

Examining the Concept and Use of Just Resilience in Ireland and Internationally





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RESEARCH PAPER

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Introduction

This report, commissioned by NESC, examines the foundations of the concept of just resilience, considers examples of its implementation in different contexts, and provides recommendations for the development and implementation of a just resilience framework³ in Ireland. The findings, conclusions and recommendations within this report are based upon a review of the academic and grey literature (including consultations, position papers, reports, policy, institutional examples and applied research), alongside a series of interviews conducted with researchers and practitioners with an expert knowledge of either just resilience itself or the broader policy, political and socio-economic landscape in which just resilience operates. Combined, the data collected presents an up-to-date representation of the current state of policy and political positions on just resilience, and where it sits within the broader context of climate mitigation and adaptation.

This report follows a request from NESC to review literature focusing on the following four areas:

- 1. Concepts of just resilience internationally
- 2. Current usage of just resilience as a concept or a framing in Ireland
- 3. How to identify vulnerable groups within a just resilience framework
- 4. How to put just resilience into practice.

We conducted a search of both scholarly and applied literature from 2020-2025 to address these topics. To corroborate data found in the literature or, where needed, to fill data gaps, we also conducted five expert interviews with practitioners and researchers in Ireland familiar with the concept (please see Appendix for an anonymised list). The interviews were semi-structured, allowing participants to address questions and topics in ways that made sense to them and accounted for their own expertise, while remaining comparable through ensuring the topics and questions were consistent enough across interviews. Taken together the documentary and interview data were analysed to draw out the major findings. These findings were used to develop a series of recommendations.

The report is divided into a number of sections. Following this introduction, section 2 conceptualises just resilience from an international and then Irish perspective. Section 3 discusses the identification of vulnerable groups. Section 4 looks at how to put just resilience into practice. Section 5 looks at examples of just resilience in Ireland and internationally. Finally, the report concludes.

Understanding Just Resilience

Climate impacts such as a growing frequency of storm events, rainfall events, drought, and changes to air temperature are becoming an inevitable reality in Europe. With climate challenges increasing, it is clear that Ireland is not adequately prepared to address these risks and that mitigation will not be enough. Countries need to move guickly to increase the pace

³ By 'frameworks', we mean a set of guidelines and principles to guide organisations in the development and implementation of approaches to just resilience.

and scale of adaptation measures. The concept of just resilience is an approach that has the potential to enhance adaptation action.

Just resilience as a concept is in its infancy, as demonstrated by the relatively small amount of academic literature. It has already gained some prominence in policy and policy-relevant literature, particularly within the EU and in Ireland. As it is a young concept, there is perhaps still work to do regarding its precise definition in practice. There is also an opportunity to more clearly set out what just resilience is, and where it sits, in relation to other policy areas, such as Just Transition frameworks, disaster preparedness, and community resilience. Likewise, the boundaries of the concept and how this affects its deployment in policy remains a question to be addressed. For example, to what extent does just resilience compete or complement just transition? If just resilience is primarily focused on adaptation while just transition is focused on mitigation, how should policymakers understand the position of local communities, households and individuals who are necessarily the agents of both just transition and just resilience, alongside multiple other actors and institutions.

Its strength may lie more squarely in its application. Multiple reports in Ireland and further afield have referenced just resilience, both conceptually and in terms of implementation. This provides learning opportunities to both define just resilience in practice and provide recommendations of how to most effectively implement frameworks and/or principles of just resilience in the Irish context. In particular, there is an opportunity for agenda setting in terms of emphasising the importance of just resilience within existing programmes (such as just transition), as well as applying just resilience principles across policy areas and levels of governance and practice (central government, local government and community organisation).

Resilience can be summarised in basic terms as the ability to 'bounce back' from shocks. The reality, of course, is more complex than this. To be resilient requires individual agency on the one hand but also requires the institutional and structural resources to enable resilient practices. The exact mix of agential and structural resources will influence whether the resilience of individuals, households and communities are absorptive ('taking a hit' and carrying on in a potentially diminished state), adaptive (making adjustments and maintaining a certain standard of living), or transformative (transcending challenges, incorporating responses and 'bouncing forward' to an improved state) (e.g. Dagdeviren and Donoghue, 2019). The ideal situation is to achieve transformative change. However, this is the most difficult state to achieve, and it cannot be done without the appropriate resources and support. This is particularly important to consider as Ireland grapples with a new climate reality and must develop strategies to respond to these emerging challenges.

Conceptualising Just Resilience

Though in its infancy, the concept of just resilience is gaining traction both internationally and in Ireland. There are multiple examples of this at the national and supranational levels. This section considers just resilience in an international context first, before examining the concept within the Irish context specifically.

Conceptualising Just Resilience Internationally

The 2021 EU Climate Adaptation Strategy (EC, 2021a) introduced the concept of just resilience into the EU policy domain. Since then, there has been a continual growth in the recognition of just resilience as an important concept within climate action strategies. However, there is currently no universal agreement (in either the policy or academic sphere) as to how just resilience should be determined or achieved (Briel *et al.*, 2021; EEA, 2025; Lager *et al.*, 2023; Mikalsson & Lager, 2024).

In academic literature, the concepts of "resilience" and "justice" emphasise the importance of both structural and systemic change, and the necessary role of agency in adapting to change. Some examples of instruments of change are active citizenship and participation, processes of social cohesion, and processes to increase trust in institutions and community as a whole (Lager *et al.*, 2023). For this reason, meaningful engagement with communities such as the co-production of methods to address climate shocks can foster change. Recent IPCC reports have demonstrated clearly that adaptation measures are more effective when elements of justice are incorporated (e.g. IPCC, 2022). This sentiment of justice, social fairness and 'leaving no one behind' has become a key principle in EU policies and initiatives related to sustainability and climate change, particularly in the last five years. For example, the 2030 Agenda for Sustainable Development, the European Green Deal, and Ireland's Climate Action Plan and Just Transition Framework refer to leaving no one behind.

