

Submitted by Lucy Claire Faulkner to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Environment, Energy and Resilience, August 2018

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Abstract

Communities are taking action to address different types of change and shape their own future to enable a desirable state. Yet a critical understanding of the relationship between collective action and community resilience is not fully elaborated. This thesis enriches community resilience research by examining attributes of community and how the attributes interact with collective action to promote three constituent components of community resilience: that is specific resilience, general resilience, and transformative capacity, defined here as ability to envisage and plan for the future.

This study undertakes research in Wadebridge, north Cornwall, UK, and Sedgefield, western Cape, South Africa. These coastal towns represent emerging complexities of change, both with a history of collective action and communities fragmented by identity and demographic divisions. Focus groups, semi-structured key informant interviews and participatory scenario planning are used to elicit different resident perspectives on community and ability to promote specific and general resilience and transformative capacity.

The results suggest four key attributes of community: resident identity, trust, interests around collective action and differential ability and power to affect change. Incomers, who are a particular type of lifestyle migrant, act as catalysts promoting collective action for specific resilience, which builds capacity for incomers to address known hazards. But there is significant difference between incomers and other resident groupings that reinforces social divisions. Collective action that enables general resilience reconfigures to bring distinct residents together to share resources and build trust, allowing more residents to positively address different shocks and disturbances and provide an entry point to negotiate the future. Residents understand transformative capacity also requires fundamentally changing social structures, power relations and identity-related roles.

The implications of the results are that incorporating the influence of lifestyle mobility into community resilience research increases explanation of the way in which communities are being reshaped and the role of individuals in promoting collective

action for different constituent components of community resilience. Collective action conferring general resilience is shaped by individual capacity and networks, rather than collective capacity, with individuals interlinking responses to specific and general resilience together.

List of Contents

List of Tables

List of Figures

List of Boxes

Abbreviations

NGO   Non-governmental organisation

WREN   Wadebridge Renewable Energy Network

Acknowledgements

Chapter 1: Introduction

1.1 The research problem: Collective action and community resilience

Resilience is now widely regarded as something communities should strive for, particularly in relation to climate change and disasters (Bene et al., 2018). Escalating disaster losses coupled with the increasing frequency and severity of disaster events over the past two decades highlight some of the considerable challenges facing communities everywhere (Cutter et al., 2013; UNISDR, 2015; MunichRe, 2015). The recent Hurricane Maria in Puerto Rico in September 2017, the unprecedented storms in 2014 in Cornwall, UK, and the 2011 earthquake in Christchurch, New Zealand, are to name but a few, extreme events that have caused significant economic and social damage to communities (Kishore et al., 2018; Cornwall Council, 2014b; Wilson, 2013). Communities around the world are also facing serious challenges around the loss of natural resources (Rockstrom et al., 2009), economic upheaval (Kulig et al., 2008; Wilson et al., 2018), rapid urban expansion (GMR, 2013) and widening social inequality (Gerst et al., 2013) that concerns not only current circumstances but also the future.

In this context of increasing dynamic change, the concept of community resilience has gained increasing prominence in science, policy and practitioner circles (Brown, 2016). It is widely accepted that communities with resilience are better able to anticipate, absorb and respond to different types of disturbance by intentionally developing capacity and proactively building a shared future (Magis, 2010; Berkes and Ross, 2013).

A rapidly growing sphere of action is informed by an increasing interest in community resilience globally. There are joint and individual government policies, programmes and policy subgroups on community resilience (Bach et al., 2010; Cabinet Office, 2011; CARRI, 2013; Larkin et al., 2015; Prepared Scotland, 2017). There are also international frameworks and agreements such as the United Nations Sustainable Development Goals (Peters et al., 2016), and local environmental groups (Carnegie UK Trust, 2011; JRF, 2013; Cretney and Bond, 2014) that emphasise the importance of communities to become more resilient to extreme events and other changes. As

such, there has been an increase in toolkits and models (e.g. Hegney et al., 2008; Schwind, 2009; Pfefferbaum et al., 2011) and studies focusing on understanding how communities in a range of contexts can enhance their resilience both in theory and practice from the research fields of social-ecological systems (e.g. Olsson et al., 2004), developmental psychology and mental health (e.g. Kulig et al., 2008) and hazard and disaster risk (e.g. Norris et al., 2008; Cutter et al., 2008, 2014). This has spurred interest in approaches to assess community resilience (Pfefferbaum et al., 2014; Cutter, 2016; Sharifi, 2016) in order to help identify how communities can address risks they face and highlight points for intervention (Frankenberger et al., 2013; UNDP, 2014).

Studies in community resilience typically suggest that collective action and community resilience are linked. Collective action is when a group of people with a shared interest work together to achieve an outcome from which all members of the group benefit (Ostrom, 1990; Meinzen-Dick et al., 2004). Scholars in the field suggest that community resilience and collective action are synergistic, with one a precondition of the other. Pfefferbaum and colleagues (2005, 2011) for example describe a resilient community as one that "has the ability to transform the environment through collective action." Other scholars working in developmental psychology and mental health, disaster risk and social ecological systems also suggest collective action and community resilience are mutually supportive, with collective action influencing community resilience (Adger, 2003; Olsson et al., 2004; Chaskin, 2008; Magis, 2010; Kulig et al., 2008; McAslan, 2011) and ability to create an alternative future (Bai et al., 2016; Brown, 2016).

A critical understanding of the relationship between collective action and community resilience is however actually little understood and needs to be tested. Community resilience and collective action are both concepts that comprise of dynamic social processes (Meinzen-Dick et al., 2004; Norris et al., 2008), with the potential complexity of the relationship between them not made explicit.

There has been substantial debate about the meaning and constituents of the notion of 'community' (Wilson et al., 2018). However, there continue to be uncritical assumptions around communities working together to enhance their resilience without

adequately acknowledging the more problematic nature of the concept (Robinson and Carson, 2016; Wilson, 2017). It is well established that social relations and shared identity are critical to handling collective risks. Yet communities are becoming more fragmented and socially stratified than in past decades (Mowlam and Creegan, 2008; Bach et al., 2010). Communities are often taking different forms that are less fixed and familiar, with common factors of place and shared interests not fully capturing the multi-faceted nature of contemporary communities and potential causes of tension (Mulligan et al., 2016). Still, notions of belonging, trust and supportive community relations and structures are usually assumed in community resilience research rather than problematised, with spatial politics, sub groups, unequal power relations, and the realities of social divisions and inequalities often underemphasised (Mackinnon and Derickson, 2012).

There is also a predominant focus in community resilience research on promoting specific resilience and how communities can respond to known, identified risks and hazards that are often recurrent, such as coastal erosion (Karlsson and Hovelsrud, 2015) or hurricanes (Tompkins, 2005 cited in Adger et al., 2005). Yet enhancing a community's resilience to one type of disturbance does not guarantee its ability to address others.

Communities are increasingly facing emerging complexities (Wilson, 2012). Coastal areas for example are often places where a range of new, increasing and overlapping pressures and disturbances combine to produce crucibles of change for communities to navigate (Brown et al., 2017). Social ecological systems scholars make compelling theoretical arguments suggesting that communities are to strengthen their specific and general resilience, so that communities have capacity to address different types of change (Folke et al., 2010; Walker and Salt, 2012). This includes hazards that are known and expected, but also shocks that are surprises and different types of disturbance that might be new and unpredictable. However, empirical insight into how communities can enhance general resilience in practice or work towards shaping dynamic future change and promoting an alternative future in communities that do not form a cohesive whole or have a shared vision is little understood in studies on community resilience.

For these reasons, this study seeks to enrich and add to community resilience research by suggesting three key areas of examination that have received insufficient attention in understanding the relationship between community resilience and collective action. These three areas are attributes that comprise community in the context of community resilience, the relationship between collective action and specific and general resilience, and the role of the collective action in promoting transformative capacity.

1.2 Identifying attributes of community for the community resilience context

This thesis suggests that an understanding of the relationship between collective action and community resilience first requires examining community as a unit of analysis. Community is central to community resilience and collective action as it is the unit of social organisation that underlies both concepts. Community therefore provides a foundation upon which collective action and community resilience are shaped (Agrawal and Gibson, 1999; Chaskin, 2008).

This study proposes a new way of conceptualising community to inform community resilience theory because the concept is still underdeveloped in contemporary resilience research. Dominant interpretations of community in both strands of community resilience research, that is social ecological systems and developmental psychology and mental health, interpret community differently based on the theoretical perspective each field of research follows. However, this study suggests that both framings are problematic in seeking to understand how communities respond to disturbance and confer resilience.

Social ecological systems analysis generally assumes that community is part of a place-based system (Brown, 2016). Studies primarily focus on natural resource management and on discrete communities of resources users that interact closely with their environment in a particular locality such as groups of fishers or farmers (Berkes and Ross, 2013). Community in this instance shares similarities with how community is typically conceputalised in commons literature. This means community is usually conceived of as a static, singular and homogenised unit that operates in coordinated

fashion and in consensus, with shared interests, identity and trust supporting collective action (Ostrom, 1990; Cox et al., 2010; Olsson et al., 2004; Fabinyi et al., 2014).

Yet by engaging with community in this way, analyses of community in social ecological systems research pay insufficient attention to the nature of people's agency and the more political and socially constructed elements of community and community resilience (Davidson, 2010; Wilson, 2017). Community is typically depoliticised. People's different interests and aspirations are often overlooked, which obscures the way in which economic and power relations are privileged in place (Brown, 2016). This is because the emphasis of resilience analysis in social ecological systems studies is on understanding how a system builds or loses resilience in its entirety (Dwiartama and Rosin, 2014). Attention is paid to the adaptive cycle and structural elements of a system that influence resilience, such as cross-scale dynamics and feedbacks (Holling, 1986; Walker et al., 2002) rather than on what community is as a unit of analysis in itself.

Not everyone however benefits equally from claims made in the name of community (Karlsson and Hovelsrud, 2015). Communities are not often uniform or necessarily collaborative and cohesive and blessed with consensus and agreement (Panelli and Welch, 2005). Communities can be framed as dynamic and comprising of multiple actors and interests with complex power relations in place that can shape people's ability to address change (Wisner et al., 2004; Yates, 2014). Jordan (2014) for example presents an empirical analysis of community resilience in Bangladesh that shows inequalities in power between community members contributes to social exclusion and unequal access to resources on which people depend for resilience-building. Studies on community also show that even if belonging and shared interests binds people together and supports collective action (Selman, 2004), it does not mean that these elements cannot equally fragment and divide people and places and become problematic over time if trust or people's identities and preferences change (Walker et al., 2010; Mulligan et al., 2016).

Developmental psychology and mental health research forms a broader range of analyses with communities in different settings. Studies focusing on community resilience in this instance are not restricted to the natural environment (Berkes and

Ross, 2013) and cover a range of circumstances from disasters (Norris et al., 2008; Cutter et al., 2008) and community development (Chaskin, 2008), to war (Shamai et al., 2007) and people living in poverty (Ahmed et al., 2004). Studies typically emphasise human agency and people's capacity to act and positively address adversity by drawing on different strengths available to them (Masten and Obradovic, 2008; Magis, 2010; Maclean et al., 2014).

Studies in the field have concentrated overwhelmingly on the resilience of individuals within their social environments, and only more recently on communities (Maclean et al., 2016). Community is predominately understood as providing a context that helps the psychological wellbeing and recovery of its individuals members under stress by enabling access to needed resources (Ungar, 2012). The resilience of individuals and the resilience of a community are assumed to be linked (Bronfenbrenner, 1999; Robinson and Carson, 2016), with community often understood through an individual lens (Jason et al., 2015). Studies commonly focus on identifying individual and community strengths and capacities that can promote resilience (e.g. Ross et al., 2010; Buikstra et al., 2010). Yet emphasis of resilience analysis is still largely placed on the individual and on individual outcomes in the face of known risk factors.

Community in developmental psychology and mental health research has a very different starting point to its conceptualisation compared to a social ecological systems perspective. However, community is still typically assumed to be a unified entity that is collaborative in building and sharing its resilience together. Community is also often defined broadly and ambiguously as any group of individuals who identify with each other and share common interests, identities and culture and participate in shared activities (Ungar, 2011). There are therefore differences but also parallels between the way in which social ecological systems and developmental psychology and mental health research interpret community, with both approaches demonstrating that an integrated community structure supports its members to take action in response to disturbance (e.g. Olsson et al., 2004; Kulig et al., 2008).

This study suggests that focusing on community through a perspective of a generalised number of individuals is also problematic for community resilience analysis. Resilience scholars argue that community is more than the sum of its

individual members as community resilience is not simply the additive result of a community's individual members (Kulig, 2000; Pfefferbaum et al., 2005; Norris et al., 2008). While a linkage between the individual and community level is acknowledged (Bukistra et al., 2010), how the relationship operates remains little understood (Kulig et al., 2013).

Community can also take different forms and be more fluid and overlapping in nature that a view of community as individuals bound by shared interest and often place often neglect. Community scholars show that different types of community can often exist simultaneously in one location, based on a wider categorisation that relates to people's multi-faceted identities and aspirations, and rapidly changing lifestyles and mobility patterns (Etzoni, 1996; Wegner, 1998; Cohen et al., 2015). Communities can be heterogenous (Gilchrist, 2009) and activated in different ways at different times for different purposes (Rose, 1999 cited in Mulligan et al., 2016). A linear or symbiotic relationship between a community and its resilience is therefore unlikely to be straight-forward.

In summary, contemporary framings and interpretations of community in community resilience research pose limitations for how community is understood and analysed. By resilience scholars either focusing on analysis of community at the level of a social-ecological system or at an individual level, with communities of place and shared interests assumed, social diversity, power relations and the more dynamic nature of community and its complex interactions that shape social relations are not made explicit. Current approaches in community resilience research are therefore limited with respect to their utility as surrogates for communities, as both approaches misconceive and tend to oversimplify the concept. As a result, this thesis suggests that current approaches to community in community resilience research do not explicitly define different attributes of community and underplay key compositional influences that are likely to affect community in contexts of community resilience.

It is not that place or shared interest are not significant for community (Blackshaw, 2010). Rather the approach here argues that these aspects are likely to be insufficient to explain what attributes inform community in the context of community resilience alone. By attempting to fit community into a common and somewhat fixed set of

characteristics that assume how a community is supposed to act is likely to be too narrow to reflect people's diverse interests, local cultural differences and the interplay between power relations and people's agency to respond to change that may influence how community resilience is conferred. A focus on community in the context of community resilience requires a more nuanced and dynamic approach to analysis that makes attributes of community more explicit from the outset.

In line with present scholarship on community resilience, where community is emphasised as a high priority for research (Norris et al., 2008; Berkes and Ross, 2013; Mulligan et al., 2016; Robinson and Carson, 2016), this thesis suggests that greater clarification is required on what attributes inform community, as they are likely to affect how a community and its resilience interrelate. This study proposes investigating different attributes of community in the context of community resilience and seeks to redirect analysis of community to address the specific gap the thesis aims to fill. That is, to test the hypothesis that community in community resilience is more than a set of normative assumptions that describe a static, discrete and depoliticised homogenous group of individuals bound by shared interest and place. This study aims to identify a different interpretation and framing of community that allows examination into a more nuanced set of attributes and influences that may construct community in the context of community resilience and affect interactions of different actors and interests around resilience decision-making and action.

1.3 Collective action and a community's capacity to address different changes

Analysing the relationship between collective action and community resilience also calls for a greater understanding of what type of disturbance a particular community is enhancing its resilience to. This is to ensure that the form of collective action undertaken and the process through which it occurs reflects the particular objective or purpose required. In the context of community resilience, this involves critically assessing the relationship between collective action and all three constituent components of community resilience, that is specific resilience, general resilience and transformative capacity (Folke et al., 2010; Walker and Salt, 2012). This section

focuses explicitly on specific and general resilience, with section 1.3 addressing collective action and transformative capacity next.

A social ecological systems perspective on resilience suggests that specific resilience and general resilience are two components of community resilience that relate to people's ability to address different forms of change.

Specific resilience is typified in social ecological systems research by its focus on people's ability to respond to a particular part of a social ecological system that is at risk to a specific kind of hazard or disturbance. This is often a risk or hazard that is known and is already experienced by people as it is recurrent and expected (Walker and Salt, 2012). Common examples of specific risks that communities have enhanced their resilience to include coastal erosion in Belize (Karlsson and Hovelsrud, 2015), flooding in the UK (Brooks et al., 2015) and hurricanes in the Caribbean (Tompkins, 2005 cited in Adger et al., 2005). Developmental psychology and mental health research also focuses on response to known risk factors in its analyses of community resilience, such as exposure to neighbourhood violence (Garbarino, 2001), the prolonged threat of war (Shamai et al., 2007) or drought (Buikstra et al., 2010).

Resilience is often examined to specific risks or hazards. It is well established that the rich literature on hazard and disaster risk management is definitely about specific resilience (Berkes and Ross, 2013). We know from this in-depth body of research capacities and collective action proposed to support communities respond to known, identified disturbances. For example, the setting up of infrastructure such as early warning systems and cyclone shelters, social learning and community cohesion can enhance a community's specific resilience (Karlsson and Hovelsrud, 2015; Adger et al., 2005). As a result of this analysis, literature has furthered understanding of specific resilience and how people can address and shape response to well-known forms of change.

However, a community's specific resilience and ability to respond to a particular hazard is but one part of a community's ability to address disturbance. This thesis argues that in seeking to understand community resilience by analysing how a community addresses specific risks fails to capture other constituent components of

resilience that also inform a community's resilience. A rigorous assessment of community resilience requires an understanding of people's ability to address different types of change that can be unpredictable as well as probable, in order to more fully inform efforts to confer community resilience at local level.

For a community to intentionally enhance its resilience, social ecological systems theory posits that it is important for a community to also possess general resilience in addition to specific resilience (Walker and Salt, 2012). A social ecological systems approach conceives of general resilience as a community's ability to absorb, buffer and respond to disturbances of all kinds (Folke et al., 2010). This includes unexpected forms of shock, which by definition are surprises and unpredictable, as well as things more novel or not experienced before (Carpenter et al., 2012).

Resilience scholars from both strands of community resilience research, that is social ecological systems and developmental psychology and mental health, agree that understanding how a community can enhance its capacity for specific and general resilience is highly desirable (Folke et al., 2010; Berkes and Ross, 2013). This is so that a community is not only optimised to respond to specific disturbances that are known and expected, but can also respond to shocks and other kinds of disturbances that are more uncertain and harder to predict and prepare for as well (Walker and Salt, 2012). Challenging efforts into one kind of resilience only, and responding to one part of a social ecological system or a particular disturbance may be necessary. Yet it may also be problematic for a community, as it might reduce its resilience in other ways and lead to a loss of a community's general resilience overall (Folke et al. 2010, Miller et al., 2010). Schoon and colleagues (2011) for example suggest the initial creation and build-up of social and physical infrastructure can help a community initially thrive in a wide variety of environments. The capacity to adapt to novel events and shocks can however be compromised by commitments to specific forms of social and physical infrastructure, that may severely constrain the capacity of communities to respond to different forms of disturbance, including rapid change precipitating rapid and dramatic transformations.

Resilience scholars suggest that there are potential shortcomings to a community resilience approach that focuses on specific resilience, or on one type of resilience

only. Resilience scholars especially highlight the problem of trading off general resilience against specific at the community level (Walker and Salt, 2012, p. 150). While both components of resilience are valuable, these two kinds of resilience can be interdependent, either in being mutually supportive or in competing for management attention (Folke et al., 2010). Yet there remains a lack of attention to the relationship between collective action and specific and general resilience, and insight into what this means for how community resilience is analysed and applied in practice.

Less work on how a community confers general resilience has been undertaken compared to specific resilience. Insight into general resilience and how general and specific resilience might interact is characterised by high levels of uncertainty in community resilience research. Part of the research challenge relates to the broad nature of general resilience that is harder to identify in measurable terms, and a lack of experience to draw on compared to the wealth of evidence on well-characterised hazards that provide a basis of learning for specific resilience (Carpenter et al., 2012). General resilience is an emerging field of research that is beginning to open up with studies providing a starting point to explore the concept (Biggs et al., 2012; Faulkner et al., 2018). Yet despite these initial theoretical and empirical contributions, analysis of general resilience is not widely developed nor an understanding of the relationship between collective action and general resilience well known. Present scholarship from both strands of community resilience literature suggest that general resilience is a high priority for further research (Carpenter et al., 2012; Walker and Salt, 2012; Berkes and Ross, 2013).

This thesis aims to respond to the gap in analysis around collective action and specific and general resilience by proposing that greater consideration into the role of collective action in promoting general resilience, and how specific and general resilience interrelate is needed. A critical review of community resilience research highlights that scholars are yet to sufficiently empirically explore and theorise processes of collective action enabling general resilience, and how specific resilience and general resilience interact at community level. This includes a lack of understanding on conditions that might reduce a community's general resilience or a general level of capacity if only specific resilience is catered to, and the extent forms of collective action and capacities enabling specific and general resilience are shared or differ, or interlink and combine.

This thesis seeks to enrich and add to the existing theoretical and conceptual literature on community resilience by presenting an analysis of resilience that examines specific and general resilience together.

In summary, this study argues that analysing community resilience through the current dominant perspective of specific resilience provides a partial and incomplete view of community resilience. Community resilience is a property of communities that is suggested to aid their response to shocks and different, multiple forms of disturbance (general resilience), as well as known risks and hazards that can be more readily identified and prepared for as they are often recurrent (specific resilience). This study suggests that it is only by understanding the relationship between collective action and specific and general resilience, and how these concepts interact to enable or constrain resilience that a clearer picture of community resilience be drawn. This study reconsiders and extends analysis of community resilience to test the assumption that collective action affects resilience differently when building general resilience compared to responding to a specific hazard. As more is currently known about specific resilience than general resilience, this study examines whether contemporary collective action is more supportive in building specific resilience compared to general resilience, and whether undertaking collective action in one area of resilience means that collective action in another will be undertaken.

1.4 Collective action and transformative capacity from a community resilience perspective

Section 1.2 highlights that specific and general resilience are two components theorised to confer community resilience, by communities building capacity to respond to known hazards (specific resilience) as well as to different, multiple types of change, including unexpected forms of shocks that are unpredictable (general resilience). Yet community resilience is not only about communities anticipating change and building capacity to absorb and respond to different types of disturbance. Social ecological systems research suggests resilience is also about communities deliberately shaping change into the future by defining and working to achieve a desired future state and affect long-term transformation (Nelson et al., 2007; Folke et al., 2010).

There is a shared understanding of the need for a different and more desirable future that improves the chances of societies to surmount current environmental and social risks (Bai et al., 2016). For a desirable future to occur, the notion that a deliberate and positive transformation of an existing system is often necessary is rapidly gaining traction in resilience studies. This is to aid understanding of how society can pursue just and sustainable social-ecological systems by contesting the status quo and creating an alternative (Miller, 2007; O'Brien, 2011).

This thesis follows resilience literature and understands transformation as a profound and significant structural shift or system change that moves one state, function, form or location to another (Brown, 2014). Social ecological systems studies link transformation with the concept of transformative capacity and suggests transformative capacity enables transformation to occur. From a theoretical social ecological systems perspective, resilience literature defines transformative capacity as ability to undergo significant change and increase the potential for transformation by fundamentally altering system behaviour when a social-ecological system's current state is no longer viable or desirable (Walker et al., 2004; Folke et al., 2010).

Transformative capacity is suggested to be a positive attribute of a resilient system (Folke at al., 2010), with the implication that communities are to benefit from strengthening their ability to bring about major change and work towards enabling a desired future state (Nelson et al., 2007). Research in developmental psychology and mental health and social ecological systems agree that people are active agents in a social ecological system with potential to change the future (Bai et al., 2016) by imagining how the future might be and consciously taking action to bring the necessary conditions about (Brown and Kulig, 1995/1996; O'Brien, 2011).

However, transformative capacity has not been fully elaborated in community resilience research. Transformative capacity, like transformation, is challenging to pinpoint and determine and in the context of community resilience has not been made explicit, with analyses sparse in the literature (Brown, 2016). How to make sense of transformative capacity and relate the concept to practice for community resilience analysis is the interest of this study.

Emerging viewpoints on transformative capacity in social ecological systems are arising to aid understanding of the concept. Current analyses from a resilience perspective primarily focus on individual capacities and key individuals that increase the potential for transformation in the context of ecosystem stewardship and adaptive governance (Westley et al., 2011; Westley et al., 2013), where environmental or ecological drivers often trigger the need for change (Few et al., 2017). We know from resilience literature for example that in these contexts, capacities of leadership, vision and trust are important for affecting transformational change (Olsson et al., 2004; Westley et al., 2013), as is an individuals' willingness to change attitudes or occupation (Marshall et al., 2012).

Yet it is not clear what transformative capacity actually involves at the community level (Brown et al., 2013). There is a lack of empirical understanding of transformative capacity at the collective level, rather than at individual level, and the types of changes, actions or social dynamics that would be observed if a community possessed transformative capacity and could increase their potential for transformation. In parallel, scholars in the field of transformation assert there is a lack of critical understanding around what people's goals are and the futures people want, and the underlying dynamics and transformations required towards enabling people's desirable futures to emerge (Bai et al., 2016). Inquiry into who has influence and who gets to decide about the future, and how capacity to affect transformation is deliberated and enacted is important to explore to inform a more critical assessment of transformative capacity and transformational change (Castree et al., 2014; Brown, 2016). Inadequate consideration of underlying structural inequalities or power relations and nuances in people's agency in current analyses of transformation, especially in the context of social ecological systems, is highlighted as particularly problematic (Davidson, 2010; Moore et al., 2014; Gillard et al., 2016). This is because people's capacity to shape future change is unlikely to be homogenous (Pelling and Manuel-Navarrete, 2011; O'Brien, 2011).

To address the above areas of concern in community resilience research and to make transformative capacity for community resilience more explicit to aid analysis of the concept, this thesis suggests a framing for redefining transformative capacity that puts

people's ability to work together and purposefully negotiate the future at its core. This study advocates that an important aspect of transformative capacity is a community's ability to take deliberate action and make decisions about the future and their future options, to collectively think about, discuss and envisage and plan for it so a desirable state can be consciously created. Thus this thesis offers a definition of transformative capacity for community resilience that suggests what the process of building transformative capacity might entail that is relevant for a community resilience perspective.

This thesis defines transformative capacity for community resilience as a community's ability to envisage and strategically plan for the future. This is because strengthening a community's capacity to plan for transformation and promote fundamental change that a desirable future may require is an important aspect of a community managing dynamic change. The approach here argues for a more socially embedded and politicised view of transformative capacity that builds on the critique on community in section 1.2, to recognise power relations and people's diverse interests and future aspirations at community level. This is so identifying factors supporting and/or hindering communities to transform and shape a desired future can be understood. In proposing this definition, this study aims to contribute to community resilience research by empirically exploring transformative capacity, to further understanding of the concept from a community resilience perspective as authors in the field suggest.

Current understanding of how collective action interacts with transformative capacity as defined in this thesis for community resilience is little understood. We know that collective action is suggested to be a pre-requisite for transformation (Brown, 2016; Bai et al., 2016). We also know from the rich literature on common property management that collective action is effective for resolving conflict over and the general management of natural resources (Ostrom, 1990; Cox et al., 2010). Yet understanding how collective action interacts with transformative capacity as defined here, as a community's ability to envisage and plan for the future, and whether existing collective action supports transformative capacity is not clear in community resilience research, but is potentially beneficial to investigate. This thesis argues this is because transformative capacity as defined in this study might require the need to re-think forms of collective action. Established forms of collective action may hinder

transformative capacity. They may inhibit a community's capacity to transform and shape their future due to the attributes and action potentially needed to foster this forward-looking perspective of change. Hence this thesis seeks to test the role of collective action in enabling transformative capacity, to determine the extent communities possess the seeds to transform and are able to act collectively in consciously shaping their future.

Overall, this chapter highlights the contested and ambiguous understanding of the relationship between collective action and community resilience that this study seeks to examine. In exploring the role of collective action in enabling community resilience, and redirecting analysis towards interactions between collective action and specific resilience, general resilience and transformative capacity in particular, with attributes of community underlying each of these components, it is anticipated that this study will contribute a more informed understanding of how collective action and community resilience interrelate. The challenges highlighted in this chapter in analysis around these concepts present the starting point for this thesis, with Chapter 2 analysing the research problems posed in greater depth.

1.5 Research questions

The primary aim of this study is to examine the relationship between collective action and community resilience in order to understand how collective action and community resilience interrelate. The study poses two key research questions to address this aim:

1) What are the attributes of community in community resilience?

2) What is the function of collective action for community resilience?

    a. Is different collective action required for building general resilience compared to responding to a specific hazard?

    b. Does collective action have a role in building transformative capacity in the strategic management of envisaging and planning for the future?

1.6 Outline of thesis

This thesis comprises of seven chapters. The next chapter of the study, Chapter 2, defines, explains and justifies the key concepts and theoretical frameworks of interest to this thesis around community, collective action and community resilience. The chapter critically reviews contemporary debates and the relevant main bodies of literature to show why examining the relationship between collective action and community resilience is relevant. The chapter ends by bringing together the concepts of community, collective action and community resilience that the study focuses on and explains and justifies the study's research questions.

Chapter 3 presents a detailed account of how this study investigates the key challenges in community resilience research posited in Chapter 2. The chapter presents the study's research design, the methods employed for data collection and analysis, and the data elicited in order to address the research questions this thesis poses. The chapter also introduces and justifies the two study sites selected for the research. These are the coastal towns of Wadebridge, north Cornwall, UK, and Sedgefield, western Cape, South Africa. The chapter explains that the research design is optimal to answer the specific research questions it addresses. The analysis of data from study sites is organised thematically. This means this study's research questions are answered by examining themes that emerge from the empirical data side by side between study sites, rather than each study site investigated independently and in sequence.

Chapters 4, 5 and 6 analyse empirical data and present the results of the research that address the study's research questions. Chapter 4 analyses attributes of community in the context of community resilience by interrogating focus group data. In eliciting how different residents in study sites perceive their community is constructed and the key compositional characteristics and influences that inform its make-up, the chapter reconsiders analysis of community for community resilience beyond a static, discrete, homogenous group of individuals unified by shared interest and a particular location. The results of the chapter set a foundation upon which Chapters 5 and 6 build, as attributes of community underlie and influence collective action for specific resilience, general resilience and transformative capacity.

Chapter 5 analyses the role of collective action in conferring specific resilience and general resilience. The chapter examines established instances of collective action to explore whether collective action enhances the capacity of communities in Sedgefield and Wadebrige to promote specific and general resilience. Analysis also investigates how collective action may combine and interlink capacity for specific and general resilience together. This is so communities are not optimised to address specific disturbances that can be more readily identified and prepared for, but can also respond to a range of different changes, including unexpected forms of shock that are less predictable and known as well. Data elicited from key informant interviews with representatives from different collective action organisations in each study site highlights how capacity for responding to different types of change is built and the benefits of action distributed, with implications of this analysis for enabling community resilience presented. The chapter also elaborates on additional conditions that both support and hinder collective action for general resilience.

Chapter 6 analyses what role collective action has in enabling transformative capacity as defined in this study, meaning a community's ability to envisage and plan for the future. Drawing on data elicited from participatory scenario planning workshops where different residents' alternative futures were identified, the chapter analyses bridges and barriers in enabling communities to strengthen their capacity to transform and collectively shape change into the future and influence a desirable state.

The concluding chapter, Chapter 7, synthesises the key findings from results chapters 4, 5 and 6. The chapter returns to the research questions of this study, summarises how findings of the thesis address the research questions posed and presents the key contributions of the study to community resilience research. The implications of findings for community resilience policy are also discussed.

Chapter 2: Interrogating community resilience and collective action

2.1 Introduction

This study examines the role of collective action in enabling community resilience. This chapter presents a review of literature that defines, explains and justifies the key concepts and theoretical frameworks around community, collective action and the three constituent components of community resilience that the study investigates, that is specific resilience, general resilience and transformative capacity. The chapter elaborates on the three gaps in analysis that Chapter 1 suggests have been overlooked and under-theorised in community resilience research, to show why examining the relationship between collective action and community resilience is appropriate.

This chapter is structured as follows. Section 2.2 introduces community resilience. Sections 2.3 and 2.4 present the different strands of research that underpin community resilience theory and practice. The chapter then organises around the three key areas that this thesis investigates to explore the relationship between community resilience and collective action that the study addresses. Section 2.5 examines the use of community in contemporary community resilience research. Section 2.6 investigates collective action for specific and general resilience. Section 2.7 explores collective action and transformative capacity. Section 2.8 brings together and interlinks the key concepts of community, collective action and specific resilience, general resilience, and transformative capacity, in order to explain and justify this study's research questions.

2.2 What is community resilience?

Community resilience is a concept that supports understanding how a community can develop its capacity to address change and build a shared future (Wilson, 2012; Berkes and Ross, 2013). Community resilience has gained prominence in research, practice and policy arenas across a wide range of sectors and disciplines (Brown, 2016). Resilience is now widely regarded as something that communities should strive

for as it is perceived to be a positive attribute of a community that is to be strengthened (Bene et al., 2018).

Community resilience is variously defined. A common definition of community resilience is the "existence, development and engagement of community resources by community members to thrive in an environment characterised by change, uncertainty, unpredictability and surprise" (Magis, 2010, p. 401). This definition suggests that community resilience is not about coping or just bouncing back from change. Rather community resilience is a consequence of a community's ability to deliberately work together towards a communal objective (Berkes and Ross, 2013), to collectively address, buffer and shape disturbance and handle collective risk. Risk is therefore implicit in the definition of community resilience, with resilience a proactive rather than passive concept.

In order to manage contexts of dynamic change, a community's ability to learn and improve and adjust their behaviour is important. Scholars in the field suggest community resilience is a continual process of communities confronting and working towards overcoming disturbance, by learning from past stressors and adapting and improving their function to strengthen future response (Wilson, 2012; Maclean et al., 2014). Communities that demonstrate resilience are also suggested to strive for a better condition, and to opportunistically turn adversity into opportunities for change. A truly resilient community is suggested to be one that can fundamentally transform their current situation, and purposely influence and build a shared future that reflects a desirable state (Ross and Berkes, 2014).

Resilience in relation to individuals is not the same as resilience of communities. A focus on individual resilience often refers to an individual's ability to maintain wellbeing and achieve positive outcomes despite exposure to significant adversity or trauma (Masten, 2001; Bonanno, 2004). While it is agreed that the basic construct of resilience refers to responding to perceived threats, stress or change, a focus on community resilience specifically serves the purpose of understanding how communities operate and meaningfully address disturbance (Pfefferbaum, 2005; Kulig et al., 2008).

The underlying premise of community resilience is that the more resilient a community

is, the greater its ability to learn and adapt and effectively respond to shocks and stress (Adger et al., 2005; Walker and Salt, 2006) such as social upheaval, climatic impacts, economic decline or development processes (Kulig, 2000; Chaskin, 2008; Maclean et al., 2014). However, understanding how a community can enhance its resilience and purposefully build capacity to address and shape change into the future is highly debated by scholars in the field, as community resilience is inherently contested (O'Hare and White, 2013; Wilson, 2018).

Research on community resilience represents a convergence between social ecological systems and developmental psychology and mental health research (Maclean et al., 2016). Community resilience is understood and interpreted quite differently within and between these fields due to the different narratives that underpin each discipline that have themselves evolved, and are still evolving over time (Wilson, 2017; Bene et al., 2018). Both fields of research provide useful information relating to community responses to change (Brown and Westaway, 2011). Yet they offer competing and often conflicting definitions and analyses of community resilience. Attributes suggested to enable community resilience for example and issues acknowledged in understanding how community resilience is constructed and applied vary in each approach.

Understanding the way in which social ecological systems and developmental psychology and mental health research approach community resilience is of interest to this thesis. Their perspectives provide a foundation for exploring the relationship between community resilience and collective action that this study focuses on. The following sections of this chapter present an analysis of how developmental psychology and mental health and social ecological systems engage with community resilience and the salient points of relevance to this study regarding their main features. This is so that what each approach offers and the tensions and limits they pose in seeking to understand how community resilience and collective action interact can be highlighted, from which this study forms its research questions.

2.3 Community resilience in social ecological systems

Social ecological systems is one strand of research that informs community resilience theory. Resilience of social ecological systems emerged in the late 1990s as a new paradigm of resilience research, intended to overcome the separation of the social sciences from the natural sciences in understanding how to respond to environmental challenges of the modern world (Bene et al., 2018, p. 118).

Social ecological systems research has its origins in ecology and treats resilience as a systems concept (Holling, 1986; Gunderson and Holling 2002; Folke, 2006). This means that the focus of resilience analysis is on the ability of a coupled social ecological system to respond to shocks and stresses in a dynamic and constantly changing environment, often in contexts of environmental or ecological change at the scale of large regions (Duit et al, 2010; Maclean et al., 2016). A coupled social ecological system refers to the mutually influencing and interdependent relationship between people and the environment (Folke and Gunderson, 2012).

In focusing on resilience at the level of a social ecological system, studies in the field emphasise the importance of systems thinking and system properties in order to assess if and how a particular system builds or loses resilience (Dwiartama and Rosin, 2014). Studies stress the adaptive cycle and structural determinants of a system and external forces such as cross-scale dynamics, feedbacks, fast and slow variables, and the interactions between different components within a system that enable resilience to emerge (Scheffer et al., 2001; Walker et al., 2004; Quilan et al., 2015).

The adaptive cycle is a heuristic model proposed by the ecologist Holling in his seminal work on "Resilience and Stability of Ecological Systems" (1973). The adaptive cycle is at the core of social ecological systems research as it describes how a system organises itself and responds to constant change through time, by persisting in response to significant disturbance and external shocks (Holling, 1986; Walker and Salt, 2006). The concept of "panarchy" for example draws on the adaptive cycle to illustrate how resilience is a dynamic and multi-faceted concept that is fostered across different scales of a system, with different system properties potentially interacting at each scale in different ways (Gunderson and Holling, 2002).

In emphasising the adaptive cycle and ecological-biophysical resilience processes to understand how resilience is conferred in social ecological systems, community is viewed as part of a particular place-based system (Berkes and Ross, 2013; Brown, 2016). Studies often focus on natural resource management with community usually portrayed as a spatially bounded, unified group of resource users, such as farmers or fishers, who share interests and identities and who tend towards harmony and consensus (Ostrom, 1990; Fabinyi et al., 2014). These attributes of community are beneficial, as they are shown to support the ability of resource users to undertake collective action and interact to address change (Olsson et al., 2004, 2006). Collective action is when a group of people with a shared interest work together to achieve an outcome from which all members of the group benefit (Ostrom, 1990; Meinzen-Dick et al., 2004).

A social ecological systems perspective on resilience suggests there are three distinct yet related components of resilience that relate to particular aspects of a system and inform how communities confer resilience in practice. These three constituent components of resilience are specific resilience, general resilience and transformative capacity (Folke et al., 2010; Walker and Salt, 2012; Carpenter et al., 2012).

A social ecological systems perspective conceives of specific resilience as ability to respond to one or more known and identified hazards that are recurrent and thus more able to anticipate (Folke et al., 2010). General resilience is understood as ability to respond to disturbances of all kinds. This includes unexpected forms of shock that are unpredictable and often new and not experienced before, making them more challenging to prepare for and address (Carpenter et al., 2012). This study defines transformative capacity as ability of a community to envisage and plan for the future.

Community, collective action, and how these concepts relate to a community's ability to promote specific resilience, general resilience, and transformative capacity are focused on in depth in sections 2.4, 2.5 and 2.6 of this chapter. They are key to the gaps in analysis that this thesis addresses in examining the relationship between collective action and community resilience.

2.4 Community resilience in developmental psychology and mental health

Developmental psychology and mental health research is the second strand of literature that informs community resilience theory. Research in the field has its origins in child development and psychological resilience theories with resilience analysis typically emphasising individual resilience. This was so studies could initially generate understanding on why some individuals who experience multiple stressors grow into healthy adults while others do not (Luthar and Cicchetti, 2000; Bonanno, 2004; Wong-Parodi et al., 2015). More recently however studies investigate social groupings, such as older adults and communities (Maclean et al., 2016).

The seminal work of Rutter (1987) played a significant role in enabling a shift in research from an individualistic perspective to the collective level. Scholars in the field recognised that attention to individual qualities alone limited their understanding of potential factors that could explain differences in recovery and wellbeing of populations under stress that resilience analyses explore (Ungar et al., 2012, p. 14). The resilience discourse in developmental psychology and mental health thus changed to better acknowledge the wider dynamic relational processes in which individuals are embedded (Masten and Obradovic, 2008; Kirmayer et al., 2009; Ungar, 2013). It is from this starting point, from a shift in unit of analysis from the individual level to the wider context in which an individual resides that community took a more prominent position in resilience analyses in developmental psychology and mental health studies.

Studies in developmental psychology and mental health often focus on large cohorts of people and population-level studies so differences in factors promoting positive community development in circumstances of significant adversity within and between communities can be ascertained (Ungar, 2012). In doing so, studies in the field follow a strengths-based approach to understand what makes individuals and communities amenable to change and be resilient. Within individuals themselves, sources of resilience can include physical health, self-esteem, hope and sense of optimism (Masten, 2001; Venters Horton and Wallander, 2001; Tugade and Fredrickson, 2004). At the collective level, supportive factors often refer to help from extended family members, school or community (Buikstra et al. 2010; Maclean et al., 2016).

The types of strengths and capacities that developmental psychology and mental health research typically suggest promote community resilience are quite different to feedbacks and connectivity and the more structural elements of systems that social ecological systems research promote. While not exhaustive, Table 2.1 presents examples of capacities and strengths that communities that demonstrate resilience possess from a psychology, mental health and community development perspective. There is no general consensus on factors influencing community resilience. Yet they typically focus on people–place connections, knowledge and leadership (Berkes and Ross, 2013).

Community resilience capacities	Example references
Sense of place	Ross et al., 2010; Marshall et al., 2012; Amunsden, 2013; Amin, 2013; Karlsson and Hovelsrud, 2015
Leadership and active agents	Kulig et al., 2008, 2010; Hegney et al., 2008; Amundsen, 2013, 2014; Magis, 2010; Buikstra et al., 2010; Cohen et al., 2013; Leykin et al., 2013
Knowledge and learning	Maclean et al. 2014; Wilson, 2012; Magis, 2010; Amunsden, 2013
Community networks	Kulig et al., 2008; Ross et al., 2010; Gooch and Rigano, 2010; Cohen et al., 2013; Leykin et al., 2013; Maclean et al., 2014
Ability to cope with division, embracing difference	Kulig et al., 2008, 2010; Hegney et al., 2008; Buikstra et al., 2010
Community togetherness	Kulig, 2000; Kulig et al., 2008
Sense of community	Paton et al., 2001; Ahmed et al. 2004; Pfefferbaum et al. 2005; Norris et al., 2008

Table 2.1: Capacities promoting community resilience from a developmental psychology and mental health perspective (adapted from Berkes and Ross, 2013 and synthesised by the author).

Focusing on strengths and capacities promoting community resilience is emphasised in developmental psychology and mental health research as resilience is not regarded as a static characteristic that a community either has or does not have (Luthar, 2006; Leipold and Greve, 2009). Rather communities play a unique role in self-organising and developing their own resilience by building up sets of capacities and exercising their agency to respond to change (Magis, 2010). This thesis defines human agency as "the capacity of an individual or group to act independently and to make one's own free choices" (Brown and Westaway, 2011, p. 325).

By conceptualising community resilience in this way, understanding community resilience as a process is becoming more prominent in studies related to developmental psychology and mental health following the work of Norris and colleagues (2008). Emanating from a disaster management and community development viewpoint, the authors present a theoretical framework showing it is the transactional linkages between different capacities that enables a clearer picture of community resilience to be drawn. Resilience-promoting capacities do not work independently of each other but operate in relational ways as Faulkner at al. (2018) empirically demonstrate in showing community resilience as an emergent property. The approach to conceptualising community resilience that Norris and colleagues offer is becoming widely accepted by other scholars in the field (Kulig et al., 2013; Ross and Berkes, 2014).

2.5 Uncritical community? Re-framing community for community resilience

Understanding how social ecological systems and developmental psychology and mental health research approach resilience in sections 2.3 and 2.4 is useful. It shows the different starting points from which community is conceptualised in each field, which is significant for this study. Community is the unit of social organisation that underlies the concept of community resilience. In line with other community resilience scholars (Chaskin, 2008; Robinson and Carson, 2016; Mulligan et al., 2016), this study argues that community plays an important role in shaping a community's resilience. In parallel, community is the unit of social organisation that underlies collective action (Ostrom, 1990; Agrawal and Gibson, 1999), a key theme in this thesis in addition to

community resilience. Investigating the form a community takes and what attributes and influences affect community is therefore appropriate analysis in seeking to understand the relationship between community resilience and collective action that this study examines.

However, community as a concept has not been fully elaborated in contemporary community resilience research. Neither approach that social ecological systems or developmental psychology and mental health research takes is comprehensive on its own. The following sections of this chapter demonstrate why an understanding of community that is more than a static, discrete and depoliticised number of homogenous individuals bound by place and shared interests is necessary for community resilience.

2.5.1 Adding to community in community resilience

There is a huge field of research around community in different parts of the social sciences with community forming an interdisciplinary area of inquiry. Since the 1950s multiple approaches to theorising community have been proposed (e.g. Hillery, 1955; Tonnies, 1957; Durkheim, 1964). As part of the broad spectrum of analyses offered, established literature on community in anthropology, sociology and political science have historically problematised community in terms of division and conflict, mutual suspicion and distrust, and power and inequality.

For example, Banfield's (1958) analysis of a small town in southern Italy shows poverty arose from a psychological inability to trust or to form associations beyond the immediate family. The strength of family bonds prevented people coming together to work for the benefit of a larger number of residents. This study suggests that distrust can affect people's ability to act collectively.

Other anthropological studies focus on community factions and groups in conflict in order to understand how people in communities can act together. Boissevain's (1964) study of a Maltese village shows that constituent groups and associations compete to

influence the outcome of community disputes in line with their own interests, thus affecting how decisions within the village are made.

Bailey's (1969) study of a rural Indian village in Orissa also offers a key contribution to the field of community, by exploring how rules are generated within communities and how they structure games and social interactions that affect who wins and loses. The author examines the distribution of power within an agreed set of ground-rules, and analyses the transactional relations between leaders and followers, the conduct of fair competition and controls for rule-breaking. Bailey shows that people employ strategies to win and hold followers while eroding the support of their opponents. Bailey's study resonates with Nicholas (1963), who emphasises that in three villages in West Bengal, India, differences in caste, economic dependency, kinship and land ownership influence social relations. The author demonstrates that members of a high caste rank who are wealthy and manage the majority of village land, can initiate and control different kinds of community events. This stands in contrast to castes inferior in status, who for the most part must accept the initiative of the dominant group (p. 19). Wealth gives certain community members a group of economic dependents who become political followers at appropriate times, that can be used to affect patterns of alliances and conflict (p. 31).

