

**Assessing the Resilience of a Garda Síochána During Severe Weather Events: A Case
Study of Storm Éowyn**

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Sample

Abstract:

This study examines how resilient policing can be delivered during severe weather events, using Storm Éowyn (January 2025) as a case study within An Garda Síochána (AGS). The research takes an interpretivist and qualitative methods, including semi-structured interviews with six AGS personnel and documentary analysis of official reports and policy frameworks. Four interconnected themes were extracted through the process of thematic analysis, which includes the concepts of communication resilience, interagency coordination, resource and infrastructure vulnerabilities, workforce resilience and human factors, and organisational learning.

Results show that although there was some adaptive capacity and commitment to the frontline by AGS, there were gaps between formal business continuity planning and actual business continuity practice. Limited resources, communication problems, staffing problems and difficulty in moving from lessons to long-term change were significant. The analysis of these results is done by using Protection Motivation Theory and Business Continuity Management.

The research makes a contribution to the relatively small amount of research in the field of policing resilience in an Irish context. Presents actionable suggestions for greater resource readiness, workforce support, communication systems and organisational learning. In conclusion, the study highlights the need for coordinated investment in resilient policing—both in people and infrastructure and in resilient processes in the face of growing threats from climate change.

Chapter 1: Introduction

1.1. Chapter Introduction:

This chapter provides an overview of the background of the study, underline the research problem, introduce the aim and objectives, demonstrate the main research question, discusses and provides the significance and structure of the study.

The severe weather event is increasing in frequency, and is becoming more of a challenge to public safety organisations globally, due to climate change. As a Principal Response Agency (PRA) under the Framework for Major Emergency Management (MEM), An Garda Síochána (AGS) has a crucial role in maintaining public order, in supporting the response to major emergencies and in maintaining the safety of the community during such a disruption. As a case study, this research analyses the response of resilient policing during Storm Éowyn (January 2025), one of the most severe storms to affect Ireland in decades, to draw lessons for the future.

The chapter starts with a background that places the research in the context of what has been done so far in the field of extreme weather events and their impact on emergency services in the context of climate change. It then outlines the operational gaps in relation to operational resilience, specifically among policing organisations, before it summarizes the intent and structure of the study.

1.2. Background of the Study:

The effects of climate change have significantly heightened the likelihood and intensity of extreme weather events all over the world. The global warming trend has increased storm strength, flooding, heat waves and fire intensity, according to the Intergovernmental Panel on Climate Change (IPCC, 2021). This is the case in Ireland with a series of high impact storms, such as Ophelia (2017), Emma (2018), Babet (2023) and most recently Storm Éowyn (January 2025) (Silchenko et al, 2023; Storm Éowyn Review, 2025)

Storm Éowyn had a significant effect on the capacity of Ireland's policing system, not just in the immediate aftermath of the storm, but in ways beyond. Traditionally, AGS's focused on to prevent crime, to enforce the law and to engage the community but suddenly it was being asked to undertake a whole host of civil contingency tasks (Garda, 2025). This included dealing with the widespread road closures, ensuring emergency welfare checks were performed, ensuring that looting did not occur in affected areas where there were prolonged power outages, co-ordinating with the Irish Coast Guard for search and rescue operations and keeping public order at a time when there was a lot of fear and misinformation in the community (Garda, 2025).

Storm Éowyn was an extratropical cyclone that caused record breaking wind speeds of over 160 km/h in some places, extensive flooding and a lot of damage to the infrastructure (Cotality.com, 2026). It was the strongest storm to affect Ireland since Hurricane Debbie in 1961. More than 768,000 users were without power at the time of this writing, and some customers were without power for weeks. Telecommunications networks were out, roads were blocked by debris and trees, and tens of thousands of people lost their water supplies (Press, 2025).