Similarly, the EU Covenant of Mayors initiative places social fairness at the centre of its work. The Covenant of Mayors was established by the European Commission in 2008 to support participating local authorities across Europe to reduce greenhouse gas emissions and increase resilience to climate change. There are currently over 11,000 European cities and local authorities (including many across Ireland) participating within this network, each pledging to adopt ambitious approaches to addressing mitigation and adaptation to climate change (Pignel, 2025). Justice and just resilience plays a central role in its approach to climate adaptation. The Covenant of Mayor's Policy Support Facility undertook a two-year pilot programme (2022-2023) to assist local authorities across 12 European States to develop and implement adaptation measures. One of their four key dimensions to climate adaptation was just resilience and well-being (Covenant of Mayors, 2024). They warn that a lack of justice considerations in the development and implementation of adaptation measures can result in 'maladaptation' - the redistribution rather than removal of burdens, or an increased vulnerability for regions or groups. The European Mission on Adaptation also emphasises the importance of having a high level of citizen engagement in the development of adaptation measures (EC, 2021b).

Incorporating just resilience into adaptation measures, therefore should become a mainstream practice. However, as stated previously in this report there is currently no agreed definition of just resilience, so how can we ensure that it is incorporated into policy? Taking a broad overview of the international policy and academic literature, some of the most frequently reported dimensions and mechanisms of just resilience include:

 Actively engaging vulnerable groups in an inclusive and meaningful way, including giving a voice to those most vulnerable to climate impacts but who may be

- marginalised from political influence (e.g. Ceolotto et al., 2024; EIB, 2023; Lager et al., 2023).
- Improving the current situation of individuals and communities, while also increasing their capacity to manage future problems related to climate change.
 Such as climate risks (heat, drought, flooding etc.) or the energy transition (energy poverty, energy security etc.) (e.g. Breil et al., 2021; EEA, 2022; Lager et al., 2023).
- Taking a local, regional or place-based approach to adaptation measures, incorporating the specific needs and assets of the area (e.g. Ceolotto *et al.*, 2025; EIB, 2023; Mikalsson & Lager, 2024).
- A call for collaborative networks and new models of cooperative governance.
 Establishing mechanisms that engage stakeholders, the public and vulnerable groups in the decision-making and implementation process (e.g. EEA, 2022; EEA, 2025; Sniffer, 2021).
- The use of nature-based solutions for climate impacts and risks (e.g. Breil *et al.*, 2021; CARDIMED, 2025; EEA, 2025).
- The recognition that measures implemented with climate change mitigation objectives could also support climate change adaptation objectives e.g. energy efficiency and building improvements (e.g. Alonso & Flores, 2024; Breil et al., 2021; Lager et al., 2023).
- Mechanisms to assess progress on justice throughout the entire adaptation process, from development and implementation of the measures to the evaluation of outcomes (e.g. Ceolotto et al., 2024; EEA, 2025; Lager et al., 2023).

Conceptualising Just Resilience in Ireland

This section focuses on the transition from understanding the concept of just resilience in the abstract to understanding it in an Irish policy and political context. As such, discussions in this section begin to focus more on how to define just resilience in practice, and how such definition(s) contribute to the embedding of just resilience in policy. Strong foundations are already being built to define and incorporate a just resilience framework in Ireland. For example, the notion of resilience in general is already well-represented in Irish legislation. The Climate Action and Low Carbon Development (Amendment) Act 2021 establishes an objective to transition to a climate resilient, biodiversity rich, environmentally sustainable and climateneutral economy by 2050. Ireland's National Adaptation Framework 2024 includes within it the principle of just resilience, in which adaptation must not deepen inequality and is required to protect the most vulnerable in society, while focusing on nature-based solutions to climate shocks, alongside proper monitoring and equity processes. Making the link with just transition, the Just Transition Commission's interim report in June 2025 emphasises the need to include more than just a focus on mitigation, instead arguing for a broader focus that includes consideration on how to implement just resilience. The concept is also being taken seriously in applied research, as demonstrated by the Environmental Protection Agency's (EPA) ongoing research on just resilience, including the joint EPA-ESRI JustAdapt project (Ceolotto et al., 2025), and indeed the commissioning of this research report by NESC.

The National Adaptation Framework (NAF) 2024 describes just resilience in terms of understanding how different groups in society are affected by climate impacts and how the benefits and burdens of adaptation measures are shared among them. Each group has its

own vulnerability profile, which shapes the extent to which processes are experienced as fair and transparent. This highlights the essential need to bring diverse voices into the policymaking process in a meaningful and engaged way, making an attempt to fairly distribute (political) power and participation in the policymaking process - ideally at a local level.

Both the literature and interviews on just resilience tended to frame it as taking seriously the problem of adaptation. For example, the JustAdapt project, following Breil *et al.* (2021), highlights the importance of equitable, persistent and transformative adaptation. Core to this is:

- The protection of vulnerable groups
- Including a range of social groups in the planning, implementation and monitoring of measures
- Recognition of social groups and ensuring these groups are able to participate effectively in the development process
- Ensuring that existing inequalities or vulnerabilities are not deepened, while avoiding the creation of new vulnerabilities
- The creation of social benefits, including improved physical and mental wellbeing, retraining, rehabilitation and reduced economic inequalities.

Echoing the different types of agency typically associated with resilience, mentioned on page 2, the JustAdapt project proposes a framework for policy and decision-making based on engaging relevant stakeholders in the development of adaptation measures based on three categories: 1) Coping strategies; 2) Adaptation strategies focusing on transitioning away from immediate responses and developing the capabilities to adjust to new risks; 3) Transformative strategies, requiring the creation of new structures that promote welfare, wellbeing and resilience against future risks. Since the just resilience approach has an aim of transformative adaptation at its core, using this approach can foster adaptation planning that is proactive rather than reactive in nature.

While a lot of the academic literature tended to focus more on conceptualising just resilience and outlining its specifics relative to the broader idea of resilience, there was also a focus on defining and delineating just resilience through its application. Unsurprisingly this was also a core focus in the policy literature and for most of our interviewees. Having a greater appreciation of how to successfully combine macro, meso and micro level responses is crucial; just resilience needs to be able to apply systemic resilience practices at the community level, while maintaining and increasing fairness. This was echoed strongly by one of our interviewees:

I think Storm Éowyn was a really good example of this, right? Where there was no focal point for communities to look after the most vulnerable during these periods, and this whole conversation around community energy resilience centres came up, right? Where you would have a central point within the community where there would be energy generation from renewable technologies off grid, so you wouldn't be reliant on power outages, for example, and what impact that might have (E05).