The above studies offer important insights relevant for the community resilience field. Understanding how communities work have potential implications for their ability to act collectively in managing contexts of dynamic change that resilience requires.

In light of uncertainty and unexpected forms of shocks that communities around the world are increasingly facing, people are more frequently being confronted with having to deal with others beyond the confines of their close relations and networks in order to address disturbance and together shape future change. Identifying how communities, particularly in cases of division, distrust and uneven power relations, can work together and interact beyond kin and friends into strangers is a crucial question for community resilience research, particularly as community is still problematised by studies in the field. Despite significant insights from anthropology, the following four sections of this chapter show community is still often treated as a normative concept in community resilience research. This study therefore aims to add to community

resilience research by re-examining attributes of community and forms of interaction that might condition and shape people's ability to act collectively and confer resilience.

2.5.2 Community in social ecological systems

Section 2.3 states that studies on social ecological systems typically identify community as resource-dependent communities. This means community is assumed to be a group of people who interact closely with their environment in a particular locality around their shared use of a resource (Berkes and Ross, 2013). Emphasis of resilience analysis is often on ecosystem stewardship and adaptive governance to help understand how this type of community can support the sustainability of their resources in light of changing environmental and ecological contexts (Maclean et al., 2016).

The approach to resilience analysis taken however pays more attention to system properties than on attributes that comprise community as a concept in itself. As a result, social ecological systems research predominantly follows a generalised representation of community that is readily identifiable but somewhat prescriptive in form, with community and its resilience often positively portrayed. By absorbing community into a social ecological systems-based framework, the approach reflects a traditional conceptual understanding of community of place and shared interest. The approach also resonates with community in commons literature and how community is used in conservation.

Communities defined by place or location and by shared interests form core elements of community theory (Stacey, 1969; Tonnies, 1974; Bhattacharyya, 2004). They are aspects of community that are suggested to promote collective action and provide motivation to address local issues by supporting people to work together in response to risk in natural resource management contexts (Chaskin, 1999; Selman, 2004; Lane and McDonald, 2005).

This study conceives of community of place as "bound by geographic location, such as a town or region, or by physical space within social, political and naturally

demarcated boundaries" (Cheng et al., 2003). This definition is similar to the definition of community in the Oxford English Dictionary, suggesting that community is widely understood as "a body of people living in one place or district or country and considered as a whole" (OED). This study understands a community of interest as "a group of people united by common interests, aspirations, concerns and values rather than specific geographies" (Harrington et al., 2008).

In line with other resilience scholars (Fabinyi et al., 2014) this thesis suggests that social ecological systems research also shares similarities with the seminal work of Elinor Ostrom and her institutional "design principles" (Ostrom, 1990). Section 2.5 presents Ostrom's design principles in more detail in discussing collective action, social capital and trust. What is relevant here, is how according to these design principles, community is conceived of as a static, spatially bounded, singular and unified group of homogenous resource users, who share common interests, identities and mutual trust (Ostrom, 1990, Cox et al., 2010). These communities tend to operate in a coordinated fashion and in harmony and consensus (Agrawal and Gibson, 1999; Fabinyi et al., 2014) due to the rules put in place that underpin the predictive behaviour of their members.

There is considerable scholarly consensus regarding Ostrom's design principles. They are shown to be robust as they are distilled from a large empirical base including studies on forests, irrigation and fisheries, providing a sound basis for future research (Cox et al., 2010). The approach to community common property resource theory offers is therefore appealing to social ecological systems research. In seeking to explore how to best manage natural resources in rapidly changing ecological and environmental conditions, attributes of community that Ostrom suggests around place, homogeneity, shared identity, equity and trust are shown to be positive attributes of community that support collective decision-making and action around common property resources. Olsson and colleagues (2004) for example highlight the importance of place, shared interests and trust in enabling actors to undertake co-adaptive management of a wetland landscape in Kristianstad, southern Sweden.

A community of place and shared interest and the collaborative nature of its members that the perspective on community in social ecological systems research portrays

supports the analysis of place specific resilience processes that studies in the field seek to identify. Spatial location is important as it determines who is in place, with shared interests showing who the group of resource users who manage collective action around common property resources are. Yet other forms of community or attributes and influences that make a focus on place and shared interests insufficient in approach are not typically made explicit by studies in the field. This study suggests this is problematic, as it limits our understanding of community and how a community can promote its resilience.

2.5.3 Challenges to community in social ecological systems

A key critique of a social ecological systems approach to community resilience is that it presents resilience as an apolitical concept (Gillard et al., 2016), which includes community as well. In assuming resource users are homogenous and operate in consensus (Hatt, 2013), social difference, power relations and the more dynamic nature of community is not usually made explicit. Social ecological system studies often assume communities are resilient in similar ways with community depoliticised.

Scholars from a range of fields across the social sciences suggest a lack of emphasis on potential difference and the political nature of community and resilience is of concern. This is because people's different interests and aspirations are often overlooked, which obscures rather than exposes the way in which economic and power relations are privileged in place (Brown, 2016). A lack of attention to the socially constructed aspects of community and community resilience and its political dimensions equates to a lack of attention to human agency, social justice and the underlying structural inequalities that can perpetuate risk and affect people's capacity to address disturbance (Adger, 2000; Leach, 2008; Wilson, 2017; Bene et al., 2018).

Studies on disaster risk and social vulnerability in climate change adaptation for example demonstrate that while community may be initially identified by the physical location of a shock, a community does not have shared experience of the shock itself or ability to build capacity to address it. Risk and people's ability to address disturbance is socially contingent (Brown, 2014). This means the same shock is

experienced differently by different people in the same location according to a dynamic mix of individual, collective and structural factors (Wisner et al., 2004; Wilson, 2012; Bahadur and Tanner, 2014). These more social and political dimensions of community that social ecological systems studies typically do not make explicit are important to this thesis, as they suggest community is more than a group of people bound by place and shared interest alone.

This study acknowledges that critiques of social ecological systems research and its under-emphasis on power and people's agency are not new (Davidson, 2010; Cannon and Muller-Mahn, 2010; Cote and Nightingale, 2012; Pelling and Manuel-Navarrete, 2011; Hatt, 2013). Nor is the lack of engagement with intracommunity power dynamics and social relations in other community-related research such as community-based adaptation (Chambers, 1997; Dodman and Mitlin, 2011; Ensor, 2014). Yet power relations are relevant for this study that seeks to explore a different and more nuanced interpretation of community for the community resilience context. Community resilience scholars suggest that power relations still remain under-researched, with more empirical focus on the importance of power dynamics in communities needed (Wilson, 2017).

To enrich community resilience research and our understanding of attributes that comprise community, this study suggests paying more attention to multiple actors and interests that might exist in place and the interactions between them is advantageous. This is because community is rarely a unified or homogenous collective.

Agrawal and Gibson (1999) critique the use of community in classic collective action theory and suggest that community is not often fixed as commons research portrays. Rather community can comprise of diverse interests and demographics based on people's gender, age, class, socioeconomic or ethnic group, as other scholars working in natural resource management concur (Kumar, 1995; Brosius et al., 1998; Waylen, 2013).

Kulig (2000) and Kulig and colleagues (2008) also suggest that viewing community as defined by place and shared interests alone is problematic, as it underplays the importance of interactions across different actors that may not have shared interests

in common. Coming from a community psychology perspective, the authors state that focusing on specific relationships within a particular community does not necessarily involve or acknowledge the entire community that may exist in place. A place and shared interest-based approach to community downplays the presence of other forms of community and negates attention to a more intricate set of interactions that may influence community and how community resilience relate.

Community can be multi-faceted in nature, and more fluid and overlapping in form with different types of community existing in one place. Harrington and colleagues (2008) for instance draw on the work of Boully and Dovers (2002) and Smith (2004) to emphasise that in the context of water resource management in the Murray–Darling Basin, Australia, there is "no such thing as a (singular or unified) catchment community, but rather a highly complex, interacting set of communities" with "multi-layered and overlapping community memberships, interactions, rights, responsibilities and alliances that might monopolise resources or exclude particular groups" (p. 204). Similarly, Kelly (2004) suggests that the nature of community can change and can be more ad hoc in form as communities shift in line with different people's preferences at different times. Communities are not simplistic but are to be thought of as "localised, fragmented, hybrid, multiple, overlapping and activated differently in different arenas and practices" (Rose, 1999 cited in Mulligan, 2015, p. 346).

Other community scholars likewise illustrate how community can be part of a broader social landscape that involves other types of communities based on people's numerous interests and associated changing lifestyles that can be unifying but also distinct (Wellman, 1979; Etzoni, 1996; Wegner, 1998; James et al., 2012). People in the past decade have become more mobile, with the demographics of communities changing and realigning people's relationship with place and other people (Kelly and Hosking, 2008). This is challenging existing perceptions on what attributes form a community and how it operates (Bauman, 2000; Malesevic and Haugaard, 2002). Place-based communities in particular are becoming increasingly socially stratified, with sub-communities being a source of tension or conflict in some instances (Mulligan et al., 2016).

Community is therefore an intricate concept that has the power to fragment people as much as it can unite (Cohen, 1985; Delanty, 2003; Cass et al., 2010). Community can imply similarity and inclusion as well as difference and exclusion (Jha, 2010). Scholars working in identity politics and conflict illustrate that narrow projections of community based on place, shared interests or identity can contribute to or exacerbate existing social division and discord (Sen, 2006). This is because legitimacy and interaction is often shown to be bound within a certain group of people, with outsiders considered as "not belonging" often through displays of difference, politics, power and alienation (Harrington et al., 2008). Similarly, close communities, such as those defined by a particular interest or place, are also shown to generate ''insider-outsider'' dynamics that can limit their own accessibility or openness to other people or collectives, with more negative implications for enabling resilience (Norris et al., 2008).

A shared place and interest-based approach to community that social ecological systems research typically portrays that is central to much of the literature on community resilience, raises important questions that this study seeks to explore around who is included and who is excluded from any community under consideration (Mulligan et al., 2016). This study argues that shared interests and trust can bind people together but can also be polarising and divide and separate people and places if trust and interests are different and not shared (Harrington et al., 2008; Kulig et al., 2008). Attributes of community around trust and shared interests have the potential to become points of contestation as well as collaboration. Yet this perspective on community is not often acknowledged in social ecological systems research.

What community resilience means where community has different fractions or is more dysfunctional in character compared to the collaborative, homogenous and depoliticised communities that social ecological systems studies generally portray remains largely unexplored in community resilience research. The more problematic nature of community is rarely addressed and requires investigation (Robinson and Carson, 2016).

Community resilience is a multi-layered and conflicting concept (Keck and Sakdapolrak, 2013; Wilson, 2017), with this study suggesting that how attributes of community underlie and interact with community resilience and collective action may

also be contradictory. The interplay between a community and its resilience, or between a specific community of interest and collective action, may not be as straightforward as contemporary studies in social ecological systems often suggest in their analyses of community resilience. Thus this study is interested in investigating a different and wider and more nuanced framing of community that takes into consideration other key influences and attributes of community that current analyses of community in social ecological systems research do not typically explore.

In addition, resilience literature itself proposes that approaching community in existing formats does not support the buffering of external impacts, and that it is the diversity of stakeholders and institutions rather than homogeneity that is central to innovation and adaptation due to sharing of different forms of knowledge, learning and resources that can open up new ideas and possibilities for future development (Adger, 2003; Schoon et al., 2011; Maclean et al., 2014; Fabinyi, 2014). Resilience studies suggest diversity in its various forms is a positive attribute of a resilient system (Folke et al., 2003; Berkes and Seixas, 2005) as diversity is seen as enriching and dynamic (Gilchrist, 2009). Diversity can relate to different types of knowledge (Magis, 2010; Adger et al., 2011; Wilson, 2012) or different combinations of network ties that are suggested to be central to strengthening community resilience (Adger, 2003; Newman and Dale, 2005) as they provide essential support during times of change (Maclean et al., 2014). Yet coherent communities of resource users that social ecological systems typically portray are not diverse in form or attributes.

In summary, the different attributes and elements of community that the critiques here have illustrated around the limitations of communities of place and shared interests, power relations, and the more overlapping nature of community that comprises of multiple actors and their interests are of importance to this study. They inform the necessary gaps and steps in analysis around attributes of community for the community resilience context that this thesis seeks to explore.

This study suggests that by imposing a dominant interpretation of community as a static, discrete and singular group of homogenous people bound by shared interest in a specific place, as social ecological systems research predominately does, is too narrow an interpretation of community for the community resilience context. A

common set of characteristics used to describe community does not reflect the diverse interests, local cultural differences and power dynamics that can influence community and community resilience. These elements are therefore part of what this study suggests are relevant to explore in order to identify attributes of community that more explicitly reflect the contemporary community resilience context.

2.5.4 Community in developmental psychology and mental health

Community from a developmental psychology and mental health perspective also poses challenges for community resilience.

Section 2.4 states that more recent research in developmental psychology and mental health has shifted its focus to a more contextual understanding of resilience that de-centers the individual as the primary unit of analysis to include communities (Ungar, 2012). In doing so, community is perceived to be a unit of analysis in which resilience also occurs and is important. This is because for many developmental psychology and mental health scholars, community contributes to the psychological wellbeing and recovery of its individual members under stress that researchers in the field are concerned with understanding (Ungar, 2012).

Although a shift in unit of analysis has occurred in resilience analyses from exclusively focusing on individual traits to those of a community that promote resilience, studies in developmental psychology and mental health still however tend to emphasise individual outcomes in its approach to assessing community resilience. Community is often understood through an individual lens (Jason et al., 2015), because the resilience of individuals and the resilience of a community are perceived by scholars in the field to be linked (Robinson and Carson, 2016).

An individual's resilience is typically understood as the result of his or her access to resources needed to sustain their wellbeing and their community's capacity to provide them with what they need so a community's most vulnerable members are cared for (O'Doherty Wright and Masten, 2006; Bottrell, 2009; Ungar, 2011). Community provides an opportunity and a context that makes resilience more likely for individuals,

with the community a key contributor to positive outcomes where change at community level mutually influences individual level experience (Bronfenbrenner, 1999; Boon et al., 2012). A symbiotic relationship is perceived to exist between individual members of a community who are vulnerable and the community itself in which they are embedded. Thus resilience is often understood to be a shared quality between the individual level and the collective level (Ungar, 2012), with community viewed as a collaborative and integrated unit that works together to address adversity.

The approach taken to community in developmental psychology and mental health research reflects two long-standing concepts in the field around community competency (Cottrell, 1974 cited in Norris et al., 2008) and psychological sense of community (Sarason, 1974). A competent community is one which can "care for its members and help them to cope with or to change external forces" (Hawe, 2004, p. 202). A competent community has the capacity to define and deal with its own problems by harnessing skills, collective energy and experiences, and using both internal and external resources for community determined solutions (ibid). Sense of community broadly refers to social relations and a sense of belonging and shared ties that add meaning and perspective to life (Hawe, 2004, p. 202). Paton et al. (2001) show empirically how sense of community can operate in practice, by people's involvement in community feasts, fairs and festivals that can help develop the kind of commitments and friendships that stimulate attachment to each other that can support people's resiliency in times of need.

In viewing community and community resilience in this way, community is often defined in developmental psychology and mental health research as a static entity, formed of a generalised number or collection of unified individuals. Ungar (2011) for example provides a commonly adopted definition of community by studies in developmental psychology and mental health as "any group of individuals that share common interests, identify with one another, have a common culture, and participate in shared activities" (p. 1742). This definition of community is broad yet useful for conceptualising community from a developmental psychology perspective. This is because the definition of community followed supports viewing community as a reciprocal unit tied by shared interests and common bonds that enable resilience to be shared between its members.

2.5.5 Challenges to community in developmental psychology and mental health

Although their starting points to conceptualising community is very different, there are differences but also parallels between the way in which social ecological systems and developmental psychology and mental health research interpret community. Community in both strands of community resilience research are largely viewed as a collaborative unit that works together to enhance its resilience, with their characteristics often quite conservative when applied to social relations. Community resilience is typically suggested to be promoted in a community that is cohesive with place, shared interests and trust common between members.

In focusing on interactions between a community's individual members, this study suggests there are uncritical assumptions made around how a community serves to protect its individual members and not perpetuate risk within the community or for certain individuals within its structure. No potential difference between individual and community aspirations for example is made explicit, despite studies suggesting this is a tension often underemphasised in contemporary framings of community (Henderson and Versceg, 2010 cited in Skerratt and Steiner, 2013). Rather community is assumed to comprise of other individuals, families and institutions that form community who can and are willing to help members more vulnerable to address change.

Possible linkages between the resilience of individuals and the communities in which they reside is also not fully elaborated (Kulig et al., 2013). A synergistic relationship between individual and community resilience is acknowledged (Buikstra et al., 2010; Ungar, 2012). Yet research linking individual to community resilience is scarce (Boon et al., 2012). Community resilience scholars suggest collective action might support examination into linkages between the individual and collective level and what might be different between individual and community resilience based on how collective capacity operates to address change (Wickes et al., 2010; Frankenberger et al., 2013). This assumption has not yet however been tested in community resilience research. Possible linkages between individual and community resilience warrant further attention to understand how a community operates and functions to confer resilience.

Community psychology scholars themselves suggest that community is complex, requiring a more nuanced understanding than resilience at the individual level due to the complexity of interaction and contradiction between elements within a community (Goeppinger et al. 1982 cited in Brown and Kulig, 1996/7, p. 34). Resilience scholars argue that community is more than the sum of its individual members, with community resilience not simply the additive result of a community's individuals and their capacities (Norris et al., 2008; Wickes et al., 2010; Frankenberger et al., 2013). Community resilience research is instructive in suggesting that some community members are likely to be more resilient than others, and what may seem a resilient community for some may not be resilient for all (Wilson, 2012) with resilience at the individual level within a community likely to vary widely (Frankenberger et al., 2013). Yet how these elements might play out empirically and in more contradictory ways is not typically emphasised.

A small number of developmental psychology and community development scholars recognise there are different demographics and interests in a community in their analyses of community resilience (Kulig, 2000; Kulig et al., 2008; Buikstra et al., 2010). Yet these studies are quite normative in how they refer to differences in demographic factors such as around people's occupation, length of residency and age. The broader analysis of community resilience and a focus on identifying individual and collective strengths that can promote resilience tends to oversimplify differences between members of a community that can significantly affect how people confer resilience and address change. A critical assessment of exactly how and why different attributes might or might not enhance community resilience is often not provided. Differences between community members are usually suggested to have a positive influence in supporting resilience overall, such as different experiences. As in social ecological systems research, diversity in this context is also usually viewed as enriching (Gilchrist, 2009).

The way in which developmental psychology and mental health research often defines and uses community in its analyses of community resilience is therefore in part congruent with this study's critique of the limitations of community in social ecological systems research. This means definitions of community are typically broad and ambiguous, often reflecting a traditional and somewhat standard conceptualisation of

community as a community of shared interest and place. Community from a developmental psychology and mental health perspective is also desirable and has positive connotations as it is commonly portrayed as collaborative and cohesive its ability to build resilience. This study suggests that the framing of community from a developmental psychology and mental health perspective can thus also limit our understanding of community in ways that tend to oversimplify and misconceive the concept of community as social ecological systems research does.

Lastly, challenges to community and identifying its attributes is also posed by the different types of community that community resilience studies portray. Studies in developmental psychology and mental health span a wider spectrum or range of types of communities in different settings and contexts than a social ecological systems approach. Studies for example focus on circumstances of war (Shamai et al., 2007) to "disaster communities" that researchers often define by place and physical location (Cutter et al., 2008; Norris et al., 2008) where a disaster took place to identify factors enabling resilience (Boon et al., 2012). Yet the different variations in types and meanings of community in developmental psychology and mental health research and social ecological systems has lead community resilience scholars to seek clarity on community in community resilience and what its attributes are, with community suggested to be a high priority for future research (Norris et al., 2008; Berkes and Ross, 2013; Robinson and Carson, 2016).

In summary, a review of the concept of community in developmental psychology and mental health research shows that resilience scholars often focus on community through an individual lens, with emphasis often on individual outcomes and on supportive factors enabling individuals and their communities to address adversity. Community is commonly portrayed as a generalised number of unified individuals who form a collaborative unit that shares its resilience to support its vulnerable members. Yet in doing so, developmental psychology and mental health research together with studies on social ecological systems neglect sufficient attention to attributes around social diversity and power relations, and how these influences affect linkages between individuals and community to inform resilience. As a result, this study suggests that community requires a different and more nuanced approach to understanding and analysis.

In line with present scholarship on community, this study seeks to reconceive community for the community resilience context. It redirects analysis to test the hypothesis this study proposes. That is, that community in community resilience is more than a set of normative assumptions that describe a static, discrete and depoliticised homogenous group of individuals bound by shared interest and place. This study aims to identify a different interpretation and wider framing of community that allows examination into a more nuanced set of attributes and influences that may construct community in the context of community resilience and affect interactions of different actors and interests around resilience decision-making and action.

2.6 Community resilience and addressing different types of change

2.6.1 What is specific and general resilience?

For a community to enhance its resilience, social ecological systems theory suggests it requires ability to promote specific resilience and general resilience (Folke et al., 2010; Walker and Salt, 2012). This is because specific resilience and general resilience are two constituent components of community resilience that relate to addressing different forms of disturbance.

Specific resilience is typically understood in social ecological systems research as the resilience of a specified part of a social ecological system to a particular kind of hazard (Folke et al., 2010; Walker and Salt, 2012). That is, one that is often recurrent and therefore known and identified such as a flood, hurricane or fire. In responding to known hazards, resilience studies suggest that communities are able to anticipate, prepare and plan for them, as they are more able to predict given the probability of the hazard occurring (Wood et al., 2017).

General resilience is defined differently (Table 2.2). General resilience is commonly theorised in social ecological systems research as the capacity of a system that allows it to absorb and address disturbances of all kinds (Folke et al., 2010; Walker and Salt, 2012). This refers to multiple and different types of change, including shocks and disturbance that are new or not experienced before.

Specific resilience	General resilience
Hazards and risks are: • known and identified • often recurrent • able to be anticipated and planned for • about community preparedness	Disturbances and shocks are: • multiple, different and often new • typically uncertain, unpredictable and less familiar • harder to anticipate • often about capacity to respond as they arise

Table 2.2: Distinguishing specific and general resilience in community resilience research

Shocks are often characterised by uncertainty, and as the term suggests, they are surprises. Shocks are sudden, unexpected and often "out of the ordinary" events (Martin and Sunley, 2015). Given their unpredictable nature, shocks typically require communities to respond to them as they arise, which is different to specific resilience. Communities are to choose from their options on how to best respond, according to what they perceive to be the 'right' response at the time (Bene, Frankenberger and Nelson, 2015). The definition of general resilience presented here thus in part indicates that in addition to addressing specific risks, communities are to also learn how to respond to shocks and disturbances that are unpredictable, and as some might argue not possible to prepare for as they are less familiar (Wood et al., 2017). General resilience implies that communities are therefore to flex their responses to different types of disturbances, including shocks as they emerge, which brings attention to the capacity communities have to do so.

Given the way social ecological systems studies typically define, use and apply specific and general resilience, to some the concept of specific resilience might be considered oxymoronic, with reference to specific capacity considered more appropriate. However, resilience is applied in thinking about specific risks rather than capacity. This is because funding, implementation and policy focus on specific risks,

with implications for how collective action organisations might work that is of interest to this study.

Ensuring communities are not optimised for known, identified hazards (specific resilience), but can also respond to shocks and changes that are more unexpected and uncertain (general resilience) is suggested by social ecological systems studies to be desirable. However, urgent questions regarding specific and general resilience remain.

Understanding how communities can promote general resilience in practice is little understood as is the relationship between specific and general resilience. Resilience is often examined to specific risks or hazards. Yet enhancing a community's resilience to one type of disturbance does not guarantee its ability to address others. It is not well established in community resilience research what conditions and actions may reduce a community's general resilience if only specific resilience is catered to. It is also not clear if approaches to enhance specific and general resilience are interdependent and mutually supportive of each other or whether they compete for management attention (Folke et al. 2010). Promoting one type of resilience might reduce a community's resilience in other ways and lead to a loss of a community's general resilience overall (Folke et al., 2010; Walker and Salt, 2012).

There is limited research on the function of collective action in enabling general resilience and how collective action relates to specific and general resilience. This study however presents the main points as follows to show why this study tests the assumption that the way in which collective action relates to general resilience may be different to specific resilience.

2.6.2 Collective action and specific resilience

Insight into the relationship between collective action and specific resilience can be understood from studies on hazard risk and disaster management, which community resilience scholars suggest is definitely about specific resilience (Berkes and Ross, 2013; Carpenter et al., 2012).

A number of studies present empirical analysis of collective action and specific resilience. Karlsson and Hovelsrud (2015) illustrate how inhabitants of the Monkey River Village in Belize use different collective action strategies to enhance their ability to address coastal erosion. Brooks et al. (2015) focus on flooding in the UK. The authors show actions such as developing skills in communities in Liverpool around checking water levels and clearing rivers of obstructions support resident ability to prepare for and address flood risk. For coastal communities in the Cayman Islands, Caribbean, establishing early warning systems amongst other factors supports communities to respond to recurrent hurricanes (Tompkins, 2005 cited in Adger et al., 2005).

Studies in hazard and disaster risk research also emphasise that the nature of relationships between community members is critical for responding to specific risks (Tompkins and Adger, 2004). Paton and colleagues (2001) for example show that sense of community promotes community resilience in responding to the volcanic eruption of Mt. Ruapehu in New Zealand. In this instance an established connection with people and place supported inhabitants to act and collectively address disturbance.

The above studies demonstrate that collective action promoting a community's specific resilience is in part dependent on social capital, community cohesion, social learning as well as access to more structural measures such as early warning systems.

From a developmental psychology and mental health perspective, emphasis of resilience analysis is also typically on addressing known types of adversity. To understand how to promote psychological wellness in communities, studies in the field investigate known risk factors such as chronic exposure to neighbourhood violence (Garbarino, 2001), prolonged exposure to the threat of war (Shamai et al., 2007), drought (Buikstra et al., 2010) and economic decline (Kulig, 2000).

Studies in developmental psychology and mental health agree with hazard and disaster risk research in suggesting that social relations and community cohesion is important for enabling a community to act to known adversity. Kulig (2000) and Kulig

and colleagues (2013) for example suggest in communities that demonstrate resilience, "ability to cope with divisions" and "community togetherness" are important capacities of communities that promote action and enhance community resilience to known risk factors.

Overall, studies on specific resilience are instructive in suggesting concrete capacities and actions and social dynamics that can support communities address known, identified hazards. Yet understanding how collective action enabling specific resilience might relate to or conflict with general resilience is not clear. Power relations within communities are also not made explicit in analyses of specific resilience, or how other forms of community that are not cohesive with shared interests in common promote different types of resilience.

2.6.3 Collective action and general resilience

There is limited research on general resilience compared to research on specific resilience (Carpenter et al., 2012). This is because general resilience is difficult if not impossible to quantify in absolute terms (Folke et al., 2010; Walker and Salt, 2012). Understanding how communities can address known, identified hazards is potentially more straight-forward to ascertain as recurrent disturbances occur over time. As such, communities are better able to prepare and plan for specific resilience. Yet insight into how communities can build general resilience and respond to any attribute in a system that may promote risk, including shocks that are unpredictable, is extremely challenging to identify (Walker and Salt, 2012).

For communities to address shocks and different, multiple types of change that general resilience implies, social ecological systems scholars suggest communities would benefit from building a "more broad-spectrum type of resilience" (Carpenter et al., 2012). However, what a more broad-spectrum type of resilience looks like at the community level, or the role of collective action in enabling it to occur is little understood. As a result, general resilience is a high priority to investigate (Carpenter et al., 2012; Walker and Salt, 2012).

General resilience is an emerging field of research that is beginning to open up with studies providing a starting point to explore the concept.

Biggs and colleagues (2012) and Carpenter and colleagues (2012) suggest complimentary yet broad and generic sets of characteristics of social ecological systems that may promote general resilience. For Carpenter et al. (2012), attributes supporting general resilience relate to key actors (leadership), trust, flexible institutions and social networks that can connect dynamic responses to different changes (p. 3255). Biggs et al. (2012) also suggest breadth of participation is important in enabling general resilience. Similarly, adaptive management and polycentric arrangements that connect governance scales across a system is key for both sets of authors.

Some of the capacities the above authors suggest, such as trust, may be useful in understanding how collective action promotes general resilience, given insights on the role of trust and social relations in supporting community dynamics and collective action this chapter presents. However, how trust and other characteristics Biggs et al (2012) and Carpenter et al (2012) suggest may relate to collective action or the community level is not well established. A systems perspective on general resilience is quite generalised with empirical evidence sparse in community resilience research.

In exploring how communities can promote their general resilience, resilience scholars also emphasise three key ways (Walker and Salt, 2012). These are: (1) being able to respond quickly and effectively to different changes, in the right places in the right way; (2) having reserves and access to needed resources; and (3) being able to keep options open (p. 91). These attributes resonate with Brown's (2016) "resourcefulness." Resourcefulness is one key element (the other two being resistance and rootedness) the author suggests promotes community resilience. Resourcefulness here refers to examining the resources people can draw on, and the capacity to use them at the right time, in the right way (Brown, 2016, p. 198). Brown adds to the work of Walker and Salt by acknowledging power relations in analyses of resourcefulness is needed for a more socially informed understanding of community resilience compared to the depoliticised nature of social ecological systems research. How these insights on general resilience relate to collective action in practice is however not fully determined.

2.6.4 Collective action insights on social capital and trust

There is considerable research on collective action in the context of natural resource management. In this context, collective action is shown to be at the core of community decision-making in order to aid the sustainability of common property resources for resource users (Adger, 2003).

Section 2.5 discusses Ostrom's "design principles" in its critique of community for the community resilience context. It highlights that for Ostrom (1990), communities will have a higher probability of succeeding in resolving collective action problems if they are small, homogenous, have a lot of social capital, a strong sense of community and mutual trust (Ostrom, 2000).

Table 2.3 shows there are additional preconditions that classic common property resource theory also suggest promote collective action (Ostrom, 1990; Cox et al., 2010). In total, these eight preconditions relate to how, for example, a more equitable distribution of endowments among members supports collective action to be more successful, and that failures of collective action can be overcome by the introduction of selective benefits and alternative institutional designs (Tompkins and Adger, 2004). The main point Ostrom is making is that communities are more likely to create and conserve common property resources when they have credible and reliable information about the costs and benefits of resource decisions, and (crucially) when they have an opportunity to decide the rules of the game (Forsyth and Johnson, 2014). The rules of the game refers to the institutions people devise to establish order and increase the predictability of social outcomes by reducing uncertainty and stabilising forms of human interaction in more predictable ways (North, 1990).

Ostrom's design principles for successful collective action in common property resource governance	
1A	**Clearly defined boundaries**: Individuals or households who have rights to withdraw resource units from the common-pool resource must be clearly defined.

1B	**Clearly defined boundaries**: The boundaries of the common property resource must be well defined.
2A	**Congruence between appropriation and provision rules and local conditions**: Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions.
2B	**Congruence between appropriation and provision rules and local conditions**: The benefits obtained by users from a common property resource, as determined by appropriation rules, are proportional to the amount of inputs required in the form of labour, material, or money, as determined by provision rules.
3	**Collective-choice arrangements**: Most individuals affected by the operational rules can participate in modifying the operational rules.
4A	**Monitoring**: Monitors are present and actively audit common property resource conditions and appropriator behaviour.
4B	**Monitoring**: Monitors are accountable to or are the appropriators.
5	**Graduated sanctions**: Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, officials accountable to these appropriators, or both.
6	**Conflict-resolution mechanisms**: Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials.
7	**Minimal recognition of rights to organize**: The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.
8	**Nested enterprises**: Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

Table 2.3: Ostrom's design principles for successful collective management of common property resources (1990, p. 90).

For example, Joshi and colleagues (2000) demonstrate that farmer-managed irrigation systems in Nepal were more effective and equitable compared to government systems

due to the mutual trust forged between farmers as a result of their network, repeated interaction, rule-following behaviour and external sanctions. Here, farmers function well as a collective action group due to their interpersonal relations and an agreed set of rules between members that underpin their predictive behaviour, resulting in the growth of trust between them. The presence of rules and trust matter, as gaming theory shows these elements reduce the temptation to free-ride and the uncertainty that stems from the unpredictable behaviour of others that can limit joint benefits to the collective action group (Ostrom, 1990; Coleman, 1988a).

Joshi and colleagues' study (2000), and Banfield's work in southern Italy (1985) in section 2.4.1 emphasise that trust informs community dynamics and can, in part, support or hinder people's ability to act together.

The existence of trust is closely linked with the concept of social capital, with social capital a useful perspective to understand causes of behaviour and collective social outcomes (Ostrom and Ahn, 2003) that is relevant for the community resilience field. Social capital draws attention to trust, networks and formal and informal rules or institutions that this section shows helps communities predict another's behaviour, and establish expectations and norms that allow people to play the longer game by learning and adjusting how to work effectively together (Ostrom, 1990).

Social capital is often conceived as "features of social life - networks, norms and trust - that enable participants to act together more effectively to pursue shared objectives" (Putnam, 1995, pp. 664–665). Trust is understood as the particular expectation we have with regard to the likely behaviour of others (Gambetta, 2000).

How trust is formed and relates to collective action is viewed in diverse ways. Some studies (e.g. Torsvik, 2000) suggest trust is the outcome of having social capital and is a key link between social capital and successful collective action. From this perspective, trust exists among a group of individuals when individuals are trustworthy, are networked with one another in multiple ways, and are within institutions that facilitate the growth of trust (Ostrom and Ahn, 2003), as Joshi et al (2000) illustrate.

Other studies suggest that trust is an element of social capital (e.g. Woolcock and Narayan, 2000). Here, trust often results from individual preferences in a collective action situation, such as from the appearance, gender or age of people themselves, and sometimes in instances where no other cooperation-enhancing factors exist (Ostrom and Ahn, 2003). Trust can thus be an independent reason for behaving cooperatively, with the decision to trust another person based on personal belief in another's motivation and expectation of their behaviour. Action can be reciprocated as a result, but not always (Clark and Sefton, 2001). In this respect, Putnam uses the term "thin trust" (2000) with Rahn and Transue (1998) highlighting "generalised trust" that gives a stranger the 'benefit of the doubt' (cited in Ostrom and Ahn, 2003, p.xx). This view demonstrates the importance of the beliefs we hold about others, over and above the importance of the motives we may have for cooperation (Gambetta, 2000).

The above studies also demonstrate the importance of networks in understanding how people cooperate and work together to address social dilemmas, which the resilience literature concurs (see Table 2.1). Putnam's definition of social capital (1995), amongst others (Coleman 1988b) shows that networks are an aspect of social capital, yet they are different to social capital itself. Networks refer to relations between people that structure interchange between members of communities and groups, such as the interpersonal interaction within a community that can flow through different compositions and combinations of network ties (Adger, 2003; Newman and Dale, 2005). Social networks are therefore a function of contingent relationships between actors which may then lead to the formation of institutionalised practices (i.e. social capital). Networks matter, and are of interest to this study, as they too help support people's ability to act collectively, and have been shown to provide essential support and hope during times of change (Maclean et al., 2014).

This thesis is not directly testing the applicability of Ostrom's design principles to specific and general resilience. Yet the above studies raise important questions that are useful for this thesis around the relationship between collective action and community resilience that it explores. This includes how people in a community might find ways to overcome division and distrust in order to act collectively for different components of resilience. Also, who decides, and what are the trade-offs between different types of community that may exist in place and how resources are used for

resilience-building. These aspects are not well established in collective action or community resilience research, but are potentially beneficial to investigate. This is because community interactions around collective action, and how people relate to each other, and build networks and trust and interact in response to disturbance, may affect how collective action operates and influences a community's ability to promote specific and/or general resilience.

In summary, this section presents necessary steps in analysis. Social ecological systems research presents compelling theoretical arguments distinguishing specific resilience (i.e. responding to known, identified disturbance) from general resilience (i.e. responding to multiple disturbances and shocks) by the type of change each constituent component of resilience refers to. These ideas have however not been fully interrogated empirically.

In emphasising that more is known about how communities can promote specific resilience compared to general resilience given its inherent uncertainty, this study examines whether existing collective action is more supportive in building specific resilience compared to general resilience. This thesis also suggests that an understanding of how collective action relates to general resilience is likely to be different to specific resilience, and possibly present different challenges in how communities build capacity and take action to address shocks and disturbances more unpredictable and not possibly experienced before. As section 2.5.1 states, we do not know what conditions, capacities or actions may erode a community's general resilience if only specific resilience is catered to. We also do not know how community interactions and social dynamics, or attributes such as networks and trust affect the relationship between collective action and specific and general resilience.

This study extends analysis of community resilience research to explore whether collective action enabling general resilience is potentially different to specific resilience. In doing so, this thesis tests the assumption that collective action affects resilience differently when building general resilience compared to responding to a specific hazard. This study also tests the assumption that it cannot be presumed that undertaking collective action in one area of resilience means that collective action in another will also be undertaken.

2.7 Collective action and capacity to shape the future

2.7.1 Transformative capacity in social ecological systems

In addition to a focus on specific and general resilience, social ecological systems research suggests community resilience is not only about anticipating change and building capacity to respond to different types of disturbances. It is also about communities deliberately shaping change into the future by defining and working to achieve a desired future state (Nelson et al., 2007; Brown, 2016). The third constituent component of community resilience that this study focuses on relates to transformative capacity.

From a social ecological systems perspective, transformative capacity is a positive attribute of a resilient system that broadly refers to ability to promote transformation (Folke at al., 2010). This thesis follows resilience research, where transformation in this context refers to a profound and significant structural shift or system change that moves one state, function, form or location to another (Brown et al., 2013).

Social ecological systems studies suggest transformation often occurs when ecological, social, or economic conditions of an existing system become untenable or undesirable, requiring elements of a social ecological system to recombine in fundamentally novel ways so a new development trajectory can occur (Walker et al., 2004; Folke et al., 2010). Transformation can be a deliberate process, often actively initiated by people involved in a particular social ecological system due to their dissatisfaction with the status quo (Chapin et al., 2010; Walker and Salt, 2012; Wilson et al., 2013; Revi et al., 2014). Transformation can also be forced by changing environmental or socio-economic conditions including system failure (Folke et al., 2010) or occur as an unexpected or unplanned outcome (Nelson et al., 2007). Nelson and colleagues (2007) provide the example of deliberate or planned transformation as a shift from agriculture to tourism in Arizona, USA, and transformation as an unexpected outcome as agricultural collapse in Jordan.

There is a predominant focus in social ecological system studies on how to promote deliberate transformation. This in part relates to an emphasis on desirable future

states, as the notion of "desirable futures" are often linked with the concept of deliberate transformation. To promote a desirable future, a deliberate and positive transformation of an existing system is often necessary (Miller, 2007). This is because transformation is perceived to support achieving a particular goal that changes current, unsustainable systems towards new, more beneficial trajectories that are understood to ensure the wellbeing of both humans and ecosystems over time (Irwin, 2010; Chapin et al., 2009; Moore et al., 2014). With the recognition of humans as the dominant force shaping biospheric systems, there is a shared understanding of the need for a different and more desirable future that improves the chances of societies to surmount current crises (Bai et al., 2016) and address acute environmental and social challenges that can prevent tipping the human-earth system into a radically different and undesired state (Rockstrom et al., 2009; O'Brien, 2011; Raworth, 2012; Dearing et al., 2014).

Social ecological systems research suggests that communities are to benefit from building their transformative capacity and working towards enabling a desired future state. People are active agents in social ecological systems who have the potential to change the future (Bai et al., 2016) and consciously create an alternative (O'Brien, 2011). Community resilience scholars in developmental psychology and mental health research agree and also suggest that community resilience relates to people's ability to imagine how things might be in the future and to act to bring those conditions about (Brown and Kulig, 1996/1997; Berkes and Ross, 2013; Maclean et al., 2014).

In seeking to understand what factors may promote future change, social ecological systems scholars hypothesise a positive link between transformative capacity and general resilience (Folke et al., 2010; Walker and Salt, 2012). If a community has the capacity to respond to all types of change (i.e. general resilience) scholars suggest this is likely to include ability to fundamentally change the state of the system in which they reside when it becomes undesirable or untenable (Walker and Salt, 2012). Capacities promoting general resilience may therefore be similar to capacities promoting transformation, such as high levels of social capital and support from higher scales of governance (Folke et al., 2010; Walker and Salt, 2012). Empirical testing of potential linkages between transformative capacity and general resilience is however required. Scholars suggest general resilience and transformative capacity are two

distinct components of community resilience that could occur simultaneously and be interdependent, yet how they interact is not clear in resilience research.

How communities are to build their transformative capacity and actively work towards enabling a desirable future raises key questions and empirical challenges for community resilience research.

Transformative capacity, like transformation, is broadly and ambiguously defined in resilience research. Identifying what transformative capacity actually is or what it entails is challenging to determine. This in part relates to the fact that transformation is a contested concept with no consensus on definition or agreed understanding of what it involves (O'Brien, 2012; Brown et al., 2013; Moore et al., 2014). The role of resilience concepts in discussions on transformation is therefore unclear (Brown, 2016), with transformation frequently applied as a loose metaphor or a vague analytical concept that means different things to different people (Feola, 2015).

2.7.2 Empirical insights into transformative capacity

Empirical evidence on transformative capacity and analyses of the concept in the particular context of community resilience is limited in community resilience research (Brown, 2016). Emerging viewpoints on transformative capacity are however arising to aid understanding of the concept.

Current analyses in social ecological systems studies focus on individual capacities and key individuals that can increase the potential for transformation. In contexts of ecosystem stewardship and adaptive governance where environmental or ecological drivers often trigger the need for change (Few et al., 2017), leadership, shared vision and trust are important for enabling action (Olsson et al., 2004; Westley et al., 2011; Westley et al., 2013). Olsson and colleagues (2006) for example emphasise leadership is foundational in enabling communities to explore alternative pathways of change (Olsson et al., 2006). Other transformation studies suggest that deliberate transformation can be promoted by small groups of committed individuals, sometimes operating in shadow networks (O'Brien, 2011 p. 670).

Resilience scholars identify other individual capacities that can promote transformation. Marshall and colleagues (2012) suggest an individual willingness to change attitudes or occupation is key to promoting transformation. In the context of primary industries in northern Australia this is because these factors support people's ability to relocate if needed in response to climate change impacts. Other scholars also suggest changes to individual behaviour, vision, values, beliefs and aspirations enable transformation and thinking about the future (Westley and Antadze, 2010; Kahane, 2012; Westley et al., 2013; O'Brien and Sygna, 2013).

Resilience research shows that power relations can have the ability to affect people's capacity to promote transformation. Pelling and Manuel-Navarrete (2011) provide insight into the ability of urban communities in Mexico to undergo transformative change to the adverse impacts of climate change is hindered by institutional structures that are highly resistant to change in an attempt to maintain the status quo. The authors use Anthony Giddens' (1984) account of power to show rigidity in institutional decision-making processes and norms can leave little space for alternative visions, risking people's ability to be flexible in dealing with emerging and future threats. This example shows that people's capacity to affect transformation can require changes to entrenched systems maintained and protected by powerful interests (O'Brien, 2011, p. 671), which resonates with other scholars (Leach, 2008; Crona and Bodin, 2010).

For a body of research in fields of climate change adaptation and international development, people's transformative capacity and ability to affect significant change requires challenging oppressive power structures, such as gender discrimination or racial and socio-economic exclusion that may curtail expression (Bahadur et al., 2015). Scholars view transformative capacity from an empowerment perspective, with a focus on the ethical implications of transformation and how the concept is to be used in practice in ways that challenge the underlying drivers of vulnerability and inequality that generate and perpetuate risk, especially for people living in poverty. People living in poverty or in other unjust structural forces of a system are often constrained in their ability to affect fundamental change that their desired futures may require (Kapoor, 2007; Pelling, 2011; Bahadur and Tanner, 2014). Shackleton and Luckert (2015) for example show in rural areas of South Africa's eastern Cape, coloured communities

remain under-developed compared to white South African areas in terms of education, service delivery and land tenure rights, which hinders people's ability to transform. Transformation is suggested to be a gradual process of empowerment and negotiation that takes time and commitment (Few et al., 2017), especially if deeply held norms and values are to be questioned (Patterson et al., 2017).

Transformation research is also instructive in suggesting the process through which transformation can occur, with implications for how a community's transformative capacity may emerge. O'Brien and Sygna (2013) suggest transformation requires changes not only at the individual and personal level, but also at political and practical levels. Similarly, Moore and colleagues (2014) build on the work of Olsson et al. (2004) and Chapin et al. (2010) to suggest that transformation requires changes that may start at a single scale concerning a single element, but can lead to change at multiple scales and to multiple elements of a social ecological system, with trust supporting change at each scale. More recently Chung Tiam Fook (2017) shows that local actions communities undertake can be beneficial in affecting higher scales of influence that transformational processes may require.

While the above insights are useful, this study suggests there is a need for an improved understanding of transformative capacity at the community level in particular and how collective action relates to it. This is because community resilience scholars are still yet to sufficiently empirically explore and theorise transformative capacity and processes of transformation for community resilience (Brown et al., 2013).

For the specific context of community resilience, contemporary research lacks a way to assess transformative capacity in practical terms, to help understand if communities possess the seeds to transform and can affect fundamental change that a desirable future might require. Empirical understanding of what transformative capacity really means at community level, rather than at individual level, and how a community might strengthen its capacity for transformation is not made explicit. Similar to general resilience in section 2.5, social ecological systems scholars make a compelling argument for transformative capacity around a community's ability to promote fundamental change and shape their future. Yet empirical understanding of the concept is not fully elaborated, but is beneficial to investigate. This is so our

understanding of how communities can enhance their capacity to transform and promote fundamental change that people's desired futures may require can be better informed, as community resilience and transformation scholars seek to identify (Berkes and Ross, 2013; Maclean et al., 2014; Brown, 2016; Bai et al., 2016).

2.7.3 Redefining transformative capacity for community resilience

This study addresses the gap in analysis around transformative capacity and collective action at the community level. It does this by offering a way to assess transformative capacity for the community resilience context, which can then be used to test the role of collective action in enabling transformative capacity.

Section 2.7.1 states that social ecological systems research defines transformative capacity as ability to promote fundamental change that access to a desirable future may require (Nelson et al., 2007; Folke et al., 2010). This study builds on this perspective and redefines transformative capacity for the community level. This thesis suggests that an important aspect of transformative capacity is finding a way in which a community can look at the future, to imagine what they want their desired future state to look like and to purposefully work towards enabling it to occur. A focus on the future requires a community to collectively discuss, make decisions and take deliberate action about the future and their future options so a desirable state can be consciously created. Thus this study proposes elements of a process of building transformative capacity that is relevant for a community resilience perspective, in order to make transformative capacity for community resilience explicit and relate the concept to practice for community resilience analysis. In doing so, this thesis defines transformative capacity for community resilience as a community's ability to envisage and strategically plan for the future (Box 2.1), so that a community's capacity to plan for transformation and promote fundamental change that a desired future might require can be investigated.

