

'It's not really their problem': Reactive institutional community engagement and flood policy implementation

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ABSTRACT

Flooding already directly impacts almost a quarter of the world's population, exacerbating existing climate injustices. However, flood risk management and governance are complex in societies already rife with inequalities and financially-pressured institutions. Immediate action is therefore required across policy, institutions, and practice to prepare for and adapt to increasing flood risks. This study explores the implementation of recent innovative egalitarian Scottish flood policies which attempt to prioritise equity in real-world settings. Through a new institutionalism lens, we draw on earlier work and highlight key issues in place-based flood-related policy implementation using two exemplar 2024 Scottish media articles within a wider case study of each place. Each article highlights the role of institutions in implementing policies to solve (or not) hyperlocal flooding issues. We explore the implications of institutional (non-)engagement with communities on the effectiveness of future policies to reduce climate-related inequalities. We find that while the new Scottish climate-related policies are intentionally egalitarian and constructed through a place-based lens, real-world challenges hinder implementation as enacted reactive institutional community engagement is problematic. Siloed organisational agendas are manifested when communities proactively attempt to engage institutional support. Such silos are supported during policy implementation by the ambiguity of egalitarian policies focusing on collective action and collaboration which inadvertently facilitate the externalisation of institutional responsibility to others. We demonstrate that in Scotland, as elsewhere, there is a lack of clarity and definition of concepts within policies which facilitates the externalising of responsibility for action to others, encouraging siloed institutional responses. This disempowers communities and undermines their attempts to lead and build place-based community flood resilience. These findings are considered alongside the wider research field, collectively demonstrating an urgent need for transformative governance of flood risk. The study concludes that institutional innovation is urgently required to enable societies to adapt to the climate crisis.

1. Introduction

Flooding is increasing in countries across the world as the climate continues to warm [1]. In Europe and the UK, 90% of floodplains are no longer fit for purpose [2,3]. Flood events now impact 1.81 billion people (23% of the world's population) directly, 89% of whom come from low- and middle-income countries [4]. In affluent countries like the USA and the UK, a disproportionate number of socially

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vulnerable communities are located in flood prone areas [5,6,7]. Flood events exacerbate existing climate injustices by taking vital resources from those with the least capacity to adapt to or mitigate their risk, and immediate action to rectify these inequalities is urgently required [5]. To achieve this, policy-makers, institutions, the private and third sectors, communities and individuals must engage collaboratively in flood risk communication and adaptation efforts, including risk mitigation [8,9,10,11]. However, this new policy-driven approach requires institutional transformation from ‘traditional’ command-and-control top-down structures towards participatory collaborative flood risk management [12]. Previously, institutions in Europe, as elsewhere, have relied upon formalised institutional expertise and hierarchies which do not embrace communities and their local expertise, nor share power with them [8,13,14]. Therefore, institutions which have the power to hinder or facilitate the new policy-driven collaborative governance must transform any remaining siloed frameworks and agendas to strengthen the power and involvement of communities and individuals in flood risk management [12,14].

The effective and occasionally enforced implementation of climate policies at global, national, regional and local level to address climate risks and promote climate adaptation requires the commitment of a multitude of actors spread across multilevel governance (MLG) [15]. However, this can be jeopardised if different actors fail to commit fully, fail to coordinate responses, or lack the capacity to implement the policies [16]. This lack of integrated governance is well-documented across different climates and political systems beyond Europe, with countries in the Global South also enduring barriers to integrated institutional governance in climate risk arising from institutional and political constraints [15].

Flood risk management requires effective equitable policies to govern flood risk and co-ordinate resources, and hence institutions charged with implementing these policies must also rapidly evolve to adapt to the consequences of the current climate emergency [17,18,19]. Institutions, understood here as public sector organisations and agencies, are vital drivers of societal transformation and adaptation [19]. Therefore, understanding how institutions work together to implement and prioritise policies is critical to understanding how policies can support community flood resilience.

In Scotland, there are long-standing institutional approaches to flood risk management which spreads responsibilities across adaptation and mitigation efforts, and across flood events as they happen [8,20]. While institutional responsibilities are significant to public health and safety, policies also require citizens to be responsible for their own property’s adaption and mitigation measures, and therefore individual property owners ultimately bear the costs and consequences of flood impacts [8,20]. Institutions and communities must therefore rely on each other to effectively manage local flood risk, guided and supported by policies that attempt to encourage equity and collaboration [20]. However, earlier published research by the authors has found that a) historic institutionalism is hindering innovative policy implementation in Scotland [21]; b) polarised communities’ can fracture and disengage when their voices are not heard by regional institutions in flood risk management [22]; c) the Scottish flood risk communication landscape is chaotic and fragmented, hindered by the number and diverse messaging of voices from multiple institutions and organisations [8]; and d) that while Scottish flood-related policies are socially innovative and egalitarian, their implementation is vulnerable to siloed adoption as a result of institutional strategic agendas, priorities and targets [20]. These weaknesses require greater insight into public narratives around these policy-driven tensions to increase our understanding of the real-world challenges to flood policy implementation, particularly that which explicitly requires collaboration between communities and institutions.

Engaging individuals in understanding and acting upon their flood risk is challenging [8]. When flood risk communication demonstrably raises individuals’ awareness and/or heightens their flood risk perception, that new awareness does not significantly correlate with subsequent action to prepare for, adapt to, or mitigate their risk [23,24,25,26]. An important factor in translating awareness into action is confidence in the efficacy of one’s actions [8]. If these actions are to be participatory and collaborative in nature, then trust and confidence in institutions becomes a prerequisite for effective adaptation. Media narratives can reflect the institutional position regarding collaboration both with other institutions and with communities, thereby testing policy implementation in the real world. Moreover, trust in media has been shown to play an important role in influencing how content is internalised [27,28]. When the media narratives are positive, this can improve the understanding of, and support for, climate change-related policies [29]. Given the public reliance on trusted media narratives, and the power of such narratives over the wider public and political discourse, this study sampled media coverage to understand public narratives of collaborative place-based problem-solving (or lack thereof) in Scotland.

Through the exploration of two exemplar media narratives located within case studies of place, we examine challenges in inter-institutional and institutional-community dynamics. Our aim was to better understand flood policy implementation reliant on collaboration and co-operation to achieve preparedness, adaptation, mitigation and flood risk management. This study asks whether recent innovative egalitarian Scottish flood policies are always successful in supporting institutions and communities to collaborate to solve local flooding issues. It then explores what implications there are, if any, for policy design and future attempts to create transformative governance to improve community flood resilience in Scotland and elsewhere.

2. Background

2.1. Scotland’s climate challenge

The impacts of climate change are already being observed globally, an unequivocal result of human causation through greenhouse gas emissions [30]. In the UK, weather patterns are ‘notoriously changeable’ [31] and the effects of climate change are already being felt. Rainfall in Scotland has increased overall in recent decades, with a greater proportion of that total coming from intense rainfall events [32]. Scottish winters are now 19% wetter than the period from 1961 to 1990 [32]. The resulting increase in frequency and magnitude of Scottish flood events will not only place a heavy burden on people and places, but also support the spread of invasive

species, and increase both erosion and the flush of concentrated diffuse pollution [33]. Therefore, action is urgently needed to co-ordinate policies, institutions and communities now to mitigate and adapt to the consequences of increased flooding.

2.2. The challenge of adaptation

Climate adaptation at national level is far from straightforward, however. In Scotland, adaptation progress and Scottish emission targets are regularly monitored by the UK Climate Change Committee (CCC). The CCC recently concluded that, while some advancement on adaptation policy has been achieved, gaps remain around water supply and drought resilience [31]. Furthermore, they identified a lack of stewardship and limited identification of interdependencies across infrastructure sectors [31]. Progress on Scottish climate change adaptation was also evaluated as slow, particularly around delivery and implementation [31]. Within this difficult policy landscape, and a time of significant resource constraint, the Scottish Government's Cabinet Secretary for Transport, Net Zero and Just Transition, Màiri McAllan, stated in February 2024 that '*Flooding is Scotland's most significant adaptation challenge*' [34]. This challenge has arisen because Scottish households and businesses have failed to adopt preventative and/or adaptive measures [35], despite the development of more egalitarian and collaborative policies by the Scottish Government in the last two decades [20]. While this lack of action suggests an inertia in climate change actions across Scottish institutions, communities and individuals, there remains an absence of evidence explaining how this inertia is manifesting in real-world contexts.