This discussion encapsulates the generally held position across all the interviews that while just transition is currently focused on mitigation, just resilience is focused on adaptation. E01, for example, drew a clear distinction between just resilience and just transition; the former focuses on communities adapting to new climate realities, while the latter focuses on how to

distribute the positive and negative impacts of economic and industry transitions. E02 also stated and implied that in general terms, resilience focused on adaptation while transition, at least traditionally, focused on mitigation. E04 however, was clear that the two should not be seen as mutually exclusive, but rather that just resilience and just transition should underpin one another. The potential synergies between mitigation and adaptation are highlighted in the NAF 2024:

To ensure the success of climate action, it is essential that both adaptation and mitigation measures are aligned and coordinated. An integrated approach to climate action recognises the resource efficiency inherent in addressing adaptation and mitigation challenges simultaneously...but also helps avoid potential trade-offs between the two strategies (DECC, 2024: 15)

This suggests that while perhaps more should be done to delineate the boundaries of both, it is equally important to be clear about how the two areas can reinforce one another and positively benefit communities.

The success of adaptation cannot be separated from material conditions, in particular the importance of the availability of resources. Ireland has limited resources, which makes discussions around allocation and distribution particularly pressing (E01). This has implications for the view that within just resilience - and resilience thinking more generally - communities should aim for transformative change. Although this is the ideal goal, it is necessary to understand this within the context of what is possible within (Irish) policymaking and politics, in which policymaking is often more incremental than it is transformative:

[The] climate emergency in 2019 was declared in Ireland... but we're not acting as if it's a crisis [...] probably what we need is transformative change [and] what we're getting is incremental slow change but if you go to a policymaker... if you had the political will and the support and the finances and the push you could achieve transformative change. I think it's useful but... I think it leaves a lot of policy makers cold. Like what does that actually mean and... how do we actually look at this (E03).

This is a crucial point. The academic literature on resilience and just resilience deals with the problems of definition of these terms, their ambiguous nature, and the problems this can cause when developing resilience strategies. On the other hand, this means that there is a significant opportunity for agenda setting, in which a policy entrepreneur (be it NGO, government department, minister, or a political/social coalition) can embed a definition through practice.

Identifying Vulnerable Groups

There are different ways to understand vulnerability within the context of just resilience. One common approach is to use existing conceptions, such as those that may be used in traditional deprivation studies. The difference is that vulnerability for just resilience needs to incorporate the specific social and economic risks associated with climate change, particularly as they are and will be experienced at the community level. A call for further research and vulnerability assessments into the identification of vulnerable groups, regions or communities has already been highlighted in the NAF 2024 (DECC, 2024: 71). Given the importance of involving citizens in the planning processes, vulnerability also includes having less power, autonomy or voice in the planning and implementation of adaptation measures (Lager *et al.*, 2023).

Vulnerable groups include (but are not limited to):

- Young people
- The elderly
- Those in poverty or at risk of poverty (e.g. low-income households)
- People in poor health
- People with poor social networks (i.e. poor social capital)
- Immigrants
- Ethnic minorities
- Populations more exposed to climate risks (e.g. those living in low-lying areas, flood plains, coastal areas, as well as considering the locally specific risks of both urban and rural communities).

This suggests that while existing indices of deprivation, such as Pobal's 2022 deprivation index, are an important starting point, the categorisation of vulnerability should build upon and modify established indicators, paying special attention to differentiated local contexts (Lager et al., 2023). For example, spatial mapping of social vulnerability is often used in an attempt to develop just adaptation responses (EEA, 2022; Ceolotto et al., 2025; Climate Ready Clyde, 2022). Met Éireann has been working towards combining climate data with socioeconomic data such as Pobal's deprivation index to provide climate decision support tools (O'Brien et al., 2024). This research is a part of Ireland's National Framework for Climate Services (NFCS) which aims to support coordinated and targeted climate adaptation measures which avoid maladaptation (DECC, 2024). Following Lager et al. (2023) there are also opportunities for policy learning by examining best practices from those sectors that have already had to incorporate many of these considerations into their own strategies, such as the Buildings, Urban, Health, and Disaster Risk Reduction sectors.

The need to appropriately identify and categorise vulnerability was discussed in the interviews, which corroborated the idea that adapting and modifying existing measures represented a solid starting point: "Often, some people are better able to respond than others, and if those are less able to respond, they're maybe more vulnerable, well, then, this is perhaps a just-transition issue" (E01). This implies a difference in the focus of just transition and just resilience but also suggests that those groups already identified as vulnerable by other measures should also be seen as vulnerable in this context. E04 corroborated this position, considering the use of the Pobal deprivation index.

However, the literature on resilience has discussed the issues with the identification of communities as 'resilient' or otherwise, in relation to vulnerability; in particular, there is a potential risk that 'resilient' and 'vulnerable' become dichotomised so that a 'resilient' community cannot be thought of as 'vulnerable' (e.g. Donoghue and Edmiston, 2020; Dagdeviren *et al.*, 2015). This may lead to a number of hidden vulnerabilities, many of which are likely out of the control of the communities themselves and relate to issues around infrastructure, transport, topography, government finances etc.

All interviewees agreed (albeit to differing extents) that vulnerability cannot just be understood and measured in monetary terms. Non-monetary impacts of climate adaptation and mitigation are crucial if communities across Ireland - in rural, urban, peri-urban and coastal areas - will be able to develop the resources, capacities and structures necessary for resilience. E02

remarked that while non-monetary benefits and costs are important, the current political reality is that 'money talks', and a successful strategy will need to build political will likely through emphasising a monetary cost-benefit structure.