Community resilience is a community's capacity to purposefully develop resources and learn and adjust their behaviour, so that community members can thrive in

circumstances of change, unpredictability and surprise, and strive for a better condition by proactively influencing their future environment.

Community is an affective unit of belonging and identity and a network of relations that structure interchange between members.

Collective action is when a group of people with a shared interest work together to achieve an outcome from which all members of the group benefit. Interpersonal relations and a set of rules underpin the predictive behaviour of group members and reduce the temptation to free-ride.

Social capital is the features of social life - networks, norms and trust - that enable people to act together more effectively to pursue shared objectives.

Trust is the particular expectation we have with regard to the likely behaviour of others.

Specific resilience is ability to respond to one or more known risk or hazard that is identified, and more able to predict and prepare for given the increased probability of the risk or hazard occurring.

General resilience is ability to respond to shocks and multiple, different types of disturbance that are more unpredictable and uncertain, and often responded to as they arise as they are less familiar.

Transformative capacity is ability of a community to envisage and strategically plan for the future. It is about strengthening community capacity to plan for transformation and promote fundamental change that a desired future might require.

Box 2.1: Working definitions of community resilience and related concepts examined in this study (adapted from Magis, 2010; Berkes and Ross, 2014; Chaskin, 2008; Ostrom, 1990; Meinzen-Dick et al., 2004; Putnam, 1995; Gambetta, 2000; Folke et al., 2010; Carpenter et al., 2012; Wood et al., 2017).

The definition of transformative capacity developed here offers a way to assess the relationship between transformative capacity and collective action. It provides a way to explore gaps in analysis resilience scholars highlight around transformation that are of interest to this study given its focus on transformative capacity and collective action at the community level.

Scholars working in the field of transformation highlight a lack of critical insight into the desired futures people want beyond views of generic wellbeing and sustainability (Bai et al., 2016; Biermann et al., 2016). Social ecological systems scholars have recently explored what people regard as a desirable future (Bennett et al., 2016a) (Box 2.2). The authors recognise that people can hold vastly different views on what a good quality of life entails, setting an expectation that multiple pathways will be necessary to achieve alternative futures. Yet still, these insights remain broad and more nuanced interpretation on the processes through which transformation can be achieved and desired futures promoted at the community level are missing.

Based on 100 initiatives in North America, Europe and southern Africa with members of the general public, Bennett and colleagues (2016) identify six pathways of change people desire for the future to enable better human-environment relationships.

1. **Agroecology**: social–ecological approaches to the enhancement of food producing landscapes.
2. **Green Urbanism**: improving the livability of urban areas.
3. **Future Knowledge**: fostering new knowledge and education to transform societies.
4. **Urban Transformation**: creating new types of urban social–ecological space.
5. **Fair Futures**: creating more equitable opportunities for decision making, such as the use of multi-actor dialogues that enable decision processes that are more thorough, open, and fair.
6. **Sustainable Futures**: social movements that build more just and sustainable futures. For example, active attempts to morally stigmatize investment in fossil fuels by arguing that it is environmentally, socially and financially irresponsible.

Box 2.2: Six "seeds" promoting a good Anthropocene (Bennett et al., 2016a).

Social ecological systems research also often assumes in its analyses of transformation that there is a consensus on a desired system state to begin with (Beymer Farris et al., 2012). This view relates to the critique of community in social ecological systems research made in section 2.4, where communities are theorised as spatially bounded, organised social units that tend towards homogeneity, harmony and consensus (Hatt, 2013; Fabinyi et al., 2014). Communities are assumed to be quite conservative in their social relations and operate in a coordinated fashion, which aids exploration of alternative futures and the transformation they often require in studies on resilience of social ecological systems.

In parallel, the emerging literature on participatory scenario planning, which is increasingly used as a method to identify people's alternative future states, also shows that common goals, values and assumptions between participants promote identifying shared futures (Hansen and Larsen, 2014; Mistry et al., 2014; Bennett et al., 2016b; Waylen et al., 2015). This is because shared goals and assumptions help make challenging decisions about the future (Miller, 2007).

However, fixed, cohesive and depoliticised communities typified by a generalised representation of a community of place and shared interests fails to acknowledge the dynamism of community and social difference that section 2.5 discusses. This is problematic in thinking about transformative capacity as defined in this study, as different types of communities and their members may have different preferences for the future and capacity to transform and achieve their goals. It is not always clear in transformation research, particularly from a social ecological systems perspective, how communities reach a consensus. Transformational outcomes are typically focused on, rather than exploring the process around desirable futures as a way to promote transformative capacity (Mapfumo et al., 2017).

Resilience scholars suggest a greater focus on process and the way in which transformation is deliberated and enacted is therefore needed (Pelling and Manuel-Navarrete, 2011; O'Brien, 2011; Brown, 2016; Wilson, 2017). Inquiry into who gets to decide about the future, and what collective capacities, as opposed to individual capacities, might promote a community's ability to transform is important to examine for a more critical assessment of the concept (O'Brien, 2012; Castree et al., 2014;

Brown, 2016; Bai et al., 2016). This approach resonates with this study's analysis of collective action and transformative capacity that it explores, in examining a community's capacity to plan for transformation and promote fundamental change that a desired future state might require.

In summary, a critical understanding of the relationship between collective action and transformative capacity is not fully elaborated. Section 2.6 shows that collective action is effective for resolving conflict over and the general management of natural resources (Ostrom, 1990; Cox et al., 2010). As section 2.7.2 states, we also know that collective action is suggested to be a pre-requisite for transformation (Brown, 2016; Bai et al., 2016). Yet understanding how collective action interacts with transformative capacity as defined here, as a community's ability to envisage and plan for the future, and whether existing collective action supports transformative capacity is less known in community resilience research and requires testing.

Examining the role of collective action in promoting a community's transformative capacity as defined in this study is potentially beneficial to investigate, as it may call for the need to re-think forms of collective action. Established forms of collective action may or may not strengthen a community's capacity to plan for transformation due to the attributes and action potentially needed to foster this forward-looking perspective of change. This study therefore seeks to test the role of collective action in enabling transformative capacity, to determine the extent communities possess the seeds to transform and are able to act collectively to consciously shape their future as an important aspect of managing dynamic change.

2.8 Summary

This study identifies three key gaps in community resilience research based on the above review of knowledge on community, collective action and specific resilience, general resilience and transformative capacity. In bringing analysis of these concepts together, this study poses the following research questions.

1) *What are the attributes of community in community resilience?*

This study first seeks to address the attributes of community in the context of community resilience. Current approaches to community in both strands of community resilience research, that is social ecological systems and developmental psychology and mental health are not comprehensive on their own. Neither approach makes attributes of community explicit and downplays key compositional influences around social difference, power relations and the more dynamic nature of community that are likely to inform community and how community as a concept relates to resilience. Many studies in anthropology have historically problematised community in terms of division, conflict, distrust, power and inequality. Yet in the field of community resilience, community today is still often assumed to be bound by place and shared interest. Community is largely portrayed as depoliticised, with members acting together in consensus, with trust and social relations enabling response to disturbance.

The contribution of this study to community resilience research is in testing its hypothesis that community in community resilience is more than a static, discrete and depoliticised homogenous group of individuals bound by shared interest and place as community resilience research typically portrays. This thesis reconceives community for the community resilience context by examining other forms of community and influences that may inform community attributes and affect interactions of different actors and interests around resilience decision-making and action.

2) *What is the function of collective action for community resilience?*
a) *Is different collective action required for building general resilience compared to responding to a specific hazard?*

Social ecological systems scholars suggest communities would benefit from possessing capacity to promote specific and general resilience. This is so communities are not optimised for known, identified hazards (specific resilience), but can also respond to different types of disturbance including shocks that are more unpredictable, uncertain and not experienced before (general resilience). However, while compelling theoretical arguments are made, these ideas around specific and

general resilience are not fully elaborated. Empirical understanding of how collective action relates to general resilience is not clear, nor is whether actions enhancing a community's resilience to one type of disturbance supports community capacity to address other changes.

This study enriches and adds to community resilience research by responding to the gap in analysis around the relationship between collective action and specific and general resilience. It tests the assumption that the way in which collective action relates to general resilience may be different to specific resilience. As more is currently known about specific resilience than general resilience, this study examines whether contemporary collective action is more supportive in promoting specific resilience than general resilience. This thesis also examines whether undertaking collective action in one area of resilience means that collective action in another will be undertaken.

b) *Does collective action have a role in building transformative capacity in the strategic management of envisaging and planning for the future?*

Transformative capacity is challenging to determine and in the context of community resilience has not been made explicit with empirical data sparse in the literature. To make transformative capacity explicit and relate the concept to practice, this study redefines transformative capacity as a community's ability to envisage and plan for the future, so the role of collective action in enabling transformative capacity can be tested.

Collective action is suggested to be a pre-requisite for transformation and is shown to be effective for resolving conflict over and the general management of natural resources. Yet the role of collective action in enabling transformative capacity as defined here in this study is not well known but is potentially beneficial to investigate. This is so the extent communities possess the seeds to transform and can strengthen their capacity to plan for fundamental change that a desirable future may require can be determined. Focus on a community's capacity to transform is limited in community resilience research and may require the need to re-think established forms of collective action. Established forms of collective action by nature may hinder a community's

capacity to plan for transformation and access a desirable future, due to the attributes and action potentially needed to foster this forward-looking perspective of change.

Chapter 3 outlines next the research design, methods and approach to data analysis used to assess the gaps in analysis around collective action and community resilience this chapter proposes.

Chapter 3: Research design, methods and data

3.1 Introduction

This chapter provides a detailed account of the research design, methodology used to collect data and data analysis that is appropriate to examine the relationship between collective action and community resilience that this study explores.

The chapter is organised as follows. Section 3.2 discusses the general approach this study takes to the research. Section 3.3 provides a detailed description of selected study sites and the justification for site selection. Section 3.4 explains the methods of data elicitation, the types of data collected and participant recruitment. Section 3.5 examines methods of data analysis. Section 3.6 provides an overview of the ethical issues addressed in this thesis. Section 3.7 describes the main challenges experienced by the researcher during fieldwork. Section 3.8 summarises and concludes the chapter.

3.2 Research approach

This study examines the role of collective action in enabling a community's specific resilience, general resilience and transformative capacity. To achieve this aim, this thesis seeks to investigate the relationships that link collective action with each constituent component of community resilience that this study examines. This is so the extent and why there is a relationship between these elements, and what circumstances or contextual factors influence this dynamic can be understood.

There is no standard, generally accepted single approach or method for studies of community resilience (Ross and Berkes, 2014) and collective action (Poteete and Ostrom, 2008). Some studies in the field of hazard and disaster risk adopt a quantitative approach and use a large sample to predict or assess community resilience (e.g. Sherrieb et al., 2010; Cutter et al., 2014; Leykin et al., 2013; Lam et al., 2015; Qin et al., 2017). Sherrieb and colleagues (2010) for example conduct a population-level study to examine the relationship between social capital, economic

development and community resilience using a survey in 82 counties in Mississippi, United States. The focus of the approach in this context is on seeking to test, confirm and verify hypotheses and statistical generalisations based on an existing conceptual model, to obtain breadth of understanding around community resilience (Jackson, 2008; Palinkas et al., 2015; Cutter, 2016). Sometimes quantitative approaches can however overlook the different reasons underlying collective action and community resilience, the diversity that reflects the lives of the people studied and the detail of different capacities and how they interact in dynamic ways to affect resilience (Ungar, 2003; Mahoney and Goertz, 2006).

A larger number of studies seek to obtain depth of understanding and locally situated perceptions of people's experiences of community resilience and collective action through predominately qualitative inquiries in contemporary communities under stress using individual cases and a smaller sample.

A few studies use mixed methods to examine perceptions of community resilience in contemporary communities where enhancing resilience is desirable to a range of stressors (Faulkner et al., 2018). The dominant methodological approach used in empirical studies on community resilience and collective action are however qualitative in approach (Ross and Berkes, 2014; Poteete and Ostrom, 2008). Research is usually undertaken in single study sites (e.g. Hegney et al., 2008; Buikstra et al., 2010; Wilson et al., 2018) or in more than one study area (e.g. Wilson, 2012; Amundsen, 2013) that represent "positive cases" where collective action and/or community resilience occur, enabling insight into each concept (Mahoney and Goertz, 2006). Studies are often multi staged and use more than one type of qualitative research method, with in-depth interviews and focus groups common (Ross and Berkes, 2014).

For example, Karlsson and Hovelsrud (2015) elicit people's viewpoints on their ability to address coastal erosion in one community with a history of collective action in Belize using semi structured interviews. Kulig (2000), a community resilience psychologist, combines semi structured interviews with focus groups to identify characteristics enabling a rural community to take action and effectively respond to a variety of hazards and economic downturn in Alberta, Canada. In the context of transformation

of social ecological systems, Olsson et al (2004) examine factors promoting people's ability to significantly change a wetland landscape under threat of collapse in southern Sweden using in-depth interviews.

Examining specific cases of contemporary communities using a qualitative inquiry is well suited to the study of community resilience and collective action for common reasons acknowledged by scholars in both fields. Community resilience and collective action are dynamic concepts that involve complex social processes in real-world settings which are not always known or straight-forward to understand (Norris et al., 2008; Meinzen-Dick et al., 2004). A qualitative approach to research allows the researcher to really get at people's perceptions and analyse in-depth knowledge of the phenomenon grounded in people's experiences that can be sacrificed with large sample sizes (Lincoln and Guba, 1985; Mahoney and Goertz, 2006; Crouch and Mckenzie, 2006). As such, research is often strengthened by the thickness of the description of a particular reality construction that a qualitative approach enables (Ungar, 2003). This is because the approach supports putting complex relationships under a magnifying glass so that closely interwoven strands can be teased apart (Poteette et al., 2010), enabling the researcher to analyse a large number of historically, socially and culturally significant factors (Ragin, 2007). There are therefore significant benefits to detailed studies that employ qualitative methods in real-life cases where collective action and community resilience occur. They support eliciting context specific data that is necessary for deriving practical implications from the data that can aid concept and theory development (Miles and Huberman 1994; Bauer et al., 2000; Flyvbjerg, 2006).

For these reasons, and consistent with community resilience research, this study uses a qualitative approach to research. This choice of methodology is most suitable as it enables this thesis to really help us understand the relationship between collective action and community resilience that it examines.

This study conceptualises community resilience and collective action as dynamic processes (Meinzen-Dick et al., 2004; Norris et al., 2008), with community resilience an emergent property of a social ecological system (Faulkner et al., 2018). This means community resilience is conferred in diverse and often complex ways through

interlinkages between different capacities that work together to enable resilience. This study then examines particular relationships around collective action and community resilience processes and how they interlink and act, so that their implications for resilience-building to different hazards and shocks that this study investigates can be explained.

Given the multifaceted nature of collective action and community resilience and the potential complexity of the relationship between these concepts, the research approach this study adopts is appropriate. Taking an interpretivist approach to the research, as opposed to positivist, and studying collective action and community resilience in their natural environment in order to gauge reality (Walliman, 2006) allows the researcher to investigate the relationship between collective action and community resilience within the real-life context in which it occurs (Yin, 2009). The researcher can "understand lived experience" (Dwyer and Limb, 2001) and elicit rich insights into people's perspectives of community, their motivations around collective action for community resilience, and how they feed into people's perceived ability to promote specific and general resilience and their ability to plan for the future. This is beneficial, as this thesis seeks to examine the role of collective action in enabling specific resilience, general resilience and transformative capacity as defined in this thesis, as the relationship between these concepts is not fully elaborated in community resilience research as Chapters 1 and 2 demonstrate. By examining cases of collective action (see Section 3.4.3) and eliciting different people's perspectives across different contexts (see Section 3.3) to questions directly posed about community, collective action and forms of resilience, and interpreting what participants say using the data itself to lead analysis, the researcher was able to use their empirical analysis to then refer back to the theoretical concepts of resilience this study examines in order to add to our understanding of the relationship between collective action and community resilience.

This study undertakes research in contemporary communities under stress with a history of collective action and different types or forms of community in situ in more than one location. This criteria is advantageous for this study, as it informs "positive cases" (Mahoney and Goertz, 2006) where instances of community heterogeneity, collective action and community resilience occur that this study examines.

Conducting a detailed study in more than one site is useful as it can lead to more robust findings than single-case research (Baškarada, 2014). Undertaking research in a single case may only reflect the uniqueness of conditions relating to the case in question, posing challenges to generalising findings beyond the immediate case study (Bryman, 2008; Yin, 2009). Based on these insights, undertaking fieldwork in two study sites is beneficial for this study. It can support generalising findings that can strengthen the study's results, while still enabling a rich quality of qualitative data in specific cases that allows space to analyse the processes of collective action and community resilience and their relationship in detail (George and Bennet, 2005; Flyvbjerg, 2006). The criteria selected for this study around community heterogeneity and instances of established collective action in communities under stress are reasons the two study sites were selected for this study in order to make generalisations about the research.

3.3 Selected study sites

Wadebridge, in north Cornwall, located in Southwest UK (figure 3.1) and Sedgefield, in the Eden district, Western Cape Province, South Africa (figure 3.2), are the two study areas specifically selected for this thesis, with several advantages to this choice.

Wadebridge and Sedgefield provide good testing grounds for collective action and community resilience to the different types of change that this study examines. Enhancing community resilience is desirable in each site are they are coastal towns, which are places that are increasingly acknowledged in global environmental change research as representing emerging complexity and particular crucibles of change (Rey-Valette et al., 2015; Surjan et al., 2016; Brown et al., 2017; Bene et al., 2018). Wadebridge and Sedgefield typify many issues and changes coastal localities face, where people's resilience is often challenged by the management of natural resources and a range of new, increasing and overlapping pressures and disturbances.
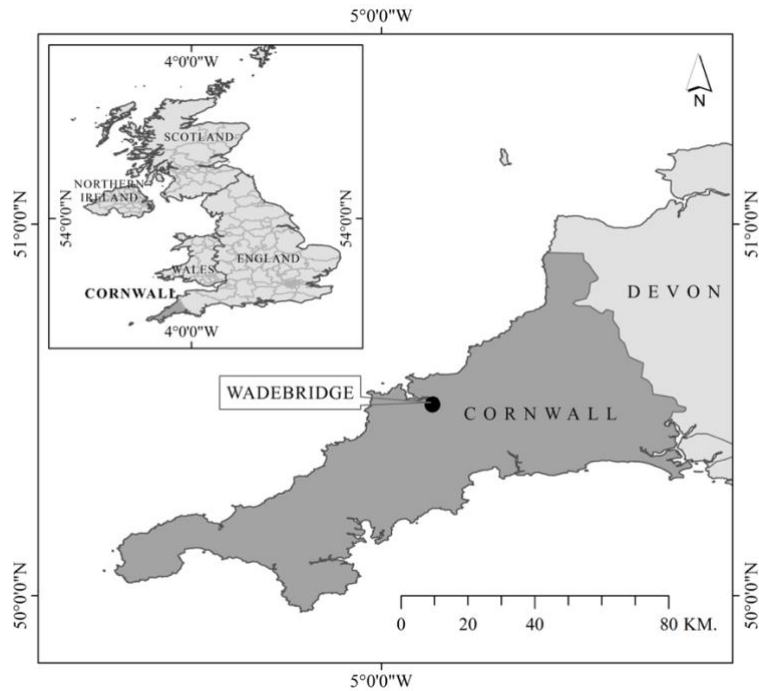
Figure 3.1: Location of Wadebridge, north Cornwall, Southwest UK (ONS UK).
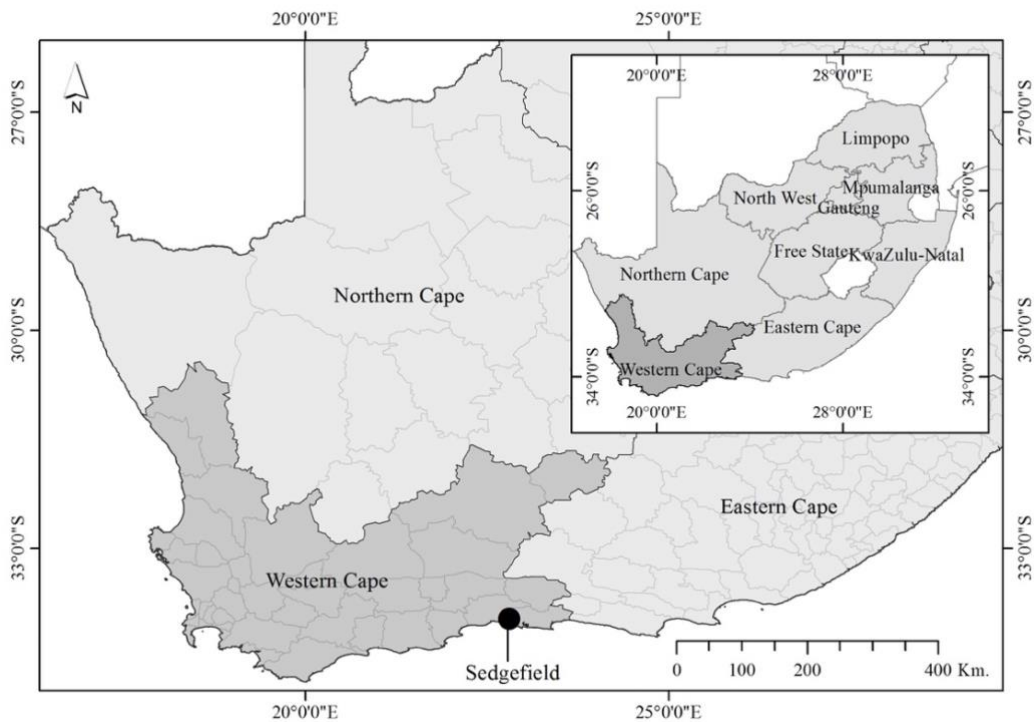
Figure 3.2: Location of Sedgefield, Western Cape, South Africa (Statistics South Africa).

3.3.1 Commonalities in study sites

Wadebridge and Sedgefield are undergoing rapid social and economic changes associated with changing patterns of settlement and mobility, new developments, and an increase in population growth and shifting demographics (O'Farrell et al., 2015; Cornwall Council, 2016). Wadebridge and Sedgefield are similar in population size. Sedgefield is marginally the largest of the two localities studied, with a total population of 6677 people (South African National Statistics, 2011) compared to 6599 people in Wadebridge (ONS, 2011). Both towns are however growing rapidly, with an increase in the number of people moving to each locality, often to retire. In line with other coastal towns (e.g. Tobin, 1999; McElduff et al., 2013; Leonard, 2016), Wadebridge and Sedgefield have an increase in an ageing population and the outmigration of younger residents in part due to lack of access to education and employment opportunities (Cornwall Council, 2011; ONS, 2011). Cornwall for example is one of the fasting growing populations in the UK (Cornwall Council, 2014a), with a higher proportion of people 65 years and over living in the Wadebridge area compared to other parts of the county and in the UK (Cornwall Council, 2010), with this trend projected to increase by 70.8 per cent by 2031 (Cornwall Council, 2011).

Wadebridge and Sedgefield are popular holiday and tourist destinations, especially in the summer when there is a significant increase in population size. Wadebridge is located along the Camel Estuary, an estuary of five miles that leads out to the Atlantic Ocean and forms part of Cornwall's Area of Outstanding Natural Beauty due to its coastal scenery (Cornwall Council, 2016). Wadebridge spans both sides of the River Camel, and is well known for The Camel Trail, an 18-mile walking and cycling route along the Camel Estuary established in 1983 along the North Cornwall train line after it closed in 1967. Sedgefield is part of South Africa's prestigious Garden Route National Park, a national tourist attraction formed of a protected nature reserve spanning 80 kilometres of coastline. Sedgefield is next to Swartvlei estuary and is at the centre of the Garden Route's Wilderness water catchment and lakes district (Vromans et al., 2010). Sedgefield is also Africa's first Slow Town (Box 3.1) with town's emblem a tortoise (figure 3.3).

Sedgefield, A Slow Town

In October 2010 Sedgefield became a Slow Town and the first African member of the Cittaslow movement. The Cittaslow movement began in 1999 in Tuscany, Italy. It is now an international movement with 233 cities in 30 countries registered as Slow Towns. The Cittaslow movement takes a sustainable approach to development to improve the quality of life of residents while also benefiting the environment. This means local approaches to food production, biodiversity conservation and responsible tourism. The Slow Town ethos also promotes the diversity of different people and cultures living in each locality. To be a Slow Town, a town cannot exceed a population of 50,000 people. Sedgefield's well-known Wild Oats Farmers Market and craft market, its community upliftment programmes and its successful approach to adventure tourism supported its Slow Town accreditation. Sedgefield's moto is "The tortoise sets the pace."

Box 3.1: Information on Sedgefield's Slow Town status (http://www.cittaslow.org/node/246)

Figure 3.3: Sedgefield: A Slow Town (source: authors own).

Tourism is the main economic sector in both sites (Cornwall Council, 2013; Vromans et al., 2010). This can however accentuate issues around dependence on low wages and seasonal employment for some residents. This is evident in Wadebridge, which is representative of Cornwall, where one in five jobs are tourist related (Urquhart and Acott, 2013). The increase in population during summer months can also put additional pressure on key resources, such as an increase in demand for water in Sedgefield.

Due to their coastal location, Sedgefield and Wadebridge are prone to environmental changes in the form of extreme weather events, linked in part to climate change impacts. In both localities these include heavy rainfall events, sea storms and predicted sea level rise as well as flood risk (Theron et al., 2011; Eden District Municipality, 2013; O'Farrell et al., 2015; Cornwall Council, 2012, 2014a,b).

In terms of formal town management and responsibility for addressing risk, Sedgefield and Wadebridge have experienced changes to local government administration and a shift to a single autonomous authority. In Wadebridge, in 2009 the town's local council changed to a centralised unitary council for the whole county of Cornwall. In 2000, the management of Sedgefield changed from being an independent local authority to being integrated under Knysna municipality. As in other coastal localities (e.g. McElduff et al., 2013; Cutter, 2016), there is however considerable diversity among towns, with a "one size fits all" approach often understood to be problematic in study sites as Chapter 5 returns to.

Wadebridge and Sedgefield are also characterised by socio-economic inequality, and income inequality in particular, although to different degrees and for different contextual reasons. Sedgefield is marked by extreme income inequality and is representative of South Africa's Gini coefficient[1] of 0.62, making it among one of the

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[1] Gini coefficient is a common statistical measure used to analyse income inequality between the value of 0 and 1. It measures the extent to which the distribution of income in a country deviates from a perfectly equal distribution. The value of 0 represents perfect equality, with 1 perfect inequality. The higher the number, the greater the degree of income inequality present (OCED, 2002).

most unequal countries in terms of income distribution worldwide (OECD, 2017). Income inequality has increased since the Apartheid ended in 1994 (Leibbrandt et al., 2012) and has risen in South Africa in part due to a decline in economic growth and high levels of unemployment that has increased the gap between the rich and poor (South African National Statistics, 2014).

Apartheid was a political system that took place in South Africa from 1948 to 1994, when a transition to multi-racial democracy occurred (Aiken, 2013). Apartheid policies and programmes segregated the population of South Africa based on people's race, privileging white South Africans while institutionalising discrimination against black South Africans (Schensul and Heller, 2010).

Today, Sedgefield typifies the way in which Apartheid continues to leave a legacy of high levels of inequality that still shapes South African society (Mariotti and Fourle, 2014). Income inequality is demonstrated in Sedgefield by its mix of high and low-income urban areas (figure 3.4), which are distinctly different and divided according to the identity of different racial groups. While not in direct conflict, this divide in settlement areas emphasises that the majority of white and black South Africans continue to live largely separate lives (Aiken, 2013).

Figure 3.4: Housing in Sedgefield town and Smustville, Sedgefield, South Africa (source: authors own).

Sedgefield town and The Island are part of the original town of Sedgefield and are high-income urban areas (figure 3.5) with a population of 2234 residents (South African National Statistics, 2011). Smutsville is the low-income area in Sedgefield with a population of 4443 residents (South African National Statistics, 2011).
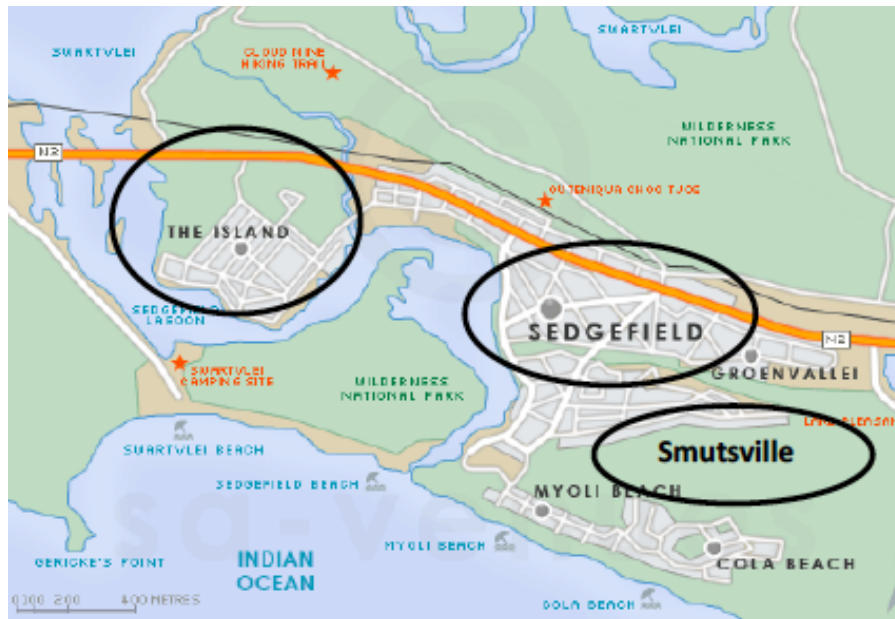
Figure 3.5: The different parts of Sedgefield from which participants were selected for this study (adapted by author from Sedgefield Tourism and Area Map, 2012).

Smutsville is a "township," and is named after its founder, Mr Smut. The term "township" has no formal definition but is commonly understood to represent spatial and economic inequality in South Africa. A township broadly refers to the underdeveloped, usually urban, residential areas that during Apartheid were reserved for non-whites (Africans, Coloureds and Indians) who lived near or worked in areas that were designated 'white only' (Pernegger and Godehart, 2007). Today, South Africa's townships still represent poor investment, overpopulation, and a lack of infrastructure and necessary resources (Mahajan, 2014).

Smutsville residents have a different set of risks that affect them compared to residents living in Sedgefield town and The Island. Smutsville is located on the seaward side of

the town's coastal dunes, unlike the majority of Sedgefield town, and experiences rapid growth while remaining marginalised. Key issues Smutsville residents face reflect common concerns of residents living in townships across South Africa around pervasive poverty and high levels of unemployment (Morris, 2004; Burger and Woolard, 2005). Smutsville residents experience low levels of education; lack of access to health services, safe water, sanitation and housing; lack of community voice and access to decision-making bodies; and high levels of substance abuse and crime (Whiting, 2016).

Wadebridge is also a combination of more and less affluent inhabitants, with a marked disparity in people's socio-economic background. Income inequality has sharply risen in Cornwall over the past four decades (Glasmeier et al., 2008). Cornwall reflects the broader UK context as now one of the most unequal countries of the global north with a Gini coefficient of 0.34 (Equality Trust, 2014), with an increase in the polarisation of society demonstrated by the widening gap between those with more and less privilege (Mowlam and Creegan, 2008). Income inequality in Wadebridge is emphasised by who is able to afford housing in the town. The urban character of Wadebridge is described as "high quality" (Cornwall Council, 2013), with a rising trend in house prices in part influenced by an increase of more wealthy residents relocating to the town as Chapter 4 demonstrates in further detail. The increase in house prices is set against a context of low average income and dependence on tourism (Cornwall Council, 2016; Majevadia 2016) that has made housing unaffordable for many long-standing inhabitants of Wadebridge. Table 3.1 demonstrates the trend in high house prices compared to low average income levels in Cornwall compared to the rest of England, of which Wadebridge is representative.

Indicator	Cornwall	England
Median annual earnings	£22,068	£26, 165
Unemployment rate (% of population)	9.1 per cent	7.6 per cent
House price/Earning affordability ratio (higher = less affordable)	9.0	6.7

Table 3.1: Economic indicators for 2012: Cornwall versus England (South West Observatory Local Profiles, Cornwall 2012 cited in Szaboova, 2016).

The presence of food poverty also highlights that Wadebridge is a town of differentiated wealth and income levels. Wadebridge generally experiences lower levels of deprivation than on average across Cornwall (Cornwall Council, 2016). Still, the Wadebridge Food Bank, run by The Trussell Trust, helped regularly feed 256 people in Wadebridge in 2016. This is the third largest number of people in north Cornwall after Bodmin and Camelford (Wadebridge Food Bank, 2016).

3.3.2 Differences in study sites

Wadebridge and Sedgefield are also distinct from each other, which adds to their similarities to provide an interesting context to explore locally situated perceptions of collective action and community resilience.

Wadebridge and Sedgefield differ in their past experience of hazard and shock events. In the last ten years, Sedgefield has experienced an environmental hazard in the form of a flood (in 2003 and 2007) and an unexpected drought (from 2009 to 2011). Sedgefield has also experienced a non-environmental shock in the form of xenophobic attacks in 2011. Wadebridge has not experienced a major shock event in its recent history.

Residents of Sedgefield living in the flood plain on The Island (see figure 3.5) are particularly exposed to flood risk (Reyers et al., 2015). Over 300 residential properties and nine key tourist business areas were damaged in a significant flood event in 2007 (Fowls, 2007). Sedgefield is not considered drought-prone historically. An increase in people moving to the town over the past decade combined with ineffective adaptive water management by relevant institutions and agencies has however contributed to water scarcity in the locality (Roux et al. 2011; Sitas, 2012; Dörendahl, 2015).

The xenophobic attacks in Sedgefield in 2011 reflect the broader context of violence against foreign nationals in South Africa that has occurred nationally. Xenophobic violence first became prominent in South Africa in 2008. This is when individuals who migrated to South Africa from other countries in sub-Saharan Africa in search of asylum due to violence and persecution in their own countries were subject

to a gross abuse of human rights as they became the targets of blame for South African poverty (Vromans et al., 2011; Haymen, 2013).

3.4 Methods of data collection and data elicited

This study uses a multi method and multi staged approach to data collection in order to address the research questions (figure 3.6). Using a combination of different yet complementary qualitative and participatory methods through an iterative process, where each stage of research is determined by the stage preceding it, allowed the research to explore collective action and its influence on community resilience through a variety of data sources rather than through one type of evidence. The multi layered approach to data collection implemented is advantageous for this study, as it encouraged different elements and novel perspectives on the relationship between collective action and different constituent components of community resilience to be revealed (Denzin and Lincoln, 2000; Gray et al., 2007). Combining insights of several methods is suggested by community resilience scholars to be beneficial as it is more likely to produce a robust understanding of community resilience given the dynamic nature of the concept (Ross and Berkes, 2014). Using multiple methods is also beneficial as it supported reducing any specific biases associated with one particular method (Maxwell, 2005). This strengthened the overarching research inquiry by enhancing the validity of data collected and ensuring the robustness of findings through triangulation (ibid).

Data were gathered in Sedgefield and Wadebridge in four stages using three distinct data collection methods, with an overall sample comprised of 90 individuals. 33 individuals from Wadebridge, 27 from Sedgefield town and The Island, and 30 from Smutsville were identified and selected for this study. This sample enabled the researcher to reach saturation in the data and answer the research questions posed by this study (Miles and Huberman, 1994).
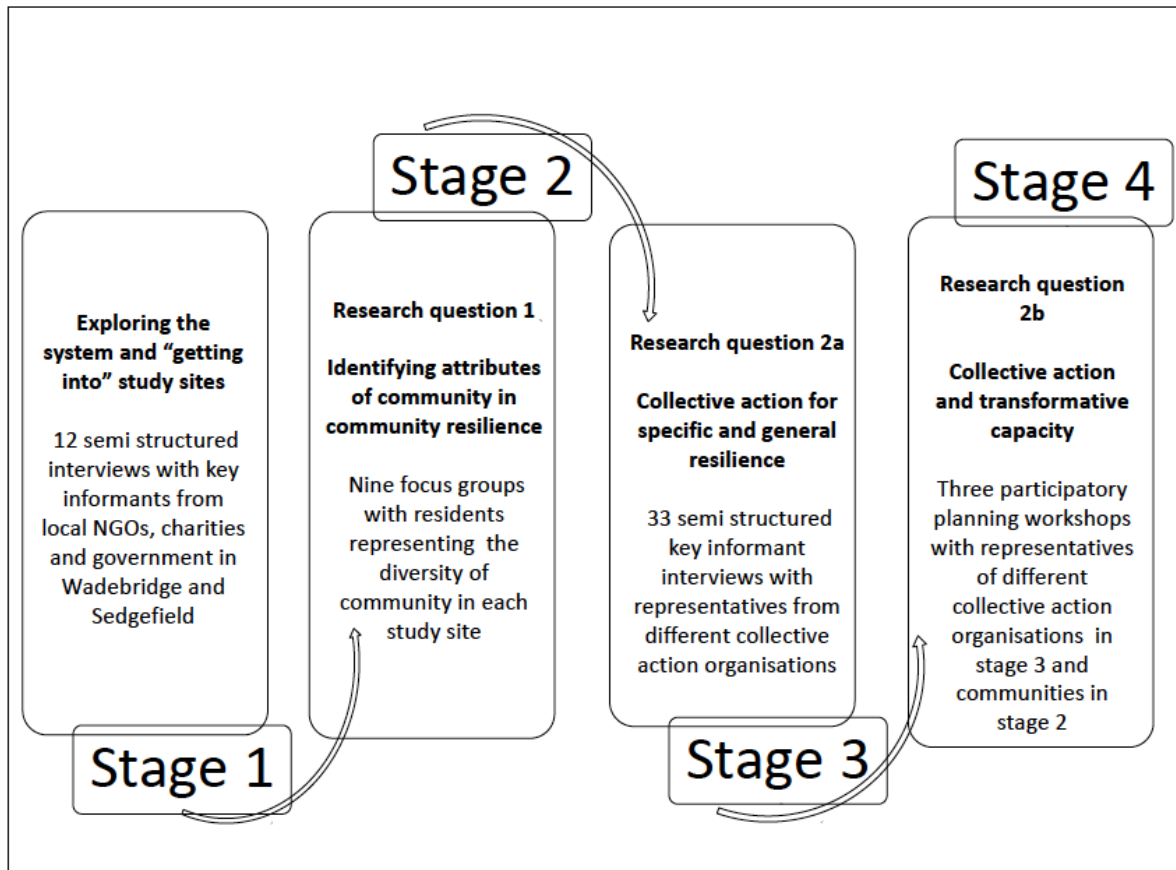
Figure 3.6: Overview of multi staged approach to research and methods employed by this study in Sedgefield and Wadebridge.

Participants were residents of Wadebridge, Sedgefield and Smutsville, and who were also engaged in collective action, as this criteria qualified participants to address the primary aim of this study. Participants were chosen using a common sampling strategy in both research sites. Purposive sampling, the most typically used sampling method in qualitative research (Bryman, 2008) was used. Purposive sampling is most applicable for this thesis as it enabled the researcher to select information-rich participants who could yield useful perspectives on collective action and community resilience that this study is interested in due to their experience and knowledge on the phenomenon of interest (Cresswell and Plano Clark, 2011; Palinkas et al., 2015). Selection was also influenced by participants who were available and willing to participate in the research (Bernard, 2002). A snowballing sampling strategy was used as part of this study's purposive sampling approach. This means that the sample was in part developed on the basis of identifying participants that sampled people

recommend as a good interview participant based on their knowledge of others who are also information-rich (Reed et al., 2006). This iterative approach to sampling was advantageous for this thesis, as it allowed the researcher to contact participants that the researcher might not have perhaps otherwise known or had access to. Section 3.4.2 discusses how snowballing was used by the researcher in further detail.

In total, 45 in-depth semi structured key informant interviews, nine focus groups, and three participatory scenario planning workshops were facilitated with the sample. Each stage of research and its corresponding method and data sought is presented below in turn. The respective contribution of each method to the overall objective of this thesis is also provided.

All methods of data collection were facilitated in person by the researcher and audio recorded. The same question guide and methodology for all data collection methods was used in both Wadebridge and Sedgefield. Fieldwork was conducted in each town during 2016. Fieldwork in Wadebridge took place over five months, from February to June 2016, and in Sedgefield, over four months, from August to November 2016.

3.4.1 "Getting into" study sites

An initial set of 12 semi structured interviews were undertaken with key informants as an exploratory measure in Stage 1 of the research. Six interviews were facilitated in both Wadebridge and Sedgefield with local government and community development officers and members of non-governmental organisations (NGOs).

The aim of facilitating an initial set of key informant interviews was to: (1) gain a detailed understanding of the context in which each locality and its residents are based; and (2) help identify community gatekeepers and key stakeholders that would be beneficial for the researcher to engage with during fieldwork to assist with participant recruitment. By interviewing a range of stakeholders, the researcher was able to triangulate different perspectives on community, collective action and community resilience that helped shape participant recruitment for stages 2, 3 and 4 of the research (Denzin, 1970). Facilitating interviews with different actors ensured

that the researcher was not relying only on one source of information or participant recommendations.

Participants engaged in the preparatory stage of research were identified by the researcher based on information found online about local NGOs, charities and government bodies operating in each locality, and visits by the researcher in person to tourist information offices in each town. In Sedgefield, initial participant engagement was also supported by staff at the Sustainability Research Unit, Nelson Mandela Metropolitan University, George campus, who had previously undertaken research in Sedgefield and were able to share useful contacts with the researcher based on their established relationship with stakeholders in the locality. Given that staff at Nelson Mandela Metropolitan University are respected by residents in Sedgefield also supported the credibility of the researcher and this study and facilitated trust-building between the researcher and participants.

Participant identification was also supported during the researcher's settling in phase of fieldwork in Sedgefield. During this two week period, the researcher established a presence in study sites and attended community and collective action related meetings. This was to help build rapport with residents, observe how actors interact, and gain access to participants for the study. The researcher attended meetings of the Wilderness Lakes Water Catchment Management Forum in Sedgefield, and the Building Better Communities Forum in Smutsville amongst others. The researcher also spent time at local NGOs in Smutsville in order to help build trust. The researcher did not undergo a settling in phase of fieldwork in Wadebridge as the locality was not a new study site to the researcher. The researcher had previously undertaken fieldwork in Wadebridge for two months in 2014.

The topic-guide used for the semi structured interviews was tailored to the objective of the interview, with all interviews based around the same question guide (Appendix 3). Questions asked aimed to elicit different people's perspectives on the different types of communities that exist and ways in which residents are organised, and key risks different residents face.

3.4.2 Identifying attributes of community

To address the first research question this study poses, this thesis determines community as its unit of analysis. This study examines community heterogeneity and identifies different types or forms of community and their attributes in Sedgefield and Wadebridge. To achieve this objective, focus groups were facilitated to elicit different resident perceptions on these elements.

Nine focus groups were conducted in total, with three to ten participants in each focus group (Table 3.2). Five focus groups were facilitated in Wadebridge and four in Sedgefield overall. An additional focus group was undertaken in Wadebridge to support resident's taking part in this study who were willing yet not available on the dates and times organised for other focus groups. Focus groups were disaggregated by gender in both study sites and also by ethnicity in Sedgefield as section 3.6 returns to in discussing the ethical considerations of this study. Each focus group lasted up to two hours.

Established protocols for effective focus groups were followed (Berg, 2014; MacDougall and Fudge, 2001). This ensured focus group size and composition was appropriate and sufficiently diverse to encourage the rich discussion that the research required (Bloor et al., 2011). A focus group brings together a group of individuals chosen to meet a specific profile of characteristics (Sofaer, 1999). Focus groups were thus not representative of the broader community in each study site but designed to capture the diversity of each community, which is relevant to the focus and design of this research. Participants included male and female participants of different ages; from diverse socio-demographic and ethnic groups; both long and short-term residents; residents originally from each locality and those who purposefully moved to each town to live; and representatives of different community groups. Participants were from both formal and informal community groups including different religious organisations, NGOs, charities, livelihood groups, recreational pursuits, local businesses and collective action focused on specific resilience.

Focus group participants were recruited through a snowballing sampling strategy initiated in stage 1 of the research. The first set of key informant interviews helped

identify key members of each town and provided entry points for the researcher into each locality and their communities from which snowballing for focus group participants occurred. A local NGO in Sedgefield, Masithandane, and a local charity,

Study site	Number of focus groups	Number of participants	Residents represented
Wadebridge	5	20: 9 men 11 women	Retirees; long-standing residents of the town; Church leaders; teachers; self-employed individuals; charity and NGO representatives; Chamber of Commerce; recreational groups, such as choirs
Sedgefield town & The Island	2	14: 8 men 6 women	Retirees; Church leaders; charity and NGO representatives; self-employed individuals; teachers
Smutsville	2	15: 5 men 10 women	Residents originally from the township; residents who moved to the township; livelihood groups e.g. fishers, crafts; sports groups; Church members; NGO representatives

Table 3.2: Details of focus groups used to identify attributes of community in Sedgefield and Wadebridge.

Fresh Start, were particularly helpful in aiding the researcher to recruit participants from Smutsville, the township in Sedgefield and validate the credibility of the researcher. Through these two organisations the researcher established contact with two well-known community gatekeepers, one male and one female, whom residents in Smutsville trust and hence facilitated participants' willingness to engage in the research. The researcher ensured that the selection of focus group participants in Smutsville was not biased towards those who were part of programmes attached to Masithandane and Fresh Start, but included others within the township, who were of

diverse socio-economic standing and active members of different community-related groups.

A question guide was prepared to structure and guide the broad content of the focus groups (Appendix 4). The questions asked probed discussion around the nature of community in each town and encouraged participants to freely discuss how community is formed and how its social dynamics operate from their perspective and experience.

Questions asked in focus groups included:
- What do you really like about living here?
- If I was to move to Wadebridge/Sedgefield next week, how would I get to know people and build my community?
- Who can I trust?

This study uses focus groups to elicit data around identifying how community is formed and experienced in Wadebridge and Sedgefield, as the method is advantageous for providing insight into complex social dynamics and generating new collective understandings around a particular topic from one another's contributions (Morgan and Krueger, 1993; Ross and Berkes, 2014). The strength of a focus group approach complimented this study's intention to gain a deep understanding of what attributes constitute community in each locality through the rich debate the method enables, giving rise to perceptions that may not surface during an individual semi-structured interview alone. Focus groups provided the opportunity for discussion that allowed participants to interact with one another to build consensus and/or conflict around their different points of view. This approach was of interest to the researcher in seeking to understand interactions around the concept of community, as community is a complex and often contested phenomenon as Chapters 1 and 2 highlight.