A Garda Síochána was heavily involved in the national response. Garda personnel supported Local Coordination Groups in 17 local authority areas, provided assistance to isolated and

vulnerable citizens, ensured public safety during the power and communications outages and worked with other PRAs (Health Service Executive (HSE); Local Authorities) via the National Emergency Coordination Group (NECG) (Garda, 2025). Reported issues included the lack of power in garda buildings, response vehicles stuck, and the lack of communication because of infrastructure failures (Connaught Telegraph, 2025).

The events take place in the context of the Framework for (MEM) (Government of Ireland, 2006, updated guidance) which identifies AGS, HSE, and local government as PRAs, which have a role in coordinating and preparing for, responding to, and recovering from emergencies (Review of Storm Éowyn Report and Ireland's storm preparedness, 2025). The frameworks of Business Continuity Management (BCM) and organisational resilience ISO 22301 (2019), have become more well known as methodologies to keep key activities running during a disruption. But these plans are not well understood when it comes to their effective implementation at the front lines of policing in a dynamic, high-uncertainty situation such as Storm Éowyn (Kabas Zuhir Alhasani, Ruaa Khaled Jumaa and Roaa, 2025).

The storm brought to light the growing demands on modern police organisations for what is termed all hazards. In Ireland, with no local police beyond a centralised police service (AGS), the challenge of providing the same service in both rural and urban areas highlighted the strengths and system weaknesses of AGS (Stockholm International Peace Research Institute, 2019). Critical infrastructure was slow to be restored in rural areas, and there were greater distances, fewer back-up resources, and other challenges these regions encountered when compared to major urban centres like Dublin and Cork.

The National Adaptation Framework (Government of Ireland 2018, updated 2024) and the Climate Action Plan 2024 include a focus on all public sector organisations to become climate resilient. But the engagement of the police sector has made less dedicated in these strategies

than other sectors like energy, transport and health (Environmental Protection Agency, 2024). This under-emphasis has resulted in AGS being mainly dependent on generic emergency management guidance, and not on resilience plans specific to policing for extended periods of severe weather.

In addition, the economic and financial impacts of Storm Éowyn were significant, with preliminary estimates of direct damage and economic losses totalling more than €200 million (Government of Ireland, 2025). Indirect costs for AGS involved overtime wages, increased equipment wear and tear, temporary relocation of staff, and the loss of staff time from routine policing. These events not only drive up operational costs but also challenge workforce morale and future organisation capability.

This project is a contemporary case study of resilient policing using the story of Storm Éowyn as an example. It is based on Protection Motivation Theory (PMT), considers threat perceptions and coping appraisals and how these affected preparedness and response, as well as resilient policing, communication resilience, workforce sustainability and interagency co-ordination.

1.3. Research Problem:

Despite of existing national frameworks and rising investment in emergency planning, policing organisations continue to encounter significant challenges in maintaining operational continuity during severe weather events. Storm Éowyn revealed weaknesses in inter-agency coordination, communication, resource allocation, and critical infrastructure that impacted the provision of essential services by AGS (Dillon, 2025). Key problems include:

- ***Infrastructure dependency:*** Extensive power outage and telecommunication failures created a disconnect on the frontline officers and limited coordination.

- **Communication failures:** Lack of communication or miscommunication between strategic (NECG), tactical and operational levels.
- **Workforce Pressures:** Extended shifts, personal impacts on officers (many affected in their own homes), fatigue management.
- **Gap between plans and practice:** Plans in relation to formal BCM and continuity plans often did not adequately account for the extent and domino impact of a storm.
- **Organisational learning:** It is uncertain whether lessons learnt from past events (Ophelia, Emma, Babet) and from the Storm Éowyn itself have been successfully integrated into lessons for the future.

The literature on general emergency management and organisational resilience is considerable (Blaustein et al., 2023; Steen et al., 2023), but specific literature relating to Irish policing in the context of severe weather is sparse. Often studies focus on technical or structural aspects, while neglecting the human, adaptive and organisational aspects of policing. The main problem is then, how can AGS effectively provide resilient policing in the face of cascading infrastructure failure, changing operational needs and the requirement to adapt quickly in the event of severe weather? This leaves a gap between policy goal and operation, which may negatively impact public safety and confidence in the future.