In Scottish flood risk management, confusion has been found to exist amongst institutional stakeholders and the public around the roles and responsibilities of the many institutions involved i.e. the Government, local authorities (municipalities), the Scottish Environmental Protection Agency (SEPA), Scottish Water, Transport Scotland etc. [8]. Recently, public and institutional stakeholder consultations around Scotland's first Flood Resilience Strategy found that institutions and communities not only acknowledged challenges in policy implementation and collaborative working, but also called for improved mechanisms for such engagement to enable more effective flood response and community engagement [36].

Alongside confusion and challenges in engagement, only around half of the Scottish population trust their local council to make fair decisions [37]. Local councils have long worked under a service-driven organisational model but need to move towards working with communities rather than for them [38]. Innovating towards an upstream proactive approach in the routine handling of the business of local governments is dependent on interlocking factors such as organisations, people, processes and culture demanding radical internal change, overlapped with expectations to improve outcome, efficiency and value for public money [38].

2.3. Scottish policies impacting community engagement and resilience

Egalitarianism within Scottish flood policies has been well evidenced as an overt principle within multiple policies including, for example, the Water Environment and Water Services (Scotland) Act 2003 [39], the Place Principle [40], and the new Scottish Flood Resilience Strategy due to be published this year [41].

'Communities' are defined as place-based groups of people in the *Climate Ready Scotland: Climate change adaptation programme 2019–2024*, who should be included, empowered, resilient and safe in the face of climate change (Outcome 1) [42]. Institutional responses to flooding and other major emergencies are guided by a Scottish Government description of 'community resilience' that recognises cooperation, collaboration, and integration with public policies and services. It references resilience as an ethos of preparedness but it does not define what resilience itself is [43]. Whilst the term community resilience is readily used in policy contexts, assumptions around and approaches to the concept remain debated in the academic literature [44].

Some key factors which make Scottish communities resilient have been identified as shared responsibility and leadership alongside social ties, openness to collective thinking, and shared experiences [45]. Yet, most communities are limited in their ability to self-organise due to the disconnect between themselves and power over decision-making, hindering their attempts to become resilient [46]. Instead, communities are reliant on institutions sharing responsibility and showing leadership as they implement policies around flood risk, both of which is encouraged in recent policy. For example, the Scottish Government's place-based collaborative approach is reflected in the ongoing commitment to community engagement within the 14 Flood Risk Management Plans 2022–2028 [47]. These plans require institutions to support and engage with local communities, individuals and resilience groups [47]. Individual responsibilities are also enshrined within the Plans [47], reflecting the shift towards greater individual responsibility for flood protection, adaptation and mitigation in the UK [8]. A similar shift across democratic countries internationally has been paralleled by an increase in research surrounding individual adaptive actions in flood risk management [48].

Whilst the legal and practical responsibility of individuals in flood risk management (FRM) has increased in many countries, the state responsibilities for FRM has been increasingly decentralised to regional authorities in Scotland with little associated increase in resources [8,49]. In the UK, this policy shift from state support to explicit individual responsibility for climate change adaptation was swift, moving in just 5 years from the paternalist approach of state-led 'command and control' seen in the UK Civil Contingencies Act (2004) (CCA) to the diffused raising of awareness amongst individuals and promoting their household responsibilities in the Climate Change Adaption Act (2009) [8,50]. That change was an early demonstration of the evolution of policies and the resulting impact upon national and regional institutions that implement them, creating pressure on institutions to evolve rapidly to respond proactively to the climate emergency [17,18,19]. As central pillars of societal transformation, state-funded institutions have to address challenges and injustices that inhibit adaptation [19]. In Scotland, these institutions include the 32 regional local authorities (councils); the Scottish Environment Agency (Sepa); environmental and governance agencies (e.g. Scottish Water; The Drinking Water Regulator; Scottish Canals etc.); emergency responders (police, fire and ambulance services); and the National Health Service, amongst others. These institutions have a legal duty to deliver adaptation actions themselves under the Public Bodies Climate Change Duties within the

Climate Change (Scotland) Act 2009, and are all subject to work within the collaboration and cooperation guidance embedded in relevant Scottish Government policies. For example, a collaboration imperative across public sector institutions is enshrined in the next Scottish National Adaptation Plan (2024–2029) (SNAP 4). This requires institutions to deliver inclusive, effective adaptation action together to ensure a climate ready future [50].

Cross-institutional approaches within the planning process are becoming internationally-recognised pathways towards adaptive action through mitigating the barriers of existing institutional silos [51]. In Scotland, however, institutional targets and diverse strategic agendas have been found to maintain tensions between institutional operational strategies and overarching policies, inadvertently supporting siloed policy action [20]. Tensions around these and institutional priorities are further compounded by ongoing tensions between institutions at regional and national level, as regional local authorities work within very limited resources when responding to national policies set by the Scottish Government [22]. Indeed, the relationship between the two levels of governance is often publicly fractious [52,53].

The financial and political tensions between the two levels of governance also have direct consequences on the financial support available for community resilience. In January 2024, Scottish Councils reported their budget gap in funding from the Scottish Government for 2023/24 was £725million, equivalent to 4.2% net cost of services, versus 2.9% for the period 2022/23 [54]. Scotland intends to commit just £192million in total to flood risk management across the 4–5 years of the current Parliament to improve flood resilience, of which £42million was for protective measures [55]. However, one defence scheme for one community in Scotland alone may cost significantly more than £42million, e.g. Musselburgh Flood Protection Scheme (c.£54million) [56].

2.4. New institutionalism and institutional barriers to policy implementation

The policy-driven pressure on institutional actors to engage more collaboratively with each other and with communities has not been matched with increased funding or resources. Historically, the UK and Scottish Governments have managed flood protection and mitigation efforts through paternalistic policies which prioritised institutional need over local people and places [10,22]. *Historical Institutionalism (HI)* suggests that institutions are very slow to change because of path dependency i.e. the systems and frameworks within the institution are fixed to maintain how it was done in the past, hence that is how it is done now, and how it will be done in future. This path dependence makes institutions resistant to change, and such institutional inertia enables state priorities to continue to dominate over the needs of local places and individuals until critical events or exogenous shocks force change [18]. Even where there are critical threats that should force sudden change like the climate emergency, wider societal rejection of new policies (e.g. congestion charging) [57] can inadvertently support institutional inertia in policy implementation. Furthermore, policies often require local interpretation within each institutions' wider objectives, resulting in bespoke localised definitions of policy goals priorities, acceptable risks, and potentially unexpected impacts (negative or positive) [58]. With 32 local authorities in Scotland, regional interpretation of national policies can vary significantly and lead to different levels of community resilience in different areas, a phenomenon described as a 'postcode lottery' of resources and support [21].

Where institutions do evolve and/or embrace a more transformative model, the institution will still remain a sum of its own institutional actors and their choices. *Rational Choice Institutionalism (RCI)* frames institutions as the rational outcome of actors' decisions to ensure the survival of the organisation [59]. RCI proposes that self-interest motivates individual actors within institutions to act for their own benefit within the constraints of strategic institutional structures [18]. RCI therefore suggests that policy may not be implemented as intended if it negatively impacts the actors' subjective interpretation of what is required to ensure the survival of the institution, e.g. it is unachievable due to a lack of staff resources, severely constrained departmental budgets, existing pressures from other priorities etc. For example, in the Scottish water industry, the Water Environment and Water Services (Scotland) Act 2003 required formal institutional change towards transparency and public participation, yet this new paradigm for water management was not fully adopted due to political inertia and the hidden balance of power [60]. Alongside these New Institutionalism approaches, sociological theories around culture have also emerged which propose that socially-constructed values, beliefs and practices reinforce the behaviours and structures of institutions just as they do in society [61]. Institutions have been and will be shaped by individual actions and collective choices [59]. For example, *Cultural theory* explains the politicisation of risk as a threat to a way of life, not simply a risk to life itself [62]. *Institutional culture* has been defined as the relationship between people and institutional rules and norms, including people's experiences, perceptions and actions [63]. A recent systematic review concluded that people, including individuals and groups, are integral to both culture and institutions, hence institutional culture is important when implementing policies relating to climate change [63]. Climate-related institutional culture is potentially vulnerable, however, as climate-related values amongst the public and collaborating stakeholders can shape acceptance and/or rejection of institutional values when financial resources are perceived to take precedence over cultural integrity [64].