Given the advantages of the method, focus groups are a popular method of data collection in studies on community resilience (e.g. Magis, 2010; Pfefferbaum et al., 2011; Amundsen, 2013; Jordan, 2014). Focus groups have commonly been used to elicit participant perspectives on community resilience and identify capacities supporting resilience in a range of contexts.

The researcher took a facilitator role, enabling participants to speak to and listen to one another, and to reflect on one another's viewpoints in a safe environment for each participant. Great attention was paid by the researcher to ensure all participants were heard and given the opportunity to express their opinion or perspective. Ground rules to how focus groups were to proceed were clearly articulated by the researcher before they began. This included guidance such as participants are to listen and respect each other's opinion, and avoid talking over each other, even if participants disagree with each other.

3.4.3 Collective action for specific and general resilience

The first part of the second research question this thesis seeks to address relates to the relationship between collective action and specific and general resilience. This study seeks to understand:

(1) What collective action residents undertake and how it relates to specific and/or general resilience;

(2) the extent collective action interacts with specific and/or general resilience differently; and

(3) if forms of collective action promoting specific and/or general resilience are mutually supportive, or if they present an inherent trade-off within communities, with certain conditions and actions reducing a community's general resilience for example if only specific resilience is catered to.

To achieve this objective, this study elicits data on:

(a) the diversity of collective action organisations in each locality and how they operate; and

(b) the perceptions and motivations of individuals engaged in collective action on community ability to build capacity and address different types of changes, both known (specific resilience) and those more novel, unexpected and multiple in nature (general resilience).

In total, 33 semi structured interviews were facilitated with residents involved in three collective action organisations in Wadebridge and four in Sedgefield (Table 3.3). This thesis defines the unit of analysis for collective action in this study as collective action self-organised by residents in Sedgefield and Wadebridge from the bottom up, and not formal institution or government led. Based on this criteria, Table 3.3 presents the collective action organisations used for analysis in study sites.

Study site	Number of interviews facilitated	Collective action groups engaged	Focus of collective action groups and how they relate to issues of resilience	Roles of participants interviewed in collective action groups
Wadebridge	13	1. Wadebridge Renewable Energy Network (WREN)	1. A not-for-profit community energy cooperative promoting the uptake of and local ownership of renewable energy sources. Also aims to address economic and social issues in Wadebridge around dependency on tourism and youth out-migration by promoting self-sufficiency and sustainability. See Box 5.2 for further details.	Chair; Communication Director; Operations Manager; Treasurer; Site Manager; Founder & Trustee; group member
		2. Camel Community	2. A community initiative promoting self-sufficiency and	

		Supported Agriculture	sustainability by supporting local farmers and residents of Wadebridge to work together to take control of their food production and share and develop practices that are better for the environment.	
		3. Treraven Farm	3. Promotes sustainable land management including the active reversion of intensively farmed land with benefits for biodiversity, conservation and productivity by hindering land degradation.	
Sedgefield town	20	1.Wilderness Lakes Water Catchment Management Forum	1. Focuses on water resource management and addresses any water related issues affecting the Wilderness Lakes Catchment area in which Sedgefield is located.	Founder; Chair; Treasurer; group member; ex-group member; member representing associated institutions
		2. Sedgefield Flood Action Committee	2. Manages resident response to flood risk.	

			See Box 5.1 for further details.	
		3. Sedgefield Island Conservancy	3. Enhances biodiversity and conservation, including the management of invasive alien plant species which promote fire risk, reduce agricultural productivity and deplete water supply.	
		4. Sedgefield Ratepayers and Voters Association	4. Initially set up to protect the rights of residents who pay taxes. Today acts as a community forum addressing different issues residents of Sedgefield Town and The Island face around water and disaster management, conservation, development, and safety and security amongst others. Also responsible for organising community events such as the Slow Town Festival.	

Table 3.3: Details of key informant interviews facilitated to examine collective action and specific and general resilience in Sedgefield and Wadebridge.

Collective action organisations were identified and members of collective action organisations recruited as participants for interviews from the exploratory stage of fieldwork in Stage 1 and from focus groups in Stage 2. Participants in focus groups on community in Stage 2 suggested examples of collective action as defined in this thesis for the researcher to consider.

Four collective action organisations were examined in Sedgefield compared to three in Wadebridge. This is due to the number of collective action organisations present in study sites that met the criteria of collective action analysed in this study. The Sedgefield Ratepayers and Voters Association, the fourth collective action organisation this research engages with in Sedgefield (see Table 3.3), also provided an interesting case to explore locally situated perceptions of collective action and community resilience that this study seeks to elicit. The Sedgefield Ratepayers and Voters Association functions as a community forum which incorporates collective actions addressing a range of known risks, with the aim to in part enhance cooperation around collective action in Sedgefield. Committee members of the Sedgefield Ratepayers and Voters Association also represent a number of individual collective action organisations operating in the town, such as the Wilderness Lakes Water Catchment Management Forum and the Sedgefield Island Conservancy that this thesis also investigates.

In Sedgefield, collective action organisations chosen for this study are from Sedgefield town and The Island, with no cases of collective action directly representing Smutsville residents. This is because collective action as defined in this thesis were not present in Smutsville at the time of research. The Building Better Communities Forum, Fresh Start, and Masithandane, three organisations in Smutsville that the researcher engaged with during the settling in phase of fieldwork did not meet the criteria for collective action for this study. The Building Better Communities Forum is a project that was set up in April 2016 and led by the Department of Health, thus not established by Smutsville residents themselves. Fresh Start is a local charity supporting young

children living in poverty in Smutsville through a waste recycling initiative. Masithandane is a formally registered NGO focused on poverty alleviation and human wellbeing.

The selection of collective action groups for this study does not however limit the viewpoints of residents of Smutsville on collective action and its relationship to specific and general resilience. The perspectives of township residents were elicited through the focus groups and scenario workshops facilitated for this research, as data collection methods build on each other through an iterative process on which participants could verify findings. As section 3.6 explains, the research approach adopted by this study enabled Smutsville residents to reflect on and corroborate results. This approach also limited potential bias and maintained objectivity by triangulating across data sources and methods contributing to research findings on collective action and specific and general resilience.

To achieve optimum use of interview time, an interview guide was prepared to structure and guide the interviews (Jamshed, 2014). All interviews were based around the same question guide, which comprised of four key components that respond to the objective of the interview (Appendix 5). The question guide used sought to elicit data on: (1) the purpose of the collective action organisation and how it is organised; (2) capacities perceived to support collective action occurring; (3) whether participants felt their collective action organisations could respond to different changes in addition to the risks it was set up to address; and (4) if any barriers or bridges to promoting general resilience exist, including implications of combining and applying specific and general resilience in practice. Interviews were facilitated with each participant once and took around 45 minutes to complete. Questions were pilot tested before fieldwork began to ensure questions were understood and ease of participant response.

Semi structured interviews are frequently used in community resilience research (e.g. Hegney et al., 2008; Buikstra et al., 2010; Gooch and Rigano, 2010). They were chosen for this study as a research method as they combine a pre-determined set of open questions, aimed to prompt discussion on a particular complex issue, with the opportunity for the researcher to be flexible and explore particular themes or responses further based on a participant's response (Dicicco-Bloom and Crabtree,

2006). Open-ended questions were asked so participants could describe and share their experiences concerning collective action and specific and general resilience in their own way, enabling the researcher to explore participants' feelings and perspectives on collective action and community resilience. This was useful for the qualitative inquiry this study adopts. The researcher was able to elicit data from participants in their own voice, rather than impose terms and categories on participants (Sofaer, 1999).

3.4.4 Collective action and transformative capacity

The final research question of this thesis seeks to understand the relationship between collective action and transformative capacity, defined here as the ability of a community to envisage and strategically plan for the future. To achieve this objective, data were collected via participatory scenario workshops in Wadebridge, Sedgefield town and Smutsville.

Participants of participatory scenario workshops included members of collective action organisations previously interviewed on collective action for specific and general resilience, as well as individuals in focus groups in Stage 2 on identifying attributes of community who have an interest in the social ecological system in which they reside. Separate scenario workshops were held in Smutsville, with additional participants recruited via the community gatekeepers the researcher worked with in the township. Six members of different collective action organisations in Sedgefield town and Wadebridge took part, with 11 participants in Smutsville. More participants from Smutsville took part in participatory scenario workshops compared to Sedgefield town based on their interest and availability, reflecting the importance township residents placed on exploring their town's future and the opportunity this study provided them to do so which they had not had before. Each workshop lasted three hours in Sedgefield town and Wadebridge, and two hours in Smutsville.

Participatory scenarios are the research method used by this study as they are an effective way to elicit new insights and understandings into the relationship between collective action and transformative capacity as defined in this thesis. In helping

different residents explore alternative futures under a range of conditions and dynamic changes (Evans et al., 2013), participatory scenarios provide a future context that allows examination into the social dynamics around how communities can plan for the future and potentially access a desirable state that this study focuses on. Participatory scenarios supported the researcher to explore different resident perceptions on:

(1) uncertain future changes;

(2) future aspirations and who has capacity to plan for and shape the future;

(3) what bridges and barriers might affect the process; and

(4) whether current forms of community and collective action support transformative capacity as defined in this study.

A scenario is defined in this study as "a description of how the future may unfold based on 'if-then' propositions and typically consists of a representation of an ideal situation and a description of the key driving forces and changes that lead to a particular future state" (Alcamo and Henrichs, 2009). A scenario is a plausible story about what the future *might* look like or what *could* happen, rather than a story about what will happen or what people want to happen in the future (Evans et al. 2006; Kahane, 2012).

Developing scenarios can be undertaken using qualitative and quantitative methods (Schweizer and Kriegler, 2012; Carpenter et al., 2015), with participatory scenarios a particular approach to scenarios. Participatory scenarios are suggested to provide a good way to generate new knowledge and ideas (MacKay and McKiernan, 2010), as it is an action-orientated method of research. An action-orientated approach to research is commonly used in cases where research is exploratory rather than evaluative (Morgan, 1983), as in this study. The approach enables new knowledge to be produced through the action of participants being engaged in the method in practice. An action-orientated approach to research is valuable for this study therefore, as this study does not just observe participants through qualitative methods. The purpose of using participatory scenarios was to allow participants to generate their own insights and understandings on the future, and to reflect on their actions and experiences of managing change so participants can learn from it and co-create knowledge for themselves and their community as well for this study (Brydon Miller et al., 2003; Reason and Bradbury, 2008).

The benefit of using participatory scenarios is becoming well-established, with the approach increasing applied as a method to explore resilience in social-ecological systems, often in environmental research contexts (e.g. Palacios-Agundez et al., 2013; Mistry et al., 2014; Waylen et al., 2015; Brown et al., 2016). Participatory scenarios are useful as they help participants to creatively envision what complex and uncertain changes might happen in the future and determine what role they can play in addressing these changes and shape change into the future (Wollenberg, 2000; Biggs, 2007; Enfors et al., 2008; Mitchell et al., 2014). There are significant benefits to using participatory scenarios as they are a powerful method to explore, identify, and analyse alternative futures and identify social capacity to shape future change (Bennett et al., 2016b). In doing so, participatory scenarios can open up new conversations about the future (Kahane, 2012) that community resilience often requires (Brown, 2016). Participatory scenarios are also valuable in empowering participants, and integrating different perceptions, expectations and aspirations (Oteros-Rozas et al., 2015). For these reasons, this study uses participatory scenarios to examine the relationship between collective action and transformative capacity.

This study facilitates participatory scenario planning in two parts. First, participatory scenario development, followed by second, participatory scenario analysis, with the entire process undertaken in a series of four sequential stages (figure 3.7). The purpose of this approach was to provide a structure that enables an iterative process through which the researcher can elicit potentially new and interesting insights from different residents on the relationship between collective action and transformative capacity.

Each stage of the participatory scenarios approach used in this study is presented below in sequence. Appendix 6 presents the full participatory scenario approach in detail.

1. Participatory scenario development

- Explore how drivers of future change may influence study sites in 2050

- Develop alternative future narrative scenarios

2. Participatory scenario analysis

- Identify most desirable future state from alternative futures developed, and collective action needed to address and influence future change and its challenges

- Discuss the extent current forms of community and collective action are "future proof"

Figure 3.7: Overview of the participatory scenario approach used in Sedgefield and Wadebridge to examine collective action and transformative capacity.

Participatory scenario development

The researcher began the scenario process by first facilitating "a walk into the future" (Box 3.2) so participants could individually build an image of what their community might be like in 2050 (Evans et al., 2006). One of the main challenges with scenario planning is how participants can imagine and develop novel futures that drastically depart from past trajectories (Bai et al., 2016). The purpose of doing this activity was therefore to not risk limiting participants' imagination about the future by situating the scenario process in the present and asking participants to imagine what they think might be different or the same about their community compared to now (Wollenberg, 2000). Rather an anticipatory approach was taken (Alcamo and Henrichs, 2009), meaning the departure point of the scenario process was in 2050, so in the future and not in the present, to help participants think about the future in a way that is markedly different to the past from the outset. Participants were instructed to not think about

what might be *likely* to happen, but what the future *could* look like, as "a preoccupation with what is likely to happen tends to obscure outcomes that may be unlikely but still possible and potentially more desirable" (Miller, 2007, p. 342).

"A walk into the future"

Request that participants relax, close their eyes, and clear their minds. Start them on an imaginary trip into 2050.

Facilitator to participants: "We're going to take a step into the future and explore what your community might be like in the year 2050 for you, your children, maybe your grandchildren, and other members of your community. As I count to twenty you are growing older. Your children have grown, the community has changed. When you open your eyes, you will still be here, but 33 years in the future. What do you see? What important changes have occurred? What is causing those changes to take place? What key issues are you facing? Or what new opportunities are there? What are people doing? Are they happy?

While participants have their eyes closed, place the following handout on tables to aid participants brainstorm and identify driving forces of change:

- o What are important changes happening in your community in 2050?
- o What is causing these changes?
- o What concerns do you have?
- o How is your community's relationship with its neighbours?
- o How are your children different from you? Why?
- o What has been happening to the environment? How are natural resources being used?

Box 3.2: Setting the scene for participatory scenario workshops in Sedgefield and Wadebridge by taking participants on a "walk into the future" (adapted from Evans et al., 2006).

This study defined the future as the year 2050. 2050 was chosen as the temporal endpoint for the scenarios in order to: (1) challenge participants to think beyond conventional planning time scales of their collective action organisations; and (2) to make the scenarios relevant to participants' actual future and allow them to reflect on their own potential responses to upcoming challenges, as well as for some participants to think beyond their lifetimes and imagine futures for their children or grandchildren (Johnson et al., 2012; Mistry et al., 2014).

Second, participants were asked to work in small groups to identify driving forces of change that might be important to them and their community in 2050. Following Evans and colleagues (2006), the "walk into the future" Box 3.2 presents was useful in identifying driving forces of change, as it helped generate discussion between participants by comparing ideas and different participant's perspectives. Drawing on the definition put forward by the Millennium Ecosystems Assessment (2003), driving forces of change are defined in this study as any natural or human-induced factor that can directly or indirectly cause a change to a participant's community in 2050.

To identify driving forces of changes, participants were asked to take into account multiple stressors to reflect the dynamic context in which participants reside, rather than focus on one particular issue such as water scarcity or biodiversity conservation. To encourage consideration of a broad range of drivers, rather than to be prescriptively applied, participants were guided by a STEEP template (Social, Technological, Environmental, Economic and Political), if they wanted to use it. A STEEP template provides a taxonomy of driver categories used for futures' research to aid participants to identify a range of important drivers (Brown et al., 2016). Individual driving forces of change were written onto sticky notes by participants and posted onto the STEEP template so that all participants were aware of what the other participants had identified.

Third, participants ranked their driving forces of change in order of perceived importance and uncertainty, while also considering what drivers participants felt the community could influence. The purpose of this activity was to elicit a collective understanding of which drivers of change participants perceive are significant in affecting their community in 2050. Uncertain drivers of change were selected by

participants that have: (1) the *greatest impact* on the system; (2) are *unpredictable*; with (3) one driver of change being a driver that the community *can influence* (Kahane, 2012, p. 57). Using these three criteria was used based on critiques recommending this approach assists in producing scenarios that are useful, as they provoke questions about what actions participants must take to adapt both to the future and also to influence it (Kahane, 2012). Together these three criteria distinguish a transformative stance to scenario development from an adaptive one (Kahane, 2012, p. 66). An adaptive stance assumes that participants cannot change the system as participants are a part of it and implies that they must accept it and adapt to it. In contrast, a transformative stance assumes that participants can change the system, in most cases through allying with others, and implies that people must do so (ibid), especially if people are to shape and influence future change as definitions of community resilience suggest (Magis, 2010; Maclean et al., 2014).

Based on other studies that have used participatory scenario planning (James, 2016), participants ranked driving forces of change according to how they expected each driver to develop by 2050. In other words, would the driver of change get more or less uncertain, or better or worse. A consensus was reached between participants based on which drivers of change received the most votes. These driving forces of change were agreed by participants to be taken forward into the next stage of the workshop, where starting points from which scenarios would evolve were created.

Four scenario starting points were identified using the commonly used scenario-axes method, where four scenarios in total were identified around an axes of a two-by-two matrix (Carpenter et al. 2006; Kahane, 2012). Participants were asked to develop three to four narrative scenarios of what the future of their locality and community might look like in 2050 using the four scenario starting points identified as a guide. This study chose to develop multiple scenarios, rather than one scenario as a stand-alone object, as producing a consistent set of scenarios that together elaborate a range of alternative paths to the future is important to explore how the future of a community can unfold in different directions (Brown et al., 2016).

Participants chose to develop three of the four scenarios identified in smaller break out groups. Each group wrote a narrative scenario in the form of a short paragraph by

hand. A common motivation to the number of scenarios created was a manageable and feasible number for further discussion and deliberative purposes in the time available (Oteros-Rozas et al., 2015). Participants unanimously decided that one scenario in each study site was of least interest to develop and was not taken further. Hand written narrative scenarios on paper were chosen as the method of scenario presentation as it was an approach all participants could undertake (Wollenberg, 2000, p. 14) and is the most common form of qualitative scenario (Alcamo and Henrichs, 2009, p. 22).

To construct narrative scenarios around what their future might look like in 2050, participants were instructed that each narrative was to be relevant, challenging, plausible and clear. These four criteria ensure scenarios are useful due to the following reasons (Kahane, 2012, p. 57):

- Narratives must be *relevant*, illuminating current circumstances and concerns, and connected to current thinking;
- *challenging*, making important dynamics that are invisible visible and raising questions about current thinking;
- *plausible*, logical and fact based;
- and *clear*, accessible, memorable and distinct from one another.

Titles of the scenarios were chosen by participants and narratives shared with each other.

Next, participants examined the future scenarios they had developed according to their likelihood and desirability (James, 2016). Participants discussed and voted on the scenario they perceived represented their most likelihood future, and the scenario they perceived represented a desirable future state.

Participants then identified collective action that would enable residents to strategically plan for, respond to and effect change so that a desirable future could be worked towards (Palacios-Agundez et al., 2013). Collective actions identified by participants to address different changes and challenges described by the desirable future

scenario could include refining existing activities as well as completely new options (Brown et al., 2016).

To validate and check the plausibility of participants' collective actions, collective actions were shock-tested. This means collective actions were tested by considering different types of shocks relevant to each study site to see if collective actions and forms of community would hold and be robust to different and multiple unexpected changes (Brown et al., 2016).

Participatory scenario analysis

Consistent with other studies (e.g. Evans et al., 2013; Waylen et al., 2015; Brown et al., 2016), developing scenarios was not an end point itself. Focus groups were also facilitated to enable discussion on the extent established forms of community and collective action are able to respond to future changes faced and shape change into the future. This supported the researcher to elicit participants perceptions on if different or emergent types of communities and collective actions arise in different circumstances, or whether and what factors might need to change from current circumstances if participants are to work towards a desirable future state.

Once participants had identified a desirable future, and agreed on its storyline, the narrative was used as a tool to challenge existing reference frames around community and collective action and assess the extent to which current forms of community and instances of collective action are "future proof" (Palacios-Agundez et al., 2013; Mistry et al., 2014). This included debate on the differences and similarities between collective action required and contemporary collective action undertaken. This was to help residents explore what might need to be done differently in the present day in light of a desirable future, and to identify any bridges and barriers to transformative capacity that residents perceived. Participants discussed topics around the agency of their community in enabling their desirable future to be worked towards, and whose responsibility is it to make it happen.

In Sedgefield, a scenario sharing workshop was facilitated between Sedgefield town and Smustville residents at the end of fieldwork based on participants request. This workshop enabled different residents to come together to share and discuss with each other their scenario narratives depicting their desired futures. This enabled residents to reflect on and discuss the differences and similarities between them, which was an opportunity neither group of residents had experienced before. The researcher facilitated this workshop with support from Nelson Mandela Metropolitan University. The objective was not to develop a shared future vision for 2050 between different groups of residents as some studies focus on (e.g. Johnson et al., 2012; Mistry et al., 2014), but to provide a platform to start a dialogue between different residents around the future. In Wadebridge, participants suggested a workshop with the local Town Council and other key institutional stakeholders would be beneficial at a future date to be decided upon, based on people's availability and interest.

3.5 Data analysis

This study explores the relationship between collective action and specific resilience, general resilience and transformative capacity, with the purpose of data analysis to understand the relationship between these concepts. To achieve this aim, this study uses an inductive thematic approach to analyse all data (Strauss, 1987; Bryman, 2008). Thematic analysis is a method that identifies and analyses patterns in qualitative data (Braun and Clarke, 2013). An inductive approach means themes are developed directly from data through the process of open coding, as opposed to a deductive approach where *a priori* themes are pre-determined by theory (Bauer, 2000; Ryan and Bernard, 2003). In broad terms, coding refers to "the attachment of index words (codes) to unit segments of a record (e.g. an interview transcript)" (Bauer and Gaskell, 2000, p. 353).

This study uses thematic analysis because it is beneficial for supporting (a) analysis of data to address the type of research questions this study poses, that is research questions focused on understanding people's experiences and perceptions of a particular phenomenon in real-life contexts; (b) analysis of different and multiple types of qualitative data, which this study employs; and (c) aids data-driven analyses in line

with the research approach this thesis takes (Clarke and Braun, 2013). Thematic analysis is useful for this study as it is theoretically flexible, meaning the search for and examination of patterning across data does not require adherence to any particular theory of language or explanatory framework, which fits the exploratory nature of this research (Braun and Clarke, 2013).

Thematic analysis of data generated during fieldwork is formed of six stages in line with established protocols for good thematic analysis (Braun and Clarke, 2006). First, familiarisation of the data. As the primary step in the analysis of data collected, all audio recordings of key informant interviews, focus groups and participatory scenario planning workshops were transcribed verbatim and read through twice with initial analytic observations and items of potential interest noted by the researcher to enable profound engagement with the material. Second, coding. Textual data generated from all typed verbatim transcripts was imported into Nvivo computer software for coding. A detailed interrogation of all transcripts was undertaken with every data item analysed. One code was given for each idea that emerged (Glaser and Strauss, 1967), with coding of data undertaken via an interpretative approach, rather than descriptive, and completed across the entire dataset. This study uses an interpretative approach to coding as it seeks to examine processes and relationships and understand how and why collective action and community resilience interrelate, rather the describe and denote certain facts about each concept (Kelle, 2000). Third, constructing themes. Codes were collated, considered alongside each other and arranged into themes relevant to this study's research questions. Each theme was examined side by side between study sites, rather than each study site investigated independently and in sequence. Fourth and fifth, themes were reviewed and refined through an iterative process to ensure themes were logical, related to each other and held across the data set before a final structure of themes was established. Lastly, sixth, themes and data extracts were written up into a coherent analytic narrative as results chapters 4, 5 and 6 present.

3.6 Ethical considerations

Ethical approval was sought and obtained from the College of Life and Environmental Sciences, University of Exeter and the Nelson Mandela Metropolitan University in South Africa on standard issues of human subject research before data collection commenced. The researcher did not have prior experience of working in Sedgefield before fieldwork began. In order to undertake fieldwork in Sedgefield therefore, the researcher was hosted by Professor Christo Fabricius, Head of the Sustainability Research Unit, Nelson Mandela Metropolitan University, George campus. The researcher was able to make contact with Professor Christo Fabricius through existing established networks at the University of Exeter.

Ethical considerations and best research practice was given substantial attention during the design of data collection and throughout fieldwork. Written consent (Appendix 1 and 2) was sought from participants before all data elicitation methods were implemented. Participants were informed of their rights to participate in the research process and their anonymity guaranteed. Participants were also able to freely withdraw from participation in the study if they wished to do so. Participants received an information sheet introducing the researcher, describing the study and its intended objectives and outputs before research started, including details of how the study is financed. Providing detailed information was beneficial, as it helped the researcher manage the expectations of participants who chose to engage in the study and promote credibility for the research. The researcher's contact information was made available in case participants had questions about the study or needed to withdraw from the research process. For Smutsville residents in particular, time kindly given was subject to participants discretion to ensure livelihood and household activities were respected. All data elicitation methods were undertaken at convenient locations and times for participants, with tea and snacks provided. All photographs were taken with permission. Each focus group, interview and participatory scenario workshop ended with a debriefing, which allowed participants to ask questions or raise concerns they may have had. Participants are referred to in the results chapters of this thesis, that is chapters 4, 5 and 6, using pseudonyms to ensure anonymity.

In Sedgefield, South Africa, cultural differences in language were acknowledged during fieldwork with a female Afrikaans translator used in two focus groups to identify attributes of community with Smutsville residents. Using a translator ensured that participants in Smutsville were better able to express themselves in their preferred language of Afrikaans, with consent forms also translated into Afrikaans for township residents. Working with a female translator, who was a member of staff at Nelson Mandela Metropolitan University and who had prior experience of facilitating research in Smutsville was beneficial for this study. Her gender and experience positively supported the dynamics of focus groups, especially with women.

It is important to highlight the researcher's role is different in each study site, especially in South Africa according to the researcher's race and colour. Sedgefield has a history of the Apartheid system where inequality was based on race. The researcher, a white woman in her late thirties from a UK background and a UK University, is likely to have influenced the research process and interactions with participants who engaged in the study.

The "insider/outsider" status of qualitative researchers is well established, as it is an important issue for social scientists (Mullings, 1999; Acker, 2000; Rabe, 2003; Doiron and Asselin, 2015). Researchers often study communities and facilitate research in cultural situations that are different to their own, and to which they are "outsiders" and thus not a member or part of the group under study (Corbin Dwyer and Buckle, 2009). Studying a community that researchers are not a member of often raises complex ethical issues around how researchers gain access to knowledge based on their positionality (Mullings, 1999). This can include the way in which demographic and social differences can structure interactions between researchers and participants, and the extent a researcher is accepted and able to elicit viewpoints on their area of study (Ganga and Scott, 2006). These are issues the researcher carefully considered during the design of this study and the overall research process.

Considerations around the researcher's positional space were acknowledged from the outset of this study. Careful planning, an open and honest approach to the research, and a self-critical lens adopted by the researcher through a continuous process of examining their relationship with research participants and to the research ensured

that the role of the researcher was appropriate during fieldwork (Rose, 1997). As section 3.4 describes, engendering trust, taking time to listen and build rapport with participants, and undertaking data collection with many of the same participants through an iterative process that supported findings to emerge throughout field work and on which participants could verify, supported the engagement of participants of different race. In all research methods facilitated, the researcher ensured that residents felt comfortable in engaging in this study. Separate focus groups and participatory scenario workshops were facilitated for Sedgefield town and Smutsville residents. This allowed participants to more freely voice their perspectives around the concept of community and their aspirations for the future without being influenced by intracommunity power dynamics (Wollenberg et al., 2000; Johnson et al., 2012; Mistry et al., 2014).

The approach employed by the researcher aided eliciting people's perceptions on collective action and community resilience, some of which were sensitive in nature. Residents in Smutsville for example openly discussed and emphasised issues of race, power and inequality with the researcher because of who the researcher is. Being an outsider was an advantage to this study as it opened up space to discuss sensitive issues, revealing rich insights into participant viewpoints on these aspects that the researcher might not have been otherwise able to elicit. Being an outsider also enabled the researcher to bring different residents together in Sedgefield for the first time to discuss issues around identity and their different interests at the end of the fieldwork period as section 3.4 discusses. The fact that the researcher's social position was perceived by participants of Sedgefield town and Smutsville to be neutral and objective, and not clouded by personal experience of the context and assumptions of similarity (Corbin Dwyer and Buckle, 2009), supported residents in asking the researcher to facilitate a workshop between them in this instance so that their different perspectives on the future could be shared.

3.7 Fieldwork challenges

Section 3.6 states that working with a female translator during two focus groups in Smutsville was beneficial for this study. The researcher also acknowledged however

that issues can arise when working with an interpreter. Based on the researcher's past experience of undertaking fieldwork in diverse contexts using a translator, challenges can include not being given the "whole story" of what research participants might say, or interpreters making assumptions about what information is relevant for the research. The researcher took steps to ensure such issues were minimised by re-emphasising protocol with the translator before each focus group and frequently seeking clarification from her.

Undertaking participatory scenario workshops in both Sedgefield and Wadebridge was challenging due to time constraints and participant availability and interest. Scenarios are a time intensive process, requiring commitment from participants as other studies using use the method emphasise (e.g. Oteros-Rozas, 2015; Star, 2016). The researcher's previous engagement with participants in preceding stages of fieldwork supported participatory scenario planning as rapport and trust had been established between the researcher and residents engaged in scenario workshops over time, demonstrating the value of the design and choice of methodology used for this study. Still, developing scenarios that reflected in detail the complexity of interactions in study sites in 2050 under a changing and uncertain context was difficult in two short workshops that were completed within one week of each other, and designed as such to support participant availability and continuity. Although scenarios produced by participants are sufficiently comprehensive, the limited time available for scenario planning in part constrained the depth of participants discussions and more detailed iterations of scenarios. Ramirez and colleagues' (2015) review of studies using scenarios show these challenges are often experienced by researchers facilitating scenario workshops. Residents in both study sites also at first found it challenging to imagine what their community and town might look like in 2050, and how it might differ considerably from the present, which is a main challenge in scenario planning (Kahane, 2012; Bai et al., 2016). Thinking into the future can be difficult, with scenarios new to all participants engaged in the process in study sites. Careful facilitation by the researcher supported participants with challenges they faced with the method.

3.8 Summary

This chapter provides a detailed account of the overall research design used by this study. This includes discussion on selected study sites, methods of data collection and participant recruitment, the types of data collected and the approach to data analysis used.

The approach to research undertaken by this study was designed to support eliciting data that can inform new insights and a detailed understanding into the relationship between collective action and specific resilience, general resilience, and transformative capacity that this thesis examines. To best respond to the requirements of this thesis, a qualitative, multi staged approach employing three distinct yet complementary data collection methods was used in two study areas. Sedgefield in the western Cape, South Africa, and Wadebridge in north Cornwall, UK, were specifically selected for this study as they provide good testing grounds for collective action and community resilience. Located on the coast, both places represent emerging complexities of change, with different forms of community in place and a history of collective action established. The methods used to collect data were semi structured key informant interviews, focus groups and participatory scenario workshops. All qualitative and participatory methods used were tailored to the research questions they aimed to address and informed data analysis through an iterative process once fieldwork was completed.

To address this study's first research question, Chapter 4 presents the results of analysis of attributes of community in the context of community resilience next.

Chapter 4: What is 'community' in the context of community resilience?

4.1 Introduction

Chapters 1 and 2 suggest that a new way of framing community to inform community resilience theory is needed. Dominant interpretations of community in both strands of community resilience research, that is social ecological systems and developmental psychology and mental health are not comprehensive on their own. Neither approach makes attributes of community explicit and downplays key compositional influences around social difference, power relations and the more dynamic nature of community that are likely to inform community and how community as a concept relates to resilience. Studies in anthropology have historically problematised community in terms of division, conflict, distrust, power and inequality. Yet in the field of community resilience, community today is still often assumed to be bound by place and shared interest. This means community is typically portrayed as depoliticised, with members acting together in consensus, with trust and social relations enabling response to change.

This study suggests a realignment in analysis of community for the community resilience concept. This chapter tests the hypothesis posited in Chapters 1 and 2 that community in community resilience is more than a set of normative assumptions that describe a static, discrete and depoliticised homogenous group of individuals bound by shared interest and place. This chapter aims to identify a different interpretation and framing of community that allows examination into a more nuanced set of attributes and influences that may construct community and affect interactions of different actors and interests around community resilience decision-making and action. To achieve this objective, and to reconceive community for the community resilience context, this chapter analyses empirical evidence from Sedgefield and Wadebridge to address the question: What are the attributes of communities in the context of resilience?

This chapter is structured as follows. Section 4.2 examines the attributes of residents who move to Wadebridge and Sedgefield for lifestyle purposes. Section 4.3 explores

the attributes of other residents who also reside in each locality, who are longer term inhabitants and residents with different demographic characteristics. Section 4.4 brings both resident groupings together, to assesses their relationship and the implication of their interaction for identifying attributes of community in the context of community resilience. Section 4.5 summarises findings and concludes the chapter.

4.2. A group of incomers managing collective action

4.2.1 Lifestyle migrants with financial security

Chapter 3 shows Wadebridge and Sedgefield are two towns set in coastal locations. Wadebridge is historically a market town located close to the Camel Estuary, north Cornwall, which is classed as an Area of Outstanding Natural Beauty. Sedgefield, traditionally a holiday town, is part of South Africa's prestigious Garden Route National Park, a protected nature reserve spanning 80 kilometres of coastline. The physical beauty of each location and the accompanying lifestyle that each place offers attracts a high proportion of people to purposefully move to both localities by choice, with this trend increasing.

The majority of residents interviewed for this study in Sedgefield and Wadebridge have moved to retire, with a small number of people moving for other lifestyle purposes such as the safety of a non-urban environment in South Africa. In Wadebridge, residents predominantly relocate from within the UK. This includes people who regularly holiday in Wadebridge and who decided to move to the town permanently; those who have moved to work and stay; and a smaller number who are new to the town. In Sedgefield, people move from other parts of South Africa as well as from abroad and the UK in particular, with more residents moving internationally than in Wadebridge.

These individuals represent one group of residents in each study site who are commonly referred to as "incomers" by long-standing inhabitants of each town. They are a particular type of lifestyle migrant who move to Sedgefield and Wadebridge due to a range of factors at origin and destination areas (Lee, 1966; Massey et al., 1993), but who are predominately attracted by the pull of the coastal idyll and a quality of life

that reflects their personalities and preferences (Benson and O'Reilly, 2009). In-migration with permanent change of address is one attribute of this group of residents.

For example, Steve and Simon are incomers who have chosen to live in Sedgefield out of their own choice to do so. Steve moved from Scotland, UK, eight years ago to retire. Simon relocated five years ago with his family from Johannesburg, South Africa, to enjoy a more relaxing way of life. Their interaction is representative of the motivations commonly expressed by incomers in Sedgefield that describe why people move to the town. Steve and Simon shared their comments during a focus group in response to being asked, "what do you really like about living here?"

> *"Put simply. It's paradise."* (Steve)

> *"And no one comes to live in Sedgefield to make money. People come here for community, for outdoor, for children, for family, for market, for nature."* (Simon, Sedgefield, focus group 4, 1st September 2016)

As the majority of people who move to Sedgefield and Wadebridge are driven by lifestyle rather than employment opportunities, this group of incoming residents are people who can afford to move. They possess a socio-economic status that provides them with the ability to make the choice to move which other individuals may not have. High socio-economic status is therefore another attribute of incomers, with this finding congruent with migration literature that shows lifestyle migrants are typically relatively affluent individuals (Benson and O'Reilly, 2009).

For example, Wendy, an incomer who moved to Wadebridge 20 years ago from elsewhere in the UK, illustrates the general understanding that it is people with an above average socio-economic standing who are able to relocate and retire to the town, with incomers typically from more prosperous areas of the UK than Cornwall.

> *"A lot of its to do with whether or not you've got the financial means to move house and so the kind of people we get moving in here are retired. And that tends to be not such a mixed group, because to be able to retire here you've got to be above a certain income these days. Certainly people that I've come across further west think that Wadebridge isn't proper Cornwall."* (Wendy, Wadebridge, focus group 3, 9th April 2016)

Wendy's comment also highlights the common view, that people who are Cornish consider Wadebridge to be different to other parts of Cornwall. Cornwall is one of the most socio-economically deprived counties in the UK. Yet there is a notable distinction in Wadebridge between the higher socio-economic bracket of incomers and that of Cornish inhabitants.

In addition to forming a high socio-economic group, incomers in Wadebridge and Sedgefield are also characterised by a similar yet narrow ethnic group and age group. All incomers interviewed for this study are white. The majority are also retirees and thus of retirement age. Residents of other ages are however also present in each town as section 4.3 explores.

4.2.2 Active individuals and their communities of interest

Another attribute shared by incomers interviewed for this study, is their inclination to actively engage with each other once they have moved, and form communities of interest around their shared interests. Laura, an incomer who recently moved to Sedgefield, illustrates this point commonly perceived by incomers in discussing factors residents like about Sedgefield.

> *"The reason we chose Sedgefield, we're newcomers, is because of its sense of community that is reflected in all its many outreach projects and community activities that are being done, which is a phenomenal amount. Everybody I know is busy, busy, busy doing all sorts of things and it's marvelous."* (Laura, Sedgefield, focus group 3, 31st August 2016)

Incomers in Wadebridge also typically highlight that there is a large number of interest groups in the town that incomers are a part of, as David demonstrates, a retired incomer who moved to Wadebridge 10 years ago and is involved in numerous interest groups.

> *"One thing I can definitely say about Wadebridge is that we're not short of community groups and people doing things. Groups of every shape and size are here."* (David, Wadebridge, focus group 4, 13th April 2016)

Multiple communities of interest are thus present in both study sites. Chapter 2 defines a community of interest as conceived in this study as "a group of people united by common interests, aspirations, concerns and values" (Harrington et al., 2008). Interest groups are formal and informal in nature and respond to residents' diverse interests. These range from music, sport and religion to discrete aspects of specific resilience that reflect the different risks residents experience in each location. This study defines specific resilience as ability to address one or more known, identified risks or hazards (see Box 2.1).

Incomers in Sedgefield and Wadebridge typically describe themselves as "community minded people" (Mike, Sedgefield) and emphasise that self-organising around common interests is important to them. This is because it enables incomers to meet other people in a new place and build their sense of community. Communities of interest provide a means through which incomers can forge bonds and build trust, and associate with likeminded people with similar identities and preferences to themselves.

For example, Tom, an incomer who moved to Wadebridge to retire nine years ago from another part of the UK, emphasises a popular outlook that community is the interest groups that he is a part of as they foster social relations and support. Tom shared his viewpoint in a focus group when asked, "what does community mean to you?"

> *"It's communities of interest. My two communities of interest are WREN, which is a friendship network as well as an activity network, and Quakers, which is also friendship and mutual support. I don't have access to many communities of interest, because I'm not in the choir for example, but I could choose to be. So our community is made up of a number of groups each doing things which people really want to do together and which binds people together and help people be supportive."* (Tom, Wadebridge, focus group 4, 13th April 2016)

WREN stands for the Wadebridge Renewable Energy Network and is one example of a collective action organisation that this study examines in assessing collective action. WREN is returned to in Chapter 5 in examining the relationship between collective action and community resilience to different types of disturbance.

In addition to their interest groups, incomers also emphasise the different community events that they organise and take part in such as "The Big Lunch"[2] in Wadebridge and the "Slow Festival"[3] in Sedgefield. Incomers interviewed for this research perceive these events are important. They are seen as an integral part of their community, as they help build social relations and promote shared experience as John expresses, showing a common perspective of incomers in Wadebridge.

> *"There are a number of things that people participate in like some of the big events such as the Big Lunch and there is cohesion and a sense of community around that. Because it's a fairly small town the intimacy of the whole thing works. If you're having a carnival you're all going to see it because everyone is there, and you want to take part, you know the people involved."* (John, Wadebridge, focus group 4, 13th April 2016)

For incomers who move to Sedgefield and Wadebridge therefore, the communities of interest and collective actions that they are engaged in are understood to provide a conducive ambience for their retirement or new way of life. They affirm the lifestyle residents in part moved to each study site for around close-knit community, which in turn enables a strong sense of community spirit to emerge. Community spirit is another attribute incomers typically use to define their community in study sites, as Fiona in Sedgefield illustrates.

> *"Community spirit is what I really like about living here. We're mutually supportive as a group, and people live with a good sense of wellbeing. There's a focus on the community helping itself and that sense of such a supportive place to live."* (Fiona, Sedgefield, focus group 3, 31st August 2016)

Fiona moved to Sedgefield to retire with her husband six years ago. They are both involved in a number of collective action groups focusing on specific resilience and religion.

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[2] Wadebridge Big Lunch is a free street party for residents that takes place in the centre of the town every year. It features live music, face painting and other activities.
[3] Sedgefield Slow Festival takes place every Easter and is formed of different activities and leisure pursuits from music events to a fun run on the beach.

As a result of the social relations incomers purposefully build in moving to Sedgefield and Wadebridge, incomers commonly perceive that study sites are places where it is easy to get to know others. Incomers often feel settled and at home quite quickly, as Laura demonstrates in reflecting on her experience of recently moving to Sedgefield.

> *"I have moved around a lot and to different continents as my husband had to travel a lot for work. So I'm really used to having to fit in. Sedgefield was the easiest because people are very open and willing to take the time to stop and talk."* (Laura, Sedgefield, focus group 3, 31st August 2016)

Many incomers perceive feeling settled quickly matters. In relocating to Wadebridge and Sedgefield, most incoming residents have moved far from family and friends and their support networks. In Wadebridge in particular, many incomers such as Jenny emphasise that they find the distance from family and friends challenging despite living in the town for a number of years. Wadebridge is geographically isolated from other parts of the UK and has poor transport networks that makes travelling to and from the area difficult.

> *"We really love the town, and we have some very good friends. But our family is all a good six to eight hours away. It's very far for them to get down here."* (Jenny, Wadebridge, focus group 1, 5th April 2016)

Thus again, the communities of interest that incoming residents set up and the trust they form within them is particularly pertinent. The majority of incomers perceive that the bonds they build through their interest groups are what form their community and are social relations on which they can rely.

In summary, people's relationship to place and their place-based motivations for moving to Sedgefield and Wadebridge contribute to the interest groups incomers set up as William highlights, reflecting the widespread view that place supports interest groups in Wadebridge to form.

> *"WREN's origins are around place. Peter who was obviously the instigator of it came here because he likes to windsurf in the Camel Estuary."* (William, Wadebridge, focus group 5, 20th April 2016)

Yet community for incomers in study sites is more than place alone. The different communities of interest that incomers are involved in are perceived to establish an important part of their everyday life in Sedgefield and Wadebridge. They provide an opportunity for incomers to build bonds and trust and settle into a new way of life. Hence it is their communities of interest that significantly defines community for the group of incomers, and which results in incomers managing collective action in each study site. Communities of interest and the trust members form within them are therefore attributes that describe incomers in Sedgefield and Wadebridge, and are attributes that are understood to be significant in binding incomers together.

4.2.3 Additional attributes of incomers

Incomers in Sedgefield and Wadebridge also commonly define themselves as volunteers and people with diverse expertise, knowledge and social networks. Sam, an incomer who retired to Sedgefield four years ago highlights this popular view in demonstrating that these are assets incomers bring with them in moving based on their previous careers and experiences.

> "*There are people here from a lot of backgrounds. I mean you forget very often that there's a lot of retirees here, but those retirees did something before and in fact are still very capable and very qualified people that bring a lot of expertise.*" (Sam, Sedgefield, focus group 4, 1st September 2016)

Volunteerism and knowledge, expertise and social networks are included in the approach to community here, as they are also attributes that are shown to strengthen incomers' ability to manage collective action in each study site. The fact that incoming residents are largely retired and financially secure enables incomers to engage in their communities of interest on a volunteer basis, which is beneficial for them. Many incomers have the time available to form a strong network around their interest groups and forge bonds with each other that can support their resilience, which other residents may not have.

4.2.4 The significance of incomers for community in community resilience

This section describes the main attributes of one dominant social grouping in Sedgefield and Wadebridge - incomers who manage collective action – which research participants in study sites identify as key to constructing community in each town. As Table 4.1 summarises, this type of resident is typically a particular type of incomer who move to Sedgefield and Wadebridge by choice, to retire or for lifestyle purposes. In moving, incomers set up different communities of interest and a dynamic around which collective action is formed. The interest groups incomers develop are important to them, as they define their sense of community and who they trust and interact with. Social demographic factors, such as age and socio-economic status also define incomers and are attributes that support collective action.

Attributes of one dominant social grouping forming "community" in study sites: Incomers who manage collective action

Lifestyle migrants (predominantly retired)

In-migration with permanent change of address

High economic status

Caucasian

Active individuals

Communities of interest

Trust in each other

Strong community spirit

Diverse expertise, knowledge and social networks

Volunteers

Table 4.1: Attributes of incomers who manage collective action in Sedgefield, South Africa, and Wadebridge, north Cornwall, UK.

The attributes of incomers in part reflect how community is typically conceputalised in community resilience research. Chapter 2 shows that social ecological systems studies resonate with commons literature and usually identify community as a singular,

discrete and homogenous entity in place, with attributes of shared interest, identity and trust binding people together and supporting collective action that addresses collective risk (Ostrom, 1990; Olsson et al., 2004). In parallel, Chapter 2 states that developmental psychology and mental health research also often portrays community as collaborative in its ability to act and build resilience. From a developmental psychology and mental health perspective, community is synergistic, with its individual members perceived to support one another and together build capacity for positive development as a reciprocal unit that shares its strengths (Buikstra et al., 2010; Ungar, 2012).

Most incomers in Sedgefield and Wadebridge do not form a singular community of interest, as they form a number of interest groups. But they do still represent a particular type of resident who perceive themselves to be collaborative, with trust, social relations and shared interests important to them. These attributes help form a community that incomers want to be a part of, and helps them identify with whom they interact and relate to. Incomers in each study site are also shown to form a social demographic profile that is not particularly diverse in terms of age, ethnicity or socio-economic standing, and could be considered homogenous to a degree. Although the places incomers have moved from and the different backgrounds, knowledge and experiences they bring with them in moving are varied and offer diversity.

Incomers in Sedgefield and Wadebridge however also significantly differ in their attributes to usual interpretations of community in community resilience research. Incomers are not a static unit, such as static groups of resources users assumed to be bound to a particular place-based system as is often portrayed in social ecological systems research. Rather this section shows that incomers are lifestyle migrants who do not reside in their place of origin, but are mobile, and in choosing to live elsewhere bring with them a set of interests and influences from other places and experiences. This study suggests that the lifestyle mobility of incomers in Sedgefield and Wadebridge is a particularly important attribute of community in the context of community resilience. This is because lifestyle mobility and its impact on place plays a key role in affecting how community in each study site is formed and how it functions.

This section illustrates that incomers in each study site form part of who the community is due to the lifestyle choices they have made. Lifestyle mobility therefore in part defines community and identifies residents managing collective action. This is because in moving to each town, incomers set up a dynamic that they form their communities of interest and collective action around which binds them together as a group of residents and shapes their community for them.