E04, when considering some of the interfaces between just resilience and just transition, focused on the principle of not exacerbating inequalities. The interviewee articulated the important point that vulnerability and inequalities do not just manifest in monetary, financial or other resource terms, but also in terms of voice and recognition:

One of the principles of Just Transition is...and one of the departmental principles is that you don't exacerbate existing inequalities. So how do you do that for vulnerable groups when, even at present, they're not necessarily fully included in, I would say, the policy-making or decision-making process, so how do we make sure that we don't just...continue with policymaking the way we do it now, because you're still going to miss those voices (E04).

This echoes strongly the conceptual considerations of just resilience discussed earlier. Considering these issues are crucial, according to E04, because "the research would show that, obviously, [people at risk of economic vulnerability are] more vulnerable to the impacts as well...both in terms of the immediate impacts of climate, but also just in terms of bearing the cost" (E04). Reinforcing earlier points about tapping into existing frameworks, indicators and understandings of vulnerability, developing resilience thinking to inform just transition was considered as a way of potentially increasing the visibility of otherwise excluded groups:

There's the broad concept of nobody left behind, but we're at a point now where some people are already left behind, so you need some sort of concept. You know, the word resilience has been used a lot in policy making recently [...] you need some sort of framework for local-based decision-making, where people feel that their voice is heard, and where you can make sure that those vulnerable groups...are not made worse off, but also the existing challenges that they face. Like, we should be able to use this just resilience piece as a means of addressing some of the existing challenges that they face [...] if that group is already disadvantaged, even if the policy is policy neutral to them, their position is not improving, and that will remain a problem then (E04)

This addresses the importance of the principle of 'do no harm' embedded in the just transition principles - that potential or actual harms should be mitigated through effective policy. Just resilience can be incorporated into these structures and principles in order to provide more flexible and responsive frameworks to deal with locally-specific problems; though, for example, rural, coastal and urban communities may all feel the impact of an industry disappearing, or the impact of an extreme weather event, these impacts will be experienced quite differently depending on the economic, social and cultural context of an area, as well as the physical and topographical conditions. This reinforces the call for more locally sensitive approaches to building resilience that incorporate a commitment to justice - including recognition of experience, as well as distributive justice.

Putting Just Resilience into Practice

An important issue when considering how to implement just resilience into existing policy or indeed developing a discrete just resilience policy is seeking clarity regarding both the diagnosis of the problem and the proposed solutions to the problem. Interviewee E01, for example, suggested that regarding just resilience and just transition "I don't know how well the objective is defined and, and what is the anticipated outcome? (E01). E01 further remarks that particularly from a climate resilience perspective, all stakeholders must feel a sense of ownership otherwise "the alternative is that people just feel disenfranchised" (E01). This is an important point given that resilience, although often focusing on the intersection of vulnerability and (potentially transformative) agency, needs broad-based buy-in across and between communities, regardless of specific vulnerabilities. Across all the interviews, for example, there was a consensus that any approach to just resilience had to involve local and place-based approaches to adaptation. What this looks like can take different forms, although in E04's words, the focus should be on using existing institutions, legislation and infrastructure where possible. For E03:

climate impacts happen at a local level...the actions need to be locally focused and they need to be locally applicable and you need to...bring in people into that...so that you're creating effective action and that brings challenges because you need to... look at what are the local climate risks and impacts we're trying to address and how do you do that and how do you build resilience at a very local level, and local authorities have a huge part to play in this as well (E03).

This approach would require providing local authorities with more power, in terms of local policymaking and regional autonomy. Although this would have to be a longer-term goal, given the level of centralisation in Irish government and governance, it should nevertheless be a focus of the current and future governments to deliver locally responsive and appropriate initiatives.

It is true that the 2021 amendments to Ireland's Climate Act include Local Authorities in climate action (Section 14B). Local Authorities are now required to develop and implement Local Authority Climate Action Plans (LACAPs), which include both mitigation and adaptation measures. This of course is a promising start to the development of context-specific local measures to adaptation and mitigation. However, there still needs to be an improvement in public and community engagement at a local level. As outlined in a recently published EPA report on *Operationalising Resilience in Climate Action*, the authors state:

Public and community engagement remain limited and reactive. While policy documents such as NAF 24 recognise the importance of just resilience and community involvement, there is little evidence of meaningful co-creation with the public. Engagement is often top down and limited to consultation on completed plans rather than via participatory decision-making. This restricts opportunities for building locally appropriate, inclusive and sustainable resilience measures. Such processes are time-consuming for practitioners and the public and may be further hampered by capacity and resource constraints (Murphy *et al.*, 2025: 26).

One of the reasons devolving power and resources to the local level is so important is because it enhances ownership of issues, accountability and can help disperse power and make decision-making more locally responsive, while adhering to a national framework:

"if you have local stakeholders involved, it brings a lot more legitimacy to policy [...] how do you make sure...equitable decision making takes place, so it's essentially making sure there's enough people at the table that represent everybody [...] something has to be invested in the local area, what sort of investment should be taking place, well, then that's when you definitely have to make sure local people are involved, I presume, and different stakeholders, and that people, and people in our region best, who know how best to invest in a region (E01)

This sentiment was echoed across the interviews. E02 and E04 both remarked upon the potential central role that local government could play in developing place-based and locally responsive frameworks, ideally led by (or with significant engagement with) communities themselves. However, the reality of political structures could make this difficult in the Irish context, given that "local government is, you know, by comparative standards, very weak, both in terms of people and resources and political power", which can result in local responsiveness and centralisation of decision-making pulling "in opposite directions" (E02).

Efforts have certainly been made in recent years to enhance democracy and decision-making at the local level. Public Participation Networks, for example, were developed with this purpose in mind (see Donoghue and Moran, 2025; Bennett, 2021; DCRD, 2024). These structures could be developed to play a core role in just resilience processes, although this cannot take place unless the requisite resources - in terms of financial and human capital - are provided. Again, this is not something that can happen overnight. It is, nevertheless, an attainable medium to long-term goal, especially if just resilience is incorporated into the broader work taking place within the remit of just transition.