When it comes to collaboration, institutional 'bottlenecks' of poor co-ordination with no mechanism for financial exchange between institutions still create institutional silos and constrain actions [65]. Brokering actions by transgressing silos and operating effectively across institutional boundaries requires leadership with both the necessary abilities and the legitimacy to create such change [66] to the culture of the organisation. Institutional innovations can help in the avoidance of siloed policy implementation, strengthening opportunities to engage with others to effectively implement adaptation policy [67]. Currently, however, even where there is a clear leadership role committed to climate action e.g. city and regional mayors, there remains a lack of integration in approach and the climate actions themselves become siloed in the system [68]. These international findings demonstrate that Scotland is not alone in having difficulty in implementing innovative adaptation policies, breaking down silos, driving collaboration, and generating effective community engagement. Yet there remains a lack of understanding about these actions and their relationship with policy implementation, hence any insights offered by this exploratory study will be important indicators of potential future research

directions to better understand the interconnectedness (or not) of policy implementation, institutions, and communities.

2.5. Collaborative governance: the international context

Collaboration across institutions does not necessarily work better during times of crisis. Gaps in existing environmental crisis governance have been recognised in Japan, where multiple levels of governance were found to be unable to take the initiative post-2011's Tohoku earthquake and tsunami. Instead, the police, fire fighters and other responding institutions prioritised their own policies and agendas in the following days, leading to further loss of life as medial institutions were unable to compel other institutions to support them [69]. This reflects the complexity of inter-institutional relationships, where alongside institutional agendas individuals maintain networks through their own personalities and motivations [70,71].

Therefore, ensuring the inclusion of stakeholders is essential to manage climate risks but their efforts must also be co-ordinated to be effective [72]. There is a fundamental role in disaster management for command and control policies and approaches in times of crisis, as was starkly demonstrated by the thousands of lives saved in India following the implementation of the Disaster Management Act of 2005 which empowered local officials in an emergent disaster management system [73]. In much of Europe, including Scotland the wider UK, disaster management systems have matured to increasingly rely on the co-operation and consent of the public who are mandated by policy to prepare and protect their own households and properties from flood risk. This consent, and its associated trust in governing institutions, is critical for effective disaster management in mature disaster management systems. This was demonstrated in Dresden, Germany, during the 2013 floods, where organised community groups were beneficial to the disaster effort [74]. However, other emergent self-organised groups caused problems for the institutional responders by questioning their authority and the established hierarchies agreed in formal disaster management policies, even hijacking and diverting response trucks in acts of 'subversive' community resilience [74].

In the Scottish strategic response to flood events, existing self-organised community groups like local Flood Action Groups are relied upon to be the gatekeepers of community resilience and 'person-power' during the emergency response [75], yet volunteering amongst Scottish community groups has declined by over 25% in the last decade due to economic, personal and practical barriers [76]. In addition, differing opinions about enacting flood risk management has already polarised some communities and eroded trust in institutions and in other community members [22]. This polarisation amongst individuals and groups within communities has been found in climate change engagement and environmental conflicts in similar cultures elsewhere, e.g. the United States [77,78]. Therefore, despite policy initiatives encouraging community resilience and community collaboration with institutions, the potential for 'subversive' community resilience is significant [74].

The heterogenous blends of people, places and institutional cultures which must coordinate to form collaborative governance by consent may benefit from a heterogenous policy mix. Such a mix of practical policy instruments were found to be necessary in the Netherlands to enable institutions to take on different roles in different contexts, from project manager to external facilitator, and to stimulate much-needed private investment [79].

2.6. Scottish institutional responsibilities in flood risk management (FRM)

Institutions responsible for flood response are embedded in the economic and political context in Scotland. As such, they are subject to institutional barriers, the formation of pathway dependency and subjective norms which affect policy-making and its implementation [60]. Some key institutions in FRM have already evolved in recent decades. For example, Scottish Water was established in 2002 by merging three regional water authorities under the Water Industry (Scotland) Act 2002, a decision which yielded better transparency, a centralised administration and reduced costs [80]. Scottish Water's FRM responsibilities requires it to maintain sewers and manage the drained rainwater and wastewater from paved areas and roofs through its drainage and sewage systems [75]. However, since its creation, Scottish Water has been under pressure to reduce costs and improve the efficiency of its activities across a plethora of additional responsibilities, from ensuring clean drinking water across the country to the management of waste water and sewers [60]. Whilst customer satisfaction with Scottish Water is the highest of all UK utilities [81], the utility itself has identified that it could do more by way of successful community engagement [82].

The 32 Scottish local authorities have a responsibility for surface water on roads, and to maintain watercourses and public road gullies to reduce the risk of flooding. In Glasgow, Scotland's largest urban conurbation, flood risk prevention has been managed by the Metropolitan Glasgow Sustainable Drainage Partnership (MGSDP) for the past decade. The MGSDP is a partnership of all institutional water stakeholders for Glasgow, including Scottish Water and the local authorities governing the conurbation area (Glasgow City Council and Renfrewshire Council), as well as the Scottish Environmental Protection Agency (SEPA), Scottish Canals and more. The Partnership is generally seen as successful and has been cited as best practice in a number of studies [83]. While collaborative working and trust-building has been evident, some silo working remains and progress has been slow [83]. The MGSDP has not succeeded unequivocally in engaging with communities. For example, in one case study project, despite community consultations, the developers of a new project were unaware of a group within the community who were opposed to the project [83]. Furthermore, a review of this institutional Partnership highlighted fragmented decision making, residual silo thinking and poor public engagement [83].

2.7. The media

Journalism and hence the media play a crucial connecting role in societies through communicating information and holding public institutions accountable [84]. The media influences how the public perceives their flood risk and institutional systems involved in

flood risk management [85]. The newspaper media (online and in print) are key actors in climate risk communication and have been found to both influence individual's responses and to narrow discourses around climate risk and adaptation [86]. Media reports also influence our perception of risk and our response to that risk perception [87].

The UK media's focus on governance, policy and management of flood risk in the early 2000's framed flood events as phenomenon that could be anticipated and managed, highlighting institutional responsibilities to achieve that [88]. This created discourses of conflict where the media and the public collectively apportioned blame for flooding to UK institutions, while those institutions themselves were blaming each other in what was described as an institutional 'blame game' [88,89]. The power of such discourses in the media can be significant. For example, the Irish government's flood risk management approach has been found to reflect the news media's preferences [90].

Increasing recognition of the climate change threat has coincided with a shift in print media reporting of flood-related stories from factual accounts towards more emotive 'human interest' stories [88]. These local place-based narratives have been found to increase their wider climate risk awareness more than stories highlighting global impacts [91]. Therefore, local media using place-based narratives can (and have) influenced the UK public's perceptions of flood risk, their perceptions of institutions including the government, and even individual's response to flood [85–87]. Given the influence of media stories on public flood risk engagement, and the confusion in roles and responsibilities amongst Scottish institutions despite policy-mandated collaboration, this study asks whether conflict between the public and institutions, and overt institutional 'blame games', are evidenced within local Scottish media narratives. In addition, the findings from these two exemplar case studies will enable us to better understand whether this novel methodological approach could be scaled up across regions and countries to evaluate the effectiveness of flood risk management.

3. Methodology

This study undertook a novel approach to exploring the interaction and collaboration in flood risk management between Scottish institutions and communities through two exemplar case studies. These exemplars focus on two media articles, with each case study

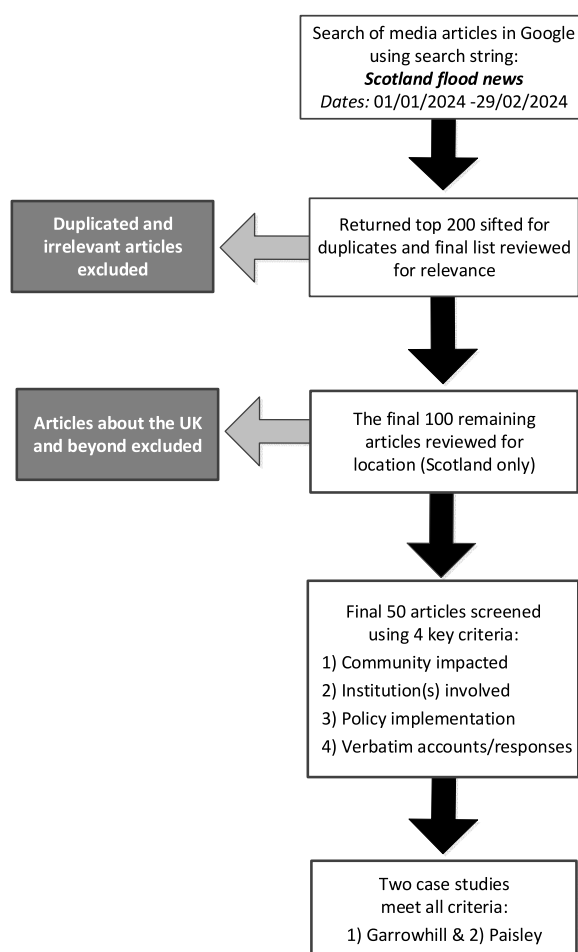


Fig. 1. The media article review and selection process.

developed by examining local neighbourhood data sourced from the Scottish Index of Multiple Deprivation [92], the social history of the neighbourhoods affected, and the SEPA flood risk maps for the area [93].