Yet the lifestyle mobility of incomers not only informs the composition of community. As the following sections of this chapter show, the impact of incomers on study sites also affects how community operates. The interests and influences that incomers bring with them in moving, and the dynamic they establish around their communities of interest also differentiates incomers from other inhabitants already living in the towns that they move to and influences their relationship with other residents and the social dynamics that exist in place. This matters, as it is the interaction between incomers and other residents that exposes politics and power relations and the more socially constructed nature of community that this study seeks to examine in realigning analysis of community for the community resilience field.

This first set of attributes of incomers are therefore not to be seen as a standalone set of characteristics on their own. Section 4.3 shows next that incomers are not the only dominant social grouping of residents identified by research participants in Sedgefield and Wadebridge. The chapter then investigates the relationship between different social groupings, and the implications of their interaction in order to complete this study's representation of attributes of community for the community resilience context.

Before investigating the second main resident grouping in Sedgefield and Wadebridge in section 4.3 next, it is appropriate to highlight that this chapter may present a simplified version of social groupings in study sites. In focus groups facilitated to identify attributes of community for this study, research participants emphasised two social groupings in particular. Incomers are one dominant grouping of residents shaping community in study sites, which also brings focus to collective action, a key theme of this thesis, as this section shows that collective action is primarily driven by incomers. There are likely to be other social groupings in Sedgefield and Wadebridge.

However, this chapter focuses on two social groupings in particular, as they are the two key groupings that arose from focus group discussions.

4.3 Residents not managing collective action

Research participants in Sedgefield and Wadebridge identify another dominant resident grouping that they perceive is also central to forming their community in addition to incomers. The second social grouping in study sites are residents who are distinguished from incomers by identity, demographic factors and characteristics relating to social capital that are different to the bonds and trust incomers form. This second grouping of residents also do not manage collective action around specific resilience like incomers do.

The second resident grouping in Sedgefield are inhabitants of Smustville, the "township" in Sedgefield. Chapter 3 states that a "township" is a term commonly understood to represent spatial and economic inequality in South Africa that has remained since the Apartheid ended in 1994. Table 4.2 illustrates that socio-economic inequality still characterises Sedgefield today, with the town a combination of rich and poor inhabitants. Residents living in Smutsville form a distinctly different set of demographic characteristics compared to incomers living in Sedgefield town and The Island, with residents split racially and ethnically in Sedgefield in particular.

Social demographic indicators	Sedgefield	Smutsville
Total population	2234	4443
Ages 0-14	263	1196
Ages 15-64	1197	3138
Ages 65+	774	109
Education		
% no formal schooling	0.2	2.1
% complete primary	14.5	36.6
% complete secondary	43.7	13.2
% complete higher	23.8	1.0

Unemployment	2.9	14.2
Monthly income (of economic active individuals)		
% no income	5.5	3.0
% R 1 – R 3200	9.7	37.7
% R 3201 – R 12800	23.9	5.1
% R 12801 – R 25600	20.6	1.6
% R 25601+	13.0	0.4
Dwelling type		
House or brick/ concrete block structure / flat / townhouse	993	710
Informal dwelling (shack in backyard or informal squatter settlement)	4	633

Table 4.2: Comparative social demographic indicators of residents living in Sedgefield and Smutsville (2011 South Africa population census).

Table 4.2 shows that Smutsville is a mixed formal and informal settlement. Residents are typically of low socio-economic status and do not possess a high level of formal education compared to incomers. Smutsville residents are also largely unemployed and are in need of employment opportunities, whereas incomers are not. Smutsville residents also differ in terms of age, race and ethnicity. Table 4.2 shows residents in Smutsville are of different ages, not just primarily retirees as incomers typically are. Qualitative data show that in addition to Caucasian, residents of Smutsville are also identified as Black African, Coloured and Indian/Asian, which is different to the ethnicity of incomers. This study interprets this data to suggest that low socio-economic status and diversity of ethnicity and age are two attributes of Smutsville residents.

In addition to differences in demographic factors, residents of Smutsville are also geographically divided from incomers living in Sedgefield town and The Island. Amy, a long-term resident of the township in her 30s highlights this point, reflecting a widespread view of Smutsville residents that they are not an integrated community.

> *"There are some of us who have lived in Smutsville for over 25 years and who don't even really know where the town is or what we could do there."* (Amy, Sedgefield, focus group 1, 19th August 2016)

Smutsville is located on a hill to one side of Sedgefield's main town area (see figure 3.3), with the informal settlement part of the township rapidly expanding onto unsafe land close to the coast. Sedgefield town, The Island and Smutsville all form part of Sedgefield. Yet each part has its own identity, name and location that reflects the underlying power structures left over from the Apartheid era. This geographic division between residents contributes to reinforcing separate identities and the way in which residents consider themselves distinct from each other. Jane, also a long-term resident of Smutsville but in her 50s also reiterates the general impression that Sedgefield comprises of two distinct communities rather than one community or town.

> *"Definitely separate Sedgefield and Smutsville."* (Jane, Sedgefield, focus group 1, 19th August 2016)

In sum, this study suggests structural inequality and social marginalisation relating to race, class and ability is another attribute of Smutsville residents.

In focus groups Smutsville residents emphasise that they do not live far from family, which is different to many incomers. The majority of residents in Smutsville have family that also reside in the township, which provides a support network that incomers typically do not have. Family is important as it is whom Smutsville residents primarily trust, as Ann illustrates. Ann represents the overall perspective of township residents in her response to being asked, "if a new person moves here next week, who can they trust?"

> *"Hopefully they have family with them."* (Ann, Sedgefield, focus group 1, 19th August 2016)

Interest groups relating to religion and sport also exist in Smutsville and are perceived to play a role in forming community as Kate highlights, expressing a view common to others.

> *"You need to be a part of those groups like your church and Forget Me Knots to make you feel more part of the community."* (Kate, Sedgefield, focus group 1, 19th August 2016)

"Forget Me Knots" is a community group for township residents organised by a charity in Sedgefield that promotes sport and craft activities. The example of "Forget me Knots" represents the general case that interest groups in Smutsville are not resident led and do not focus on specific resilience as many interest groups that incomers set up are.

In Wadebridge, the second resident grouping identified by research participants are also distinguished from incomers by identity and demographic factors. The distinction between residents is culturally different to Sedgefield and is not of race or ethnicity. The second resident grouping are long term residents who are born and/or have grown up in the Wadebridge area. This is an identity that residents in this second social grouping are strongly attached to and influences the way in which they define themselves and their community in Wadebridge. As section 4.2 states, incoming residents are typically referred to by long-standing residents of Wadebridge as "incomers." This suggests that longer term residents consider themselves distinct to residents who relocate to Wadebridge as a result of where people are from. Kathy, a resident in her 30s who was born in Wadebridge demonstrates this commonly held view, in emphasising the divide between incomers and long-standing residents of the town.

> *"I felt like such an incomer the other day in the doctor's surgery. They've changed their system and I didn't know how anything really worked."* (Kathy, Wadebridge, focus group 1, 5th April 2016)

This finding on identity suggests that long-standing residents of Wadebridge also perceive that they are not a single community. Instead, longer term residents of the

town consider themselves a community that is formed of two parts, as Michele, a teacher from Wadebridge further highlights in discussing the town's "Big Lunch."

> *"Wadebridge, it's become cliquey. We have people in their groups, and I think the whole idea of that event is to pull the community together. But what happens is that people mix with their own particular group regardless. I was actually too intimidated to go along as someone who didn't really know the right people in town."* (Michelle, Wadebridge, focus group 1, 5th April 2016)

Section 4.2 shows that the Big Lunch is a community event set up by incomers for all residents of Wadebridge.

Longer term residents in Wadebridge are also of different ages, thus not only primarily retirees as the majority of incomers are. They are also members of communities of interest like incomers in Wadebridge and residents of Smutsville. It is typically understood that through some of these interest groups, different residents in Wadebridge interact, as Rachel emphasises.

> *"You have a bit of a "them and us", but then we all come together for things. You know, like the choir for instance."* (Rachel, Wadebridge, focus group 1, 5th April 2016)

Rachel was born in Wadebridge. She is now retired and is a member of interest groups relating to music and religion.

Most long-standing residents in Wadebridge also have family living close by, whom they trust as well as friends. Residents hint during focus groups that they might not trust particular incomers as Charlotte expresses, reflecting a view frequently shared by other longer term residents of the town.

> *"There's a few I wouldn't trust…They're so prominent that you wouldn't dare say anything in disagreement with them."* (Charlotte, Wadebridge, focus group 1, 5th April 2016)

Charlotte was also born in Wadebridge and is now retired. She volunteers and supports the aged in Wadebridge and its surrounding areas.

4.3.1 The significance of residents not managing collective action for community in community resilience

This section describes the main attributes of a second dominant social grouping in Sedgefield and Wadebridge - residents who do not manage collective action – which research participants in study sites also identify as key to constructing community in each town. As Table 4.3 shows, this second grouping of inhabitants are longer term residents who are originally from each locality. They are residents who have different identities and are distinctly split demographically and racially and ethnically in Sedgefield in particular.

Attributes of a second social grouping forming "community" in study sites: Residents who do not manage collective action

Long term residents, originally from each town

Lower social economic status

Diverse ethnicities and ages

Family live close by

Trust primarily in family and friends

Structural inequality

Table 4.3: Attributes of residents who do not manage collective action in Smutsville, Sedgefield, South Africa and Wadebridge, north Cornwall, UK.

When viewed together with the attributes of incomers in section 4.2, this study interprets the empirical data of this section to suggest that community in Sedgefield and Wadebridge is made up of a sub set of residents who live in each town. Each sub set of residents have different identities and demographic attributes, and they identify themselves as distinct from each other. Community in Wadebridge and Sedgefield is

thus not one static, singular or discrete community, nor is it a set of people managing collective action alone. Instead community in Sedgefield and Wadebridge is an interacting set of different types of social groupings who are heterogeneous in social structure, with community more fluid as it is in part formed of particular incomers who move to each locality by choice for lifestyle purposes. This is different to how community is typically portrayed in contemporary community resilience research.

Chapters 1 and 2 show that community resilience research typically downplays different social groupings within communities. This means it underemphasises relationships beyond those specifically defined by common interest or identity (Kulig, 2000). It also plays down the importance of interactions across and between resident groups that may influence how community works in contexts of resilience.

Section 4.4 shows next that identifying attributes of community in the context of community resilience cannot be fully understood in study sites without investigating the links between different resident groupings. Distinct identities and demographic factors that sections 4.2 and 4.3 present do not necessarily cause conflict between residents in of itself. However, in the relationship between community resilience and collective action that this study examines, resident disparity in identity and demographic factors do matter. They contribute to residents having interests around collective action that are different and can conflict, with a differential ability to affect and shape change. As a result, existing resident divisions around identity and distrust are reinforced and accentuated, contributing to the communities of Sedgefield and Wadebridge becoming increasingly divided. This study suggests this is significant, as how social relations between residents is shaped demonstrates that the form and demographics of communities are changing. The impact of social change around lifestyle mobility affects whose interests are privileged and legitimised in place and influences how collective action confers different types of resilience as Chapters 5 and 6 investigate.

4.4 Bringing residents together: A fragmented collective

To complete this chapter's representation of attributes of community in the context of community resilience, this section builds on sections 4.2 and 4.3 to present empirical evidence both resident groupings in Wadebridge and Sedgefield emphasise in describing their relationship and how interaction between residents is framed.

4.4.1 Different interests around collective action that are contested

Residents in focus groups show that they consider themselves to be two separate social groupings that do not form an integrated whole. This is due to their discrete interests around collective action and their future aspirations for their town which are different and can conflict.

Different resident groupings typically want different things, that is to either promote change or to maintain the status quo. Residents do not integrate around shared goals or a shared vision for the future, which is different to the approach to community that community resilience research often portrays. The different interests and aspirations residents have for collective action is frequently emphasised by residents in study sites. Hence it is an attribute this study suggests describes community in Sedgefield and Wadebridge.

For example, in Sedgefield, incomers commonly express how they want the town to remain the way it is. In short, many incomers want Sedgefield to remain relatively small in size and be a Slow Town, as these are the reasons why the majority of incomers moved to Sedgefield to begin with as Sam expresses.

> *"I don't want to see big industry here. Maybe it's a selfish attitude because it may help with some of our unemployment, but it'll only change the whole atmosphere of Sedgefield and the reason why probably 90 per cent of people have come here."* (Sam, Sedgefield, focus group 4, 1st September 2016)

Sam moved Sedgefield four years ago with his wife and shares his viewpoint in reflecting on aspects of Sedgefield residents like.

Chapter 3 shows that Slow Town describes the identity of Sedgefield. Slow Town is a sustainable approach to development with a focus on localism including biodiversity conservation and responsible tourism (see Box 3.1).

Smutsville residents however have a different perspective on the identity of their town. Township residents desire better employment opportunities in Sedgefield due to their distinctly different socio-economic standing to incomers that Table 4.2 highlights. Residents of Smutsville therefore want change and do not wish Sedgefield to be a retirement town or a Slow Town, as Sebastian, a resident of Smutsville in his 30s shares.

> "*At the moment Sedgefield is a retirement village of which those people coming from overseas and so forth don't want to be disturbed. But when we get in this situation we see drugs and no jobs as there's no development for us. People come and want to do business, but they say no, this is a Slow Town, nothing happens here.*" (Sebastian, Sedgefield, scenario workshop 3, 3rd November 2016)

Sebastian highlights a common viewpoint in the township, demonstrating that from Smutsville's perspective, Sedgefield's Slow Town status presents a key division between resident groups. Smustville residents do not support Sedgefield being a Slow Town as it is seen to restricts their possibilities for employment and their hope for the future. Chapter 6 explores Sedgefield's Slow Town status in more detail in examining collective action and transformative capacity, defined in this study as a community's ability to envisage and plan for the future.

Different residents also want different things in Wadebridge, with incomers also seen to try and influence the identity of each town to what their shared interests are. Here, incomers typically do not want Wadebridge to remain a summer tourist destination or a retirement town as incomers in Sedgefield do. Rather incomers interviewed for this study in Wadebridge emphasise that they want to promote change for the better due to their concern for the town's future. Many incomers wish Wadebridge to be self-

sustainable forward-thinking town that is home to residents of all ages, particularly youth. Incomers typically share that they want Wadebridge to grow and develop rather than economically and socially stagnate in line with the town's increasing ageing population, as John expresses in emphasising the divide between incomers and longer term residents of the town.

> *"There are some people who want Wadebridge to go on just as it has been. A quiet little market town. But Wadebridge needs to do something in order to avoid becoming a retirement town. You want to have a town that is lively enough that it attracts people; it attracts younger people and has work for them to do that isn't, with no disrespect, just serving coffees."* (John, Wadebridge, interview 7, 6th May 2016)

John is an incomer who moved to Wadebridge eight years ago to retire with his wife. He is a member of various interest groups in the town.

Wadebridge, like Sedgefield, is a town that is growing rapidly, with an increase in the number of people moving to the town to retire. Wadebridge is also characterised by a lack of diverse and well paid employment opportunities due to its dependence on summer tourism. Together with a lack of access to higher education, youth often leave the town as in other places (Rogers and Castro 1981; Bernard et al., 2014).

However, longer term residents of Wadebridge have different preferences and are shown to often resist change, especially if change is promoted by incomers. Similar to other communities (e.g. Kulig and Waldner, 1999), long-term residents of Wadebridge demonstrate that they can find it difficult to accept change and perceive change as a threat. Cornish culture is commonly typified by mistrust of non-Cornish residents who relocate to the county and try to change how traditional Cornish communities operate as Vanessa, a long-standing resident of Wadebridge who works in the charity sector explains.

> *"In small areas you'll always get people that will find it hard when new people come in with some new ideas. I think people are a little bit anxious and concerned about change and what change might mean. And so I think it probably takes a while to build up relationships. I don't think any community takes kindly to people coming in and saying you need to do x, y, z. I think people*

are not so trusting but they'll get there in the end." (Vanessa, Wadebridge, focus group 2, 8th April 2016)

Vanessa's comment also illustrates how incomers are perceived to exert their influence over collective action in order to try and achieve results that they desire. Even if changes that incomers suggest are positive for the town's development, long-standing residents of Wadebridge can feel as if change is being done to them rather than working together and contributing towards their town as well. Differences in interests and approaches taken to working towards achieving change in Wadebridge has sometimes resulted in conflict rather than collaboration between resident groupings, thus reinforcing a lack of trust between them.

The Neighbourhood Plan is one such example that incomers and longer term residents often refer to. The Neighbourhood Plan is a government led initiative, part of the Localism Act, to give "communities direct power to develop a shared vision for their neighbourhood and shape the development and growth of their local area" (MHCLG, 2014). Chapters 5 and 6 explore the Neighbourhood Plan in more detail in examining collective action and its relationship with specific and general resilience and transformative capacity.

4.4.2 Differential ability and power to affect change

Residents in study sites also consider themselves distinct from each other due to a difference in ability to influence change.

James, a longer term resident of Wadebridge working with the aged, represents a common view. That is, that incomers in Wadebridge are more likely to be able to influence action around what their dominant interests are compared to other residents. This is due to the ability of incomers to do so that other residents may not have.

> *"If the area is more attractive then people are going to move in probably with greater ability to exercise influence and decision-making and make less of the interests of people that were here before."* (James, Wadebridge, interview 6, 18th March 2016)

A perceived discrepancy between resident groupings in ability to affect change relates in part to differences in resident demographic factors. Section 4.2 shows that incomers in Wadebridge and Sedgefield are a particular type of incomer. They are largely people with a high socio-economic status who can afford to move to Wadebridge and Sedgefield by choice. They are also people with a range of expertise and networks that they bring with them in moving that relate to their previous careers and experiences. It is these attributes of incomers that James refers to, to suggest that incomers can use their socio-economic privilege to move for lifestyle purposes to begin with, which then also provide them with influence and power privileges in the places that they move to. This observation suggests that residents' differential ability to affect change is underpinned by power relations, with the implication that incomers possess power to affect change that other residents do not.

For residents of Smutsville, there is also a marked distinction in resident ability to shape change. Martin shares this general viewpoint in describing how education is one factor influencing this difference between residents in Sedgefield.

> *"It's a matter of Smutsville, no education. Whereas on the other side, Sedgefield residents, are advanced in this education, they know which door to go through. We have talked about how them posting this and that and organising things for them, but it is not same for us."* (Martin, Sedgefield, scenario workshop 4, 4th November 2016)

Similar to Wadebridge, different resident groups in Sedgefield also have a different capacity to affect change due to demographic factors. Yet structural constraints also shape existing power imbalances between residents. As Martin emphasises, Smutsville residents have a lower level of education compared to Sedgefield town residents. This in part relates to the backlog of a failing education system that continues to perpetuate social economic disparity and reinforce resident divisions in Sedgefield around race and class.

In summary, this study interprets the above empirical evidence to suggest that differential ability and power to influence and affect change is another attribute defining community in Sedgefield and Wadebridge.

4.4.3 Lack of trust

Both resident groupings in Sedgefield and Wadebridge highlight that their relationship is marked by distrust.

Lisa, a retired incomer who moved to Wadebridge initially for work 25 years ago, shares a widespread view that incomers feel they are not trusted by long-standing residents of the town.

> "*I mean Wadebridge is a very pleasant place. It's certainly a very beautiful place. But one still feels that there can be among a certain proportion that have a degree of suspicion. Even though we've been here 25 years, there's a degree of you're not quite one of us that have come in.*" (Lisa, Wadebridge, focus group 1, 5th April 2016)

Other incomers in Wadebridge further demonstrate that trust is not a commonly shared attribute between residents. Rather trust is cultivated within distinct resident groupings as Tom states.

> "*Wadebridge is a number of linked communities of interest not all of whom trust each other. So for me there is a community of people who are very wary about outsiders who come in and do things to change the place which people don't like. So that community would have a different set of people that it trusted.*" (Tom, Wadebridge, focus group 4, 13th April 2016)

In Smutsville, Amy expresses a perspective common to township residents, that they do not trust residents of Sedgefield town.

> "*There's no proper negotiation and interacting towards each other. There is a discrimination that you don't belong here, you belong there. So that's why we can't trust.*" (Amy, Sedgefield, scenario workshop 3, 3rd November 2016)

In this instance, social relations are still largely influenced by different racial identities in South Africa in a post-Apartheid era.

A lack of trust of other resident groups is also emphasised in focus groups to be influenced by the impact of incomers' mobility on study sites and the way incomers are perceived to be changing the nature of each town and reshaping their identity.

In relocating to Sedgefield and Wadebridge, incomers are shifting the demographic composition of each town towards being older in age and by an increase in the number of incomers compared to longer term residents. A study[4] undertaken in Wadebridge at the same time as this research supports this finding. Out of 176 residents interviewed, 145 are incomers and 31 locals. Stewart also highlights this observation in Sedgefield by emphasising that the town is characterised more by lifestyle migrants than people from Sedgefield itself, reflecting the general impression that there are not many longer term residents in the town.

> *"There's not many people yet born and bred in Sedgefield."* (Stewart, Sedgefield, focus group 5, 1st September 2016)

The impact of incomers on Wadebridge in particular is commonly perceived to contribute to a growing trend of rising house prices in the area. Together with an increase in planning applications for new development and second homes, most housing in the town is unaffordable for many long-standing residents, adding to a lack of trust between resident groups. The gap between low wages and affordable housing is particularly marked, indicating an income reliant on tourism or basic pay is even more problematic in Wadebridge today, a common view that Wendy illustrates.

> *"Many can't afford the property prices anymore. If we're not careful we're going to start living in a community where it's either full of very well off retired people or people with second homes and the rest of the community is going to be the people who service all those people I imagine. Not only this, I have daughters in their early 20s who have gone away to university, have not come back and are unlikely to come back in the future, and one of those decisions is because of the lack of genuinely affordable housing."* (Wendy, Wadebridge, focus group 3, 9th April 2016)

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[4] This survey formed part of the Multi-scale Adaptations to Global Change in Coastlines (MAGIC) project, funded by the Natural Environment Research Council (NERC) through Belmont Forum.

A lack of affordable housing is perceived by most residents interviewed in Wadebridge for this study to be of concern. Wendy emphasises the popular understanding that a lack of affordable housing in Wadebridge also contributes to reasons why youth do not often return to the town. In leaving for education and employment purposes they cannot afford to move back hence they relocate elsewhere, away from family. This again affects trust between longer term residents and incomers who bring change and influence the existing nature of community in ways that do not benefit all residents equally.

It is important to highlight that the relationship between incomers and longer-term residents in Wadebridge does however play out in diverse ways. Differential ability to affect change can cause tension between resident groups. It can however also bring change for the better and benefit the town, as Valerie, a long-term resident of Wadebridge in her 30s states, expressing a view slightly different than others.

> *"There are different fragmented stratas here. In one strata, they're mostly from London, mostly wealthy, mostly have their own social circle with each other. They have made this massive problem of property prices not matching the local wages. But on the other hand part of the money has made Wadebridge a nicer place, visually at least. So it's mixed, they harm or that they give benefit."* (Valerie, Wadebridge, focus group 3, 9th April 2016)

Incomers in Wadebridge are perceived by some longer standing residents to present a trade-off in the way they influence the town. Victoria, who has always lived in Wadebridge and works in mental health, demonstrates some of the benefits incomers can also bring to the town around development and innovation.

> *"People are more transient than they used to be, so it's not such a closed community as it was. It has changed. The town seems to be regenerating itself more. It feels more vibrant."* (Victoria, Wadebridge, focus group 2, 8th April 2016)

This observation shared by a smaller number of long-standing residents of Wadebridge, that incomers can promote change that is both positive and negative illustrates that resident diversity can be enriching and dynamic in Wadebridge. Yet it

also needs careful attention, particularly where inequalities and incompatibilities generate unease as in other localities (e.g. Gilchrist, 2009).

In summary, the finding here suggests that a lack of trust of other resident groups is an attribute of community in the two sites of Sedgefield and Wadebridge, with trust therefore to be incorporated into our understanding of how community works.

4.4.4: Defining attributes of community for the community resilience context

Drawing on the empirical evidence in sections 4.2, 4.3 and 4.4, this study presents figure 4.1. Figure 4.1 is a final representation of attributes of community for community resilience, which shows how this study conceptualises what these attributes are. Figure 4.1 shows this study suggests community in the context of community resilience is a fragmented collective. Community is formed of an interacting set of different resident groups who perceive themselves to be distinct from each other, with identities and interests around collective action that are diverse and can conflict. Each resident grouping has different capacity to affect change and also a different group of residents they trust.

Attributes of incomers managing collective action (section 4.1)

- Lifestyle migrants (predominantly retired)
- In-migration with permanent change of address
- High economic status
- Caucasian
- Active individuals
- Communities of interest
- Trust in each other
- Strong community spirit
- Diverse expertise, knowledge and social networks
- Volunteers

A fragmented collective (section 4.3)

Distinct resident group identities

Interests around collective action that can conflict

Differential ability and power to affect change

Lack of trust of other resident groups

Attributes of residents who do not manage collective action (section 4.2)

- Longer term residents, typically residents who are born or have grown up in each locality
- Lower socio-economic status
- Diverse ethnicities and ages
- Trust primarily in family and friends
- Structural inequality

Figure 4.1: Attributes of community in Sedgefield and Wadebridge.

The central component of figure 4.1 shows there are four key attributes of community that research participants emphasise. These attributes focus on resident identity (lifestyle migrants versus longer term residents and residents of different race and ethnicity); interests around collective action (which include wanting to maintain the status quo or change it); differential ability and power to affect change; and trust.

The attributes of community in figure 4.1 demonstrate that a wider and more nuanced interpretation of community is needed that goes beyond common analyses of community in contemporary community resilience research. Chapters 1 and 2 argue that the typical approach studies in the field adopt are limited as surrogates for community, as they still tend to oversimplify and misconceive the concept.

This section builds on and adds to the analysis of community in sections 4.2 and 4.3 to show that typical approaches of community in community resilience research are problematic as they often overlook the dynamism of community and social difference that is likely to affect community resilience (Brown, 2016). People's different interests and aspirations and the more political nature of community and community resilience and whose interests are privileged in place that this section highlights are often under-represented. This chapter therefore responds to the gap in analysis around issues of power in community resilience research (Wilson, 2017). It demonstrates that social difference, trust and power relations are at the core of community, and are attributes from which the relationship between community resilience and collective action can be more appropriately explored.

4.5 Summary

To address this study's first research question, this chapter presents the results of field studies that identify attributes of community in the context of community resilience from the perspectives of different residents in Sedgefield and Wadebridge.

The results demonstrate the nature of community in study sites is fragmented. Community is formed of an interacting set of different groups of residents who perceive themselves to be distinct from each other, with identities and interests around

collective action that are diverse and can conflict. Each resident grouping also has a different ability to affect change and trusts residents who they identify as similar to themselves. To understand how this dynamic emerges, this study identifies attributes of community that refer to the composition of community and how its composition informs an interactive basis of social relations that provide a framing from which collective action takes place.

Overall, attributes of community that residents in Sedgefield and Wadebridge emphasise are: (1) distinct resident group identities (lifestyle migrants versus longer term residents and residents of different race and ethnicity); (2) interests around collective action that are different and can conflict; (3) differential ability and power to influence and affect change; and (4) lack of trust of other resident groups. Other attributes of community highlighted in this chapter relate to one of these aspects. Lifestyle mobility for example in part explains the presence of distinct resident group identities in study sites.

The findings of this chapter present a theoretical and empirical contribution to community resilience research by demonstrating that a new way of conceptualising community to inform resilience theory is needed. It is understood that many ethnographic studies in anthropology have historically problematised community in terms of division, conflict, distrust and inequality. Yet still, in emphasising social difference, power relations and the more fluid and divisive nature of community that informs social relations between different residents, the attributes presented here in this study make community different to typical conceptualisations of community in community resilience research. Community is not static, singular or depoliticised and does not form a cohesive whole as dominant interpretations of community in analyses of community resilience are often portrayed.

The findings of this chapter also demonstrate that the nature of community is changing. What is particularly novel about the approach to community here is in showing how lifestyle mobility is one social demographic change that is reshaping community and is influencing the way in which different and often contested interests and power relations around collective action are privileged in place. As a result, this study suggests that forms of collective action need to pay greater attention to what

community is in the context of community resilience, as existing approaches to community are increasingly becoming no longer viable. This is because they do not recognise the positive and negative impacts of mobility on community and still underrepresent power relations.

Chapter 5 builds on the results of this chapter next to explore how attributes of community play out to enable residents of Sedgefield and Wadebridge to address different types of disturbance and change.

Chapter 5: Collective action and specific and general resilience

5.1 Introduction

Chapters 1 and 2 show that social ecological systems scholars suggest communities would benefit from possessing capacity to promote specific and general resilience (Folke et al., 2010; Walker and Salt, 2012; Carpenter et al., 2012). This is so communities are not optimised to address known, identified hazards (specific resilience), but can also respond to different disturbances including unpredictable forms of shock that have not necessarily been experienced before (general resilience). However, while compelling theoretical arguments are made, these ideas around specific and general resilience are not fully elaborated. Empirical understanding of how collective action relates to general resilience is not clear. Nor is whether actions enhancing a community's resilience to one type of disturbance supports community capacity to address other changes.

This chapter enriches community resilience research by responding to the gap in analysis around the relationship between collective action and specific and general resilience. It tests the assumption that the way in which collective action relates to general resilience may be different to specific resilience. As more is currently known about specific resilience than general resilience, this chapter examines whether contemporary collective action is more supportive in building specific resilience compared to general resilience. This chapter also investigates whether undertaking collective action in one area of resilience means that collective action in another will be undertaken. To achieve this objective, this chapter analyses empirical evidence from Sedgefield and Wadebridge to address the question: What is the function of collective action for community resilience? Is different collective action required for building general resilience compared to responding to a specific hazard?

This chapter is structured as follows. Section 5.2 explores how contemporary collective action operates in Sedgefield and Wadebridge most of the time to address specific resilience. This includes analysis of how capacity for collective action is promoted, the benefits of action distributed and its implications for conferring community resilience. Section 5.3 examines the relationship between collective action

and general resilience in each study site. It also discusses the consequences of this analysis for collective action and community response to different types of disturbance and stress. Section 5.4 focuses on additional conditions affecting collective action and general resilience, both positively and negatively. Section 5.5 summarises findings and concludes the chapter.

5.2 Collective action and a community's specific resilience

5.2.1 Incomers and collective capacity

Collective action is prevalent in Sedgefield town and in Wadebridge. Chapter 4 shows this is because upon relocating to each locality to retire or for other lifestyle purposes, incomers typically self-organise around shared interests that enables them to build bonds and trust in a new place and build their sense of community. Many of the interest groups incomers set up and engage in relate to different aspects of specific resilience. Specific resilience is conceived of in this study as ability to respond to one or more known hazards or risks (Folke et al., 2010). Examples of specific changes that incomers in Sedgefield perceive affect them and which they form collective action around include flooding (Box 5.1), water catchment management, biodiversity conservation and disaster risk. In Wadebridge, incomers also form collective action around conservation, as well as renewable energy (Box 5.2) and sustainable agriculture.

The Flood Action Committee formed following a major flood that severely affected residents living in The Island in Sedgefield in 2007. During this flood over 300 residential properties and nine key tourist business areas were damaged. The collective action group is informal and was founded by two residents of The Island. It is now has six core members whose primary aim is to raise awareness around flood risk in Sedgefield. The group has established an early warning system that in the event of another flood, members would contact residents to inform them of the situation. The group has also established strong links with local government that is responsible for Sedgefield, with the group's early warning system forming part of the disaster

management plan of the greater Knysna area. Members also have a good relationship with SanParks, the institution responsible for opening the mouth of the estuary in Sedgefield to minimise flood risk when necessary.

Box 5.1: Information about the Sedgefield Flood Action Committee.

The Wadebridge Renewable Energy Network, commonly referred to as WREN, was established in 2011 as a not-for-profit community energy cooperative. The group started when the coalition government in the UK in 2010 promoted the uptake of renewable energy projects, which founding members of WREN perceived could address economic and social issues in Wadebridge. The group has 12 core members, 12 Board members and around 1100 wider members who pay £1 to become a member. The long term goal of the group is to develop a large scale community owned energy generation facility for solar and wind energy. In being community owned, the profits go back into the community rather than to an investor outside of the UK. Activities of WREN include free insulation for residents of Wadebridge and its surrounding parishes to help lower fuel poverty; support with solar panel installation; public awareness and education on renewable energy, climate change and a low carbon economy; and its Community Fund that has distributed financial assistance to over 80 local voluntary and community projects. As a result of WREN's activities, Wadebridge was named as the area in the UK with highest penetration of PV in 2015.

Box 5.2: Information about Wadebridge Renewable Energy Network (WREN).

The collective action organisations incomers drive around specific resilience form a configuration of collective action in each study site that is represented in figures 5.1 and 5.2. Based on key informant interviews with participants of collective action, figures 5.1 and 5.2 show the structure of collective action in each locality, and what contemporary collective action looks like most of the time. Figures 5.1 and 5.2 show that different collective action organisations targeting a range of diverse interests related to specific resilience are operational. These organisations are discrete, which

means collective action groups do not overlap in terms of shared interests as each group has its own vision and set of objectives tailored to its specific purpose.
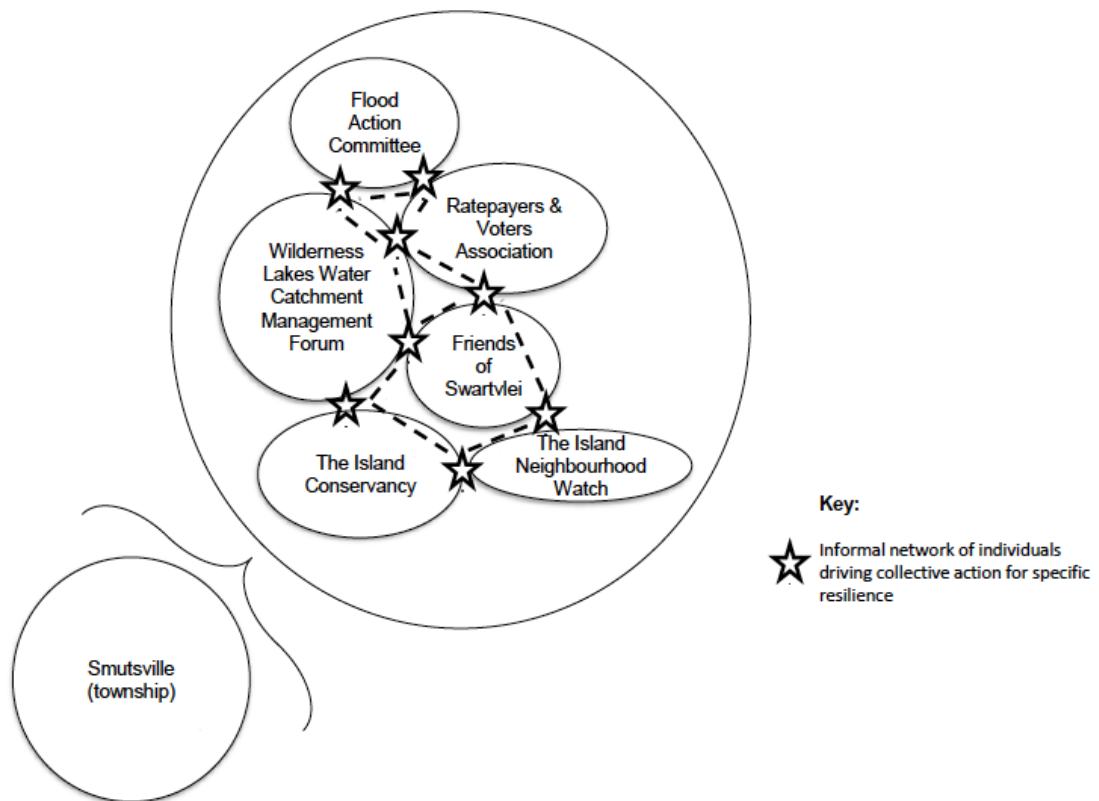
Figure 5.1: Collective action promoting specific resilience reinforces division between discrete resident groupings in Sedgefield.
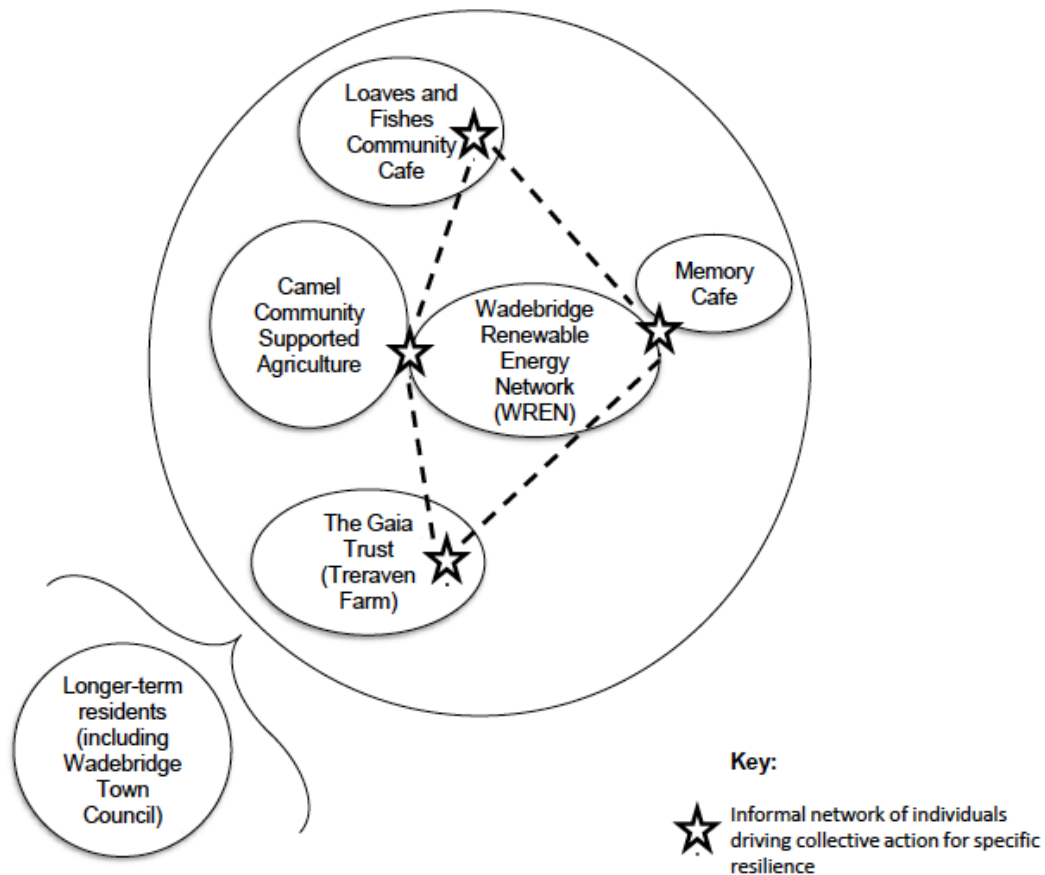
Figure 5.2: Collective action promoting specific resilience reinforces division between discrete resident groupings in Wadebridge.

Figures 5.1 and 5.2 also show that although collective action organisations do not overlap, certain individuals within them do. These incomers are represented by the black stars in figures 5.1 and 5.2. They both initiate collective action as well as drive the activities of existing collective action groups that they are involved in. In doing so, incomers form a group of residents in each study site who manage collective action and who therefore play an important role in shaping how collective action plays out.

All participants of collective action interviewed for this study agree that the group of incomers offer a range of competencies that contribute to collective action. As Chapter 4 emphasises in its analysis of community, the knowledge and expertise incomers bring with them in moving are assets they have accrued from their different

backgrounds and careers that are useful. They help build the capacity of the collective action group incomers are involved in, and support promoting a collective level of resilience at the level of the collective action group.

For example, specialist knowledge in engineering is one type of expertise that many incomers involved in collective action possess in Sedgefield. In this instance, Richard, Chair of a collective action group, reflects on members of the Flood Action Committee, who prior to moving to Sedgefield were civil engineers.

> *"If talking about flooding and what is the right level to break the mouth open, there are people on that committee who are hugely knowledgeable."* (Richard, Sedgefield, interview 14, 14th September 2016)

Incomers interviewed for this study also emphasise that they have access to different contacts and social networks that are useful for collective action, some of which can be quite influential. Roger, an incomer in his 50s illustrates an exceptional example of this in Wadebridge, in speaking about the former Chair of the collective action organisation he is a part of.

> *"I also think we've been effective because we were led by Peter who has been an excellent ambassador for us. He's eloquent, well-known and well linked so that's given us a national presence in terms of his work with government."* (Roger, Wadebridge, interview 9, 17th May 2016)

However, incomers typically understand that they do not only build collective capacity at the level of their collective action group. They also build a collective level of capacity across the part of the community in which their organisations operate through the informal network they represent, which also supports promoting a collective level of resilience.

An informal network of collective action is evident in Wadebridge and Sedgefield and is represented by the dashed black lines joining the stars together in figures 5.1 and 5.2. In addition to driving discrete collective action organisations focused around specific resilience, many incomers share that they are also active members of other

groups or forms of collective action built around different community activities due to their own interest in taking part in them. Incomers wear different hats in different circumstances, indicating they possess quite fluid attachments relating to collective action that helps connect the different activities happening in the community together.

For example, Sean explains how connections between different collective actions commonly operate in Sedgefield town, using his own experience as an incomer and a participant of multiple collective action groups as an illustration.

> *"I'm in the Water Forum and I report on the actions of what's happening in the Water Forum to Ratepayers Association executive committee as I'm also involved in that. So you get a sort of informal feedback to other organisations. It's the same with John who will probably be able to inform his Island Conservancy with what's happening in the Water Forum. So we've got those linkages, but it comes quite informally through individuals involved rather than any formal linkage between the groups themselves. We also tend to hear what the mutters are around in the community and so we also feed that back to the relevant organisation."* (Sean, Sedgefield, interview 6, 2nd September 2016)

The interactions between participants of collective action and other residents in Sedgefield town that Sean refers to matters. This study suggests they enable incomers involved in collective action to act in ways that are similar to knowledge brokers or informal shadow networks (Olsson et al., 2006; O'Brien, 2011). This means incomers act as conduits linking channels of communication, expertise, collaboration and trust that have developed between them over time, as well as with other residents living in Sedgefield town and The Island who are not involved in collective action. Sean alludes to the fact that certain incomers engaged in collective action like himself provide a vehicle through which other people's concerns can be heard, suggesting certain incomers are trusted by other residents.

Scott, another participant of collective action who moved to Sedgefield to retire nine years ago, also articulates the widespread belief, that the structure incomers engaged in collective action put in place enables information about different risks to be shared with a wider collection of residents living in Sedgefield town.

"The network is very strong and very effective. Prime example recently is that crime is on the increase. There's been three incidents over the weekend. Half the community are already talking about it." (Scott, Sedgefield, interview 8, 13th September 2016)

Sean and Scott's comments illustrate that the informal network that incomers create, and through the discrete collective action groups they drive, provides a central mechanism for community problem-solving. This supports residents in Sedgefield town and The Island to work together in responding to change, as residents understand it forges a bank of capacity and a strong basis of collective action and agency that can be drawn upon in different circumstances. The ability of incomers to enhance their social capital and foster collaboration and trust through established forms of collective action is therefore important.

However, incomers driving collective action for specific resilience are one type of resident in Sedgefield who form one part of the community, as they do in Wadebridge. Yet they are not the only type of resident or part of the community in place.

Figure 5.1 demonstrates that collaboration and trust is formed in Sedgefield through incomers managing discrete collective action organisations focused on specific resilience and serving as links connecting different actions together. Yet developing collaboration and trust in this way occurs between incomers who are participants of collective action and other residents who live in Sedgefield town and The Island. Key informant interviews with participants of collective action highlight that conditions of collaboration and trust do not apply to residents of Smutsville, the "township" in Sedgefield, which this study indicates in figure 5.1 by their position outside of the collective action dynamic. This is significant, as this chapter demonstrates that it is the interaction between distinct resident groupings that influences how collective action plays out to address different types of disturbance.

Section 5.3 shows that general resilience, understood in this study as a community's ability to respond to different disturbances, including unpredictable forms of shock (see Box 2.1) requires a shift in intracommunity dynamics and social relations so that distinct resident groupings in Sedgefield and Wadebridge can come together to

address adversity. Residents understand that changing their thinking around how residents work together, and fostering collaboration and trust in light of contested preferences and power relations is important if general resilience is to occur.

Although less well established in Wadebridge with fewer links identified, figure 5.2 shows that collaboration and trust is also fostered between participants of collective action, who are also predominately incomers. Valerie reflects the general impression that collaboration and trust is fostered between members of established collective action groups, who interlink to create a network around the actions they undertake, using her own experience to illustrate this perspective.

> *"We do take action on other issues in the community, but not so much like a Treraven team collaborating. It's more that it's the same people involved in different projects across Wadebridge that come together to work on different things. These different projects are building trust all the time and also the knowledge of what different people's skills are. So the more we are working on projects in different combinations the stronger it is."* (Valerie, Wadebridge, interview 13, 12th May 2016)

Valerie is a resident of Wadebridge in her 30s who was born in the town and runs a collective action group.

Developing trust and an ability to work together outside of people's immediate collective action organisation is occurring between certain individuals in Wadebridge. Yet it does not typically expand to reach or include the broader community. This includes not only Cornish residents who were born and grew up in the Wadebridge area, but also other incomers working on different community interests. The way in which social capital and trust is formed between participants of collective action contributes to other Wadebridge inhabitants typically perceiving that current forms of collective action foster a culture of competition rather than collaboration, which many residents feel is problematic. It is understood to hinder collaboration and the ability of different residents to come together and share resources and build trust as Vanessa, a long-standing resident of Wadebridge highlights in expressing a common view that collective action can divide residents.

"There isn't a great deal of cohesion with things…I think it's time to build relationships and trust. People feeling able to share without a feel of competition or threat. We have to remember that we're probably stronger together." (Vanessa, Wadebridge, focus group 2, 8th April 2016)

In summary, and to conclude this section, figures 5.1 and 5.2 show that participants of collective action in Sedgefield and Wadebridge are predominately incomers, who build collective capacity and a collective level of resilience through the collective action organisations they are a part of that address specific resilience. They also build collective capacity through the informal network of collective action they represent. The way in which incomers are able to build collective capacity is important. It enables a sharing of resources and collaboration and trust to be developed between them, which supports their social capital and ability to work together in addressing known hazards and risks. However, conditions of collaboration and trust are largely experienced between incomers in study sites, rather than between distinct resident groupings that each community consists of. This disparity in who builds capacity and who is able to benefit from collective action for specific resilience is important. As section 5.3 explores, this is because forms of collective action that change the way residents work together and foster collaboration and trust between inhabitants with distinct identities and interests that can conflict is understood to promote general resilience.