1.4. Research Aim and Objectives:

1.4.1. Aim:

The aim of the study is to evaluate the resilience of a Garda Síochána in providing policing services during Storm Éowyn and to outline practical measures to increase the organisations' resilience and continuity of operations in the event of severe weather in the future.

1.4.2. Objectives:

- To assess the operational influence of Storm Éowyn on AGS policing activities and determine the core challenges encountered.
- To examine the effectiveness of business continuity and resilience plans in place across AGS divisions during the event.
- To evaluate communication flows, decision making and coordination between agencies during a crisis.
- To determine the workforce's resilience, including well-being support and adaptive behaviours of workers.
- To explore infrastructure and resource management role in contributing to the ability of policing to provide for essential policing functions.

1.5. Research Question:

How can resilient policing be delivered during severe weather events?

1.6. Significance of the Study:

This study contributes to an expanding body of knowledge related to the resilience of the organisation, management of business continuity, and the management of emergency in the context of policing. Although, resilience and planning surrounding continuity has been a topic of examination for the existing research in multiple public-sector organisations, a very lack of attention has been given to the operation of these concepts within policing firms during serious events related to the weather inside Irish land. Through the assessment of the ordeals of (AGS) during Storm Éowyn, meaningful and practical information in relation to the obstacles and enablers of resilient policing is offered by the current research.

The findings of this study hold a substantial amount of value for the policing organisations, policymakers, emergency management practitioners, and public-sector leaders who are

accountable for stabilising the critical services when the nation faces disruptions related to the climate. Moreover, the formulation of augmented arrangements of business continuity, measures of workforce resilience, communication strategies, and practices of interagency coordination are also expected to be supported by this study. Apart from that, with the anticipation of an increase in the events of severe weather with respect to both intensity and frequency as a result of changes in climate, this research adds up to the wider dialogues on boosting the readiness and resilience of corporations in the emergency services.

1.7. Research Chapters Outline:

There are five chapters in which this dissertation is structured.

Chapter 1: Introduction: Beginning with the first chapter, the background of the study is presented in this chapter. In addition, the problem of research is outlined, followed by a clear, aim, objectives, research question, and significance of the study. Following this, an overview of the structure of the dissertation is provided.

Chapter 2: Literature Review: The second chapter is that of literature review, which critically examines the prevalent body of literature related to severe emergencies of the weather, resilience of the organisation, management of the business continuity, resilient policing, resilience of the communication, resilience of the workforce, and resilience of the infrastructure. Moving further, the literature related to organisational learning and interagency coordination is also reviewed.

Chapter 3: Methodology: The philosophy of research, along with its methodological approach, research design, strategy of sampling, methods of data collection, and the procedures of data analysis are outlined in the third chapter, which is of methodology. In addition, ethical considerations, and the limitations of the current study are also presented in the methodology chapter.

Chapter 4: Results and Analysis: The fourth chapter presents and analyses the findings retrieved from the document analysis and semi-structured interviews. There are several key themes into which this chapter organises the findings, and then interprets them in relation to the research question and the current body of literature.

Chapter 5: Conclusion and Recommendations: The main findings of the paper are summarised in the last chapter, followed by discussing their implications for the policing resilience and continuity of business. In addition, practical recommendations for AGS as well as the emergency management stakeholders are provided in this chapter.

1.8. Chapter Summary:

The chapter summary shows that how critical issues arising from climate-driven severe weather events in Ireland. It has explained the background of the impacts of Storm Éowyn to AGS, stated the research problem about gaps in operational resilience, explained the aim and objectives of the study and the central research question, and explained the significance of the study, and it has given a roadmap for the structure of the thesis.