The case study approach is recognised as a tool for understanding a single phenomenon bounded in place and time in-depth [94, 95]. This methodological approach is exploratory and its application novel in this context, as it aims to assess whether media narratives could be usefully collected to build a systematic picture of interactions between institutions and communities in the public domain, given the policy imperative of collaboration. The findings from this rich qualitative approach are not intended to be generalisable but rather to provoke discussion about the emergent themes and encourage the reader to assess whether this resonates with their experience and situation [94]. To ensure the reliability and validity of the design, a robust case protocol was constructed [96], which defined the case study scope, structure and objectives, and clearly described the data collection and analysis processes [96].

We recognise that media narratives are themselves always political [97,98] and can influence policymakers as well as be influenced by them [99–101]. Communities, policymakers, and other stakeholders can influence media narratives to their advantage [22,102] and the research team remained cognizant of these issues during our selection and analysis of the data.

3.1. Data collection

This study aimed to understand a) how interaction between communities and institutions were enacted and communicated to wider society; and b) what insight they afforded into the effective (or not) implementation of flood policies that promote collaboration with communities as a key implementation principle. The media article review and the article selection process is shown in Fig. 1. A Google Search using the search string ‘Scotland flood news’ was conducted, time-limited to articles published online between January 1, 2024 and 29 February 2024. The team then sifted the first 200 returned articles to remove duplicates and wrong topics. We then reviewed the top 100 articles for relevancy and removed stories that were not directly about flooding in Scotland. The final list contained 50 Scottish-focused flood-related stories from 33 media outlets and press offices based in the UK. These included online newspaper pages (24 sources); online TV news pages (4 sources); University press releases (2 sources); institutions’ media releases (2 sources - Scottish Water and Network Rail); and a radio station’s news pages.

Parameters for case study selection were collectively designed to maximise relevance to the study aim. Specifically, the article must contain 1) a community impacted by flooding; 2) at least one institution engaging with that community; 3) evidence of policy implementation directly impacting that community’s flooding experience; and 4) attributed quotes to represent the voices of the community (individuals) and institutions (via spokespeople). Two articles met all four criteria and each became exemplar case studies.

To organise our data and manage the thematic analysis of the media articles across three members of the team, we used the 5W1H (*What; Who; When; Why; Where and How*) approach to develop an analytical summary of the issue of contention in each case study. This approach is derived from Aristotle’s seven circumstances in which a seventh circumstance asks ‘... *with what, such as an instrument* ...’ [103]. We adopted this seventh circumstance and hence a sixth ‘W’, to explore the institutional engagement within each case study by interrogating *with what policy instrument* the decisions are taken, referring to the resulting approach as the 6W1H analytical framework.

Table 1

The case studies’ problem summary.

	Case Study 1 – Garrowhill Bowling Club	Case Study 2 – Cluny Drive
What is the issue?	<ul style="list-style-type: none"> Recent recurrent flooding; Claim flooding is new since playpark and tennis courts built. 	<ul style="list-style-type: none"> Persistent historical recurrent flooding; Notified responsible authorities and no action is being taken.
Who is affected	<ul style="list-style-type: none"> 340 Bowling Club members; Glasgow City Council. 	<ul style="list-style-type: none"> 8–10 households; Renfrewshire Council; Scottish Water.
When did the problem start?	Observed since the tennis courts were built in 2022 and a play park was added in 2023.	Observed since 1960’s.
Where are the physical impacts?	Clubhouse, car park and playing green within the Bowling Club.	The road itself, gardens, cellars, driveways and paths in Cluny Drive.
How does the flooding occur	<ul style="list-style-type: none"> Pluvial flooding. Located in an identified flood risk area. 	<ul style="list-style-type: none"> Pluvial flooding. Located in an identified flood risk area.
Why is the problem not resolved quickly?	<p>Community states: Flooding became problematic since Council did work, therefore is council’s responsibility to rectify;</p> <p>Council states: Not their responsibility, it’s a flood risk area and the neighbours have paved their driveways.</p>	<p>Community states: It’s both Council and Scottish Water’s problem and they need to sort it out together;</p> <p>Council states: It’s the lack of drainage which is Scottish Water’s responsibility;</p> <p>Scottish Water states: It’s the Council’s responsibility to manage surface water on local roads.</p>
What policy instruments are relevant (main examples)?	<ul style="list-style-type: none"> National Planning Framework 3. Flood risk Management Scotland Act 2009. Flood Risk Management Strategy: Clyde and Loch Lomond Local Plan District. Glasgow’s City Development Plan 2017. Clyde and Loch Lomond Local Plan District. Planning (Scotland) Act 2019. Scottish Planning Policy 2014. 	<ul style="list-style-type: none"> Flood risk Management Scotland Act 2009. Water Environment and Water Services (Scotland) Act 2003. Sewerage (Scotland) Act 1968. The Roads Act (Scotland) 1984. Flood Risk Management Plan: Clyde and Loch Lomond Local Plan District.

3.2. The case studies

Both selected case studies were published online by Scottish newspapers. The Glasgow Times (Website visits January 2024: 4.47million) published the article that forms part of Case Study 1 on 15 January 2024 [104], describing new flooding of a long-established bowling club. The Daily Record (Website visits January 2024: 24.44million) published Case Study 2 on 2 February 2024 [105], describing recurring street flooding which remained unresolved for decades.

The communities involved were both located within the wider Glasgow conurbation, one from the periphery of East Glasgow (Garrowhill) and one from Cluny Drive in Paisley at the very western edge of Glasgow city. (see Table 1 for a comparative description of each).

3.2.1. Case study 1 - Garrowhill Bowling Club flooding

Garrowhill Bowling Club is located at the foot of Garrowhill Park, which covers a hillside in the east end of Glasgow (see Fig. 2) in the centre of an affluent private housing estate built in the 1930's, ranking amongst the 20% least deprived of Scottish neighbourhoods [92,106]. Established in 1937 [107], Garrowhill Bowling Club has c.340 members [105]. It is surrounded by the park to the east, the Club's car park to the south, a residential road to the west, and 3 new tennis courts to the north (see Fig. 2).

The Garrowhill Primary School estate was redeveloped in 2015, replacing a smaller collection of buildings on the hilltop above the park [107]. The new school's larger footprint paved over a grassed sports field and installed a new Multi Use Games Area (MUGA), in addition to an earlier smaller MUGA constructed at the bottom of the public park (see Fig. 2). In 2022, three floodlit porous macadam tennis courts were built and opened to the north of the Club in September of that year (see Fig. 2), while in winter 2023/24, a new toddler's playpark was added near the Bowling Club car park, removing some trees at the club entrance (see Fig. 2) [108].

The Bowling Club is located at the lowest level in the immediate area. SEPA flood maps show the club sits almost entirely beneath an area identified as having a 0.1% chance of flooding annually (Fig. 3).

The case study article was entitled '*Anger as Garrowhill Bowling Club hit by major flooding issues*', and its narrative is largely presented from the perspective of the Bowling Club members [105]. The article describes a complaint by the Club committee that the clubhouse and bowling greens had experienced flooding since the tennis courts and the play park were constructed by the local authority, Glasgow City Council. Both the Club's treasurer and a spokesman for the Council are directly quoted in the article. The Club claims the Council are directly responsible for the flooding it has recently begun experiencing because the Council installed the tennis courts and playpark. Specifically, the club claims the flooding had never happened before these new facilities were built.