5.2.2 Incomers and individual capacity

In section 5.2.1, Sean, an incomer who manages collective action in Sedgefield, describes that through his role in collective action he is also able to enhance reciprocity and trust between himself and other residents, which empowers him as an individual. This study interprets this finding to suggest that the trust and reciprocity Sean fosters contributes to enhancing his own individual level of capacity, and his own individual level of resilience.

Other incomers interviewed for this study corroborate Sean's point of view, reflecting the common perspective that incomers are able to benefit personally from their

involvement in collective action. For example, Matthew, a retired incomer in Sedgefield living on The Island for eight years understands that his involvement in collective action strengthens his relationship with local government officials and people in other influential public institutions. This is a benefit that other residents who are not involved in collective action do not have. The bonds ascertained through collective action in this instance provide a valuable resource. They enhance Matthew's social relations that feed back into supporting his own individual capacity and his own level of resilience, especially as these networks can be drawn on in other times of need.

> *"I think the important thing is that we know all the other people now, whereas the guy next door here, he wouldn't know anyone in the municipality or other influential organisations in the area. We know all those guys because of interacting with them. We're quite well connected put it that way. If we phoned the municipality now they'd know us. We're not a stranger to them. They would actually listen to us because of our long relationship with them."* (Matthew, Sedgefield, interview 20, 14th September 2016)

Tom from Wadebridge likewise emphasises that incomers are able to develop their own capacity and resilience through collective action. Commenting on a member of the collective action organisation he is involved in, Tom illustrates that this particular individual is able to draw on the networks and trust built up through their engagement in the collective action group to mobilise themselves in other respects and on other issues in the town. For example, the incomer in question is able to spear head other collective action activities and gain support for other positions of influence they now hold within the community.

> *"If our activity on a specific issue has helped contribute to overall resilience, then I would say yes, because it's given a number of people a platform to do things from and to then generalise that out into their own social networks. I'm thinking of Sarah who has been able to very active as a town councillor, a political party candidate, and around the skate park and refugee stuff. She's been able to use multiple contacts."* (Tom, Wadebridge, interview 8, 12th May 2016)

Tom is an incomer who moved to Wadebridge to retire with his wife nine years ago from another part of the UK. He has recently been appointed Chair of a collective action organisation in the town.

The above evidence demonstrates that incomers involved in collective action can build their own resilience as well as resilience at the collective level through the collective actions they are involved in. This study suggests this finding shows that building individual resilience and collective resilience happens through collective action. Incomers are able to build their own individual capacity and individual resilience at the same time, and that they are able to do so on the basis of their involvement in collective action in the first place.

The fact that incomers involved in collective action can build capacity at both a collective and individual level is significant. The following sections of this chapter show the capacity incomers possess influences different courses of action, with implications for how different components of resilience are informed.

Overall, in Sedgefield and Wadebridge, the evidence this section presents demonstrates that incomers become empowered due to their involvement in collective action. They are able to build up their own networks and trust, power and agency. This study interprets this finding to suggest that collective action enables incomers participating in collective action to build their capacity and flexibility that other residents do not have the opportunity to do. Certain individuals are able to take advantage of the benefits of collective action whereas other residents are not. The configurations of collective action in figures 5.1 and 5.2 thus provide a capacity for incomers to address change, but not all residents in study sites. This matters, as section 5.2.3 explores next that the way in which collective action for specific resilience operates can reinforce existing resident fractions and distrust, by incomers able to affect the results of dispute and how decisions within Sedgefield are made.

5.2.3 Collective action for specific resilience reinforces community division

In demonstrating that collective action for specific resilience provides a capacity for incomers to enhance their resilience, and that incomers are able to take advantage of the benefits of collective action whereas other residents are not is particularly salient given the structure of collective action in Sedgefield. Figure 5.1 shows that collective action is distinctly split across demographic divisions of class and ethnicity.

Figure 5.1 illustrates that the residents of Smutsville, the "township" in Sedgefield sit outside of the collective action dynamic. This indicates that Smutsville residents do not actively participate in established forms of collective action supporting specific resilience. This study suggests that the division between distinct resident groupings also portrays a division in capacities for collective action. Different capacities for collective action are available to residents depending on what side of the fragmented community divide they are positioned on. Chapter 4 shows residents understand they have differential ability to affect change due to demographic factors and structural constraints in Sedgefield that together shape existing power imbalances between residents. Incomers are thus able to mobilise collective action in ways that Smutsville residents are not, which this study suggests affects how the benefits of action are distributed and different components of community resilience conferred.

Data from key informant interviews with participants of collective action show that collective action can play out to reinforce the fragmented community divide. An example of this is shown by how the same incomers driving collective action in figure 5.1 also engage in more spontaneous forms of action to stop new developments posed by outsiders from taking place in Sedgefield. New development is a known risk to incomers in Sedgefield that is becoming more recurrent. Particular incomers in this instance are able to mobilise action that is congruent with their own discrete interests. This is in part due to the capacities they can draw on, some of which they have built up through their involvement in collective action promoting specific resilience as section 5.2.2 presents.

Not all residents in Sedgefield however share the same views on development and not everyone is able to contest collective action they do not want. The divide in capacity for collective action between different residents in Sedgefield and how capacities are used to achieve results that incomers care for is illustrated by Tim.

> *"That's one of the strengths of the white community here. They can mobilise legal resources like it's going out of fashion. Writing reports, putting on petitions, fighting at the highest level. So they couldn't build with 40 jobs down the drain because of butterflies…Yet you have another group of people who are vulnerable and need work, but they can't fight at that level. So I would say that*

there are resources from a positive perspective and there are many that give their resources to the less fortunate. But you also have at any time, if some sort of development wants to take place, they've got resources to deal with it and kick it to the curb. And so depending on the development they want, they'll accept. If they don't like it they don't…For the have's they want to stay in control of what's happening and keep things the way they are. And for the have nots, they want to see change." (Tim, Sedgefield, interview 9, 22nd September 2016)

Tim is from the Sedgefield area and used to represent Smutsville in community meetings in Sedgefield town. Tim's perspective emphasises the substantive view of township residents. This is that incomers are able to influence the outcome of disputes that align with their own interests, thus affecting how decisions within Sedgefield are often made.

Tim's comment shows that incomers take action according to how they perceive different risks, and that while collective action may be beneficial for them, it is not for Smutsville residents. Here, it is incomers who perceive new development to be a threat to biodiversity and conservation and hence do not want development to take place. Yet the residents of Smutsville see new development as an opportunity for job creation which many residents desire as unemployment is prevalent in Smutsville as Chapter 4 highlights in its examination of attributes of community.

This study interprets the way in which collective action plays out in response to new development in Sedgefield shows that collective action for specific resilience can be socially differentiated in its benefit and effect, with an equity dimension to the relationship between collective action and specific resilience in Sedgefield. There is a divide between incomers who influence collective action and are able to impose their dominant interests and shape action based on their knowledge, power and self determination to withstand external forces. Yet there are also those who are not, and that this divide in ability to take action and affect change can be unequal. This finding also demonstrates the point made in Chapter 4. This is that incomers can use the socio-economic privilege they have to move out of choice to retire or for lifestyle purposes to begin with, to provide them with influence and power privileges in the places that they move to. This is in part due to the skills and networks incomers bring

with them in moving that are reinforced through collective action they undertake in relocating.

The action incomers undertake here demonstrates that collective action can reinforce discrepancies in capacity that maintains the status quo by strengthening distrust and the community divide around "us" and "them" dynamics. As a result, collective action for specific resilience is understood by residents to keep the distribution of its benefits within smaller groups of residents, rather than the benefits of action being more widely and fairly distributed across the community as a more inclusive approach to general resilience demands. Tony, a farmer from the Sedgefield area illustrates this viewpoint, that collective action that limits inclusivity may be detrimental to enabling communities to enhance their resilience longer term.

> *"By looking after their own interests* [i.e. incomers] *they're actually shooting themselves in the foot. I think they need to not make decisions by themselves that are actually hampering them at the end of the day."* (Tony, Sedgefield, interview 10, 15th September 2016)

Tony is one farmer amongst others interviewed for this study that used to be a member of a collective action group in Sedgefield examined in this thesis. He stopped his membership as he believes incomers use the collective action group to address their own personal interests, rather than the collective interest that underpinned the original objective of the organisation.

In summary, participants of collective action demonstrate that the configuration of collective action promoting specific resilience in figure 5.1 can reinforce resident division and distrust. It does not empower all residents to address change as not all residents are included in collective action. In this instance, incomers do not reduce risk for the collective as community resilience theory suggests the concept should do (Kulig et al., 2008; Magis, 2010). Rather they can promote their own preferences and undertake collective action that empowers them to make decisions around disturbance, which benefits them as it strengthens their own resilience. Yet the evidence this section presents shows that collective action does not empower all residents to address disturbance in the same way. It also does not provide an

opportunity for distinct resident groupings to act differently and come together to address change.

Data from Wadebridge also show that collective action can hinder building collaboration and trust between residents with distinct identities. Section 5.3 explores this circumstance next in examining how collective action interacts with specific and general resilience in diverse ways.

5.3 Collective action and a community's general resilience

5.3.1 Individual capacity promotes general resilience

Figure 5.3 shows that residents of Smutsville are now positioned inside the collective action dynamic, rather than outside of it as they are in figure 5.1. This change in placing indicates that in some instances Smutsville residents are included in collective action rather than being excluded from it. Incomers involved in collective action and residents of Smutsville understand that this shift in social dynamics occurs in response to experienced events, including shocks. This is because in the context of conversations with research participants, residents demonstrate that collective action reconfigures to bring distinct resident groupings together to address different types of disturbance.

An example of this more inclusive approach to collective action is illustrated by Sally. Sally is a long-term resident of Smutsville in her 60s who lives with her family. She comments on the collaboration between township residents and incomers after a recent fire took place in Smutsville that burnt down a significant number of dwellings.

> *"It was amazing how many white people came and supported the people in need."* (Sally, Sedgefield, focus group 1, 19th August 2016)
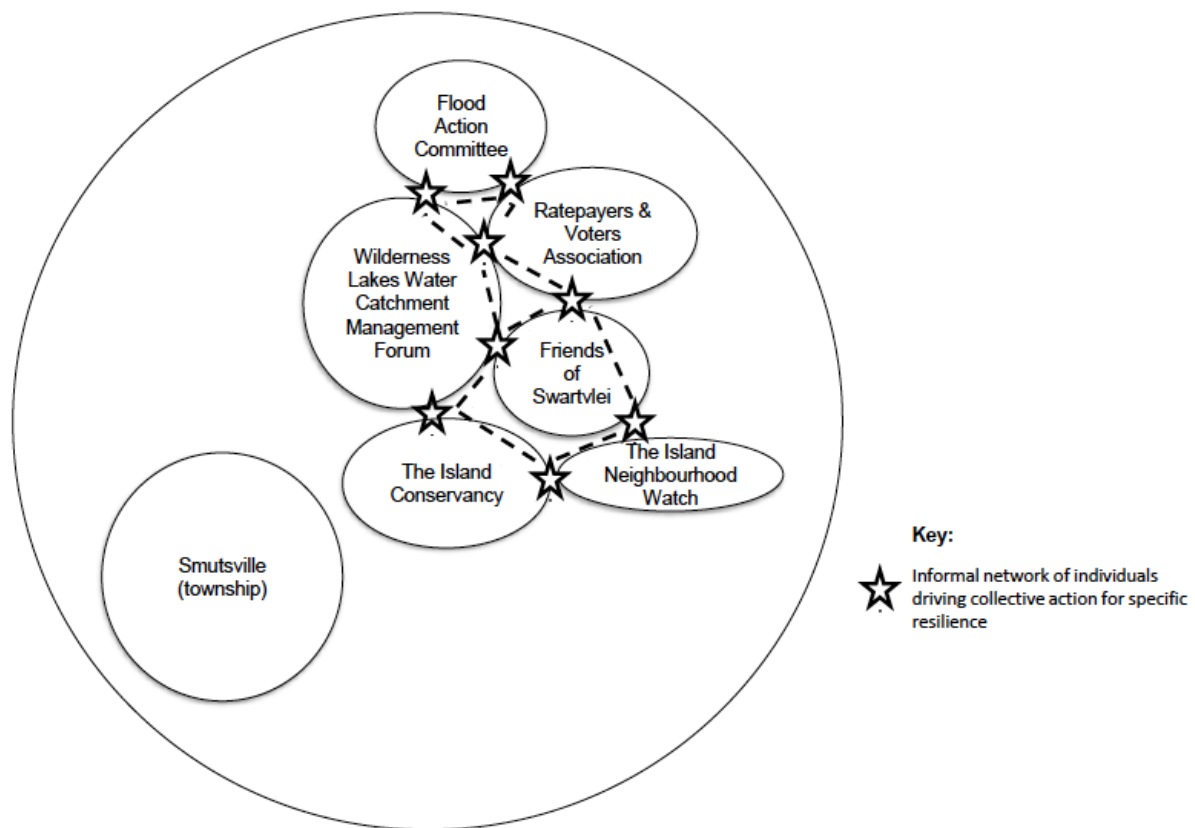
Figure 5.3: Collective action reconfigures to bring distinct resident groupings together to address different changes in Sedgefield.

Sally made her statement during a focus group in response to the question, "what are good things that should not change about your community?", highlighting the positive aspects that can come out of stress and disturbance. Sally's comment demonstrates a typical view of residents in Smutsville, that distinct resident groupings can come together to address disturbance. This is because collective action reshapes to transgress the fragmented community divide, rather than reinforce it as section 5.2 shows collective action for specific resilience can do. Scott, a retired incomer involved in collective action in Sedgefield town expresses a similar viewpoint to Sally. He illustrates a common understanding in Sedgefield, that distinct resident groupings can overcome division and act collectively.

> *"Whenever there's an emergency on either side of the fence, people will come and cross it."* (Scott, Sedgefield, interview 8, 13th September 2016)

Another example of collective action facilitating collaboration between distinct groups of residents in Sedgefield is shown by how residents came together in 2015 in response to a series of xenophobic attacks. The xenophobic attacks that took place are an example of an unexpected shock that neither residents of Sedgefield town or Smutsville had experienced before. Those residents from Smutsville who were affected by the attacks were cared for in a safe space in Sedgefield town until the attacks ceased. This included the Town Hall and residents' own homes, as Stewart, an incomer with his own business in Sedgefield illustrates.

> *"During those xenophobia attacks a few years ago, people in town jumped in and helped by getting involved and giving places to stay."* (Stewart, Sedgefield, focus group 4, 1st September 2016)

This study suggests that the way in which collective action reconfigures in Sedgefield, where distinct resident groupings come together to act and share resources in response to shocks and other disturbances that arise, whereas in other instances they do not is advantageous. This is because collective action reconfigures to positively affect people's ability to address sudden events and surprises not expected or experienced before. Residents of Sedgefield and Smutsville understand that the benefits of collective action in this instance are more widely and fairly distributed across demographic divisions. This is because collective action is understood to support more residents in study sites to better respond to a range of disturbances then they could do alone.

For example, the way in which collective action reconfigures in Sedgefield is shown to support the right resources being available at the right time, enabling residents of Smutsville to address the shocks and sudden events faced. In response to informal settlement fires and xenophobic attacks, collective action reshapes to enable Smutsville residents access to the immediate material resources they required, such as food and shelter, as residents from Sedgefield town supplied them.

In reconfiguring, collective action also has a positive impact on building people's capacity to address different types of change, such as by enhancing people's networks

and social relations. Sandra, a resident of Smutsville in her 50s who runs her own business highlights this viewpoint, which is shared by other members of the township.

> *"It enriches our lives and we get to know other people as well, even outside, so we know who to go to if something like this happened again."* (Sandra, Sedgefield, focus group 1, 19th August 2016)

Shaun from Smutsville also emphasises a common view, that the way in which collective action reshapes to enable bonds and trust to be built between distinct resident groupings is valuable. This is because collective action supports residents who do not typically trust each other to work better together over time.

> *"If you look at the disaster we had three or four months ago, the response that we had from people in the Sedgefield community, that stuff made an impact. That's stuff that no one really expected but it happened. Building that trust. If you could build that trust, I think things will go better."* (Shaun, Sedgefield, scenario workshop 4, 4th November 2016)

Shaun is retired and has lived in Smutsville with his family for over 30 years. He is part of various community groups in the township.

Finding opportunities for residents with distrust and distinct identities to work together is important, as Sedgefield and Wadebridge are fragmented communities. Developing a shared history of acting collectively in ways that reorientate residents towards each other, rather than keeping them apart, strengthens their social relations and promotes trust, which residents understand community resilience requires. The ability of residents with distinct identities to come together and build trust in Sedgefield is particularly pertinent given the history of South Africa, where communities are deeply divided due to the identity of different racial groups.

In demonstrating that collective action reconfigures to bring resident groupings together to address shocks and different disturbances, the finding shows that the collaboration and trust fostered between incomers in Sedgefield town in figure 5.1 is

here extended to reach Smutsville residents. The way in which collective action operates in figure 5.3 is therefore different to figure 5.1.

In figure 5.1, the form of collective action does not enable Smutsville residents to build their capacity to respond to disturbance. This is because collective action promoting specific resilience keeps residents divided and focuses on individual interests that enhances incomers' capacity to prepare for and address known risks and hazards. In figure 5.3, residents understand collective action reconfigures to promote collaboration and an increase in density of trust , with collaboration and trust shown to reach more residents in Sedgefield overall. In bringing different residents together, the form of collective action in figure 5.3 also increases the agency and ability of Smutsville residents to respond to shocks and stress as they arise, which they could not do on their own. Residents perceive the way collective action reconfigures from figure 5.1 to figure 5.3 is therefore important. It changes the way residents think about working together and promotes a cumulative process from which residents can build capacity and trust to act collectively over time.

Based on the context of conversations with research participants, figure 5.3 represents analysis of participants of a form of collective action that they understand supports their general resilience. Figure 5.3 shows that a community as conceived by residents in Chapter 4, comprising of an interacting set of distinct resident groupings with identities and interests that can conflict, are able to interact so that a greater number of residents can more positively respond to shocks and surprise events. This study interprets this finding to suggest figure 5.3 illustrates an example of how residents in Sedgefield and Wadebridge can shift intracommunity dynamics, so that interactions with others who are unfamiliar and considered distinct to themselves can occur in response to resilience.

Figure 5.3 also illustrates the means through which collective action reconfigures in Sedgefield to bring distinct residents together to address shocks and other disturbances. Participants of collective action frequently perceive that it is certain incomers who enable collective action to play out differently in this instance, with the black stars in figure 5.3 representing these individuals.

For example, Nick is an incomer and leader of a collective action group in Sedgefield. He illustrates the common view that it is particular incomers who reconfigure collective action that brings distinct resident groupings together to address different experienced events and surprises as they arise.

> *"We don't have a menu so we can't say, oh that issue must go to so and so and that's how they'll respond to it. We're very much a seat of the pants situation. Bring the problem to us and we'll find the solution. We'd like to think we've got people who are committed and will assist and support. And that's our strength. It's done as individual people. As a community organisation, it's not our responsibility."* (Nick, Sedgefield, interview 24, 26th October 2016)

Nick emphasises that by particular incomers acting in ways that provide support and assistance to Smutsville residents, these individuals do not act in ways that represent a collective action organisation that they are involved in, nor do they represent other incomers that live in Sedgefield. Rather participants of collective action perceive it is the individual capacity of particular incomers, and their individual interactions and networks that shift community dynamics to promote collaboration and a sharing of resources that enables distinct residents to come together and build trust.

In response to questions about how collective action and community resilience relate, evidence from Wadebridge also illustrates that it is individuals and individual capacity and interactions that promote ability to address shocks and other disturbances, rather than collective action organisations themselves and their social capital. John demonstrates this typical viewpoint when asked how the community in Wadebridge can respond to changes they face both now and in the future, including those that are harder to predict and prepare for.

> *"I'm not sure it would be WREN as such acting as WREN, but I think the people I know there would be the people that would roll their sleeves up. I do think something would come together and it would be made up of people pushing it from different places."* (John, Wadebridge, interview 7, 6th May 2016)

Overall, participants of collective action perceive it is particular incomers who drive collective action promoting specific resilience in figure 5.1, who here mobilise their

individual capacities and networks established between individuals differently, to change the way residents interact. Some of these capacities and networks are those that incomers have built up on the basis of collective action promoting specific resilience, which section 5.2.2 illustrates empowers them as individuals and provides them with the flexibility and capacity to adjust their behaviour and express their agency differently here.

This study interprets this finding to suggest that the way collective action reconfigures in figure 5.3 is therefore based on particular incomers acting voluntarily and out of their own choice, ability and willingness to do so. In Sedgefield, incomers do not necessarily have a shared experience of risk with Smutsville residents, as different residents in Sedgefield are exposed to different shocks and stresses depending in what part of town residents live. Yet particular incomers choose to change the composition of their networks and draw on their individual capacities in order to work with residents considered distinct to themselves at different periods of time. Thus it is individuals who are perceived to change the way residents act collectively, which adds to understanding around general resilience and how it can be conferred. Scott, a member of various collective action groups in Sedgefield demonstrates this point, which other incomers concur.

> *"Whether it's water, or whether it's fire, or whether it's a drought, or whether it's even xenophobia, which is another major threat, or a health outbreak that we haven't had, all these things could certainly be addressed. And this would be through the people involved and the structure in place. By structure in place I mean people that have organisational ability and access to the community itself."* (Scott, Sedgefield, interview 8, 13th September 2016)

It is important to highlight that the form of collective action figure 5.3 represents is best considered a simplistic view of collective action that supports general resilience in Sedgefield. This is because the ability of residents in Smutsville to respond to different changes and shape the factors affecting them is still influenced by how particular incomers living in Sedgefield town act. While participants of collective action in Sedgefield town may perceive 'the community' to be resilient overall, in that it has the ability to adapt and respond to different shocks and stresses, the resilience of other individuals and other resident groupings within it vary widely. Collective action

promoting general resilience as understood by residents here does not therefore support the inhabitants of Smutsville to make decisions that affect their own lives. Smutsville residents are still dependent on incomers to help them address different types of adversity. Conditions of collaboration and trust enabling general resilience in this instance do not fundamentally change underlying inequalities and power asymmetries that generate and perpetuate risk that Smutsville residents understand inhibits their ability to address disturbance to begin with.

In addition, this study interprets the results of the analysis to suggest that collective action for specific and general resilience can present an inherent trade-off within fragmented communities. If collective action promoting specific resilience is typically catered to, then in study sites this means that an opportunity for distinct resident groupings to come together and enhance social relations that builds trust which residents understand promotes general resilience is limited.

In sum, this study suggests that the prominence of individuals and their networks and capacities in shaping collective action is significant. This chapter enriches the view of community resilience put forward by Norris and colleagues (2008) presented in Chapter 2. The authors posit that community resilience is conferred via an integrated set of linked capacities. Community resilience is thus an emergent property that is shaped by interactions between different capacities that influence the way in which resilience occurs (Faulkner et al., 2018). This chapter adds to this perspective of community resilience to show collective action interlinks different capacities and configurations of networks through incomers, which enables different components of community resilience to emerge. Collective action builds up capacities in individuals both through the specific collective action organisations they are a part of and through the informal network of collective action they represent. This supports individuals to adjust their behaviour and promote different constituent components of community resilience in diverse ways.

The role of individuals in promoting specific and general resilience this chapter suggests is also important, as it challenges existing assumptions made by community resilience scholars around the nature of capacity for community resilience. The definition of community resilience as conceived in this thesis suggests that community

resilience is a consequence of a community deliberately building its collective capacity (Magis, 2010; Berkes and Ross, 2013). This is different to this chapter's observation on individual capacity and how networks established between individuals reshape to enable general resilience to emerge.

This chapter emphasises that specific and general resilience are not therefore distinguished by two distinct forms of collective action group tailored to each constituent component of community resilience. Nor are they differentiated by an arbitrary set of capacities. Expertise, social networks, collaboration and trust are useful in promoting both specific and general resilience. Yet they can act as a bridge or a barrier to different constituent components of resilience depending on the way they are mobilised.

This chapter thus highlights the influence of power, which still remains underrepresented in community resilience research (Wilson, 2017). Incomers are influential as they act as catalysts of collective action. Yet it is also incomers who are able to shape the direction of collective action and how different residents respond to shocks and stress as a result of their capacities and networks that demonstrate their resources and power.

5.3.2 Discrete collective action for specific resilience promotes general resilience

In Wadebridge, collective action promoting specific resilience also reconfigures to bring different resident groupings together to address change, which participants of collective action understand helps build capacity for general resilience. Residents of Wadebridge have not experienced the range of disturbances that inhabitants in Sedgefield have to date. The extent working better together does promote general resilience is not tried and test as such. Still, collective action that enables residents to act together and share resources and build collaboration and trust is understood to aid more residents in Wadebridge overall to better respond to different types of change that residents understand their general resilience requires. This is because by enhancing social relations and sharing resources, the benefits of action can be more

widely distributed, enabling more residents to address disturbances, including those unfamiliar and more novel.

John demonstrates in section 5.3.1 that participants of collective action in Wadebridge perceive it is predominately individuals who would drive response to different types of disturbance, rather than collective action organisations themselves. Yet data from Wadebridge also show that collective action can reconfigure to bring residents with different interests and identities together, promoting capacity for general resilience through another way that is not the result of incomers mobilising their individual capacity. In Wadebridge, collective action is shown to reconfigure through an activity of a discrete collective action organisation that acts as a catalyst to join residents together.

WREN's Community Fund is an activity of the collective action organisation that provides financial support to community activities in Wadebridge and its surrounding areas. Figure 5.4 presents an example of the St Breock Wind Farm Community Benefit Fund, initiated in 2016 with a total net value of £50,000. The fund is linked to the St Breock Wind Farm that is located on the outskirts of Wadebridge. As part of a legal agreement between Local Authorities in the UK and developers, the developers of the wind farm have to make a positive contribution to the community in order to reduce their impact on the local area. The Community Fund forms part of the St Breock Wind Farm legal agreement.

Based on key informant interviews with participants of collective action, figure 5.4 shows the fund supports a range of initiatives in Wadebridge. These cover environmental, socio-economic and educational pursuits as per the funds constitution,as well as community events such as Bike Lights[5] and the Wadebridge

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[5] Bike Lights is a popular annual community event. It is an evening procession that sees residents of Wadebridge and its surrounding parishes ride illuminated bicycles through the town. Each year participants have to decorate their bicycles in accordance with a theme. In 2017 the theme was Minibeasts.

Carnival.[6] Local groups or individuals driving community events can apply for funding for a specific activity, with the fund's committee deciding who receives financial assistance by majority consensus.
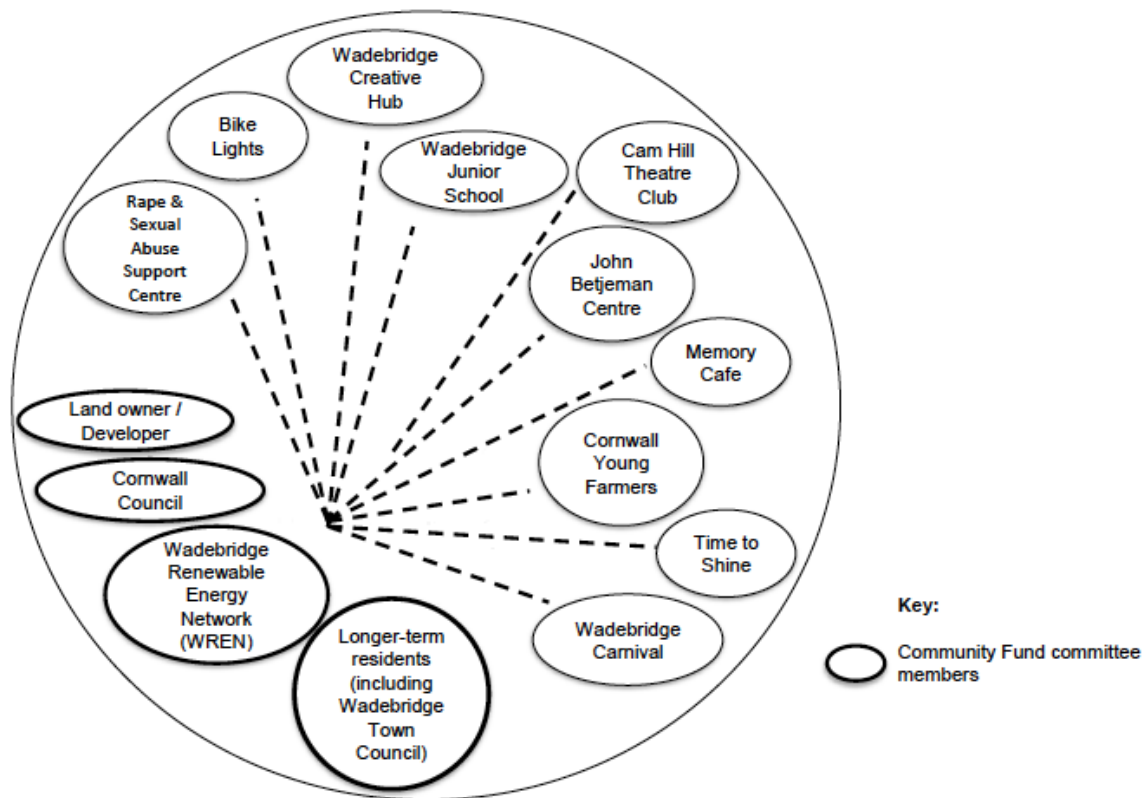
Figure 5.4: Collective action reconfigures to bring distinct resident groupings together to address change in Wadebridge.

Figure 5.4 shows that the St Breock Wind Farm Community Benefit Fund is administered by a committee consisting of four representatives, whose main purpose is to distribute the fund. These four representatives are positioned next to each other at the bottom left of figure 5.4. They consist of a relevant parish or town councillor; an

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[6] The Wadebridge Carnival takes place every year during the summer. It is a typical carnival comprising of a parade of floats and moving entertainment for residents to take part in and watch. There is also a firework display.

elected Cornwall Councillor for the area; a representative of WREN, who is Chair; and a shared representative of the land owner and developer.

Figure 5.4 illustrates that collective action reconfigures to strengthen existing action in Wadebridge and promote collaboration and trust between residents, rather than collective action fostering an environment of competition and division as in figure 5.2. Roger expresses the general understanding that the benefits residents gain from the way in which collective action reconfigures is not just financial. While funding is useful for the collective action groups and activities that receive it, WREN's Community Fund provides a mechanism that provides positive feedback to the community. It is perceived to help residents to work better together by strengthening existing relationships and promoting a greater sense of collaboration and cohesion, conditions participants of collective action believe promote capacity for general resilience.

> *"Financially, no disrespect to the amount of money, but in times of real need or disaster it wouldn't change the world. More important is the enhanced relationship and people working together in partnership rather than in competition. It* [WREN's Community Fund] *knits the community together for those that want to be knitted together."* (Roger, Wadebridge, interview 17, 24th May 2016)

Strengthening existing relationships between residents in Wadebridge and enabling local activities that different residents want, is also commonly perceived to enhance trust between different resident groupings, as David illustrates, with trust another key condition believed to support general resilience.

> *"It's the same with WREN. They've proven themselves through encouraging community activities to grow so when they do send out emails I do actually open mine and read what they do. I listen to what they're saying."* (David, Wadebridge, focus group 4, 13th April 2016)

David's viewpoint illustrates the general impression that WREN's involvement in the Community Fund has changed people's perceptions of them as a collective action organisation. Other residents have more confidence in them, as through the Community Fund WREN support community activities already established which are

of interest to more residents in the town. This is different to how WREN was previously perceived. Incomers running the collective action group were seen to influence action around their own interests, which long-standing residents in particular did not like as Roy demonstrates in discussing the Neighbourhood Plan (Box 5.3).

> *"The Neighbourhood Plan has been going on for years. It still hasn't got together but the frustrating thing is that it's been dominated by certain interest groups where they've been very unwilling to listen to one another or compromise. And there are certain organisations that have been particularly a problem here that have been so focused on their particular interests that they've not been willing to look at the broader picture and the interests of other people."*
> (Roy, Wadebridge, focus group 5, 20th April 2016)

The Neighbourhood Plan is a community planning process that forms part of the UK government's Localism Act. Its purpose is to give communities direct power to develop a shared vision for their community and shape the development of their local area by producing a community plan that specifies how future development is to proceed. Communities are able to set planning policies through their Neighbourhood Plan that can help determine planning applications. The Wadebridge Town Council facilitated the first public consultation of the Neighbourhood Plan with residents in 2012 to 2013, with the second consultation taking place in 2018.

Box 5.3: Information on the Neighbourhood Plan **(**MHCLG, 2014)

As different resident interests affected the development of the Neighbourhood Plan in Wadebridge, residents typically perceive that an opportunity to build capacity for general resilience was hampered. Wendy illustrates the common view that this is because residents were not able to overcome their division and act collectively.

> *"This community is suffering when things start to happen which make it very difficult for the community to pool together. I mentioned earlier about the Neighbourhood Plan. We don't have this plan and as a result all these developers are circling like sharks around the edges of Wadebridge and because of the way the planning rules and regulations work, quite a lot of them are going to get what they want. But in the meantime, lots of people in town are saying we don't want it or we don't want it in this way, you know, we need more*

affordable housing but on the other hand we don't need more of this. We need to work together if we are going to try and get what we want." (Wendy, Wadebridge, focus group 2, 8th April 2016)

Chapter 6 explores the Neighbourhood Plan in further detail in examining collective action and transformative capacity, defined in this study as a community's ability to envisage and plan for the future.

Figure 5.4 shows that in Wadebridge, individuals with different and contested interests who conflict in some circumstances, can come together to collaborate and act collectively at other times. In the example of the St Breock Wind Farm Community Fund, this is shown by the fact that a representative from Wadebridge Town Council is positioned inside the collective action dynamic, and alongside a representative of WREN, rather than outside of it as in figure 5.2 where the form of collective action promotes resident division. The collaboration of representatives from Wadebridge Town Council and WREN, as joint members on the St Breock Wind Farm Community Fund Committee, is particularly pertinent given their previous inability to work together in the Neighbourhood Plan.

In summary, the way in which collective action reconfigures in figure 5.4 demonstrates that collective action in Wadebridge also affects specific and general resilience in diverse ways. Here, collective action starts off as specific resilience as one aspect perceived to support residents respond to change. Yet collective action reconfigures and diversifies into promoting capacity for general resilience through its spread of community funds that brings residents with distinct identities and interests in Wadebridge together to address change, allowing the benefits of action to be more widely distributed. The benefits of collective action do not just include the sharing of financial resources, but importantly the collaboration and trust that is built between residents that is understood to promote capacity for general resilience. Enhancing social relations and sharing resources is perceived by both incomers and longer term residents of Wadebridge to provide a stronger basis from which they can work better together in addressing different disturbances, enabling more residents to address a variety of shocks and stress than they could do alone.

5.4 Additional conditions influencing collective action for general resilience

Participants engaged in collective action in Sedgefield and Wadebridge perceive other conditions also support and hinder collective action for general resilience. Table 5.1 presents these conditions.

Conditions supporting collective action for general resilience	Conditions hindering collective action for general resilience
1. Previous experience of shocks and history of effective community response 2. Regular shocks build collaboration and trust within a community 3. Strong community spirit and good will 4. Place identity	1. Existing weak relationship with local government 2. Structural inequality

Table 5.1: Additional conditions influencing collective action for general resilience in Sedgefield and Wadebridge.

5.4.1 Conditions supporting general resilience

Previous experience of residents in Sedgefield effectively responding to different disturbances is perceived to support people's belief that they will be able to do so in the future. The first condition participants of collective action suggest supports general resilience in Table 5.1 reflects this point. That is, that previous experience of shocks and a history of effective response is beneficial for promoting general resilience.

Participants of collective action in Wadebridge and Sedgefield agree that regular shocks also helps promote capacity for general resilience, as the second condition in Table 5.1 states. The way in which collective action reconfigures for general resilience in study sites reorientates different residents towards each other, and helps build a

shared history of responding to change, which collective action for specific resilience does not do. As this chapter demonstrates, bringing residents together to address adversity and unexpected events is valuable. It enables collaboration and trust to be built between diverse resident groupings who can conflict. Incomers driving collective action in study sites believe regular shocks are therefore useful for enhancing general resilience, as they provide a catalyst that promotes different residents to keep working together.

For example, Wendy, an incomer and participant of collective action in Wadebridge, represents the overall impression that regular shocks support resident collaboration that general resilience is believed to require.

> *"People would join forces but you need a catalyst. If life just goes on you don't enough overlap and enough collaboration. I think it would take some crises before people would really start to join forces otherwise people are quite happy going along doing what they're doing in their separate units."* (Wendy, Wadebridge, focus group 2, 8th April 2016)

Stewart, an incomer in Sedgefield, also expresses a frequent view shared by residents that regular shocks are a positive factor promoting capacity for general resilience. Stewart highlights past critical events in Sedgefield and Smutsville that have brought different residents together to respond to these disturbances. He emphasises that residents work better together under stress as it supports resident collaboration and cohesion.

> *"I think it's almost like Sedgefield needs a regular disaster because that's what really brings the community together. The worst thing that can happen in Sedgefield is to have no disaster for a long time because then people sit back and start complaining. But it's amazing what happens when there is a flood, fire, drought, xenophobia, which was a huge thing a few years ago. It is amazing to see the community pull together."* (Stewart, Sedgefield, focus group 4, 1st September 2016)

Developing capacity to work together is also shown to be important given the lack of infrastructure in Sedgefield to support residents in responding to different risks, as Simon illustrates. There is a certain reliance on each other for support, which again

emphasises that regular shocks are seen as important for general resilience as residents typically perceive they keep this reliance on each other going.

> *"Because we don't have the infrastructure here in Sedgefield, we are reliant on one another. We know that there's not going to be a siren going off to say there's going to be a flood and that the ambulances are going to be queuing up. We know that we've actually got to get in our cars and drive there as in the last couple of floods, get in our canoes and help people out of their homes."* (Simon, Sedgefield, focus group 4, 1st September 2016)

A reliance on each other that Simon emphasises suggests that a level of community spirit and good will exists, as residents do support each other in times of need. Community spirit and good will is perceived to be a consequence of people caring about where they live and about each other, with Chapter 4 also highlighting community spirit as an attribute of community in study sites. The last conditions shown to support general resilience are therefore strong community spirit and place identity, conditions four and five in Table 5.1. Nigel, an incomer, reiterates the strong sense of community spirit incomers commonly perceive in Sedgefield, as Fiona also describes in Chapter 4.

> *"We've been here two years, and the community in Sedgefield is far more than just people living together in this place. For me it is the spirit that describes Sedgefield, because the spirit of community is very strong which in many ways secures the success of so many community actions because there's support. We've never encountered this level of togetherness to make it work."* (Nigel, Sedgefield, focus group 4, 1st September 2016)

Ann also illustrates the frequent perception that community spirit is present in Smutsville. Strong community spirit is understood to support social relations and help residents address different adversities.

> *"There is a lot of problems in our community. But at the end of the day people still care about each other. We assist each other with many things and we support each other when going through issues and that's our spirit. We're part of something."* (Ann, Sedgefield, focus group 1, 19th August 2016)

5.4.2 Conditions hindering general resilience

Previous experience of shocks and a history of effective community response is a condition supporting general resilience in Table 5.1. Yet residents in Sedgefield and Wadebridge also typically perceive that in light of a more uncertain future, where risks may combine in new ways not previously experienced before, the existing capacity of residents to respond to shocks and other disturbances may not be sufficient. More support from local government is likely to be required. Participants of collective action organisations believe local government is however currently a constraint to collective action. Toby, an incomer living in Sedgefield town illustrates this point, which is widely shared by residents in Sedgefield and Smutsville.

> *"The main problem is that Sedgefield moved from having its own support to being tied in with Knysna. I'm not saying the community won't respond without it* [i.e. local government support]. *But if that support was there it would be much more likely to succeed when needed."* (Toby, Sedgefield, interview 23, 19th October 2016)

The first condition shown to hinder general resilience in Table 5.1 is therefore existing weak relationship with local government. Residents in both study sites perceive they have a weak relationship with local government in part due to institutional changes in how local government operates. The management of both towns has shifted from a centralised local government approach to a more decentralised operation, which incorporates a large number of towns in each locality. This change has led residents to believe that Sedgefield and Wadebridge does not receive the support it once did, and that a weakened relationship with local government hinders community development. The relationship between residents and local government in Wadebridge is discussed further in Chapter 6 in examining collective action and transformative capacity.

The last condition Table 5.1 presents as hindering general resilience is structural inequality, which characterises Sedgefield in particular. Structural inequality is significant for understanding the relationship between collective action and general resilience, as its implications relate to the distributional and equity dimension of collective action and its interaction with community resilience that section 5.3

discusses. The attributes of community in Chapter 4, and this chapter's findings on collective action and specific and general resilience, suggest that structural inequality explains in part why Smutsville residents are not able to respond more positively to different shocks and disturbances compared to incomers. Without support from incomers, residents of Smutsville may not be able to effectively respond to different types of change.

Structural inequality is generally perceived by residents in Sedgefield town and Smutsville to act as a barrier for general resilience, especially long term. Participants of collective action commonly understand structural inequality hinders the ability of Smutsville residents to address different shocks and stresses they face, and keeps township residents reliant on resources and support from Sedgefield town, as Scott, an incomer involved in collective action illustrates.

> *"All we're doing is perpetrating problems of the past by giving things and not changing mindsets."* (Scott, Sedgefield, focus group 4, 1st September 2016)

Current approaches to collective action can perpetuate inequality rather than challenge the underlying conditions that generate risk to begin with as section 5.3 states. This finding raises political and ethical questions around the capacity of communities that comprise of distinct inequalities to foster general resilience. As Chapter 7 discusses, it cannot be assumed that incomers who promote collective action for general resilience will necessarily always live in Sedgefield or will always "do the right thing."

5.5 Summary

This chapter presents findings of fieldwork that generate understanding into the relationship between collective action and specific and general resilience from the perspectives of different residents in Sedgefield and Wadebridge. The results address the research question this chapter poses by showing that collective action does affect resilience differently when building general resilience compared to responding to a

specific hazard.

Section 5.2 demonstrates that established instances of collective action promote discrete aspects of specific resilience in Sedgefield and Wadebridge. Collective action in this instance enables incomers, who are participants of collective action, to build their capacity and empower themselves to address known risks and hazards. Yet collective action enabling specific resilience does not provide capacity for all residents in study sites to respond to disturbance, as not all residents are included in collective action and are able to build their capacity. Collective action for specific resilience can thus reinforce existing distrust and division between distinct resident groupings along demographic lines.

Section 5.3 illustrates that the relationship between collective action and general resilience is different, as collective action interacts with general resilience in diverse ways. Collective action promoting specific resilience reconfigures to bring residents with distinct and often conflicting identities and interests around collective action together to address shocks and disturbance not always experienced before. Collective action reshapes to enable a sharing of resources that supports collaboration and trust to be formed between them. In doing so, residents understand that the benefits of action are more widely and fairly distributed across demographic divisions. This is beneficial, as coming together to act enables more residents in each locality to positively address shocks and other stresses than they could do alone.

The results of this chapter are significant. They enrich community resilience research by demonstrating how capacity for general resilience can be promoted and how specific and general resilience can interlink and combine in practice, which resilience scholars seek to identify (Folke et al., 2010; Carpenter et al., 2012; Biggs et al., 2012; Walker and Salt, 2012; Berkes and Ross, 2013).

Participants of collective action in study sites perceive it is predominately individuals who determine how collective action plays out. It is particular incomers who thus play a significant role in enabling general resilience rather than established collective action organisations themselves. This is because it is particular individuals who adjust their

behaviour and change the composition of their networks and capacity at different periods of time.

It is also individuals and their individual capacity and interactions that can interlink responses for specific and general resilience together. As such, this chapter demonstrates that undertaking collective action in one area of resilience does not necessarily mean that collective action organisations will also act and address other components of resilience, as it is individuals who choose to act differently to forms of disturbance. This chapter also demonstrates that collective action does not relate to specific and general resilience independently of each other, but can act in relational ways as a result of how particular incomers take action.

The way in which collective action reshapes to support building capacity for general resilience is important. Residents in study sites understand it also provides an entry point for enabling transformative capacity, defined in this thesis as ability to envisage and plan for the future. Chapter 6 investigates the relationship between collective action and transformative capacity next.

Chapter 6: Collective action and community capacity to plan for transformation

6.1 Introduction

Chapters 1 and 2 suggest that transformative capacity is challenging to determine and in the context of community resilience has not been made explicit with empirical data sparse in the literature (Brown, 2016). From a social ecological systems perspective, transformative capacity means ability to increase potential for transformation (Folke et al., 2010), with transformation often understood as fundamental change that access to a desirable future may require (Miller, 2007; O'Brien, 2011). In parallel, collective action is suggested to be a pre-requisite for transformation (Bai et al., 2016) with commons literature demonstrating collective action is effective for resolving conflict over and the general management of natural resources (Ostrom, 1990; Cox et al., 2010). Yet how collective action relates to transformative capacity and how collective action is used to look at the future in a community resilience context has not been fully elaborated.

To respond to the gap in analysis around collective action and transformative capacity, and to make transformative capacity explicit and relate the concept to practice, this study has redefined transformative capacity as a community's ability to envisage and plan for the future, so the role of collective action in enabling transformative capacity can be tested. This chapter then focuses on examining collective action and its relationship to transformative capacity as defined in this thesis, which is not well established but is potentially beneficial to investigate. This is so the extent communities possess the seeds to transform and can strengthen their capacity to plan for transformation that a desirable future may require can be determined. Focus on a community's capacity to transform is limited in community resilience research and may require the need to re-think established forms of collective action. Established forms of collective action by nature may hinder a community's capacity to plan for fundamental change and shape access to a desirable future due to the attributes and action potentially needed to foster this forward-looking perspective of change. In order to test the role of collective action in enabling transformative capacity, this chapter analyses empirical evidence from Sedgefield and Wadebridge to address the

question: Does collective action have a role in building transformative capacity in the strategic management of envisaging and planning for the future?

This chapter is structured as follows. Section 6.2 explores transformative capacity as defined in this study and revisits the methods this study adopts to examine transformative capacity and collective action. Section 6.3 assesses existing forms of collective action and how they relate to transformative capacity. Section 6.4 explores additional conditions residents in study sites perceive transformative capacity requires. Section 6.5 discusses structural conditions affecting transformative capacity. Section 6.6 summarises observations and concludes the chapter.

6.2 Interrogating transformative capacity

This study suggests that the transformative capacity of communities involves strengthening their ability to envisage and strategically plan for transformation that a focus on the future may require. This is because a community purposefully thinking about the future and their future options and working towards promoting a desirable state under conditions of uncertainty is an important aspect of managing dynamic change. Thus exploring the role of collective action in enabling communities to enhance their transformative capacity is useful to examine.