This will be followed by an in-depth literature review, methodological application, empirical analysis and recommendations based on evidence in subsequent chapters. This work aims to make a meaningful contribution to the improvement of resilient policing where environmental uncertainty is growing.

Chapter 2: Literature Review

2.1. Introduction:

The policing organisations that are accountable for the safety of the public are under a constant scrutiny of new and critical set of challenges as a result of the heightening frequency and seriousness of the weather-related emergencies. Intense weather events like heatwaves, storms, and floods are known for disturbing major essential services, while simultaneously harming the infrastructure, and challenge the resilience of the responders of emergency. In these circumstances, the current study seeks to address the research question:

“How can resilient policing be delivered during a severe weather event?”

For examining this research question, Storm Éowyn is used as the case study. Boolean operators and keywords that were helpful for the literature search were created. First, there were multiple articles related to the research question that appeared on Google Scholar. Through several steps of filtering and applying the inclusion criteria related to public sector continuity and policing resilience, only specific articles related to study were included, which were used for the literature review.

According to the UNISDR (2009), resilience refers to the ability of a system, corporation, or community to withstand, adapt to, and recover from the impact of hazards without losing its critical functions. However, within the context of policing, resilience goes beyond being the ability of tackling emergencies through emergency response and includes preparedness, adaptation, organisational learning, and operational continuity during the events that are counted as disruptive (Blaustein et al., 2023). Considering that climate change has led to increased incidences of severe weather conditions, it becomes necessary for policing organisations to have a tendency of sustaining essential operations under tough circumstances,

rather than merely developing the capability of responding to emergencies in an effective manner.

BCM has emerged as an integral way of boosting the resilience of an organisation. BCM involves guaranteeing that the necessary activities of an organisation continue despite disruptions by means of planning, preparedness, and efforts related to recovery (ISO 22301, 2019). In the case of AGS, continuity planning is crucial, specifically considering the fact that they have been assigned a certain role within the framework of MEM in Ireland. This indicates that the maintenance of operational continuity amid intense weather events is vital to protect public, respond on emergencies, and build the confidence of the community. Although organisational resilience is becoming a growing area of interest, the question remains as to how best resilience can be put into practice within emergency service organisations, and whether a business continuity plan is enough for guaranteeing effectiveness in emergencies such as extreme weather events (Steen, Haug and Patriarca, 2023). It is particularly relevant for policing organisations in which provision of services does not only depend on planning and procedures but also relies on flexible decision making, communication, and leadership.

These issues will be examined in this chapter through an analysis of weather emergencies management, PMT, resistant policing, business continuity and organisational capabilities prerequisite for policing operations in disrupted environments.

2.2. Severe Weather, Climate Change and Emergency Management:

Around the whole world, it is the climate change which has triggered adverse weather events substantially. Even the scientific evidence has revealed that the intensity, frequency, and unpredictability of wildfires, droughts, flooding, and storms have surged due to the rising global temperatures (IPCC, 2023). However, such trends raise considerable challenges for the government, community, and emergency services that have to manage the consequences of

such disasters. The effects of weather-related extreme disasters on critical transport, infrastructure, service delivery, and communication in Ireland include cases like storms Ophelia, Storm Emma, and more recently, Storm Éowyn. This highlights the vulnerability of both communities and agencies to the dangers associated with the climate (Bolan, 2024). Moreover, because of such events, the urgent necessity of readiness, collaboration among the agencies, and stability of operational consistency in emergency handling is highlighted.

Emergency management literature emphasises the importance of adopting a systematic approach to hazard mitigation, preparedness, response, and recovery (Coppola, 2020). Ireland's Framework for MEM provides the principal structure through which emergency services coordinate their responses. Under the framework, AGS, the (HSE), and Local Authorities operate as (PRAs), responsible for coordinating emergency activities and supporting affected communities.