Furthermore, resources are needed to ensure that local communities are not burdened with the responsibility for addressing problems much larger than themselves without the appropriate resources or support. As remarked emphatically by E05, communities have felt significant fatigue dealing with such responsibility. "It's an area that they sometimes feel like it's out of their reach, like, the energy transition is not cheap... like, there's a big gap there from a technical perspective, right?" (E05). Local solutions must be connected to nature-based solutions. Firstly, because "let's not be dragging people in the energy transition. Instead, let's meet them where they want to be, which is connected with nature" (E05). In other words, the energy transition cannot be a process in which people are passive subjects, but rather actively engaged in and listened to. Secondly, combining place-based and nature-based solutions maintains a high level of public buy-in while contributing to just transition principles, therefore combining the ethos of both just transition and just resilience:

I suppose the main hook for people is the whole reconnecting with nature, but there's...there's opportunities within that then to say, right, here's a community centre - let's talk about retrofitting as part of a community garden, a community energy space, and a rewilding project. And all of a sudden, people are like, yes! (E05)

Incorporating just resilience thinking into existing frameworks, policy areas and departmental work clearly requires a joined-up approach. This is something that was remarked upon in the interviews. One interviewee, for example, emphasised the importance of government departments working together, but also increased co-operation between different levels of government, as well as communities, regions and so on:

[we need to] make more connections between different sectors and obviously there's challenges to that so like thinking in a systems way will be really beneficial but there's challenges to it because you need to have more conversations and make more connections, more linkages... I think this [is] the importance, but also the difficulty of having this joined up approach (E03).

The NAF 2024 has also highlighted the need for a joined-up approach between national policy, sectoral planning and local action. For example, under the latest NAF, 13 key sectors (such as agriculture, forestry & seafood; transport infrastructure; water quality & services; electricity & gas networks; tourism, and health) were grouped into four themes (Natural Environment; Built Environment and Infrastructure; Human; and Economy) when developing their Sectoral Adaptation Plans (SAPs) (DECC, 2024: 61-63). An aim of the SAPs is to promote a coordinated and coherent approach to adaptation planning across sectors and departments. SAPs have been developed through collaboration between sectors but also with members of the NFCS e.g. Met Éireann and the EPA (Met Éireann, 2025). Another example of fostering a joined-up approach to adaptation is the establishment of Climate Action Regional Offices (CAROs). CAROs were established in response to Action 8 of the 2018 National Adaptation Framework. Their aim is to build the capacity for local authorities to respond and adapt to climate change at a regional and local level. Four CAROs were established: Atlantic Seaboard North CARO (Mayo County Council); Atlantic Seaboard South CARO (Cork County Council); Eastern & Midlands CARO (Kildare County Council with the support of Kilkenny Count Council); and Dublin Metropolitan CARO (Dublin City Council). The CAROs were structured in a way to encourage the development of specialised expertise for the context specific climate risks across local authority areas. For example, the two Atlantic Seaboard CAROs focus on coastal erosion and flooding, the Eastern & Midlands CARO focuses on issues such as fluvial flooding and the Dublin CARO focuses on climate action for an urban environment (CARO, 2025). CAROs help to support initiatives around climate action at the community level. However, similar to the LACAPs, more work needs to be done to foster co-creation and meaningful bottom-up involvement of vulnerable groups in the actions being undertaken by the CAROs.

Learning from Examples (Inter)Nationally

As mentioned previously in this report, the concept of just resilience is still in its infancy. However, taking into account the considerations and discussions in this report so far, we now turn to the presentation of several examples, from around the world and from Ireland itself, that demonstrate the potential ways in which just resilience can be developed and implemented in the Irish context.

International examples

The JUSTNature Project (European)

Although not explicitly taking a just resilience approach, the project provides an example of how some of the mechanisms of just resilience can be deployed. These mechanisms include engagement with vulnerable groups; taking a place-based approach to adaptation measures; improving the current wellbeing of citizens; prioritising nature-based solutions and using a holistic approach to climate action by combining mitigation and adaptation objectives. JUSTNature (https://justnatureproject.eu) is a research project funded by the EU's Horizon 2020 funding round. Involving the implementation of climate adaptation initiatives in 7 European cities (in Greece, Malta, Belgium, Italy, Germany and Hungary) between 2021-2026, it demonstrates the importance of local solutions and community involvement in climate adaptation processes.

The city of Chania, Greece has a population of over 50,000 inhabitants making it the second largest city in Crete. The centre of the city is a concrete-dominated mixed-use area where many citizens live, work or visit. A multistorey carpark in the centre of the city was chosen as a site to build a green wall. The aim of the green wall was to function as a carbon sink (direct GHG emissions mitigation), and to contribute to the reduction of high temperatures otherwise increased by the urban heat island effect (adaptation). Local primary school children were included in the implementation of the project. The children took part in the planting of the green wall and learned about nature-based solutions to climate change. A dedicated team maintains and monitors the green wall, and the impact it is having on local air quality (Just Nature, 2025a).

The city of Leuven in Belgium undertook two nature-based projects, one in Constantin Neunierstreet, a residential street and another in Leuven Central, a detention facility that houses approximately 400 long-term inmates with limited access to green spaces. Both sites were dominated by concrete and asphalt. Both projects helped to reverse soil sealing; improved rainwater infiltration which reduces flood risks; decreased the urban heat island effect; improved the physical and mental health of citizens; improved multi-stakeholder design process including engagement of vulnerable social groups; and improved interdepartmental governance on nature-based solutions within the city administration (Just Nature, 2025b).

Sweden's Implementation of Just Resilience for Climate Adaptation (Sweden)

The Swedish government's approach to just resilience provides an example of building on already existing frameworks, legislation and indicators to incorporate and develop just resilience practices. The approach has included adding questions to climate adaptation measures that address aspects of just resilience such as "Who has participated in developing the measure?" "Who benefits from the measure?" and "Has the measure created added value for the community?" (Kilmantanpassning, 2025a). This demonstrates a quick and effective approach to ensuring communities begin to be meaningfully involved in the development and implementation of policies.

Previously, to support municipalities, the Swedish Meteorological and Hydrological Institute created a toolkit for climate adaptation, with the aim of providing a framework to base their

climate adaptation work. However, this toolkit did not clearly link to just resilience, so the toolkit was revised from a justice perspective (Kilmantanpassning, 2025a). The three key dimensions of just resilience: distributional, procedural and recognitional justice were integrated into the toolkit.