Participatory scenarios are the research method used by this study to test the role of collective action in enabling transformative capacity. This is because they are an effective way to elicit new insights and understandings into the relationship between collective action and transformative capacity this thesis investigates. In helping residents in Sedgefield and Wadebridge explore alternative futures under a range of conditions and dynamic changes, participatory scenarios provide a future context that allows this thesis to examine the extent the communities in these two sites possess the seeds to transform and plan for the future.

Participatory scenarios are an action-orientated method of research. This means the method is useful in generating new knowledge through the action of participants being engaged in the method in practice, which is useful for this study. The purpose of using

participatory scenarios is to allow participants to generate their own insights and understandings on the future. This is so participants can determine what role they can play in affecting future change, and reflect on and learn from their capacity, actions and experiences of managing change, so that different resident perceptions on transformative capacity and conditions promoting the concept can arise.

6.3 Opening the doors for negotiation

A key finding of Chapter 5 is that collective action affects specific and general resilience in diverse ways. In the two sites of Sedgefield and Wadebridge, collective action promoting specific resilience does not typically bring distinct groups of residents together to address known hazards and risks. Rather collective action often reinforces community division and empowers particular incomers to respond to disturbance, but not all residents. Collective action for general resilience is different. Collective action for general resilience reshapes to bring different resident groupings together to address shocks and sudden events. In doing so, collaboration and a sharing of resources occurs that supports trust to be formed between residents whose identity and interests around collective action are different and can conflict. Residents in study sites understand that the way in which collective action reconfigures, that is through individual networks and capacity, enables the benefits the action to be more widely and fairly distributed. This is important, as residents perceive this form of collective action allows more residents to positively address shocks and different types of disturbances, including those not experienced before.

A focus on intracommunity dynamics and how resident interactions operate to promote specific and general resilience is also instructive for understanding the relationship between collective action and transformative capacity. Bringing different residents together as collective action for general resilience enables is also commonly believed by residents in Sedgefield, Smutsville and Wadebridge to be important for enabling transformative capacity. Toby, a resident of Smutsville in his 30s who has grown up in the township demonstrates this point.

> "*Only if we trust and work together we can go forward.*" (Toby, Sedgefield, scenario workshop 4, 4th November 2016)

Establishing a basis of collaboration and trust between distinct resident groupings is valuable for thinking about the future. Residents in study sites typically understand this is because collaboration and trust encourage cooperation. These conditions can help form a bridge between residents that can create the goodwill necessary to facilitate the inevitable difficult conversations around differing needs and understandings (Raymond and Cleary, 2013) that a focus on the future may require.

Finding a starting point and a way to enable residents to come together to negotiate the future is particularly pertinent for residents in Sedgefield and Wadebridge. Chapter 4 shows that the communities of Sedgefield and Wadebridge do not perceive themselves to be one community or town. They are fragmented, with the influence of a particular type of incomer in part reinforcing separate resident identities and different interests around collective action. Chapter 4 also shows that in the two sites of Sedgefield and Wadebridge, distinct resident groupings do not have a shared vision for the future as residents want different things. They either want to maintain the status quo and keep the identity of their town as it currently is, or want change and aspire for a different approach that addresses local concerns and different people's needs and future preferences. As such, residents in Sedgefield and Wadebridge demonstrate that a key division between them relates to their desire for wanting the status quo to change or not. As a result, residents in study sites do not have a consensus on the future, as the scenarios residents developed for this study illustrate (Box 6.1).

Sedgefield Town: "Paradise"	Smutsville: "Ubuntu"
In 2050 the community (i.e. Sedgefield town and Smutsville) will be better able to prepare for and respond to uncertain risks they may face, including the adverse impacts of climate change. The community is well educated and well led. It is self-sustaining due to better focus of skills. Self-driven initiatives discourages handouts. There is better creation of	In 2050 the community in Smutsville feels much safer as there is less crime and education is better so there is more harmony within the community. Everyone sees education is important so people wanting handouts comes to an end. Better education sees more job creation and business opportunities in Smutsville and also improves local

local wealth, which creates opportunities for self-employment. Community members respond by insisting on more improvements in education and political leadership.	government capacity. There is better understanding between government and the community. Smutsville is on the same level as Sedgefield. Sedgefield is no longer a Slow Town.

Box 6.1: The desired future states of residents in Sedgefield town and Smutsville.

Box 6.1 presents the desired futures residents of Sedgefield town and Smutsville aspire for in 2050, as developed by residents themselves. There are certain similarities between resident futures. These focus on concerns over ineffective local government leadership and structural inequalities influencing education for Smutsville residents in negative ways. These are some of the fundamental changes that both resident groupings want, as they are seen to inhibit a healthy future that residents aspire for.

However, there is also a key difference between the futures residents want. This relates to a local driver of change around the identity of Sedgefield as a Slow Town. Chapter 3 shows that Sedgefield became a Slow Town in 2010, established by incomers primarily for tourism purposes as Sedgefield is the first Slow Town in Africa.

In "Paradise", the desired future state of incomers in Sedgefield, Slow Town is not mentioned as incomers do not perceive it to be an element of Sedgefield that they wish to change. Yet in "Ubuntu", the desired future state Smutsville residents aspire for in 2050, it is specifically mentioned that Sedgefield is not a Slow Town as Smutsville residents want change.

The disparity in resident perceptions of Slow Town was emphasised during the scenario sharing workshop held for incomers and Smutsville residents at the end of fieldwork in Sedgefield. The purpose of the workshop was to bring residents together for the first time, to potentially start a conversation around the future by sharing their desirable future scenarios with each other as residents requested. When asked, "what does Slow Town mean to you?", incomers said "identity" (Scott), "fun idea" (Neil) and "deliberate" (Toby) amongst other suggestions. For Smutsville residents, Slow Town

is "stationary" (Sebastian), "just that, slow" (Shaun), "discouragement as a resident here" (Sophie) and "frustrating" (Martin).

For Smutsville residents, the identity of Sedgefield as a Slow Town is typically perceived to reinforce resident division by their lack of inclusion in Slow Town community events, as section 6.4 returns to. Township residents also commonly understand that the Slow Town ethos promotes Sedgefield as a retirement town, which is reinforced by an increase in the number of retirees relocating to the locality. As such, there is the widespread belief among Smutsville residents, that the image of Sedgefield as a Slow Town restricts their possibilities for employment and hope for the future as Sebastian highlights in Chapter 4. Residents of Smutsville understand that the identity of Sedgefield as a Slow Town is problematic. They require employment opportunities that more wealthy incomers that move to Sedgefield from other parts of South Africa and the UK do not.

Given this dynamic around the future, participants of Sedgefield and Smutsville engaged in scenario workshops agree that promoting collaboration and a basis of trust that collective action promoting general resilience enables is beneficial. Scott, a retired incomer and member of collective action in Sedgefield town, illustrates this widespread belief. He demonstrates that networks established between individuals that general resilience draws on can also help residents come together to discuss the future, and strengthen their capacity to plan for transformation that their desired futures require.

> *"We do jump in and people get involved and help each other so there are relationships across the fence that can help make a start."* (Scott, Sedgefield, scenario workshop 2, 2nd November 2016)

By residents coming together, this is not to say that harmony between distinct resident groups or different ways of understanding will automatically emerge between residents (Arnall, 2015). Nor do residents of Sedgefield, Smutsville and Wadebridge feel that a possible shared future – "Ubuntu in Paradise" - will be easy to negotiate or a consensus possible to reach given residents' inherent conflict over development. Still, the general impression is that conditions of collaboration and trust can support

residents to find ways to work with their tensions and explore how to negotiate their different views around the future of their town. Jim, a resident of Smutsville in his 40s conveys this viewpoint frequently shared by residents.

> *"We need to keep strengthening our relationships, keep building more rapport and build the trust more, and it must keep the involvement of all the communities in the whole, as in Sedgefield and Smutsville. We can then try and sit down together and be understanding collectively about what we all want. If everyone is doing their own thing, it becomes a problem to me."* (Jim, Sedgefield, scenario workshop 4, 4th November 2016)

The above finding, showing that residents in Sedgefield and Smutsville perceive that collaboration and an increased density of trust built up through forms of collective action promoting general resilience can also facilitate transformative capacity is significant. This study interprets this finding to suggest that collective action for general resilience is a pre-condition for transformative capacity.

The results of the analysis in Wadebridge demonstrates that building collaboration and trust and finding opportunities for different residents to work better together, as collective action for general resilience enables, is also important for enhancing transformative capacity. Participants of scenario workshops in Wadebridge emphasise that resident interaction is generally non-cohesive, which hinders transformative capacity. Residents commonly express there is a need for distinct resident groupings to find ways to relate to each other and overcome division and distrust in order for concrete action on the future to evolve. Wendy, a retired incomer running a collective action organisation in Wadebridge emphasises this point.

> *"Everything else is dependent on improving our relationships. It's the thing that has to come before anything else."* (Wendy, Wadebridge, scenario workshop 2, 21st June 2016)

Residents in Wadebridge do not have a shared history of working together in responding to shocks as residents in Sedgefield do, as Wadebridge has not experienced a shock events in recent history. Thus while residents in Wadebridge also perceive that the collaboration and trust that collective action for general resilience

promotes is beneficial for transformative capacity, their viewpoint arises for different reasons. In Wadebridge, residents typically perceive collaboration and trust is necessary for enabling transformative capacity, due to residents having tried to plan for the future together and failed. Identity and different interests did not enhance trust relations.

Box 5.3 shows that the Neighbourhood Plan is a community planning process, with the first public consultation taking place in Wadebridge in 2012 to 2013. The approach brought incomers and longer term residents together, with long-standing residents of the town in this instance also representing Wadebridge Town Council. The purpose of the Neighbourhood Plan is to enable residents to discuss and negotiate how future development is to proceed in Wadebridge, with community plans to reflect the interests of the community as a whole (MHCLG, 2014).

Chapter 5 shows that resident attempts to develop their Neighbourhood Plan were hampered. This is because certain incomers were seen to impose their own dominant interests, rather than collective interests that represented the community as a whole. Underlying this circumstance is also a long-standing cultural influence around how residents in Wadebridge define themselves and others that in this instance served to reinforce community division. Tom, an incomer involved in collective action and the Neighbourhood Plan illustrates this point. He shows the widespread view held by incomers that overcoming distrust is essential if residents of Wadebridge are to act together and build their capacity to transform.

> *"Part of the impasse is about perceived social inequality. So one of the reasons why ideas are blocked is because they were seen to have been brought in by a group of more wealthy, more educated, more informed people. What is needed is changing the perception that those incoming skills and perspectives are actually not threatening to Wadebridge at all. The people that need to talk to each other and need to collaborate and understand each other don't. And that would be the thing that has to change. Trust."* (Tom, Wadebridge, scenario workshop 2, 21st June 2016)

Lisa, another incomer involved in collective action who relocated to Wadebridge 25 years ago for work, also reflects the common perspective that incomers are not

accepted as part of the community by long-standing residents of Wadebridge. She shares that as a result, the Neighbourhood Plan process has left many residents concerned about how the future of their town will develop.

> *"In terms of the Town Council, it is the people who've been here for years and years who tend to feel it is their function rather than for incomers. But people have to be prepared to listen and be prepared to accept the fact that there is going to need to be change otherwise the town will die."* (Lisa, Wadebridge, scenario workshop 2, 21st June 2016)

Box 6.2 presents "Wadebridge Prepared," the desired future residents of Wadebridge aspire for in 2050. As part of this future state, a more inclusive Town Council is specifically mentioned, that comprises of councillors from a range of backgrounds. This is because a Town Council representative of the community in Wadebridge today, rather than as it used to be before an increased number of incomers moved to the town, is what incomers in part perceive is needed to promote their desirable future and strengthen their capacity to plan for transformation that it requires.

Wadebridge: "Wadebridge Prepared"

In 2050 the issues around the adverse impacts of climate change are well understood at national and local level. The community in Wadebridge is well informed with a determined effort and input from educational establishments. The community is committed to local food stuffs and reducing food miles. As a result, the community is less likely to be affected by shortages of food stuffs at global and national level. In Wadebridge there is ongoing work to improve flood defences and accessing locally sourced energy. Local government consults the community on climate change issues and there are stricter building regulations around energy. Local development plans, including the Neighbourhood Plan, is favourable with possibilities of climate change considered. Local government attracts councillors from different agencies and backgrounds to ensure equality. There is investment in creating post-16 educational and training facilities and opportunities for diverse employment for young people. New bright young people move into the area, and fewer move away permanently.

Box 6.2: The future desired state of residents in Wadebridge.

In summary, residents in Wadebridge perceive drawing on social relations and networks established between individuals that brings different residents together for general resilience, also enable transformative capacity. This is because in the case of the Neighbourhood Plan, finding ways to cooperate and manage divisions over identity and the different futures residents want was not established. Tom suggests above that trust would help lubricate change over time, with the implication that trust might transform identity-related roles that transformative capacity as defined in this study requires. Residents involved in scenario planning workshops frequently emphasise transformative capacity necessitates closer interaction between different resident groups, with trust perceived to play a role in starting to break down well-established "us" and "them" dynamics.

It is well-established that changing identity-related roles and attitudes at a personal level is often needed to enable transformation, with shifts in behaviour and capacity to closely examine fixed beliefs, assumptions, identities and stereotypes often required (O'Brien, 2012; O'Brien and Sygna, 2013). The above finding on resident identity creating a barrier to transformative capacity as defined in this study in Wadebridge, and the need to transform identity-related roles confirms existing research on transformation.

A key contribution of this chapter to community resilience research is however its suggestion of how general resilience and transformative capacity relate. The relationship between general resilience and transformative capacity is little understood and is an area of research social ecological systems scholars seek to understand (Folke et al., 2010; Walker and Salt, 2012; Berkes and Ross, 2013). The above observation that collaboration and trust promoted through collective action enabling general resilience is an important step towards transformative capacity is significant. It responds to social ecological systems scholars who hypothesise that characteristics affecting general resilience may be similar to transformative capacity as Chapter 2 states (Folke et al., 2010; Walker and Salt, 2012). Yet empirical testing of such theoretical linkages have not been examined. This study therefore enriches

community resilience research by demonstrating that collaboration and trust are two factors that both general resilience and transformative capacity require as commonly understood by residents in study sites.

In suggesting that general resilience is a pre-condition for transformative capacity, this study also interprets this finding to suggest that collective action for specific resilience does not directly enable transformative capacity to occur. This is because collective action promoting specific resilience in shown in Chapter 5 to not support the necessary conditions transformative capacity requires, as collective action in this instance can reinforce resident division. Collective action plays out in different ways for different constituent components of community resilience with not all of them useful for transformative capacity.

Based on the results of this study's analysis of the relationship between collective action and specific resilience, general resilience and transformative capacity, this study derives a conceptual model (figure 6.1) to show how this thesis illustrates the relationship between these concepts. Figure 6.1 is based on resident perspectives generated during interviews and scenario planning workshops and presents a convergence of the two sites of Sedgefield and Wadebridge.
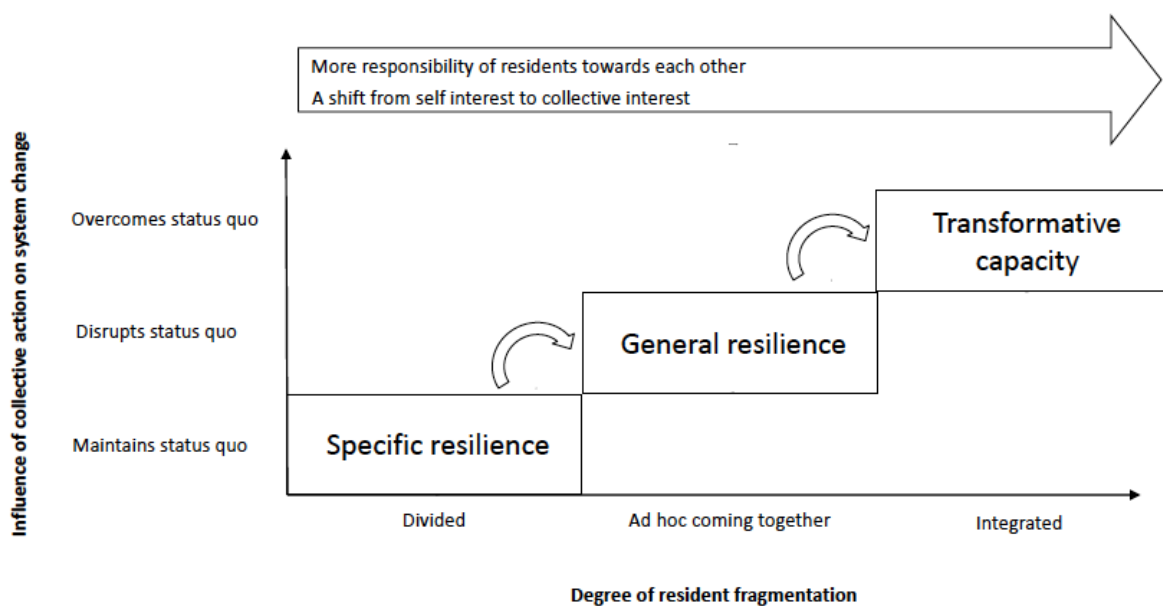
Figure 6.1: The relationship between collective action and specific resilience, general resilience and transformative capacity as perceived by different residents in Sedgefield and Wadebridge.

Findings from Sedgefield, Smutsville and Wadebridge demonstrate that collective action interlinks different constituent components of community resilience together, with one distinct component of resilience systematically enabling another. The curved arrows in figure 6.1 indicate this interaction. Figure 6.1 shows that collective action for specific resilience supports general resilience only, as there is only an arrow linking specific resilience with general resilience and not transformative capacity. Chapter 5 shows this is because incomers are able to build their capacity through collective action for specific resilience that they in part draw on to enable general resilience. Yet collective action for specific resilience does not promote collaboration and trust to be enhanced between different residents as general resilience does, which this chapter shows residents understand transformative capacity requires. There is therefore only an arrow linking general resilience to transformative capacity to indicate this interaction and that this relationship moves in one direction.

Figure 6.1 also suggests that collective action promoting transformative capacity is different to general resilience. Figure 6.1 shows that transformative capacity requires more than an ad hoc coming together of residents and a basis of collaboration and trust that collective action for general resilience promotes. To really plan for the future and affect change residents want to see in "Ubuntu", "Paradise" and "Wadebridge Prepared" by 2050, residents in study sites perceive they are to interact in ways that enable the status quo to be overcome not just disrupted. This requires deeper fundamental changes to social structures and power dynamics that are more radical in nature. What these changes are, and what additional factors and capacities residents in study sites perceive are also necessary for transformative capacity is examined in section 6.4 next.

6.4 Enabling the negotiation to continue

Transformative capacity, like specific and general resilience, is not a characteristic or a constituent component of community resilience that a community has or does not have. It is a capacity that emerges from communities developing resources and interacting in ways that enables fragmented communities to come together to plan for transformation that residents' desired futures require.

This study demonstrates that different components of community resilience require different approaches to collective action. Section 6.3 shows that conditions of collaboration and trust promoting general resilience can open the door for negotiation around the future. Yet how residents define themselves and others and the future they want still presents a key division between distinct resident groupings in Sedgefield and Wadebridge.

While conditions promoting general resilience enable transformative capacity, bringing residents together is commonly understood in study sites to not be enough for transformative capacity alone. The results of the analysis of the second stage of participatory scenario workshops used in this study (see figure 3.4), demonstrate that more significant changes to resident interactions is needed if negotiation around the future is to really take shape.

6.4.1 Promoting a collective response not just individual

Chapter 5 shows collective action for general resilience is perceived by residents in study sites to be largely the result of individual interaction, rather than response coming from collective action organisations themselves or from the community as a whole. Collective action promoting general resilience is also demonstrated to be the result of an ad hoc response to shocks that is not strategically planned. This is because responding to more unpredictable forms of disturbance occurs as surprises and sudden events arise. While forms of collective action promoting conditions supporting general resilience are beneficial for initiating collaboration and trust between distinct resident groupings, they still often however operate around resident

disparity rather than addressing it.

In participatory scenario workshops, residents from Sedgefield and Wadebridge typically agree that it is not possible to rely on individuals "to do the right thing" and act alone for transformative capacity. This is because people's access to their desired future requires more than individuals changing the composition of their networks and sharing resources with residents distinct to themselves. Toby, an incomer running collective action in Sedgefield reflects this general impression.

> *"There are instances when people make the effort to help others. But to coordinate and to say we're ready as a community for the future? No. People can't do that alone. An individual can only do so much." (Toby, Sedgefield, scenario workshop 2, 2nd November 2016)*

Part of the reason residents in study sites perceive that an individual response is not enough to enable transformative capacity, is because an individual response to disturbance does not address the more contradictory elements within a community and the complexity of interaction between residents that can hinder resilience building (Brown and Kulig, 1996/7). Residents in study sites commonly perceive that in order to co-construct a future when resident interests are not shared and conducive to unity, a more coordinated approach to decision-making and action than general resilience offers is needed. This means, an approach that enables resident differences to be acknowledged and worked through, as Sebastian reflects in Smutsville, emphasising the general view that planning for transformation needs a collective response from residents.

> *"If we can't see eye to eye on things we still need to make means to go somewhere from point A to point B. We will agree and agree to disagree, but without proper planning together or strategically plan in what we want, we won't succeed in what we want to become in 2050."* (Sebastian, Sedgefield, scenario workshop 4, 4th November 2016)

Residents in Wadebridge also perceive that a more strategic response is needed for transformative capacity. Wendy represents a common view held by most incomers involved in this study. That is, that residents need to consider the interests of the wider

community when it comes to the future.

> *"Well we know from experience* [of the Neighbourhood Plan] *that we need to come together to plan for the future, which probably requires people to move from self-interest to collective interest."* (Wendy, Wadebridge, scenario workshop 2, 21st June 2016)

While residents perceive that transformative capacity requires residents to develop ways to work together differently, this does not assume a false sense of unity or agreement in resident interests. Thus understanding how to strengthen resident integration, and forge new and more radical ways in which residents think, act and operate is challenging.

In discussing what needs to change from existing forms of collective action to support developing transformative capacity, and to understand how residents might find ways to relate to each other in new ways that established collective action does not enable, participants of scenario workshops suggest developing "community togetherness" is beneficial.

6.4.2 Community togetherness

> *"We need to convince residents that we are not white people and black people, but we are all citizens of Sedgefield. We need to successfully integrate steps that are not for the whites or for the blacks but for the community."* (Richard, Sedgefield, scenario workshop 2, 2nd November 2016)

Richard's comment illustrates a perspective shared by all incomers engaged in scenario workshops. That is, for different residents to really come together to strengthen their capacity to transform, how residents consider themselves a community and interact with each other needs realigning.

All residents of Smutsville involved in scenario workshops also believe a change in resident interaction is needed. Sophie illustrates a common point of view in expressing desire for residents of Smutsville to experience Sedgefield more as one town.

> "*We are not one, but we should be…In our scenario workshop we were thinking into the future for 2050 and we realise we need a bridge to go over the divide and to find a way to move close together.*" (Sophie, Sedgefield, scenario workshop 4, 4th November 2016)

The results of analysis demonstrate that the bridge Sophie refers to that can strengthen resident relations relates to developing a sense of "community togetherness." Community togetherness is an expression of sense of community (Kulig, 2000; Kulig et al., 2008) and is a way people use to relate to each other (Brown and Kulig, 1996/97). Sense of community is an attitude of bonding that can help community decision-making and problem-solving and enhance collective action in new ways (Norris et al., 2008), which in this instance is seen to support deliberation around the future. This is because realigning people's sense of community can increase feelings of shared community identity and participation, and enhance values towards caring, sharing and cooperation (Norris et al., 2008). These are aspects that resonate with "Ubuntu", the title residents of Smutsville gave their desired future state, and are elements Smutsville residents perceive can support transformative capacity.

Ubuntu is an ancient African word originating in southern Africa meaning humanity to others. Ubuntu encourages a spirit of cooperation between all people irrespective of their race, class or ethnicity. The meaning of Ubuntu in part reflects what Smutsville residents perceive needs to change for transformative capacity and their desirable future to occur. That is to move away from well-established behaviours and act in ways that fundamentally change resident interactions, rather than repeating the past and division and distrust between different residents along racial and ethnic lines.

Smutsville residents express an interest in developing community togetherness by participating and being involved in community events and activities. This is because participation is understood to forge a stronger sense of belonging as community togetherness often requires (Kulig, 2000; Kulig et al., 2008). Smutsville residents

perceive that community events relating to Slow Town do not include them. For example, Amy highlights the common view that the annual Sedgefield festival, the Sedgefield Slow Festival, excludes the majority of Smutsville residents.

> *"When you come to the Slow Festival, in the beginning we thought the Slow Festival was only for the town people."* (Amy, Sedgefield, scenario workshop 4, 4th November 2016)

Residents of Smutsville involved in scenario workshops perceive that the Slow Festival contributes to perceptions of Sedgefield and Smutsville as two separate communities. It does not promote social relations and shared experience as community events can do in other communities (Paton et al., 2001). To change this situation, Smutsville residents typically suggest that the Slow Festival could take place in Smutsville as well as Sedgefield town, as Sebastian shares.

> *"There's only some people from Smutsville taking part in this festival, some Church members singing in the choir. It's not like having a soccer tournament or a concert in Smutsville to show we are also a part of this whole thing."* (Sebastian, Sedgefield, scenario workshop 4, 4th November 2016)

Incomers in Sedgefield and Wadebridge also emphasise promoting community togetherness can support transformative capacity.

Although less links are identified, participants of scenario workshops in Wadebridge highlight that finding ways to challenge pre-conceived ideas and ways of working are also needed for a sense of community togetherness to develop. Tom, an incomer driving collective action highlights one way this could be achieved. This is by establishing collective action that helps residents confront issues over identity and shift their perceptions of each other.

> *"There's an idea to set something up called One Wadebridge, to basically help people understand each other's worlds, which aren't the same as people think they are at all. One of the reasons that people are frightened of talking to their opposite is because of the resentment and it goes both ways. There are people that are coming in who are frightened to talk to locals too. We need to change this."* (Tom, Wadebridge, scenario workshop 2, 21st June 2016)

In Sedgefield, incomers often suggest changing existing forms of collective action to be more inclusive of Smutsville residents would also help strengthen their capacity for transformation. Toby, an incomer who relocated to Sedgefield 12 years ago and is Chair of a collective action group, emphasises this viewpoint shared by incomers in scenario workshops.

> *"A powerful community organisation would be one that isn't colour blind."* (Toby, Sedgefield, scenario workshop 4, 2nd November 2016)

Discussion in scenario workshops focused on the Sedgefield Ratepayers and Voters Association. This is an established collective action group set up by incomers over 15 years ago to address the local concerns of its members, that is residents who pay taxes and who mostly live in Sedgefield town, not Smutsville. Incomers emphasise that changing the name and way the organisation is structured to include Smutsville residents would be valuable as a step towards fostering a different sense of community that transformative capacity is understood to require. Residents discussed how the name of collective action could be changed to Sedgefield Voters and Residents Association, with reference to residents who pay taxes specifically removed together. Representatives from Smutsville could also join the committee to represent township residents.

An interest by incomers to rename a collective action organisation and amend its social structure to include Smutsville residents is significant in Sedgefield. It indicates a shift in how residents wish to consider themselves collectively. It also recognises a readjustment in whose interests are also considered legitimate within the town. A realignment in collective action also reflects a change in empowerment for township residents by their inclusion in decision-making. These changes to social structures, power dynamics and forms of decision-making reflect the types of changes Smutsville residents frequently emphasise are required for authentic interaction around the future to occur, as Shaun, a resident of Smutsville illustrates, reflecting the majority view of the township.

> *"Open dialogue with town means there'd be better understanding, trust. Their problems are different to Smutsville's. So our demands would be different. But*

once we get together and sit around one table, we could hear each other's views and we can talk about it. And because we can talk together, we are on the same level." (Shaun, Sedgefield, scenario workshop 4, 4th November 2016)

In summary, residents in study sites understand that cultivating capacity around community togetherness can support transformative capacity. This is because fostering a stronger sense of togetherness is perceived to positively affect social relations and help residents begin to confront their issues over identity that currently inhibit discussing the future.

The results of the analysis here supports studies on transformation that suggest radical change is often necessary in thinking about the future (Miller, 2007). Transforming social structures and institutional arrangements that influence decision-making is usually needed (Kapoor, 2007; O'Brien 2012; Moore et al. 2014). This is so that addressing the underlying root causes of differentiated vulnerability within communities can be worked towards with commitment over time (Few et al., 2017).

An emphasis on community togetherness is instructive for understanding transformative capacity, as it is an example of a collective capacity as opposed to individual capacity that transformation scholars seek to identify (O'Brien, 2012). Studies on transformation from a social ecological systems perspective currently focus more on the individual level and on identifying individual capacities that are suggested to promote transformation (Olsson et al., 2004, 2006; Westley et al., 2011). Collective capacities are less represented in resilience research. This study builds on the work of Kulig and her colleagues (Kulig, 2000; Kulig et al., 2008) to demonstrate the perceived importance of community togetherness for promoting transformative capacity as a component of community resilience, which the authors do not make explicit.

6.5 Building collective capacity to change structural forces

Developing a sense of community togetherness is also typically perceived by incomers in Sedgefield to be important. Toby and Scott, two incomers living in Sedgefield town

reflect the general view, that promoting community togetherness can support overcoming structural forces that keep distinct resident groups divided.

> "*Sedgefield and Smutsville were deliberately designed in the Apartheid era to be separate and what we have got to do is to find a way for all of us to get together and do things which will be of benefit to the whole community. That includes our municipality that doesn't recognise the needs of our community as a whole.*" (Toby)

> "*Yes our current political environment facilitates segregation as it suits their purposes of divide and rule. We have to speak with one voice rather than voices from there saying we need this, and voices from here saying we'd really like something else.*" (Scott, Sedgefield, scenario workshop 2, 2nd November 2016)

Even if residents are better integrated, and willing and able to negotiate the challenges of envisaging and planning for the future, residents understand that they are still constrained by the wider social and political context in which they are embedded as other studies on transformation show (e.g. Pelling and Manuel-Navarrete, 2011). As Scott and Toby illustrate, in Sedgefield, the broader social political context serves to reinforce resident division. Residents believe this is problematic, especially in enabling residents of Smutsville better access to education.

In "Ubuntu", better education is key for Smutsville residents. Poor access to secondary education is a prime factor contributing to inequality and structural causes of risk for township residents. Amy illustrates the common standpoint that access to education is therefore what township residents want to change.

> "*The reason we mention about better education is at the moment we are not on the same level as in town in this. Better education, it goes hand in hand with job creation for us. So if the education is better and also the resources is better then everything will change and be more together.*" (Amy, Sedgefield, scenario workshop 4, 4th November 2016)

In "Paradise", better education is also emphasised by incomers. A lack of a high school in the Sedgefield area and the backlog of a failing education system is seen by both resident groups to be of key concern. This is because it continues to perpetuate social economic disparity and reinforce resident divisions in Sedgefield around race and

class. It also contributes to residents' differential ability to act in response to disturbance as Chapter 4 emphasises in its attributes of community. Residents understand that working better together to lobby local government for a high school and other changes is valuable for instigating change. Richard, an incomer running multiple collective action groups in Sedgefield, illustrates the general impression that approaches undertaken by residents so far have not been effective.

> "*I've been in Sedgefield for over 20 years and the main issue of a high school has been one of the main things that people have been pushing for but there's been no attempt to get a high school at all.*" (Richard, Sedgefield, scenario workshop 2, 2nd November 2016)

Residents perceive developing their ability to influence and shape change into the future is a process involving two stages. Bridging the fragmented divide between different residents by continuing to build collaboration and trust and cultivate community togetherness is stage 1. As a more integrated collective as a result of stage 1, residents commonly perceive that they then have more agency and self-determination to advocate for fundamental system change their desired futures require from local government and other relevant institutions in stage 2. Louise from Smutsville reflects on this two stage process, and shares a viewpoint commonly held by Sedgefield town and Smutsville residents.

> "*We need more trust with town, and then together we can get more trust from the municipality.*" (Louise, Sedgefield, scenario workshop 4, 4th November 2016)

In summary, the above finding further demonstrates the value residents place on building community togetherness for transformative capacity. This is because it is perceived to support affecting higher levels of influence that are needed to address structural risk and inequality in Sedgefield. This observation provides an example of how social legitimacy of local actions within communities are useful for affecting higher scales of influence that transformational processes may require (Chung Tiam Fook, 2017). It also supports studies on transformation that suggest transformation may start as changes at a single scale concerning a single element, but can lead to change at

multiple scales and to multiple elements of a social ecological system (Moore et al. 2014).

The results of the analysis also illustrate that bringing residents together to negotiate the future as general resilience does is not enough for transformative capacity alone. Deeper structural change is needed for transformative capacity. This requires fundamental changes at the community and wider system level, which current forms of collective action promoting general resilience do not affect in Sedgefield and Wadebridge.

6.6 Summary

This chapter addresses the final research question this thesis poses and presents findings of fieldwork that generate insight into transformative capacity and its relationship with collective action from the perspectives of different residents in Sedgefield and Wadebridge. Transformative capacity is defined in this chapter as a community's ability to envisage and plan for the future.

In testing the role of collective action in enabling transformative capacity, the contribution of this chapter is in showing how collective action affects transformative capacity differently to specific resilience and general resilience. This chapter demonstrates that transformative capacity is a process that is influenced by collective action for general resilience, which is an important step and pre-condition for enabling transformative capacity. Yet conditions supporting capacity for general resilience are not enough for enabling transformative capacity alone.

For a community to develop its capacity to transform, and envisage and plan for the future, more than incomers individual networks and ad hoc interactions that bring resident groups together to address shocks is needed. To really affect and influence future change, transformative capacity in communities that are fragmented requires a more strategic, collective response, that affects deeper structural change transformative capacity requires. For communities to develop the seeds to transform, residents understand a sense of "community togetherness" and fundamentally

changing power relations and social structures is needed, so authentic interaction around the future can take place. Residents perceive this can address barriers around people's identity and a lack of integration that hinder transformative capacity to emerge.

The findings of this chapter are useful for community resilience research. In providing a way for transformative capacity to be assessed and operationalised at the community level, the results show how residents can strengthen their capacity to transform and start thinking about the future in communities that are fragmented with different future aspirations that resilience scholars seek to understand (Bai et al., 2016; Brown, 2016; Wilson, 2017). The results of this chapter also respond to gaps in analysis around collective capacities supporting transformation that resilience scholars highlight (O'Brien, 2012), and how general resilience and transformative capacity interact (Folke et al., 2010; Walker and Salt, 2012).

Overall, in informing our understanding of how communities that are fragmented act collectively to address different types of resilience, this study suggests research in the field would benefit from paying more attention to how communities operate in their different forms and confer distinct components of resilience. In contexts of increasing dynamic change, shared interests, trust and a more conservative view of collaboration and consensus that contemporary community resilience research typically portrays in its analyses of community resilience may become less apparent. Communities are becoming less fixed and familiar but more ad hoc in form and activated differently for different purposes in different ways. This requires a more intricate understanding of how communities can strengthen their capacity to confer different types of resilience than studies in community resilience typically convey.

Chapter 7 synthesises the key findings from results Chapters 4, 5 and 6 next. It summarises how the findings of this study address the research questions posed and presents the key contributions of the thesis to community resilience research.

Chapter 7. Conclusion

7.1 Introduction

This study examines the relationship between collective action and three constituent components of resilience that social ecological systems scholars suggest communities are to benefit from having capacity to promote, that is specific resilience, general resilience and transformative capacity. This thesis explores the interaction between collective action and these three constituent components of community resilience by undertaking an analysis of community action and ability to address known hazards (specific resilience), different types of disturbances including unpredictable forms of shock (general resilience), and ability to envisage and strategically plan for the future (transformative capacity as defined in this thesis).

The three preceding results chapters address the aim of this thesis by analysing a range of data from two study sites to answer the study's research questions. The two study sites specifically selected for this thesis are the coastal towns of Sedgefield, western Cape, South Africa, and Wadebridge, north Cornwall, UK. Chapter 4 analyses the attributes of community in the context of community resilience. Chapter 5 analyses the role of collective action in conferring specific resilience and general resilience. Chapter 6 tests the role of collective action in enabling transformative capacity as defined in this thesis. Viewed together, the results chapters present a composite view of the interaction between collective action and community resilience that goes beyond existing community resilience analyses showing how communities respond to change.

This final chapter is organised as follows. Section 7.2 summarises the key findings of this study. Section 7.3 discusses the contributions and implications of findings for community resilience theory, practice and policy. Section 7.4 considers the limitations of the study and directions for future research. Section 7.5 reflects on study design and methods used. Section 7.6 summaries and concludes the thesis.

7.2 Summary of main findings

This section returns to the study's research questions and summarises how the key findings presented in Chapters 4, 5 and 6 address them.

7.2.1 What are the attributes of community in community resilience?

In addressing the first research question, Chapter 4 of this thesis analyses attributes that comprise community in the context of community resilience.

The results of the analysis demonstrate the nature of community in Sedgefield and Wadebridge is fragmented. It is formed of an interacting set of different groups of residents who perceive themselves to be distinct from each other as they have identities and interests around collective action that are discrete and can conflict. Each resident grouping also has a differential capacity to affect change and lack of trust of other resident groups.

Key attributes of community in the context of community resilience are summarised as follows.

Distinct resident group identities

Residents highlight two dominant social groupings with distinct identities shape community in Sedgefield and Wadebridge. One social grouping is a particular type of lifestyle migrant who move to study sites by choice, mostly to retire. They are predominately white, relatively affluent, well-educated individuals with diverse expertise and interests in collective action. They are commonly referred to as "incomers" by long-standing residents. Longer term inhabitants and residents of different race and ethnicity form the second distinct resident grouping in study sites. Residents in this second social grouping are often less privileged and of lower socio-economic standing with diversity in age. Physical division in where residents live also distinguishes resident identity in Sedgefield in a post-Apartheid era in South Africa.

Interests around collective action that can conflict

Residents do not integrate around shared goals or a vision for the future as residents have different interests that are contested. Residents either want to maintain the status quo or change it. In Wadebridge, incomers typically want to promote change for positive reasons around sustainability and economic independence. They do not want Wadebridge to become a stereotypical retirement town and a tourist location that is dependent on low and seasonal wages. Longer term residents however often seek to maintain the status quo as they typically perceive change instigated by incomers as a threat to how their Cornish community operates. In Sedgefield it is incomers who wish the town to remain as it is, that is a close-knit community in a Slow Town that focuses on sustainability and localism as these are the reasons many incomers moved to Sedgefield to begin with. However, Smutsville residents want change and for Sedgefield to not be a Slow Town that restricts development and the employment opportunities they seek given their significantly lower socio-economic standing to incomers.

Differential ability and power to affect change

Incomers in Sedgefield and Wadebridge possess a demographic profile that provides them with a greater ability to address change that other residents do not share. Incomers are able to use the socio-economic privilege they have to be able to move out of choice to retire or for lifestyle purposes to begin with, to provide them with influence and power privileges in the sites that they move to as a result of their expertise, networks and skills that they bring with them in relocating. Longer term residents and residents of different race and ethnicity who already exist in place are potentially less able to promote their own interests due to their distinctly different demographics. Structural constraints in Sedgefield in particular also shape disparity in capacity and power imbalances between residents.

Lack of trust of other resident groups

Residents emphasise that their relationship is characterised by a lack of trust. This relates to an underlying long-term cultural prejudice around people's identity that is compounded by differences in resident interests and the changing nature of study sites due to the impact of incomers relocating. Incomers in Wadebridge perceive long-standing residents do not trust them as they are seen as outsiders to the community,

which longer term residents concur. In Sedgefield, mistrust between residents is also mutual with fundamental differences in race and ethnicity influencing social relations between residents.

7.2.2 What is the function of collective action for community resilience? a) Is different collective action required for building general resilience compared to responding to a specific hazard?

In addressing the first part of the second research question, Chapter 5 of this thesis examines the relationship between collective action and specific resilience and general resilience.

The findings in Chapter 5 of this thesis build on the analysis of community in Chapter 4 to demonstrate that incomers typically act as catalysts for collective action promoting specific resilience. In relocating to Sedgefield and Wadebridge, incomers build bonds and trust in a new place by engaging in collective action and forming interest groups around known risks that incomers want to address. The way in which collective action plays out however changes in different circumstances for different types of residents, with important implications for how specific and general resilience are conferred.

The results of the analysis show that collective action does affect resilience differently when building general resilience compared to responding to a specific hazard. In the sites of Sedgefield and Wadebridge, collective action promoting discrete aspects of specific resilience often reinforce resident division along demographic and social lines. In this instance collective action typically empowers incomers to address known disturbances at both an individual and collective level, but not all residents, as not all residents are included in collective action and are not able to build their capacity to address change. Incomers benefit from collective action by building collaboration and trust between each other, and enhancing their own individual capacities of trust, power and agency at the same time, which is useful for their resilience.

Collective action affects general resilience in diverse ways. Collective action promoting specific resilience reconfigures to bring different resident groupings

together to address shocks and surprises, including those not experienced before. Collective action reshapes to enable a sharing of resources that supports collaboration and trust to be formed between residents with different identities and interests around collective action that can conflict. Residents understand that in coming together, the benefits of action are more widely and fairly distributed, enabling more residents to address unexpected forms of disturbance than they could do alone. The way in which collective action reconfigures to support capacity for general resilience is important to residents. It is also perceived to provide an entry point for promoting transformative capacity, defined in this study as ability to envisage and plan for the future.

Residents in Sedgefield and Wadebridge agree that it is certain incomers and their capacities and networks established between individuals that change to promote general resilience, rather than response coming from collective action organisations themselves. Particular individuals draw on the capacities and networks they have built up through collective action for specific resilience, which empowers them as individuals and provides the flexibility and agency to mobilise collective action differently out of their own choice to do so.

Collective action interacts with specific and general resilience differently in its configuration and impact. Yet it is still individuals who interlink and connect responses for specific and general resilience together through forms of collective action. Collective action does not relate to specific and general resilience independently of each other but acts in relational ways as a result of how particular incomers choose to act.

The results of the analysis also indicate that collective action for specific and general resilience can however present an inherent trade-off within communities. If collective action promoting specific resilience is typically catered to, then in Sedgefield and Wadebridge this means that an opportunity for different resident groupings to work together and enhance social relations and build trust that general resilience requires is reduced. Residents in study sites understand this is problematic. Resident division and distrust is the prime reason hindering their ability to act collectively their community's resilience is understood to require.

7.2.3 What is the function of collective action for community resilience? b) Does collective action have a role in building transformative capacity in the strategic management of envisaging and planning for the future?

In responding to the final part of the second research question, Chapter 6 of this thesis tests the role of collective action in enabling transformative capacity, defined here as the ability of a community to strategically envisage and plan for the future. This is so the extent communities possess the seeds to transform and can strengthen their capacity to plan for fundamental change that a desirable future may require can be explored.

The results of the analysis build on that of Chapter 5 to suggest that collective action promoting general resilience is a pre-condition for transformative capacity. Residents in study sites understand that networks established between individuals and their own capacities that change the way residents work together and build collaboration and trust, can also provide a basis from which residents can discuss the future. Residents in Sedgefield and Wadebridge have future aspirations that are distinct and can conflict. Drawing on social relations built up between residents is therefore important, as it can aid cooperation that deliberation around the future requires.

However, envisaging and planning for the future still requires consciously negotiating different and often conflicting interests between distinct resident groupings, if residents are to strengthen their capacity to plan for transformation that their desirable states need. Transformative capacity as defined in this study requires more than different residents coming together that collective action for general resilience promotes. To really affect and shape future change, and determine the extent communities possess the seeds to transform, transformative capacity requires residents to start confronting their divisions over identity, and to fundamentally change existing social structures and power dynamics so authentic interactions around the future can occur.

In the context of fragmented communities, residents in Sedgefield and Wadebridge understand transformative capacity requires inhabitants to re-think forms of community and collective action and the way residents relate to each other by fostering

capacity around "community togetherness." This means encouraging residents to interact in new ways that can enable a more shared sense of community to emerge. Residents in study sites understand building a sense of community togetherness requires increasing shared participation in collective action and community events and shifting forms of decision-making so that different resident perspectives can be legitimised. Residents perceive enhancing community togetherness is also useful for influencing deeper structural change, that access to residents' desired futures require. In realigning community dynamics, residents perceive they would have more agency to advocate for longer lasting system change from local government and other relevant institutions.

In summary, the findings of Chapter 6 suggest that collective action does play a role in building transformative capacity. Transformative capacity is influenced by collective action enabling general resilience. The conditions collective action for general resilience promotes is an important step for enabling transformative capacity, as it brings residents with distinct identities and interests that can conflict together to address shocks and more unpredictable types of change. Yet a focus on the future and how collective action relates to a community's transformative capacity is also different to collective action for general resilience. Collective action supports a community's ability to envisage and plan for the future and strengthen their capacity to plan for transformation, if residents interact in ways that fundamentally change existing power dynamics, social structures and resident identity-related roles.

7.3 Implications of key findings for community resilience theory, practice and policy

7.3.1 Attributes of community in the context of community resilience

This study presents attributes of community in the context of community resilience that show a new way of conceptualising community to inform resilience theory is needed. Dominant interpretations of community in both strands of community resilience research, that is social ecological systems thinking and developmental psychology and mental health have very different starting points to their approach to community.

Yet neither interpretation is comprehensive on its own as they do not make the complexity of community and its more contradictory or conflicting elements explicit. This study demonstrates this is problematic. This is because it is the more intricate dynamism of community that is central to understanding the relationship upon which collective action and community resilience is based.

The attributes of community this study presents are significant. They build on anthropological studies that have historically problematised community in terms of division, conflict, distrust, power and inequality (Banfield, 1958; Boissevain, 1964; Bailey, 1969), to emphasise social difference, power relations and the more fluid and divisive nature of community that informs an interactive basis of relations between different residents. These are attributes that make community in this study different to typical conceptualisations of community in community resilience research. This means the attributes of community presented here in this thesis are different to a generalised number of unified individuals who form a reciprocal unit and share resilience as developmental psychology and mental health research often portrays (Ungar, 2011), or a typically static, unpolitical and homogenous group of spatially bounded resources users in social ecological systems research who tend towards harmony and consensus (Fabinyi et al., 2014). Community in the specific context of community resilience that this thesis examines does not form a cohesive whole and is not singular, static or depoliticised. Instead community is fragmented and is being reshaped by lifestyle mobility and particular types of incomers who inform how collective action and community resilience interrelate.

This study responds to community resilience scholars seeking insight into the more challenging and conflicting elements of community and a more nuanced perspective beyond communities of place and shared interests alone (Norris et al., 2008; Robinson and Carson, 2016; Mulligan et al., 2016). The attributes of community this study presents demonstrate that in the context of community resilience, forms of collective action need to pay greater attention to what community is as the social demographics of communities are changing. Communities are becoming increasingly fragmented, and less fixed and familiar, with this thesis making a key theoretical and empirical contribution to community resilience theory by showing lifestyle mobility is one social demographic change that is reshaping community and is influencing the way in which

different and often contested interests and power relations around collective action are privileged in place. The impact of lifestyle mobility on the two sites of Sedgefield and Wadebridge is significant. Incomers are particular people that form collective action and set up a dynamic with longer term residents and residents of different race and ethnicity already in place, which affects social relations and influences how change is experienced and responded to by residents in each locality. As a result, this study suggests existing approaches to community in community resilience research are increasingly becoming no longer viable. This is because they do not recognise the positive and negative impacts of mobility on community and still underrepresent power relations.