3.2.2. Case study 2 - Cluny Drive flooding

Located in the Paisley neighbourhood of Gallowhill, Cluny Drive sits in a neighbourhood that is amongst the 10% most deprived in Scotland, which means its residents have lower income, employment and education than over 90% of Scottish neighbourhoods [92]. Like Garrowhill, the housing estate surrounding Cluny Drive dates from the 1930's. The street itself is a mix of cottage flats and terraced homes and sits within a flood risk area identified by SEPA as having a low likelihood of flooding (Fig. 4). In the article, however, flooding was reported to be a long-running and recurrent issue in Cluny Drive.

The article for this case study was entitled '*Paisley woman worried street flooding will have 'detrimental effect' on house value*' [104] and is largely presented from the perspective of the local residents. The article was triggered by a complaint by Betty Johnston, a resident of the street, who reported that she had experienced persistent flooding for decades after heavy rainfall events. She stated that she has to wade through flood water to get into and out of her house when the flooding occurs. In addition, she notes her driveway is sinking, and the value of her home may be impacted by this recurrent flooding problem. In the article, she also highlights the issue as specifically drainage related i.e. excess surface water does not drain. She has proactively contacted both the local authority, Renfrewshire Council, who are responsible for the flooded roadway, and Scottish Water, who manage the drainage system in the street. Both institutions give direct comment in response to her complaints through spokespeople quoted in the article.

3.3. Problem identification and thematic analysis

Analysing media stories can be complex due to the dependence upon only the information presented, which can both limit and define the analysis [22,109–111]. Each article was therefore analysed independently by three members of the research team to map emergent themes, and to collect related policies that influenced and/or were enacted within each case study. These emergent themes and relevant policies were then reviewed and analysed using the 6W1H method. Having identified the key factors within the problem (Table 1), our thematic analysis identified several macro themes within the articles, specifically around community engagement and responsibilities, which are discussed in more detail in the Findings section. The media articles also talked specifically about flood risk management in each of the two places, covering preparedness, response to the flooding, and the impacts from the flooding on the community spokespeople's mental and physical health, as well as the properties flooded. Table 2 thematically organises this data (i.e. direct quotes) from the case study articles under Preparedness (including prevention and mitigation); flood response/clean-up (recovery) and the consequent impacts on mental and physical health.

4. Findings

In both case studies, institutional community engagement was *reactive* as both communities had identified the problem themselves and then contacted the institutions to rectify the flooding issues they faced. Both communities placed full responsibility on the



Fig. 2. Garrowhill Bowling Club and surrounds.

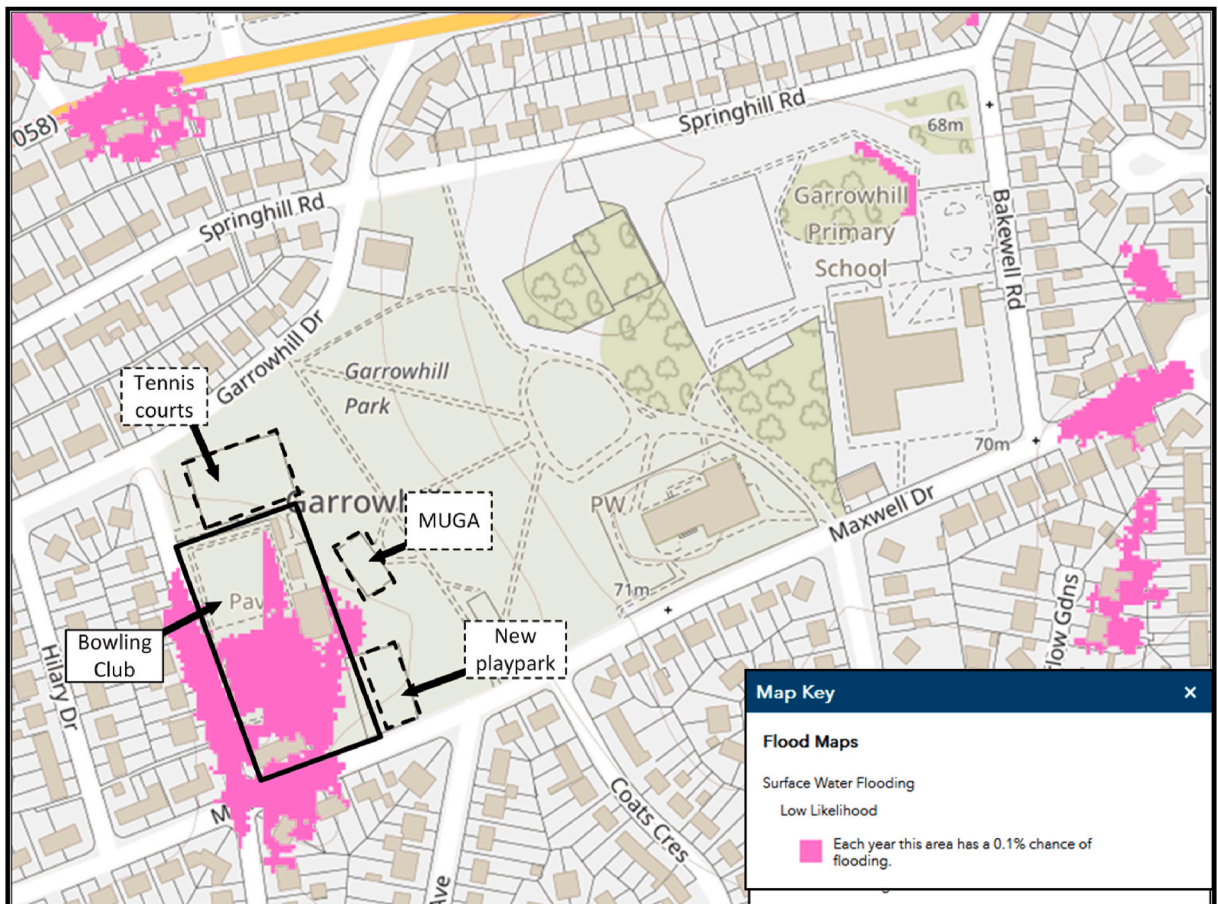


Fig. 3. – Garrowhill surface water flooding area (low likelihood)¹¹.

institutions they approached to resolve the problem. However, both communities also perceived a lack of acceptance of that responsibility by the institutions, manifested by a lack of further engagement with the community (Case Study 1), and by a lack of action to resolve the problem (both case studies). This could be a result of institutional timescales that do not match community expectations rather than a lack of action per se.

In Case Study 1, a Glasgow City Council spokesman indicated the situation was being addressed despite the community suggesting there was no progress. The Council spokesperson stated:

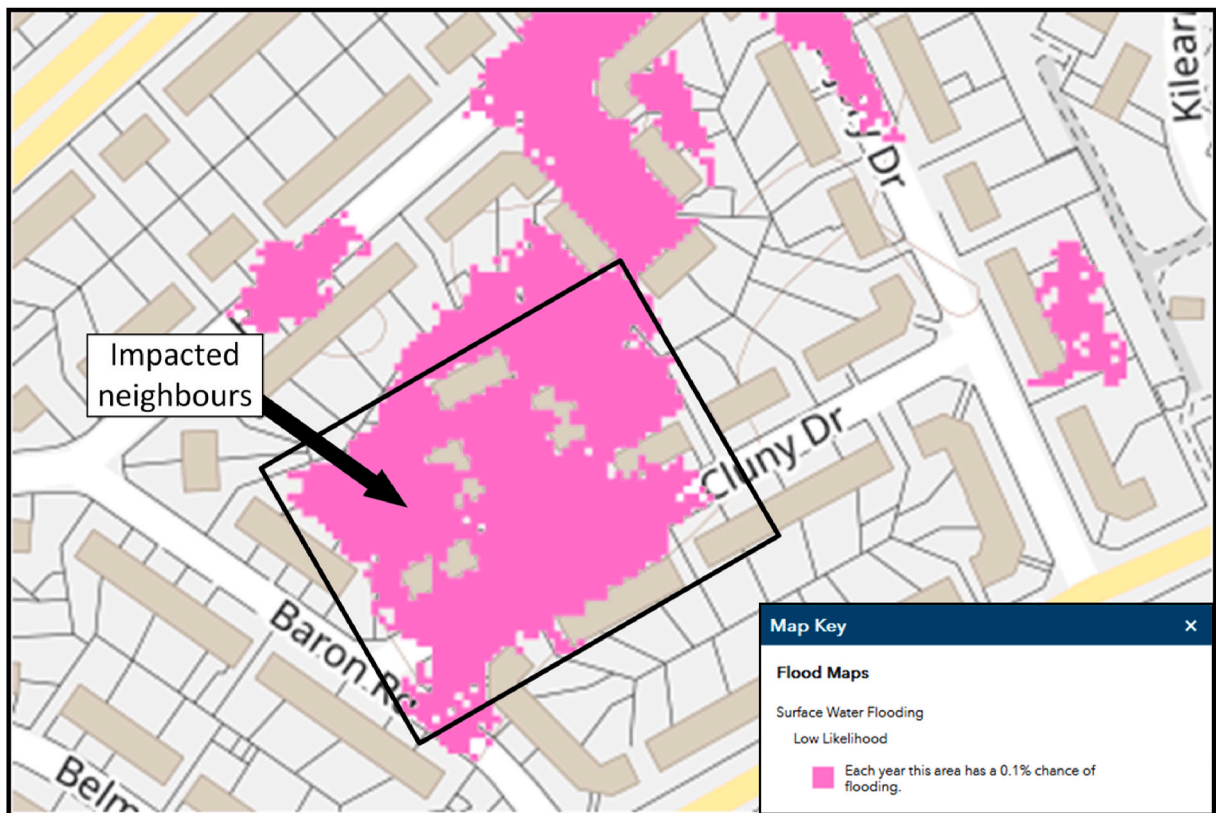


Fig. 4. – Cluny Drive surface water flooding area (low likelihood)¹.

“We understand the concerns the bowling club has over recent flooding events and it is a situation that is being addressed ... We will continue to liaise with Glasgow Life and the bowling club to address the concerns about surface flooding and consider any appropriate remedial action.” (*Glasgow City Council spokesperson*)

However, as highlighted in Table 2, this institutional response seems to reference older discussions with Glasgow Life, an Arm’s Length External Organisation (ALEO) set up by the Council. The club representative stated:

“That [*last communication with Glasgow Life and the GCC’s parks department*] was months ago and we’ve not heard anything since, despite repeated attempts to get in touch with them ...” (*Bowling Club representative*)

In Cluny Drive, Betty was similarly frustrated as she noted the institutions were “... passing the buck.” This was supported by the direct quotes from Renfrewshire Council and Scottish Water’s spokespeople. Renfrewshire Council stated they regularly clean the gullies on the road to assist the water flowing to the drains, but that the drains themselves were Scottish Water’s responsibility and they had ‘regularly’ engaged with Scottish Water in an attempt to resolve the situation:

“... the capacity of Scottish Water’s receiving combined sewer at this location is struggling to deal with the weather we have been experiencing. We are in regular contact with Scottish Water about this and have asked them to consider installing a capital scheme to increase the capacity of the combined sewer which should help address flooding issues on Cluny Drive.” (*Renfrewshire Council spokesperson*)

¹ Available at: <https://map.sepa.org.uk/floodmap/map.htm>. Sepa flood Map Version 2.1 Data Attribution Statements 8 November 2023. ©SEPA 2023; this SEPA product is licenced under the Open Government Licence 3.0. The following attributions are also required for the Surface Flooding map: Airbus, IR Aerial Photography ©GeoPerspectives, Digital Terrain/Surface Model ©GeoPerspectives, Lidar Digital Terrain Models and Digital Surface Models- ©Infoterra Ltd; UK Centre for Ecology & Hydrology - Some features of this map are based on digital spatial data licenced from the UK Centre for Ecology and Hydrology ©UKCEH. Based upon LCM2007 ©UKCEH 2011. Contains Ordnance Survey data ©Crown Copyright 2007. © third party licensors. Contains OS data ©Crown copyright and database right 2023. Defra ©Crown copyright Defra March 2006. Environment Agency - Environment Agency copyright and/or database right 2016. All rights reserved. Geoinformation Group © Cities Revealed Lidar copyright, the Geoinformation Group. Intermap Nextmap © Intermap. Ordnance Survey © Crown copyright and database rights 2023 OS PSGA Member Licence. Scottish Government - Crown Copyright Scottish Government, SEPA and Scottish Water (2012)

Table 2
Flood preparedness, response and impacts.

		Case Study 1 – Garrowhill Bowling Club	Case Study 2 – Cluny Drive
Preparedness	Community statements	“We held meetings with Glasgow Life and Glasgow City Council’s parks department who said they would discuss the issue and come back to us. That was months ago and we’ve not heard anything since, despite repeated attempts to get in touch with them ...”	“When I report it to Renfrewshire Council, they’ll say they’ll get someone out to look at it. I’ve been on to Scottish Water, who say it’s not really their problem, it’s a drainage problem. The council say it’s actually a sewage problem” “I feel as if they need to get together and come up with some sort of plan to get this flooding issue resolved ... I just feel as if this problem is only going to get worse and worse.”
	Institution Actions	Stated by a club member: “[The Council] ... install(ed) a trench filled with pea gravel at the playpark to try and halt water running down the hill ...” Stated by the Glasgow City Council spokesperson: “We understand the concerns the bowling club has over recent flooding events and it is a situation that is being addressed.” “We will continue to liaise with Glasgow Life and the bowling club to address the concerns about surface flooding and consider any appropriate remedial action.”	Stated by the Renfrewshire Council spokesperson: “We are aware of flooding issues on Cluny Drive in Paisley and our teams regularly attend to clean the gullies on the street.” Stated by the Scottish Water spokesperson: “We have found no sewer-related issues at this location with the flooding being surface related due to extreme weather.”
Flood Response/Clean-up	Community	‘ ... it took members two days to clear water almost a foot deep from the green using a specialist pump ... ’	<i>None described</i>
	Institutions	<i>None described</i>	<i>None described</i>
Physical impacts	Community statements	Pea-trench “proved to be ineffective ... we are starting to see more and more cracks appearing in the flooring.” ‘ ... water is pouring into the foundations of their clubhouse every time there is a heavy downpour ... ’ ‘ ... the adjacent car park is also regularly under up to ten inches of water after the recent construction of a second small playpark nearby ... ’	‘Betty ... has to wade through water when going in and out of her home in Cluny Drive during bouts of bad weather ... ’ ‘ ... her driveway has sunk due to the volume of water ... ’ ‘ ... she has had to move her car on a number of occasions during recent adverse weather events ... to prevent it being damage ... ’ ‘ ... she has had to stay at her son’s ... after her neighbours have advised her not to come home from work because the flooding has been so bad.’ “The buildings have air vents in the brickwork and because of the sheer height of the water, it actually gets in and lies in the foundations of the building.” “... my neighbour downstairs, they have a cellar, and there was three-and-a-half feet of water in the cellar.” “... the water damage is going to have a detrimental effect on the value of my house ...”
Mental Impacts	Community statements	“The fear is the longer this drags on, the more repairs we could be facing. It’s impossible to properly see underneath the clubhouse so we’ve no idea how much damage the water is causing, but with the amount of it the worry is that it could be serious.”	‘Betty Johnston is fed up with having to wade through water ... ’ “I just feel as if I’m banging my head against a brick wall ...”

The Council highlight they are attempting to resolve the situation by trying to persuade Scottish Water to act. However, Scottish Water responded:

“We have found no sewer-related issues at this location with the flooding being surface related due to extreme weather. We work in partnership with local authorities but while surface water may drain to the combined sewer system in the area, the local authority has responsibility before it gets to the sewer.” (*Scottish Water spokesperson*)

This response not only refutes responsibility, it denies there is an issue with the drainage. Instead, they dismiss it as a surface water management (and hence local authority) problem. On their public website, Scottish Water state that local authorities are responsible for the drainage of roads. However, under Scottish Government guidance, released as one of the duties in the Flood Risk Management (Scotland) Act 2009, it is stated that the ‘ ... governance of surface water requires coordination between authorities ... ’. It goes on to note that local authorities (councils) should lead on future surface water management plans. However, the Government also acknowledge that:

“In taking this work forward, careful consideration will need to be given to responsibilities for delivering and maintaining all parts of the drainage system, with particular attention given to responsibilities where the system, or parts of the system, performs more than one function. The aim should be to find a fair and practical way to share costs and responsibilities for the whole drainage system. SEPA and Scottish Water will need to engage proactively in this work, offering support, expertise, data and models to responsible authorities.” [112].