This integration was achieved in multiple ways including:

- Introducing explanatory text on just resilience, the importance of an inclusive decisionmaking process and synergies through coordination.
- Establishing a working group that includes diverse perspectives to develop visions and goals for climate adaptation efforts. For example, the municipality's gender equality coordinator was added to the list of potential working group members.
- Identifying climate impacts on vulnerable groups and areas.
- When selecting measures, a key parameter is the identification of who benefits and who is disadvantaged from the measure. A meaningful dialogue with Sweden's indigenous population, the Sámi people, is seen as a necessary step.
- Benefits of finding synergies with other initiatives such as sustainability and gender equality were highlighted. In addition, communication about the work should be adapted for different target audiences. For example, a report can be complemented with a website or information in other languages.

Another example of a just resilience project implemented in Sweden is the Rain playground in Gothenburg. This project took an approach of collaboration and engagement between the city's residents, architects and artists. The area of Gothenburg has observed an increase in precipitation, increasing the importance of dealing with rainwater in the area. This presents a significant challenge to the city's infrastructure and the health of residents. When an old playground at Näckrosdammen needed to be refurbished, it was decided to take the opportunity to both develop water management and create an inclusive playground that could deal with increasing rainfall in a creative way (Kilmantanpassning, 2025b).

During the redesign process emphasis was placed on ensuring that the chosen solutions for minimising the impact of rainwater were inclusive and child friendly. A suggestion box was installed at the playground and others were received through social media. The collaboration resulted in a playground that provides a safe, communal environment in which rainwater is viewed as an asset in play, and that meets the technical requirements of water management. However, the project was not without its challenges, such as finding a way to balance the ideas of residents with technical and safety requirements. Maintaining engagement while also clearly conveying any limitations to suggestions was identified as the key to the project's success (Kilmantanpassning, 2025b).

Climate Ready Clyde (UK)

Climate Ready Clyde is a cross-sector initiative supported by the Scottish Government to develop and deliver a shared vision, strategy and action plan for Glasgow City Region to adapt to climate change. The aim is to build 'a more resilient, prosperous and fairer Glasgow city region' (Sniffer, 2021). The initiative has adopted a just resilience approach, aiming to adapt to climate impacts in a way that avoids increasing vulnerabilities while also reducing existing ones.

They have produced an online, interactive climate vulnerability map to identify postcodes within Glasgow City Region where: 1) the top 20% of deprivation (according to the Scottish Index of Multiple Deprivation) are situated, 2) there is a risk of flooding (highlighted in blue), 3) there is a risk of excess heat (highlighted in red), 4) there are risks of both heat and flooding. The map can be used as a tool to identify communities which should be targeted for adaptation measures (Climate Ready Clyde, 2022).

Climate Ready Clyde's vision for a flourishing future focuses on a 'whole systems' approach and transformational adaptation. Their Adaptation Strategy identifies place-based priorities for adaptation using the following criteria:

- Current and future climate hazards are most acute
- Potential to disproportionately affect vulnerable communities
- Significant concentrations of economic assets
- Significant regional decisions are being taken in relation to new development.

A whole systems approach is seen as having the potential for both synergies and trade-offs between net zero, adaptation, and broader socio-economic goals (Sniffer, 2021).

Climate Just (UK)

The Climate Just website (https://www.climatejust.org.uk) is a free webtool for public service providers. It has the aim of assisting the development of socially just responses to climate impacts at a local level across the UK. The website provides information and suggestions for local decision-makers on how to respond to climate change impacts, including information on fuel poverty⁴, energy vulnerability⁵ and carbon emissions reduction. The website also provides a map tool which contains information on social vulnerability and flood risk data for the whole of the UK. However, engaging with this data requires the user to have access to GIS (Geographic Information System) technology and the knowledge and skills to operate it.

Climate-ADAPT (European)

Climate-ADAPT is a collaboration between the European Commission and the European Environment Agency. It is primarily a data sharing service, but a few research projects utilise Climate-ADAPT - two of which take an explicit just resilience approach.

Adaptation Agora

The Agora Adaptation project is an ongoing initiative that supports climate change adaptation by enabling communities, practitioners and policymakers to engage and learn from each other. A central aim of the project is to deliver capacity-building resources such as practical guides, training modules and tools which support the co-design and co-implementation of transformative adaptation measures. Four pilot studies were undertaken in Italy (Rome), Spain (Zaragoza), Germany (Dresden) and Sweden (Malmö). With each region exploring the diverse perspectives and vulnerabilities to climate impacts of their citizens. However, the online Agora Community is continuously growing. The interactive Adaptation Action Explorer map includes

⁴ Referring to the condition of being unable to afford to keep one's home adequately warm.

⁵ A set of conditions (social, economic, material) that make a household more likely to experience difficulty maintaining adequate levels of essential energy services (such as heating and lighting) in their home.

information on community adaptation measures implemented in the United States, Mexico, India and several European countries (Agora Community Hub, 2025).

CARDIMED

The CARDIMED framework is an ongoing project that aims to increase the resilience of the Mediterranean region through the adoption of Nature-based solutions. The project is establishing a framework and network for enhancing resilience across the diverse socioeconomic and geographical profiles of the Mediterranean region. The project hopes to achieve this through the implementation of nature-based solutions in nine sites across the Mediterranean, and the establishment of a digital platform for data collection, evaluation and access (CARDIMED, 2025).

Examples from Ireland

Examples of programmes, projects or frameworks implementing just resilience *explicitly* were not found. However, there are a number of examples that nevertheless employ a number of the principles of just resilience in practice.

Climate Justice Resilience Fund

The Climate Justice Resilience Fund is an example of cross-border cooperation and finance provision focused on adaptation and resilience, directed at vulnerable communities. Although not explicitly labelled as just resilience, it contains a focus on justice in adaptation.

In Ireland's Climate Action Plan 2021 the government pledged to increase its international climate justice to support locally led adaptation and resilience efforts in countries and communities with limited capacity to respond to climate impacts (DCEE, 2021). Most of Ireland's climate finance is directed at projects either focused on climate adaptation and resilience or initiatives combining elements of both mitigation and adaptation (DECC, 2024). Ireland's international climate action is committed to reaching the 'Furthest Behind First' focusing on Least Developed Countries.