The results of this thesis on attributes of community suggest that the impacts of mobility associated with demographic shifts needs to be better incorporated into theories of community in contexts of community resilience. Lifestyle mobility and other forms of population movement are set to continue in the future, and potentially become more fluid and multi-faceted as mobility has increasingly become a key feature of people's lives in negotiating the growing complexity of modern living (Cohen et al., 2015). People are becoming hyper mobile compared to the past (Zalinksy, 1971), which may increasingly blur the boundaries around who is originally part of a community and who is not, and people's motivations for engaging with different places and taking action in certain ways. People's preferences for collective action might not be obvious for instance, potentially complicating our understanding of how collective action and community resilience interrelate.

7.3.2 Collective action for specific and general resilience

This study makes a theoretical and empirical contribution to community resilience research by demonstrating how collective action interacts to promote specific and general resilience, and how these two constituent components of community resilience can be combined in practice which is currently little understood (Folke et al., 2010; Walker and Salt, 2012; Carpenter et al., 2012; Berkes and Ross, 2013).

This study shows that specific and general resilience are not distinguished by two distinct types of collective action group or an arbitrary set of different capacities. Nor is general resilience promoted by a diversity of specific resilience actions. Rather it is intracommunity dynamics and the extent collective action builds collaboration and trust between different residents, by bringing residents with often contested identities and interests together to address shocks and stresses and share resources that is key. Residents in study sites understand that how residents interact informs the type of resilience collective action confers, with social relations influential in determining how different disturbances can be addressed. This is because residents' interpersonal networks and capacities are perceived to support overcoming division and distrust, partially at least, so residents can act collectively to enhance their general resilience.

A theoretical social ecological systems approach to resilience focuses on system functioning and does not typically make human agency explicit in its analyses of resilience. As such, specific and general resilience are distinguished by the type of change each component of resilience refers to, that is known hazards (specific resilience) or more unpredictable and multiple types of disturbances (general resilience). The results of the analysis of this thesis however leads this study to suggest that community resilience theory and action to enhance specific and general resilience in practice should more effectively consider endogenous as well as exogenous processes and integrate them better around community. This is because collective action that provides an opportunity to change the way residents think about working together and shift social relations so residents with distinct identities and interests that can conflict can act together is significant for conferring community resilience.

The result of the analysis also emphasise the prominence of incomers and their individual capacity and networks that are integral to enabling different residents to respond to shocks and other unexpected changes they face, rather than collective action groups or a collective response. This finding is important, as it is different to community resilience theory. Community resilience theory typically suggests community resilience is a consequence of a community deliberately building its collective capacity to address change. Collective action is also often considered to be synonymous with community resilience, or form part of the process of enabling

community resilience to emerge, as members are presumed to share common goals and identities that support decision-making and action around collective risk (Pfefferbaum et al., 2005; Magis, 2010). This thesis demonstrates however that collective action and community resilience are related by individuals and individual capacity, with different residents' ability to make informed decisions and take action that influences their own lives not universal across different resident groupings. A clearer understanding of the key role individuals have in determining collective action and community resilience is needed, as the current emphasis on the "collective" in community resilience discourse is ambiguous and misleading. Definitions and interpretations of community resilience require greater clarity by what is intended by the term. Further interrogation into the relationship between the individual and collective level as community resilience scholars working in community psychology suggest (Kulig et al., 2013) is also recommended.

The central role of incomers in influencing collective action for specific and general resilience emphasises that a greater focus on power still needs to be better incorporated into theories of community as section 7.3.1 suggests, as well as into research and actions in practice around specific and general resilience. Residents in Sedgefield and Wadebridge understand that collective action enabling general resilience is primarily enabled by incomers acting voluntarily and out of their own choice to bring different residents together to address change. The dominance of incomers in driving collective action raises questions of legitimacy and ethical concerns around who decides how collective action plays out and how resilience is facilitated or constrained for other residents living in the same locality. Community resilience scholars suggest that power remains underrepresented in analyses of community resilience (Wilson, 2017), with the findings of this study confirming this point. Greater attention to issues of power and working more with the complexities inherent within communities and forming research around these elements would enhance community resilience analysis and concrete actions aimed at promoting different constituent components of community resilience.

Community resilience research would also benefit from taking into account how collective action and community resilience interrelate knowing the possibility that key individuals driving collective action might also leave a locality. This study shows that

the dominant type of incomer in Sedgefield and Wadebridge are retirees, who intend to relocate to study sites permanently. It cannot however be assumed that incomers may not over time move on elsewhere as permanent, seasonal and lifestyle moves become more organic and intertwined (Cohen et al., 2015) and people's situations change. This may have implications for interactions between people originally from a locality and who intend to remain in place, and more mobile people to begin with, and how general resilience and a starting point for transformative capacity can be promoted in instances where individuals are the dominant driving force shaping response to change.

Understanding the prominence of the individual in enabling conditions supporting specific and general resilience is also valuable, as it is the individual actions of incomers that inform how specific and general resilience can be managed in practice. Social ecological systems scholars seek to understand if communities divert attention away from building their capacity for general resilience if they primarily focus on addressing specific hazards (Folke et al., 2010; Walker and Salt, 2012; Berkes and Ross, 2013). Participants of collective action in Sedgefield and Wadebridge perceive that decision-making and action around the management of specific and general resilience can be mutually supportive of each other and that both constituent components of resilience do not have to compete for management attention. This is because it is individuals who respond to both types of change and can link responses for specific and general resilience together. This finding is useful as it can inform policy discussions around the strategic management of different changes in practice. Each constituent component of resilience does not necessarily require a different set of capacities or actions. Rather it is social relations and the interpersonal networks established between different residents that matters. This is because they affect how distinct resident groupings within a community interact and can, if only temporarily, support overcoming division and distrust so residents can act collectively in addressing shocks and different disturbances that community resilience requires.

7.3.3. Collective action and transformative capacity

This study makes a theoretical contribution to community resilience research by providing a definition of transformative capacity that makes sense for the community level and provides a way for transformative capacity to be assessed in practice. This study shows that transformative capacity is challenging to identify and determine as it is ambiguously described in resilience research. As a result, this thesis defines transformative capacity as the ability of a community to envisage and strategically plan for the future. This is because strengthening a community's capacity to plan for transformation and promote fundamental change that a desirable future may require is an important aspect of a community managing dynamic change. A community collectively thinking about and making decisions about the future is part of a forward-looking perspective of change that community resilience demands.

The findings of this study suggest that examining community resilience in a broader context of mobility is of importance for understanding how transformative capacity can be promoted. This thesis shows that envisaging and planning for the future requires consciously negotiating different and often conflicting interests if residents are to purposively strengthen their capacity to transform and work together in managing the future. Deliberating the future may become even more complex in sites where a greater array of different types of residents are present than the two resident groupings this study focuses on. Communities are becoming more fluid and socially stratified (Mulligan et al., 2016), with social ecological systems scholars working on transformation suggesting that people's desirable futures may require multi pathways of change (Bennett et al., 2016a) with who has power to decide the future key to understand (Bai et al., 2016; Brown, 2016). A potential increase in mobility flows and an increased number of different resident sub groups in localities may lead to a more dynamic interplay between people's aspirations and their capacity to transform. Community resilience research would benefit from considering these implications so that research and actions to enhance transformative capacity for communities can better reflect local realities.

The definition of transformative capacity in this study enabled the researcher to elicit insights into social dynamics and how resident identity-related roles, social structures

and power relations need to fundamentally change so the communities of Sedgefield and Wadebridge can strengthen their capacity to plan for the future and promote fundamental change. Yet this study's definition of transformative capacity only gives us a partial view of the concept. It does not give us insight into other aspects that we need to know about a community's capacity to transform and their ability to purposively envisage and plan for a desirable future state. We also need to ask people about more structural issues and the future interests of other types of residents outside of the two dominant groupings identified in this study, so a more holistic understanding of transformative capacity can be generated. This may include people's interests associated with certain livelihoods, skills sets or other types of lifestyles including more apathetic residents. Further examination into the dynamics within each of the two resident groupings already identified in study sites would also be beneficial to investigate more nuance in demographic differentiation.

Lastly, this study responds to social ecological systems scholars seeking empirical testing of linkages between general resilience and transformative capacity, so how these different constituent components of resilience interact can be better understood (Folke et al., 2010; Walker and Salt, 2012). This study demonstrates a positive relationship between general resilience and transformative capacity as defined in this thesis. It shows collective action enabling general resilience brings residents with distinct identities and interests that can conflict together to address shocks and more unexpected forms of disturbance. Collective action supporting general resilience is therefore an important step in enabling transformative capacity.

7.4 Limitations of the study and future research directions

This study explores the relationship between collective action and community resilience. However, the role of collective action in enabling specific resilience, general resilience and transformative capacity is based on findings from two locations. Communities do not act identically, with the selection of two study sites a limitation of this research. However, the two study sites of Sedgefield and Wadebridge were specifically selected for this thesis because aspects around the presence of established instances of collective action and different forms of community in localities

under stress were chosen to make generalisations about the research. Undertaking research in Sedgefield and Wadebridge has enabled this study to generalise issues around the following points: the fragmented nature of contemporary communities in part due to the impact of lifestyle mobility and particular types of incomers; the way in which collective action promoting conditions enabling general resilience requires residents with distinct identities to come together to build trust and share resources so more inhabitants can address shocks and more unexpected forms of disturbance in the same locality; and how transformative capacity as defined in this thesis requires confronting identity-related roles and fundamentally changing social structures and power relations so the future aspirations of distinct resident groupings can be meaningfully negotiated.

Still, expanding the analysis of this thesis on collective action and community resilience to additional communities and localities would strengthen the conclusions of this study and enable the findings arising from the research to be tested elsewhere. Future research could extend the same analysis this thesis undertakes to investigate collective action and community resilience in a wider array of coastal towns that attract lifestyle migrants both inside and outside of Cornwall, UK, and the Garden Route, South Africa. Future research could also add to the analysis of this thesis and assess collective action and the different constituent components of community resilience it examines in different geographic locations and cultural contexts, including larger urban areas and rural localities, where different forms of community and types of mobility are likely to be present.

A key area that should be taken forward in future research from this thesis is the analysis of alternative types of communities and how they interrelate with collective action and community resilience, such as communities of practice or more virtual communities that are currently underrepresented in community resilience research. Future research on community in contexts of community resilience could also add to the findings of this thesis which presents two dominant residents groupings, to explore more than two sub sets or different types of residents in place. This would help assess what community in community resilience means in circumstances of more intricate resident divisions and multi-layered communities that might be more ad hoc in form and activated differently for different purposes.

Considering diversity of lifestyle mobility (Benson and O'Reilly, 2009) and its impact in addition to retirement and the particular type of incomer this thesis focuses on can support analysis of community resilience in different circumstances of population movement. This includes a better understanding of people's motivations behind mobility decisions and their impact in the places they move to beyond those of lifestyle change, such as commuters, temporary or seasonal migrants and middle-life generations. A more rigorous understanding of different resident types and how patterns of mobility influence social relations and how communities operate and make decisions around responding to change would support community resilience research and policy development. It presents a key theme for policy discussions on how to better understand how collective action functions and community resilience emerges.

Extending the analysis of this study to examine not only the impact incomers have on the places they move to, but to also investigate the consequences of incomers on the places they move from as well would be a valuable addition to community resilience research. Understanding what community resilience looks like when plotting the moves of individuals from their locality of origin, to understand what capacities and skills they leave behind and bring with them to the places they move to would provide a more composite view of community resilience.

The findings of this thesis on collective action and community resilience are largely the result of a particular type of incomer who are interested in collective action. Collective action and community resilience might look different in localities under stress where more apathetic individuals reside who are not interested in collective action or working better together with other groups of residents who are different to themselves as general resilience and transformative capacity is suggested by this study to require. Transformative capacity in Sedgefield and Wadebridge requires confronting issues around the identity of different residents and how people interact with each other, which is challenging in contexts where division in resident identity is deeply entrenched. Future research on community resilience could assess what collective action and community resilience means in localities where more apathetic residents live, and/or compare data in communities where more active individuals

reside. This might provide a different perspective on community resilience that enables further insight into specific resilience, general resilience and transformative capacity.

Future research could also examine other aspects promoting general resilience. This study demonstrates an example of general resilience, in how collective action can change the way fragmented communities work together. Yet other conditions, beyond individual capacities and networks that enable collaboration and a sharing of resources that promote trust, are also likely to affect how communities build their capacity for general resilience. What these other aspects might be warrants further investigation.

7.5 Reflection on methods and research design

There are several advantages to the methodology used for this study. As Chapter 3 discusses in research ethics and the challenges of fieldwork, the multi-staged and multi-method approach this study used proved valuable. In establishing a presence in study sites and undertaking data collection with many of the same participants through an iterative process that supported findings to emerge throughout field work and on which participants could verify, supported the researcher to develop rapport and build trust with participants. This approach was beneficial, as it enabled the researcher to elicit different resident perspectives on sensitive issues around identity, trust and power and on issues of race in Sedgefield in particular, which may have proved more challenging if the researcher had adopted a different approach. The design of the research also supported participant commitment, particularly with participatory scenario workshops which are a time intensive method. The researcher's previous engagement with participants in preceding stages of fieldwork supported participant engagement in the process with trust and rapport already established advantageous.

Using participatory scenarios was useful for this study. The method supported the researcher to elicit a diversity of responses from different types of residents that contributed to new and interesting insights into how transformative capacity can be promoted in communities that are fragmented with contested interests over the future. Participants emphasised the importance of social relations, general resilience and

power dynamics, which are elements that are not often demonstrated in empirical studies on alternative futures in community resilience research.

Undertaking action research that participatory scenarios enabled was also valuable for this study. The research approach this thesis adopts did not involve only observing participants through qualitative methods. It also made an attempt to support residents in being more reflective about their community by participants learning from their actions and experiences of managing change and co-creating knowledge for themselves as well for this study. In Sedgefield, the use of participatory scenarios brought residents from different social groupings together for the first time by sharing their scenarios with each other. This was beneficial as it was an initial attempt for residents to take each other's perspective and build empathy. Taking the time to listen to each other's perspectives resulted in commonly held unquestioned assumptions around the town's identity to be problematised, which was an unexpected outcome for participants of Sedgefield town. Using scenarios enabled residents to re-examine Sedgefield's Slow Town status, which incomers did not typically assume affected Smutsville residents and their perceptions of resident division. Discussion emerged around this area of concern, with Sedgefield town residents sharing that it started to make them think differently about Slow Town as Steve states.

> *"I think the people who sold the concept of Slow Town here only worried about the town and not Smutsville. The concept was completely wrong for our community. It's not inclusive."* (Steve, Sedgefield, scenario sharing workshop)

7.6 Summary

This study presents novel insights into the relationship between collective action and community resilience that has not been fully elaborated in community resilience research. This thesis makes several key contributions to community resilience theory and practice.

This thesis reconceives community for the community resilience context and shows that a new way of conceptualising community to inform resilience theory is needed.

This study shows there are four key attributes of community that focus around resident identity, interests around collective action that can conflict, differential ability and power to affect change, and lack of trust of other resident groups. These attributes demonstrate that lifestyle mobility is one social demographic change that is reshaping community and influencing the way in which different and often contested interests and power relations around collective action are privileged in place. As a result, existing interpretations of community in contemporary community resilience research that typically focus on communities of place and shared interest are increasingly becoming no longer viable. They do not consider the positive and negative aspects of mobility, the influence of particular types of incomers on people and place, and still underrepresent power relations.

This study also enriches community resilience research by demonstrating how collective action can promote conditions enabling a community to enhance general resilience, and how specific and general resilience can be combined in practice, which is little understood. This thesis shows that collective action affects specific and general resilience in diverse ways. Collective action enabling specific resilience reinforces resident divisions of identity and discrete interests around collective action. In contrast, collective action promoting conditions supporting general resilience brings residents with distinct identities together to share resources and build trust that enables more residents in study sites to address shocks and more unpredictable forms of disturbance affecting them. It is individuals that predominately reconfigure collective action for general resilience, through their networks established between individuals, in part enabled by the capacities they have built up through collective action for specific resilience. It is therefore individuals that can affect both types of resilience and interlink responses to different changes in relational ways.

Lastly, this study provides interesting insights into collective action and how it can promote transformative capacity, defined here as ability to envisage and plan for the future. In providing a means for transformative capacity to be assessed in practice, this thesis emphasises that the collaboration and trust collective action enabling general resilience promotes is an important step for enabling transformative capacity. Yet in fragmented communities, strengthening capacity to plan for transformation that residents' desired future require, also calls for more than different residents coming

together. Transformative capacity necessitates residents to re-think existing forms of community and collective action and fundamentally change identity-related roles, social structures and power dynamics.

Appendices

Appendix 1 – Participant Consent Form UK

<u>Participant Consent Form</u>

Title of Research Project: Analysing the interfaces between collective action and community resilience in north Cornwall, UK.

You are being invited to take part in a research project focused on understanding how to build more resilient communities in north Cornwall. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read / listen to the following information carefully.

What is the research about?

The research is interested in exploring how your community can effectively respond to significant events or problems you currently face and may face in the future in light of situations of change and uncertainty. This research will investigate the different types of communities or community-led groups or organisations that exist in your area. It will also explore what activities and actions these communities or groups undertake in order to respond to different events or risks. This includes risks that you may know about as well as those that may be more unknown or unexpected, and which may require your community to strategically plan for the future together. An example of a significant event or risk is a flood. An example of community action in response to flood risk is the establishment and running of a community flood management committee. This research is timely given increasing environmental and socio-economic risks that many communities are facing combined with significant government spending cuts.

Who is doing the research and how are they being paid?

The research will be undertaken by Lucy Faulkner who works for the University of Exeter in the UK. The research is being paid for by the Economic Social Research Council in the UK.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form / verbally give consent. You will still be free to withdraw at any time and without giving a reason, and this will not affect you in any way.

What will happen if I take part?

You will be asked questions about you and your community, current and potential future risks you and your community face, and any community activities undertaken or needed in order to respond to these risks. These questions will be asked through group discussions and one-to-one interviews. Times may vary but interviews should take no longer than one hour. Group discussions are likely to take longer than one hour. You are under no obligation to answer any of these questions and you can stop at any point without giving a reason. You are completely free to express your opinion and you will not be judged on what you say. There are no right or wrong answers. If you decide that you want to withdraw the information you have given after the group discussions and interviews are finished, you can up to the end of April 2016.

Will the information I give be confidential?

All the information you give is confidential and anonymous as far as possible. All distinguishing personal information will be removed from the paper record once the data has been entered on to a computer. Recordings of group discussions and interviews and the records on the computer will be anonymised where possible and only the researcher will have access to the full non-anonymous data.

What will happen to the results of the research?

Near the end of fieldwork the researcher will present some initial findings. Sometime later (up to two years) a short summary of the final research project will be available for you if requested. The results of the research will also be used for the doctoral thesis of the researcher and to publish in academic journals.

Who has reviewed the study?

The Research Ethics Committee at the Geography Department, College of Life and Environmental Sciences, University of Exeter in the UK has approved this research.

Who do I contact for further information?

Should you have any questions now or at any other time about this research, and your participation please feel free to ask. I can be contacted via email on lcf203@exeter.ac.uk or by mobile on 07455 191585. Alternatively, please contact Professor Neil Adger via email on N.Adger@exeter.ac.uk or by phone on 01326 722649.

AGREEMENT TO PARTICIPATE AND HAVE MEETINGS DIGITALLY RECORDED

The research information was presented in written form and read by / to me. Anything I did not understand was explained and all my questions were answered. I understand I can withdraw my participation at any time and any or all of the information which I give before the end of April 2016.

I agree to participate in the study and agree to have meetings digitally recorded.

...............................………………….   …...........................
(Signature of participant)   **(Date)**

……………………………………………….
(Printed name of participant)

One copy of this form will be kept by the participant; one copy (the original) will be kept by the researcher in a confidential research file in a secure location.

Appendix 2 – Participant Consent Form South Africa

<u>**Participant Consent Form**</u>

You are being invited to take part in a research project focused on understanding how to build more resilient communities along the Garden Route. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read / listen to the following information carefully.

What is the research about?

The research is interested in exploring how your community can effectively respond to significant events or issues you currently face and may face in the future in light of situations of change and uncertainty. This research will investigate the different types of community that may exist in your area. It will also explore what activities these types of communities undertake in order to respond to different types of events or risks. This includes risks that you may know about as well as those that may be more unknown and which may require your community to strategically plan for the future together. An example of a significant event or issue is a flood. An example of community activity or action in response to flood risk is the establishment and running of a community flood management committee. This research is timely in light of increasing disturbances and risks that many communities are facing.

Who is doing the research and how are they being paid?

The research will be undertaken by Lucy Faulkner who works for the University of Exeter in the UK. Lucy is hosted by Nelson Mandela Metropolitan University (NMMU), George Campus. The research is being paid for by the Economic Social Research Council in the UK.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form /

verbally give consent. You will still be free to withdraw at any time and without giving a reason, and this will not affect you in any way.

What will happen if I take part?

You will be asked questions about you and your community, current and potential future issues you and your community face, and any community activities undertaken in order to respond to these issues. These questions will be asked through group discussions and one-to-one interviews. Times may vary but interviews should take no longer than one hour. Group discussions are likely to take longer than one hour. You are under no obligation to answer any of these questions and you can stop at any point without giving a reason. You are completely free to express your opinion and you will not be judged on what you say, there are no right or wrong answers. If you decide that you want to withdraw the information you have given after the group discussions and interviews are finished, you can up to the end of November 2016.

Will the information I give be confidential?

All the information you give is confidential and anonymous as far as possible. All distinguishing personal information will be removed from the paper record once the data has been entered on to a computer. Recordings of group discussions and interviews and the records on the computer will be anonymised where possible and only the researcher will have access to the full non-anonymous data.

What will happen to the results of the research?

Near the end of field work the researcher may present some initial findings. Sometime later (up to two years) a short summary of the final research project will be available for you if requested. The results of the research will also be used for the doctoral thesis of the researcher and to publish in academic journals.

Who has reviewed the study?

The Research Ethics Committee at the Geography Department, College of Life and Environmental Sciences, University of Exeter in the UK has approved this research.

Who do I contact for further information?

Should you have any questions now or at any other time about this research, and your participation please feel free to ask. I can be contacted via email at lcf203@exeter.ac.uk. Alternatively, please contact Professor Neil Adger via email on N.Adger@exeter.ac.uk.

AGREEMENT TO PARTICIPATE AND HAVE MEETINGS DIGITALLY RECORDED

The research information was presented in written form and read by / to me. Anything I did not understand was explained and all my questions were answered. I understand I can withdraw my participation at any time and any or all of the information which I give before the end of August 2016.

I agree to participate in the study and agree to have meetings digitally recorded.

....

(Signature of participant)   **(Tick of participant)**   **(Date)**

………………………………………….

(Printed name of participant)

One copy of this form will be kept by the participant; one copy (the original) will be kept by the researcher in a confidential research file in a secure location.

Appendix 3 – "Getting into study sites" Interview Questions

1. What communities or community-led groups or organisations are there in [Wadebridge/Sedgefield]?
2. Are there any other ways in which people are organised in [Wadebridge/Sedgefield], or types of community or groups that people are a part of?
3. Are there any communities/groups/organisations that used to be active but aren't any more?
4. Are any communities or groups/organisations more successful than others? Why?
5. Are any communities or groups/organisations more influential in [Wadebridge/Sedgefield] than others? Why?
6. What do people in [Wadebridge/Sedgefield] think of powerful organisations?
7. Do these different communities/groups/organisations work well together? Do different communities/organisations collaborate on community objectives?
8. What are the benefits of these different communities/groups working together in [Wadebridge/Sedgefield]?
9. What are the main risks residents face in [Wadebridge/Sedgefield], both now and in the future?

10 If an unknown or unexpected event or disturbance happened in the future, would current types of community groups (e.g. based on faith or agriculture) be able to effectively respond to it? Or do you think that under uncertain conditions new or different types of communities are needed?

Interview close

Is there anything else you would like to add?

Future interviewees

In order to help me with my research, I hope to perform this interview with a number of additional people. Is there anyone you recommend that I should contact?

Thank participant for their time and input.

Appendix 4 – Focus Group Questions for Identifying Attributes of Community

Stage 1. Welcome / introductions / setting the scene

- Welcome participants and thank them for their attendance
- Re-introduce myself and my research and the expectations of the focus group
- Facilitate pair-wise introductions
- Set ground rules for focus group (all can speak, all comments of equal value - no interrupting even if strongly disagree, tight timeframe, have fun!)

Stage 2. Ice breaker

Ask participants:

1. What do you really like about living here?
2. What makes your community special?
3. What are good things that should not change?

Stage 3. Identifying contemporary communities

Ask participants:

4. What does community mean to you?
5. If I move to [Wadebridge/Sedgefield/Smutsville] next week, how do I get to know people? How do I build my community?
6. What do I do if I get into trouble?
7. Who is helpful?
8. Who can I trust?
9. Are there communities or groups here that are based around a common activity, such as agriculture or fishing?
10. Are there communities or groups based around other common factors, such as age, gender or religion?
11. What are the other ways in which people are organised, or types of community or groups that people are a part of?
12. Have I missed any other associations, organisations or groups that are a fundamental part of community life here?
13. Is there anything else you would like to add?

BREAK

Stage 4. Mapping contemporary communities

Ask participants:

14. Before the break, we discussed the different types of communities/groups that exist here. How do they overlap?

15. What is the value of one organisation/group over another?

16. Are any organisations/groups more influential than others? How? Why?

17. Are people part of more than one type of community/ group?

18. Do these different communities/organisations work together?

19. What are the benefits of working together? Can people rely on other communities/organisations/groups for support in times of need?

20. Which organisations/groups would be most useful/helpful if an unexpected event such as a flood occurred? Why?

21. Is there anything else you would like to add?

Stage 5. Identifying established instances of collective action

Ask participants:

22. What problems or risks does your community face now in the present?

23. What problems or risks does your community face in the future? Are there are risks you might face that might be new that you have not experienced before?

24. How long has your community been facing these problems/risks?

25. What impacts do these problems/risks have on your community?

26. How does your community respond to these problems/risks? Have you undertaken any community action to address them?

- Identify 2-4 examples of collective action in each study site.
- Ask participants who the main representatives of collective action are so I can contact them.
- Thank participants for their time and input.

Appendix 5 - Interview Questions for Specific and General Resilience

1. Basic information about collective action

1. What is the name of your group/ community action?

2. When did your group/ community action start?

3. Why did your group/ community action start? What problems/risks does it address?

4. What is your role in the group/ community action? How long have you been involved?

5. What are the objectives of the group/ community action?

6. What activities does your group/community action undertake?

7. What has your group/community action achieved so far?

2. Collective action membership

8. How many people are involved in your group/ community action?

9. Who is involved? Who is considered a member? Who decides?

10. Do the benefits of your group/ community action reach other people in your community? If so, how?

3. Collective action governance

11. Is this group/action formally organised or is it informal?

12. Does your group/action have a formal constitution (i.e. rule book) and do you follow it?

13. How often do you meet or discuss matters concerning the group/action? Are regular meetings held? Who normally attends these meetings?

14. How are decisions made? Do you come together to discuss matters, or is there a smaller council or a single decision maker?

15. Do you get any funding or do you generate your own? From where do you get it?

4. Capacity for specific and general resilience

16. What makes your group effective, and effective in what? (E.g. community water group, what factors makes your group effective at managing water? Different community networks, leadership..?)

17. What (three) factors are really (or most) important for your group activity? What is the most important factor that without which action would not succeed?

18. Do you get together with people in your group/action to do other things? Do you interact on matters outside of the group/action?

19. Does your (flood, energy, food) group/action take action on any other community issues/risks? Do you collaborate with other groups/organisations in your community to work on other community objectives?

20. Are the factors that you suggest make your group effective also useful for these other activities and in other circumstances? How/why?

21. For the other things that you do together, what (three) factors are really (most) important for that? Are they the same as the factors that are important for [e.g. watershed management in Q17]? Are these factors dependent on one another?

22. Does doing these other activities together and the benefits they bring (e.g. enhancing relationships) help your community work better together? Does it make you feel more confident about what you can achieve?

23. Will your group/action be able to respond to other types of disturbances or risks/issues your community faces other than [e.g. flood risk]? Would your group be able to address new or unexpected events/surprises that might occur in the future?

24. Will the other things that you do together help you address other types of disturbances or risks/issues your community faces, including new or unexpected events/surprises that might occur? Why/why not?

25. Does working together on shared interests give you a platform to envisage and plan for the future together?

Prompt question if needed:

- [If asking about general resilience] Can you give me an example of where your group has dealt with something unexpected, such as a new problem or issue? How did you address it? What factors were important in helping you address this unexpected problem?

5. Implications for community resilience management

26. We have been talking about how your community addresses different types of disturbances/risks, those that are known and already identified such as [e.g. flood risk]

through your group/action, and how your community might address other risks that might be more novel or unexpected. Do you think taking action to address these two types of change can be mutually supportive of each other? Or if your community focuses on addressing one area, such as known flood risk, does this divert your attention away from focusing on how to respond to other types of disturbances your community might face in the present and future?

27. Does the government/State support you and your community in dealing with the different types of issues/risks your community faces? Or do they constrain what you can do? Please give details.

28. What other factors hinder or constrain the actions of your group/activity? Are these factors important when thinking about your ability to deal with unexpected events or crisis in the future?

6. Interview close
- Is there anything else you'd like to add?

7. Interview clarification and invitation to participatory scenarios workshop
- Can I contact you if I have any questions or clarifications about this interview?
- Would you be willing to take part in workshop during the next 4 weeks? The workshop will be held on two mornings or evenings for a maximum of 4 hours each session. Provide the participant with details about the participatory scenario workshop and its purpose.

Appendix 6 – Participatory Scenario Workshop Protocol

Day 1: Developing participatory scenarios (adapted from James, 2016)

Stage 1. Welcome and introduction to the workshop

- Welcome participants and thank them for their attendance

- Facilitate pair-wise introductions if needed

- Recap on research done so far

- Introduce scenario planning, workshop objectives and expected results

Stage 2. Identifying driving forces of change

- (a) In small groups, participants identify key drivers of change and the main uncertainties they think will affect their community in the year 2050. Keep focus on what could happen, not on what participants want to happen. To encourage consideration of a broad range of drivers, the STEEP template can be presented to aid participant thinking about different categories of drivers of change used in futures research (Brown et al., 2016). STEEP driver categories are: social, technological, environmental, economic, political.

- (b) Each group is to present an agreed list of drivers of change that they consider to be the most relevant for their community in 2050. Findings are discussed in plenary during which a final common list of drivers of change is developed by general consensus.

- Ask/say to participants: "We're going to take a step into the future and explore what your community might be like in the year 2050 for you, your children, possibly your grandchildren, and other members of your community. What important changes are happening in your community in 2050? And what is causing those changes to take place? What key issues are you facing? Also, what new opportunities might there be? Taking into account all of your community, what are the key driving forces that will determine change in your community in the year 2050? By driving force, I mean a small change in any social, environmental, economic, political or technological factor that could directly or indirectly have a big impact on your community. This could for example be the level of political attention being paid to environmental

challenges, infrastructure development or economic growth or decline. So what will the main driving forces of change be for your community here in [Wadebridge/Sedgefield/Smutsville]? Try not to just think those you experience today - driving forces are dynamic and may change significantly over time. Will new driving forces that you have not yet experienced be likely or possible? Keep focused on what could happen, not on what you want to happen. Working together in small groups, I'd like you to discuss what you think the key driving forces of change might be for your community in 2050 and to write them onto the post-it notes provided. You might find it helpful to think about different types of drivers of change, such as these [present STEEP template on flip chart paper]. Please write only one driving force on each post-it note. Please write as many as you'd like."

- To help brainstorming if needed, give participants the following questions on a handout (adapted from Evans et al., 2006, p.44):
   o What are important changes happening in your community in 2050?
   o What is causing those changes?
   o How do you think your children will be different from you? Why?
   o How is your community's relationship with its neighbours?
   o What has been happening to the environment?

- Once the activity has been completed, say to participants: "I'd now like a representative from each group to share their agreed list of drivers of change with the rest of us. Please bring your post-it notes to the front of room so we can add them into the appropriate categories as you share them." [present STEEP table as below on flip chart paper]

Natural/environmental	Social	Political	Economic	Cultural	Technological

- TAKE PHOTO OF COMPLETED STEEP TABLE.

- Next, participants are to form a common list of drivers of change. Ask participants:

  o We need to form a final list of drivers of change for your community in 2050. What shall these drivers be? Are there any drivers that you don't agree with? Why?

- Open discussion in plenary, with final consensus drivers shown on STEEP table. TAKE PHOTO OF FINAL STEEP TABLE.

Stage 3. Ranking drivers of change by importance and uncertainty

- (a) In plenary, participants are to collectively rank the common list of drivers developed above according to their perceived importance (with 1 being the most important for their community, meaning it has the greatest impact on their community). Results are to be recorded on a pre-prepared table (see below).

- (b) In plenary, participants are then to individually prioritise how uncertain/unpredictable they think each driving force will be by 2050. Results are to be recorded on the same pre-prepared table used in step (a) above.

- (a) Say to participants: "Together, we are now going to rank how important you think each driving force will be to your community in the year 2050. Importance is ranked with number 1 being the most important. So, which driving force do you think will be the most important, and why?" Open discussion to plenary. Write drivers in pre-made table. Continue until all drivers have been ranked by importance.

- (b) Say to participants: "Now that you've ranked the driving forces by importance, I'd like you to think about how you expect each driving force to develop by the year 2050. Will the driving force be highly uncertain? Or will it be better or increase? Or will it be worse or decrease? I'd like you to use these blank post-its and place one post-it note for each driving force under the column on this table that you think will describe it best [show an example]."

(Once post-its have been placed in categories, count numbers of post-its to identify whether each driving force will be better/more, uncertain, or worse/less. If equal spread of post-its across each category then driving force classified as uncertain. Take photo of sheet)

Importance	Driving Force	Development of Driver by 2050		
		Better/More	Uncertain	Worse/Less
1				
2				
3				
4				
5				
Etc				

- Ask participants:
    - Why did you decide on the positions of these driving forces? Might any of them cause unexpected surprises or shocks? Which driving forces may present an opportunity rather than a threat?
    - Which of these driving forces do you think you can influence?

Stage 4. Creating starting points for scenarios using 2x2 matrix
- This is to define the starting point i.e. opening sentences of the scenarios using drivers of change from the previous step that are (1) the *most important;* (2) most *uncertain/unpredictable* and (3) at least one driver that is *influenceable* (Kahane, 2012, p. 103). These drivers of change will be plotted on pre-printed 2x2 matrix (see below).

- Say to participants: "We're now moving closer to writing your scenarios. Before we begin that activity we need to create a foundation upon which each scenario will be based. This will be based on what you think will be the most important and the most uncertain driving forces of change affecting your community in 2050. Also, at least one driving force is to be an outcome that you as a

community can influence. We need to select two driving forces to begin with, but you'll be able to draw on the others in the remaining stages of the activity so don't worry if you think something is being left out. We're going to plot the driving forces against each other and see if we can generate some feasible starting points for your scenarios. These starting points might present possible pathways in which your community could develop rather than the best or worst cases for your community."

- (Select the two driving forces of change from previous exercise with highest counts for uncertainty and importance, and one that is influenceable, and plot on pre-printed matrix. Add scenarios A, B, C and D from left to right).

A	B
C	D
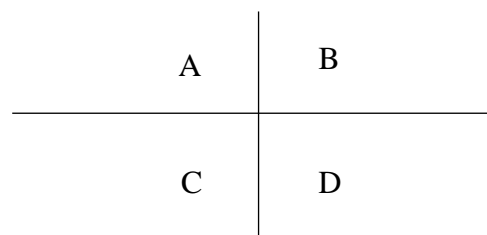
- Say to participants: "This matrix gives us possible scenarios based on your driving forces of change. Do you think these uncertain driving forces present feasible scenarios to start with? Are they relevant, plausible, challenging and clear? If not, which ones should we include? Remember, these are only starting points and you'll be able to draw on the other driving forces as the activity progresses."

- (If change is required then ask participants to agree on which driving forces to use and plot new matrix scenarios A, B, C and D from left to right. I may need to try out several pairs of key uncertainties until I find a pair that produces scenarios that are useful)

BREAK

Stage 5. Developing the narrative scenario ("storyline")

- This is to develop 2-4 narrative scenario storylines that are logically consistent and realistic. The exact number of scenarios developed will depend on number of participants in the workshop.

- Say to participants: "Make sure you're sitting comfortably, then please close your eyes. We are again taking a walk 35 years into the future. Imagine yourselves living in your community in the year 2050 under the conditions identified by your starting points. You have grown older, your children have grown, and your community has changed. What do you see? How have your drivers of change affected you and your community? Have they had positive or negative effects? What already known and recurrent risks are you facing? What other types of shocks and community issues are you presented with? Have any new or unexpected surprises or events happened? Also, what new opportunities might there be? Who do you see in your community? What are people doing? How do they feel? What does the land around your community look like? When you open your eyes in a moment, you will still be here, but 35 years in the future. Ok, please open your eyes.

- Working in small groups, I'd like you create a convincing narrative/story about what <u>could</u> happen in the future – not what will or should happen - and hence what it might be like to live in your community in 2050. You will use your starting points as a guide to begin your story. However, you don't have to restrict your stories to just the starting points we have just chosen above – please include any of the other driving forces of change that we discussed earlier that you think are relevant. You can be creative, but make sure your narratives are plausible. They need to state what happens and why, through what series of hypothetical future events (this event leads to that event, which results in another event, and so on), and with what consequences. So what chain of events have happened? Who are the main characters? How does your story end taking in account your drivers of change? I'd also like you to give your scenario a name. What name captures its key characteristics? I'd like each group to use a different starting

point so that we develop different scenarios. I'll give you a list of questions that can help you think about the future. Once you've created your narrative you'll be asked to present it to the rest of the group so it's important that each group writes down your scenario as you develop it. Once your group has reached the logical end of your narrative, you might like to ask someone from your group to read it to the others in your group so you can review it. I'll also be collecting these scenarios from you at the end of today, so please make sure that your hand writing is easy to read. Don't hesitate to ask for help if you get stuck."

- Split participants by giving each participant a number and then direct each participant to a table. Depending on number of participants aim for 2-4 groups of 3-4 people. If cannot form four groups then ask participants to select the scenario that they would like to work with. Provide participants with flip chart paper and pens. Ideally one facilitator is to be with each group.

-To help participants write their narrative scenario, give each group the handout below.

Use your scenario starting points to create a plausible narrative about **what could happen** in your community **in 2050**.

To get started:

- What might it be like to live there?
- What are conditions like?
- What are people doing? How do they feel?
- What happens if (for example, risk of flooding increases and community collaboration to work together gets worse)?
- Then what?
- What happens next?
- What will be the consequence of that?
- How will people react if that happens? What will they do next? Who will push for what kind of change?
- What risks do your drivers of change pose on your community, and what impacts will they have?

Drivers may be completely different in the future to what they are now, full of non-linear dynamics and surprises:

- What unexpected shocks or surprises may occur?
- How might already known and identified shocks change?
- What broader community issues might arise? What other changes are important in your community?
- What opportunities might there be?
- How do you deal with uncertainty in change?
- What will be happening both inside and outside of your community?
- Will what happens outside of your community influence what you do as a community together?

You may or may not feel like you will have choices in the future:

- Where do you have a choice about the future?
- What can you influence?
- What can or can't you control?
- Is there anything your community might do that has a positive or negative influence on your community at a later point in time?

Stage 6. Scenario presentations

- Say to participants: "I'd now like each group to present their scenario to the rest of the group."
- (2-3 minutes to present and 5 minutes of discussion. Prompt each group if struggling to present story).

- After each scenario is presented ask participants:

    o What do you think about this scenario? Does the story make sense? Is it plausible?
    o What is most important in this story? What is most surprising?
    o What if the future happens the way it is told in this scenario?
    o What aspects of the story can you influence? What can't you control or change?
    o Are there any opportunities for you that come out of this scenario?
    o Was anything unexpected or unpredictable? What and why?

Stage 7. "Building on the best": Identifying most desirable and most likely future

- For participants to choose which scenario presents the most desirable future for their community in 2050.

- (Write in large handwriting the title of each scenario developed onto a piece of flip chart paper. Stick these titles on the wall if possible, or place on a table.)

- Say to participants: "Now you have developed your scenarios, I'd like you to consider which one presents your most desirable future, but also which one is the most likely. They can be the same or different – it's up to you. Place a yellow post-it on the most desirable and a blue post-it on the most likely."

- (Hand participants post-its and count once post-its once placed on scenarios)

- Say to participants: It looks like …… is the most likely and ….. is the most desirable. I'd like to ask you why scenario …. is the most likely? What about it makes it seem like it might happen? You've selected scenario ….. as the most desirable. Why is it the most desirable future for you and your community in 2050?

- (In case none of the scenarios are considered to be the most desirable future by participants, elicit discussion around the desired and undesired aspects for the future and extract the most positive elements of each scenario. From this discussion, participants can create, through general consensus, a target scenario for their community (as done in Palacios-Agundez et al., 2013)).

- Say to participants: We are going to end our workshop today back in the present in 2016. But I still want you to keep a firm picture of what your most desired future is like in your minds. This is because we need to create a bridge from where you are now in the present into the future you have created in 2050 so that you can plan for how you can bring your most desired future about. How will you effectively manage the different changes identified in your desired future? What can you do now to make your future more like your desirable one?

Stage 8. Wrap up of Day 1
- Synthesis of the day, participant reflections so far, agenda for next workshop

Day 2: Planning for a desirable future

Stage 1. Welcome (5 mins)
- Review of where we are and what's next (agenda)

- Say to participants: "Today we are going to explore how you can help develop the conditions necessary to support your desirable yet uncertain future in 2050 occuring. First, let us remind ourselves of what your most desired future is [read

narrative aloud]. The following questions are a good starting point to think about this:

- What needs to change so that you shift from your likelihood scenario to your most desirable future?
- If your most desired future scenario occurred, what opportunities and threats would you face, and which of your strengths and weaknesses would be important?
- What is changeable and what is not? What can and can't you influence?

-Present the above questions using same flip chart paper and ask participants to respond.

Stage 2. Devising collective action to support desirable future
- Participants to identify collective actions to support responding to their most desirable future.

- Say to participants: "Working in small groups, I'd like you to identify community actions that will support your most desired future to occur. You might need to identify actions that address both known and identified risks that you may face (such as floods) as well as a changes/risks that are more novel and perhaps not experienced before. In order for your community to be able to respond to the conditions presented in your desired future, you may need to, for example, identify other community groups or networks that need to be involved in the process, form new or reinvigorate current partnerships, or engage in advocacy to bring other groups on board. Similarly, you may think that new or revised policies or management practices may be required that enable better community participation, which may require lobbying for better rights for example. Think about any blockages that might prevent your actions being successful and how you might address this. Ensure that your planning is flexible and plausible. One person from each group is responsible for writing the group's ideas on flip chart paper. This paper will be given to you shortly. Before we get into groups, here are some questions for you to think about when identifying what actions you could take now to help bring about your desired future in 2050."

- Present the following questions to participants (hand out) and ask participants to reflect on them on their own for a few minutes (adapted from Evans et al., 2006, p.50; Wollenberg, 2000, p. 28; and Kahane, 2012, p. 66):

  - What actions would address known, identified shocks or disturbances?
  - What actions would address a broader range of issues so that my community can respond to multiple types of shocks/events, including those new or unexpected?
  - What community strengths and weaknesses would be important?
  - What resources or rights might be needed?
  - Do you currently have the knowledge and skills to bring about your desired future? If not, what knowledge and skills do you need? How and from whom can you get it?
  - In what ways would people have to work together?
  - Would my community need to work together in new or different ways? Might new or different types of communities emerge?
  - Do new actors need to come into play? How, when and in which role?
  - Are there partnerships with other communities or institutions that need to be developed?

- Put participants into groups.

BREAK

- Once activity has finished, presentation of collective actions by all groups with discussion in plenary.

- Say to participants: "Let's share our ideas with each other. I'd like a representative from each table to share their results with the rest of us."

- As results are shared, write down findings on pre-made table [see below].

- To elicit capacities for collective action, ask participants as they present results: "What factors are important in supporting this action to happen? For example, changes in trust or relationships between certain actors, or changes in knowledge or perspectives on certain issues?"

Collective action for most desired future	Capacities or factors to support collective action
E.g. New policies - Management practices - New pilot projects	E.g. Changes in relationships / trust - Changes in knowledge - Changes in perspectives - Commitment from national government

- Ask participants:
  - So what do you think of your responses? Are they feasible? Do you agree with them?
  - Do any changes need to be made? Is anything missing?
  - Do any overlap? Or can any be combined together?
  - What will be the biggest obstacles in achieving these actions?

Stage 3. "Shock testing" collective actions

To ensure collective actions are robust to future uncertainty (this stage is from Brown et al., 2016). This means evaluating response options by considering different types of 'shocks' of high relevance to local systems. Shocks introduce the concept of abrupt discontinuities rather than incremental change, which may further challenge existing community responses (van Notten et al. 2005 cited in Brown et al., 2016). Are response options still effective in light of shocks?

- Ask participants:
  - Imagine a [flood, health epidemic] occurred in your community. Would these actions still be effective?

o Do any community actions need to be adjusted/revised in light of [flood, health epidemic]?

- Elicit discussion from participants in plenary and write down suggestions on flip chart paper.

Stage 4. Analysing collective action and community for transformative capacity

Ask participants: "Based on your suggestions above:

- How different is community action required to support your most desired future to occur compared to existing community action taking place in your community now?
- Do you draw upon different factors to prepare and plan for an uncertain future compared to the present? Do different factors become more or less important? What / Why?
- If an unknown disturbance/event occurred, would existing types of community groups (e.g. faith/livelihood) that you use now still be able to effectively respond to it? Or under uncertain conditions are new or different types of communities needed?

- Has this process changed how you think about the future?
- Can uncertain future challenges be addressed collectively? Are scenarios important or limited in helping you envisage and plan for your future?
- Who is responsible for implementing the action needed for your desired future to occur? How can they make it happen?
- How much agency/ability do you as the community have in making your desirable future happen?
- How important is the government in making your desired future happen?
- Do you need the community to develop these scenarios, or are other stakeholders also needed?
- What might happen if you don't get the support you require to deal with future change?

Stage 5. Wrap up of Day 2

- Thank participants for their time and contributions.

- Brief synthesis of key messages/conclusions.

- Did you enjoy it?

- If you could change anything about this workshop, what would it be?

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