The concept of ‘fairness’ is not explicitly defined in the Act, however, allowing this guidance to be variously interpreted. Furthermore, ‘fairness’ in this context considers distributed responsibility between institutions only, whilst there is no mention of what ‘fair’ might mean in relation to communities in need as in these case studies. The Act is in fact entirely silent on communities, implicitly assuming that communities will not need to concern themselves with this issue because the institutions will collaborate to provide a seamless service. Yet in Case Study 2, the lack of sewer drainage capacity results in water over-spilling into surrounding properties and, once in those private properties, the property owner’s themselves become liable and responsible for any damage incurred. Therefore, ‘fairness’ in this case inadvertently allows institutions’ (lack of) management of surface water drainage to negatively impact local residents financially, physically and mentally (see Table 2).

In Case Study 1, the issue of responsibility was dismissed by the Glasgow City Council spokesperson as the flooding problem had not appeared in any Council document that the spokesperson was aware of. This appeared to imply that, as there was no officially documented link between the new tennis courts and flooding at the bowling club, there were no Council responsibilities in the matter. The spokesperson stated:

“... we are unaware of any document that indicates the new tennis courts opened in 2022 have contributed to flooding at the bowling club. This view does not accord with the opinion of the council’s drainage experts, who consider that other factors are more likely to be responsible.” (*Glasgow City Council spokesperson*)

The spokesperson then went on to note several reasons why the club was flooding that were not tennis court related, including that the club is sitting in the lowest point in the catchment and that this is clearly mapped (see Fig. 3). However, this does not address the club representative’s statement that the club had never flooded before the courts were built (see Table 2). The spokesperson then goes on to imply the community’s own actions had contributed to the flooding:

“A number of new driveways have also been installed locally which will also affect the permeability of local ground.” (*Glasgow City Council spokesperson*)

There is no timeframe given of when these new driveways were installed in the surrounding 1930’s housing stock, nor is there any reference to the increasing likelihood of pluvial flooding as a result of climate change.

The stipulated need for documentary evidence without any provision for communities to obtain such evidence (which would likely require costly specialist assessments to generate) does not seem ‘fair’ to communities. Such blaming of residents also fails to acknowledge the responsibility of institutions and responsible authorities to support individuals and communities. Further, the implied cumulative impacts from individual’s actions (paving their driveways) could be addressed and co-ordinated through Council policies.

This correlates with the previous findings on institutional barriers which highlight that, while policy is evolving to embrace egalitarianism throughout Scotland, the maintenance of old practices (Historic Institutionalism) hinder the full implementation of a fair and collaborative water sector [60]. In turn, this hinders adaptation to change whether this is caused by changing weather patterns, changes to the built environment, or a combination of these.

The institutional responses in the case studies do not move the problem towards a resolution despite both communities proactively attempting to engage with the institutions. Indeed, Betty offered an opportunity for collaborative working across institutions and with the community in Cluny Drive when she contacted both the Council and Scottish Water. However, despite the emphasis on collaboration and engagement in flood management policies, communities have no power to force institutions to constructively collaborate on flood protection:

“I feel as if they need to get together and come up with some sort of plan to get this flooding issue resolved,” she said. “With climate change now, we’re getting warmer summers and colder winters with adverse weather conditions and I just feel as if this problem is only going to get worse and worse.” (*Betty Johnston, Cluny Drive*)

5. Discussion

Engaging communities proactively in managing their flood risk in Scottish policy documents is framed in a rhetoric of inclusion, empowerment and equity [47,50]. However, community engagement is never apolitical, and this study further evidences that emotive discourses can frame difficult challenges faced by communities and institutions [10,22,113]. The communities’ negative experiences of engaging with institutions in these exemplars emphasises the distance between the ideology of policies and their real-world implementation. Further, both case studies highlight the negative impacts upon individuals’ health and wellbeing (e.g. stress; worry) in addition to the wider community impacts of unresolved flooding.

The Scottish Place Principle, which intended to encourage collaboration and community involvement to combine resources, investment and energy [40] has failed these two communities. Opaque policy rhetoric like that within the Principle adds to the lack of clarity around language and concepts in risk policymaking that is recognised elsewhere in Europe [114]. As a result, it facilitates the creation and maintenance of vacuums of responsibility. Policy implementation then further supports such vacuums by influencing the narratives and constraints that directly impact the power (or lack thereof) held by communities seeking the support of institutions [115]. Specifically, where there is ambiguity of responsibility within a policy directive, such as the shared responsibility in Scottish FRM policy, institutions can use the vagueness of language and concepts like ‘collaboration’ to externalise responsibility to others.

In the city of Utrecht, the local authority collaborates closely with local residents to address flood issues in problem areas through ‘tailor made’ approaches which, whilst perhaps not always efficient, would fit well with the Scottish Place Principle [40,116]. This approach has the potential to value informal flood knowledge held by residents such as Betty (whose experience does not match the

'low flood risk' indicated on SEPA's flood map), and thus contribute to community resilience [117]. The potential lack of understanding of the natural environment amongst community stakeholders like Betty and the bowling club members can undermine correct causal attribution, just as fully understanding the natural environment, for example soil drainage and water infrastructure, can aid decision making [116]. In the Netherlands, independent bodies, such as the national institution RioNed and commercial consultancy firms, can contribute this knowledge to communities and stakeholders [116], opening up access to expertise beyond local informal knowledge systems and institutional knowledge.

The area within these two case studies were covered by the Metropolitan Glasgow Sustainable Drainage Partnership (MGSDP). All institutions involved in these case studies are key partners within the MGSDP. Yet even though the MGSDP website has a facility to report flooding, the Partnership is not mentioned in either article by the journalists, the community members, nor by the institutions themselves. This exemplifies the challenges of fragmented decision making, residual silo thinking and poor public engagement already highlighted in a review of the MGSDP [83] and evidences a lack of collaborative working in its partners' responses to real-world flood risk management.

Externalisation is inadvertently facilitated by government guidance that flood responsibilities must be shared, including costs and responsibilities, in a 'fair and practical way' [40]. Institutions in any collaboration must then define what they perceive to be 'fair' to that institution themselves within their internal culture and norms. Through the lens of Rational Choice Institutionalism (RCI), an institutional actor will be motivated by self-interest to protect the institution and hence protect themselves. Given this self-interest and the potential institutional costs of reactive support, the rational choice in policy-ambiguous situations would sensibly be that it would be 'fairer' if another institution took responsibility and resolved the problem. Furthermore, this study found an unexpected additional issue, namely that community-led demands could be perceived by institutions and their actors as a threat or hindrance to other institutional priorities or goals.

We find that institutional culture is also important when implementing policies relating to climate change [63]. The response to the problems demonstrated in the included case studies are manifestations of the socially-constructed values, beliefs and practices of each institution, which in turn reinforces the behaviours and structures of that organisation [61].

A greater understanding of policy mixes [79] and the resultant institutional flexibility could support integrating institutional internal and subject-specific policies with wider Scottish flood risk policies, enabling institutions to prioritise collaborative working across institutional agendas. For example, had Scottish Water and Renfrewshire Council acted as facilitators determined to collaborate to resolve the problem in Cluny Drive rather than institutional actors with departmental-specific and bounded responsibilities, a solution to the recurrent flooding may have been found.

Furthermore, the vacuum of institutional responsibility for flooding in Cluny Drive has allowed the flood problem to persist over decades despite recent Scottish policies requiring collaboration and 'fair' collective responsibility. Historical path dependence, where internal institutional structures, rules and culture interpret policy guidance within historical practices, may be responsible for the long-term maintenance of such institutional inertia around reactive community engagement in flood risk. As a result, effective policy implementation may be hindered by historical approaches as well as institutional targets and diverse strategic agendas, encouraging siloed policy action [20].