CONUNDRUM Project

The CONUNDRUM Project is an example of incorporating place-based approaches to resilience building, involving co-creation. The project has a focus on mitigation (such as promoting low-carbon transport solutions) and adaptation (such as addressing transport issues and social resilience in rural areas). This provides a good example of combining principles of just transition and just resilience.

The project aims to encourage and enable communities to use low-carbon transportation options and develop greater community interaction. It aims to contribute to the social resilience of rural communities while also addressing transportation solutions in areas where high frequency public transport options are not available. The project is currently taking place in the towns of Enniscorthy, Tramore and Youghal. They have an interactive map available online (www.townsmatter.ie) where members of the community can post transport issues or opportunities in their area. This information is fed back to the local councils with the goal of addressing local needs and utilising local assets.

Warmth and Wellbeing Pilot Scheme

The Warmth and Wellbeing scheme focused on building health resilience, combining principles of mitigation and adaptation. The scheme was a pilot project which was implemented to inform the government's home-retrofitting scheme. It ran from 2016 to 2024. The retrofitting scheme can be seen as both a mitigation and adaptation strategy. The scheme identified people living with respiratory conditions who were also at risk of energy poverty. Free energy efficiency upgrades were provided to these households, and their health and wellbeing was tracked over a three-year period after their upgrade. The main goal of the retrofitting scheme is to reduce energy use within the home (mitigation). However, the Warmth & Wellbeing scheme showed that retrofitting homes also improves health resilience, social resilience and the capacity to cope with cold temperatures (adaptation). Participants had reduced pain, improvements in respiratory symptoms and physical functioning; reductions in anxiety and depression; were more comfortable inviting others to their home; and temperature monitoring showed improvements in winter indoor temperatures (Milner et al., 2024).

Ballyhoura Project

The Ballyhoura region is located between south-east County Limerick and north-east County Cork. It encompasses a diverse range of communities such as rural hinterlands, market towns and peri-urban areas. Ballyhoura Development partnered with TASC (Think-tank for Action on Social Change) to create a roadmap for community-led climate action. They wanted to embed a people-centred approach to climate action, viewing climate action as a long-term, place-based, community-led process. The project incorporated community consultations into the development of potential projects and actions with the aim of simultaneously improving local development, social inclusion and climate action. Some of these actions included:

- Establishing a food growing collective to enhance food security, promote biodiversity and support local farmers and growers.
- Establishing repair cafes to promote a circular economy
- Launching a community car service to link with public transport. Resulting in a reduction of social exclusion and transport deprivation⁷.
- Developing community-owned visitor facilities and services to support regenerative tourism and local employment.

The project managed to integrate social considerations into its environmental and local economic development programmes by gathering insights into the unique capacities, challenges and priorities of those living there (Tasc. 2023).

The Dingle Hub

The Dingle Hub, in Co. Kerry has a focus on community engagement, creating sustainable communities and developing nature-based solutions based on local and scientific knowledge, and creative practices.

⁶ Referring to a situation of being unable to afford adequate levels of essential energy services (such as heating and lighting) in one's home.

⁷ Referring to the inability or difficulty of individuals or households to access essential services or activities due to a lack of affordable, available or suitable transport options.

Maharees is a small community located on the Dingle peninsula. Neart na Machairí (Creative Coastal Resilience) is a two-year project which began in 2024, led by Maharees Conservation Association in partnership with Dingle Hub. The project undertook a collaborative approach to create a community-led adaptation plan which addresses climate change impacts and biodiversity loss in the area. They worked with community partners from different backgrounds including fishing, farming, hospitality, families and students. Through hosting events such as nature-based learning days, public exhibitions, creative workshops, and a community feast day using ingredients sourced from the locality, it has been argued that the project enabled climate engagement to move from an abstract policy dialogue to a joyful, accessible experience (Creative Ireland, 2025). While finalising its Climate Adaptation Strategy the Maharees Conservation Association was able to achieve an 82% community survey response rate. Dingle Hub is planning on replicating and expanding the model used across the Corca Dhuibhne region.

Conclusions

This report has provided an overview of how just resilience is currently understood and how it can be incorporated alongside or within current approaches to climate mitigation and adaptation. It has done so by presenting lessons from scholarly and policy literature, and examples of just resilience in various international contexts.

A strength of the concept just resilience is the ambition towards transformative agency included within it. However, this can only be realised with the appropriate support and resources provided to communities. Furthermore, just resilience allows for a combination of action at local and national levels. To be effective, just resilience requires a joined-up approach across all sectors of government. Another strength of the concept is the emphasis of local, place-based and nature-based solutions to climate challenges. These two points - the importance of meaningfully involving local communities and ensuring place- and nature-based solutions, is something that the majority of literature and interviewees agree upon.

There are potential benefits of integrating the principles of just resilience and just transition. Although the general consensus is that just transition focuses on mitigation and just resilience on adaptation, it is clear from our findings that they should be seen as two sides of the same coin. Effective mitigation requires adaptation and vice versa. There is an opportunity, therefore, to incorporate the principles of just resilience into the broader work of the Just Transition Commission. Core to both of these is a focus on justice. The balance within this focus on distributional, procedural or recognition-based justice is an area that requires further investigation and decision-making.

In addition, regarding the identification and support of vulnerable groups - existing databases, measures and indicators of vulnerability can be used as a starting point. These can then be modified and refined to better capture the specifics of resilience, focusing more on the context of local communities responding to climate challenges. This is a particularly fruitful area for further research.

The report aimed to provide overviews and analysis on conceptualising just resilience nationally and internationally, the specific challenges and opportunities for identifying

vulnerable groups in a just resilience context, and discussing how to operationalise just resilience in practice, including learning from national and international examples. We found that conceptualising just resilience required simultaneous consideration of the concept in the abstract and in practice. This is because it is by nature an applied concept and is defined more clearly in practice than in the abstract. We ascertained that although just resilience will likely require new measures and indicators to identify resilience-specific vulnerabilities, these can be adapted from and built into existing measures of vulnerability used in Ireland. Finally, we outlined a number of examples internationally or nationally where just resilience is being implemented practically, or where the principles of just resilience were being used to guide responses to climate change. Ireland is already in a strong position in this respect given the strong representation of just resilience in the National Adaptation Framework and elsewhere, and there are several examples of good practice in Ireland that adopt principles compatible with just resilience even if this term is not used explicitly. Ireland is therefore in a strong position to build upon these examples of best practice, potentially scaling up or expanding to different parts of the country.

Practical Recommendations

Based on the findings of this report, we provide a series of recommendations to be taken forward by policymakers, NGOs and researchers. These have been organised into key themes that represent the most salient areas arising from the report's findings:

- 1. Opportunities for further research developing further the just resilience concept in practice and ensuring effective evaluation and monitoring
- 2. Engaging with place and nature ensuring locally appropriate measures that are effective and facilitate longevity
- 3. Ensuring a joined-up approach across government, between central and local government, and between communities and the state

1. Opportunities for further research

As the concept of just resilience is still relatively young, there are opportunities for further research, following on from the work conducted by the ESRI and this NESC-commissioned report. In particular, research considering how existing measures and indicators of vulnerability could be further utilised, adapted and built upon to more accurately represent climate vulnerability alongside socio-economic and political vulnerabilities would be of immense value for furthering a just resilience agenda. For example, with climate challenges such as the frequency of storm events and changes to air temperature increasing, more research into climate risks and predictive climate modelling could aid the identification of communities and groups vulnerable to these emerging challenges. In addition, research should focus on ways in which existing departments, programmes, institutions etc. can be supported in establishing measures of just resilience. Pobal, as the primary organisation addressing social inclusion and disadvantage could act as a core partner, in collaboration with organisations such as NESC, and the ESRI. Including organisations such as Met Éireann, the EPA, the SEAI and the Climate Change Advisory Council also ensure the appropriate expertise is available. This work could also recruit the expertise of NGOs such as the Nevin Economic Research Institute, Social Justice Ireland, and TASC, amongst others.

2. Engaging with Place and Nature

Effective adaptation requires a multitude of actors and institutions. It also requires locally sensitive solutions to what are (inter)national challenges. We make recommendations across three interlinked areas below. These focus on ensuring the (continued) involvement of local communities, privileging the importance of place, and aiming for nature-based solutions where possible.

The Importance of place-based solutions

Although Central Government must take a leading role in promoting just resilience, its effectiveness is dependent on developing, supporting and maintaining strong community relations and place-based solutions. This is centred in part on the idea that local communities are experts of their own lives and context, having specialist knowledge of the local area. Any programmes that do not support locally based solutions will struggle to gain buy-in from the public and are less likely to be effective overall. Developing processes of co-production will, ultimately, be very important to ensure that local communities are involved in construction and deployment of adaptation solutions from the outset to ensure consistent public support.

Robust place-based solutions will require the enhanced use of local governance structures. In the immediate term this could involve leveraging existing Public Participation Networks and Strategic Policy Committees as a conduit between communities, local groups and local authorities. PPNs already have strong roots in local communities and act as a go-between for community organisations, charities, campaign groups and local government. This will require the adequate provision of resources, both in terms of finances and personnel. It may also require providing local authorities with more responsibility to enact local solutions, albeit within a national framework.

Engaging Communities Meaningfully

The findings of this report emphasise the importance of meaningful involvement of local communities both at the policy development stage and in the ongoing governance and implementation of local climate solutions. This is crucial for public buy-in and support. To ensure that programmes of action have longevity, communities need to see the benefits of the programme and have the toolkits and frameworks to adapt and respond to future challenges.

There is a risk in the policymaking process that vulnerable communities become passive subjects of policies that directly affect them (Lister, 2007; Fotaki, 2015; Mulvale & Robert, 2021; van de Wetering, 2024). Engaging communities meaningfully should therefore strive to include these communities. Ideally this would involve co-production, drawing on place-based solutions and, where appropriate, nature-based solutions. Alongside the increased public buyin this can generate, it also increases the likelihood of adaptation measures becoming embedded in local communities thus contributing to their longevity.

Centring Nature-Based Solutions

A few interviewees, as well as parts of the literature on just resilience suggest that nature-based solutions are important for successful long-term adaptation that is locally sensitive, both in terms of local communities and ecosystems. This also assists with engaging local communities by drawing on their own local knowledge and expertise. Local, nature-based solutions can act as examples of best practice that may either benefit from scaling-up or can be employed and adapted to different local contexts across Ireland.

3. The Importance of a Joined-Up Approach to Resilience

Resilience itself incorporates both structural and individual perspectives, as well as systems thinking. Any approach to just resilience must also find a way to incorporate governance and action at multiple levels - national, regional, local, household and individual. This will need to be built up over time and can utilise existing structures and institutions as suggested above. Ultimately, however, for just resilience to contribute to a long-term plan of sustainability and climate resilience, a joined-up approach will be required across government departments on the one hand, and between central and local government on the other.

Establishing procedures and practices such as the SAPs and NFCS to embed joined-up thinking is a first step. Following the Swedish example, just resilience concerns could be incorporated into impact assessments and any planned activities linked to climate resilience and just transition. Again, there is an opportunity to leverage existing programmes and frameworks, adapting them to incorporate justice thinking rather than creating something from scratch. This also increases the likelihood of successful integration of just resilience principles into existing departmental work packages and Local Authority programmes, where appropriate or feasible.

The foundations for this have already been set out in the NAF (2024: 6), which states that the success of adaptation policies relies on a "whole-of-government approach", emphasising the "role of key sectors including local government" and ensuring "better coordination of adaptation actions across Government Departments and Agencies". There would seem therefore to be an implied ambition of mainstreaming adaptation measures, for which the principles of just resilience could provide clear guidance.

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Appendix: List of interviewees

Descriptions of interviewees - identifying information has been removed

Interviewee code	Description and capacity in which speaking to the research team
E01 (Expert 1)	Academic researcher; works for national institute
E02	Academic Researcher; senior faculty member at a Dublin University
E03	Member of Climate Change Advisory Council
E04	Member of Irish NGO; Member of Just Transition Commission
E05	Consultant to the SEAI



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