The benefits to institutions of externalising responsibilities is currently under-researched. Future research could consider the hypothesis that externalisation occurs in response to the potentially significant costs of responding to reactive requests, and is therefore a rational choice for decision makers in institutions. In Scotland, for example, although Scottish FRM responsibilities have been

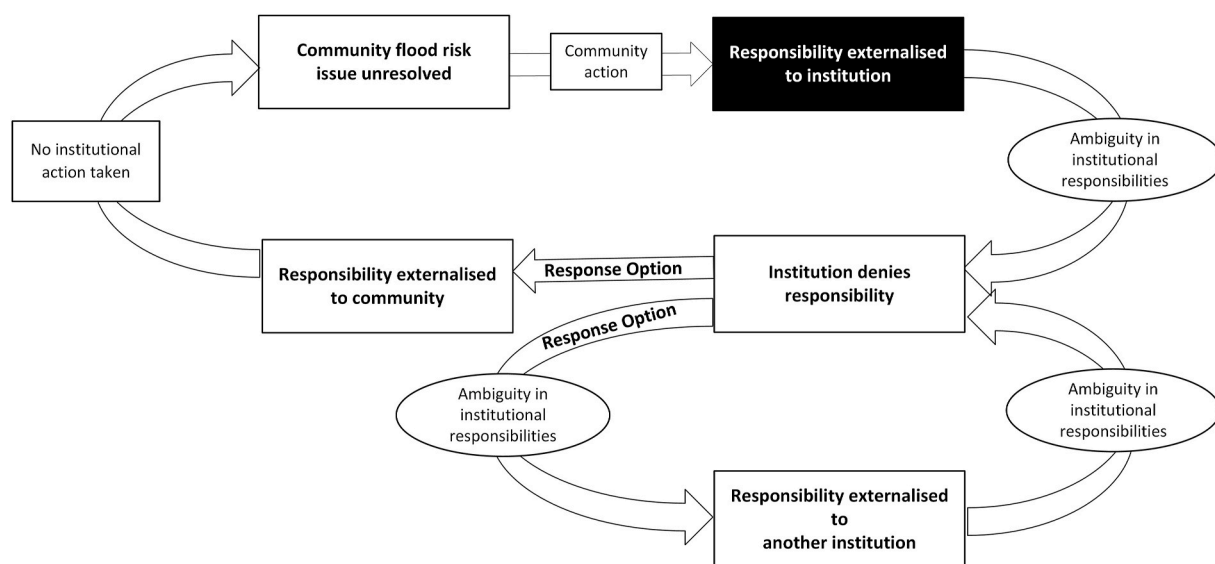


Fig. 5. The cycle of externalisation.

increasingly decentralised [22,49], the budgets for these institutions are under severe pressure and they are already struggling financially to respond to core commitments [54]. Such financial constraints challenge collaborative working and cooperation as institutional ‘bottlenecks’ i.e. poor co-ordination with no mechanism for financial exchange between institutions, continue to promote institutional silos and constrain actions [65]. Furthermore, despite institutions implementing policy that intends to act for the common good, it can be hypothesised that limited financial resources can and do take precedence over such cultural integrity [64] i.e. the costs can constrain action when policy ambiguity enables the transfer of responsibility – and hence financial cost – to other institutions.

In this study, the apparently normative Scottish institutional response to externalise flood risk responsibilities is the driving force within what we term the Cycle of Externalisation (Fig. 5). Within this cycle, a community externalises responsibility to an institution which then filters it through the ambiguity in institutional responsibilities in policies. The recipient institution, should they deny responsibility, then has two potential externalisation response options. Firstly, they may return the responsibility to the community if it is something which they consider (according to policies) that no institution has responsibility for. Alternatively, if there does appear to be an institution who may be responsible, they may then attribute responsibility to another institution. That institution in turn receives the responsibility filtered through their interpretation of ambiguity in responsibilities. That institution then has the option to resolve the issue or, if they deny responsibility, externally attribute the responsibility to either another institution or back to the community itself. Given policies intend to support collaborative working and build community resilience through positive place-based community engagement, this cycle of institutional externalisation of responsibility is not only maladaptive, but also both delays and avoids mitigation action despite the increasing flood risk from the climate emergency. Furthermore, the Cycle of Externalisation undermines community resilience by encouraging mistrust between institutions and communities.

Given that in Scotland, as elsewhere, there is already a lack of engagement in adaptation efforts [35], any institutional involvement in undermining community flood resilience (and hence wider climate resilience) should be urgently addressed.

This small exploratory study is limited by the narratives presented in the two articles, and by the specifics of each particular case study. It is intended as an exemplar reflecting issues which have repeatedly emerged in our earlier research [20–22]. Our approach presents a novel method to examine issues around community engagement with institutions in local places, and highlights the quality and results of these interactions. It suggests that policy weaknesses could be exposed at implementation, as they were in this study. This study clearly demonstrates the need for more research on policy implementation itself, and hence correlates with an international systematic review of climate change adaptation in coastal areas which also concluded that there is a lack of research around policy implementation [118]. Future systematic research should explore a larger sample of news media communications around flood risk to gain greater insight into the institutional response and the political narratives underpinning the narratives.

6. Conclusions and recommendations

This study aimed to understand how interaction between communities and institutions were enacted and communicated to wider society; and what insight they afforded into effective (or not) flood policy implementation at institutional level where collaboration with communities was essential. From this small exploratory study of two examples, we found interaction remains problematic. Our analysis concluded that three key response strategies support a lack of institutional action and an avoidance of responsibility when communities reach out for support, namely 1) historically attributing responsibility externally to others i.e. exploiting policy ambiguities without changing current practice (Historical Institutionalism (HI)); 2) reported absence of documentation evidence i.e. institutional internal rules and processes (Rational Choice Institutionalism (RCI)); and 3) blaming the community i.e. the existing social norms for the institution (HI and RCI).

Preparing for and mitigating flood risk requires individuals and communities to collaboratively engage with institutions to maximise adaptation efforts. This places the individual within state-funded systems and practices that govern the flood risk at national and regional level. Despite policy rhetoric placing an emphasis on collaboration, place and preparedness, in reality there are fundamental issues with this in practice. Firstly, there are inequities in society that make flood-related egalitarian policies an abstract ideal when applied to real neighbourhoods and all their diverse opportunities and disadvantages. Our findings suggest that the policies’ in our examples (see Table 1) were egalitarian upon implementation, in that there was equality in the lack of resolution despite the neighbourhoods’ affluence being at opposite ends of the deprivation spectrum. Secondly, institutions are constrained by capacities, resources and capabilities. Like individuals, institutions have competing pressures on finite resources, and flood risk adaptation is not necessarily prioritised over other essential services in the agendas of every public institution.

Both institutions and communities externalise responsibilities for flood risk for reasons that remain poorly understood. This study finds that reactive institutional community engagement is not always positive nor effective despite egalitarian policy attempts to generate a new collaborative response to flooding and climate impacts. Therefore, while egalitarian policy ideals are aspirational in their pursuit of equity, their implementation is compromised when they encounter the historical path dependencies and rational choice decision-making within institutions.

Similarly, emphasising community engagement to build resilience in flood risk policy encounters challenges upon implementation including ambiguous responsibilities, opaque and/or vague concepts and definitions, failure to invest additional resources, and a lack of equity in the power dynamics underpinning engagement.

The capacity of the governance systems also influences implementation [119]. Policy intentions can demonstrate their weaknesses upon implementation, as we found in this study of collaboration. Indeed, the IPCC recognise that current governance lacks the capacity to implement adaptive and mitigation policies [72]. Transformative governance may provide a solution to poor institutional collaboration and inadequate policy implementation. Transformative governance requires multi-level learning as an iterative process if it is both improve and question prevailing institutional practices [71,120]. The implementation of cross-sectoral and multi-level

policies may (re)build trust and offer greater support to communities as they meet the climate challenges ahead [121].

However, transformative change in governance remains poorly understood [120]. Currently, it is unclear whether communities across the world do have the capacity to become climate resilient and sustainably change in accordance with climate change action plans, and therefore transformative governance cannot be sure to succeed [72].

Our study suggests that despite the egalitarian policies in place in Scotland, their successful implementation requires the governance system to adapt in the face of climate change. Currently, the policies themselves do not enable this as there is neither clarity on institutional and community responsibilities, nor a clear mechanism for resolving cases where this lack of clarity results in inaction.

There is a pressing need to focus on policy-driven collaboration in implementation and practice if we are to see transformative policy ideals benefit communities across the world in future. This will require a greater understanding of the interconnectedness of communities and institutions, including their social norms, assumptions, identities and motivations, to enable us to break the cycle of externalisation and ready us all for an effective response to an uncertain climate future. More research is urgently needed to understand these challenges to support innovative policymaking in the coming decades.

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Fiona Henderson: Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Bridget Bennett:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Data curation, Conceptualization. **Rachel Dohain-Lesueur:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Karin Helwig:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Data curation, Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

All data used is publicly available from sources which are cited in the article

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