Recent developments in emergency management have increasingly focused on impact-based warning systems. Traditional weather warnings are primarily communicated through meteorological thresholds such as wind speed or rainfall volume; however, modern approaches aim to convey the likely impacts of weather events on people, infrastructure, and services. Research focused on the Irish context by Brown et al. (2023) highlights that developing a user-centric weather forecast and warning system requires grounding risk communication in the practical needs of the end user rather than purely technical data. Moving toward an impact-oriented framework significantly improves public understanding of risk and supports more effective preparedness behaviours among individuals and organisations. The World Meteorological Organisation (WMO, 2018) argues that effective warning systems are a critical component of resilience, enabling organisations to anticipate disruptions and implement mitigation measures before events occur.

Empirical studies demonstrate clear operational benefits from transitioning to impact-based alerts. Casteel (2016, 2018) provides concrete data showing that warnings detailing what the weather will do rather than just what the weather will be drastically speed up proactive, protective decision-making and emergency response actions. Similarly, Taylor et al. (2019) explore public and institutional responses to high-impact weather warnings in the United Kingdom, finding that clear consequence-focused communication reduces response paralysis and facilitates better localised readiness ahead of major storms. While these studies highlight the potential benefits of impact-based warnings, some researchers question whether better warning systems always lead to enhanced organisational preparedness. Potter et al. (2021) contend that the effectiveness of warnings mainly depends on organisational capacity, interagency coordination, and frontline personnel's ability to interpret and respond to information. Therefore, warnings are likely to reduce risk only when they are part of a larger resilience framework.

Although impact-based warning systems offer benefits, they pose operational challenges for emergency management organisations. Potter, Harrison, and Kreft (2021) emphasise that effective warning systems require clearly defined organisational triggers, strong communication channels, and the ability to translate forecasts into actionable steps. Therefore, warning systems strengthen resilience primarily when they are backed by organisational capabilities that enable prompt decision-making and resource allocation. This underscores the significance of understanding how policing organisations interpret severe weather warnings and incorporate them into their continuity and response strategies.

Overall, the literature indicates that resilience to severe weather depends not only on precise forecasts and warning systems but also on organisations' capacity to interpret information,

coordinate resources, and implement practical measures. These factors are especially critical for policing agencies tasked with ensuring public safety amid disruptive events.

2.3. Theoretical Framework: Protection Motivation Theory:

Emergency management literature often references cognitive behavioural models to explain why public organisations and individuals either actively prepare for severe weather anomalies or reactively respond to them. One of the most widely applied frameworks for examining preparedness and protective behaviour is PMT, originally developed by Rogers and later expanded by (Rogers and Dunn, 1997). PMT posits that individuals and organisational actors engage in a dual pathway cognitive appraisal process when confronted with a significant organisational threat or a severe weather warning: threat appraisal and coping appraisal.

1. ***Threat Appraisal:*** This pathway evaluates the perceived severity of the hazard and the perceived vulnerability of the system. If the threat is perceived as minor, unlikely, or distant, motivation to undertake protective action may remain low.
2. ***Coping Appraisal:*** This pathway evaluates the perceived efficacy of the response plan, i.e., will our business continuity plan actually work? The perceived self-efficacy, or capacity, of the actors to implement the plan, is weighed against the operational costs or friction of taking protective action.

Babcicky and Seebauer (2019) highlight that severe weather alerts prompt protective actions only if actors believe their measures are effective and they can implement them. If an organisation perceives a high threat but lacks confidence in its ability to respond effectively, protective action may be delayed or inconsistently implemented. Grothmann and Reusswig (2006) show that past experiences influence these judgments: organisations with successful past responses may overestimate resilience, while those with failures face trauma that can either prompt improvements or reinforce helplessness. Applying PMT to AGS during Storm Éowyn

allows this study to assess if existing continuity plans strengthen organisational confidence and preparedness or whether perceived weaknesses create barriers to timely decision-making and protective action.

PMT offers a valuable perspective for assessing organisational readiness for severe weather emergencies by examining Garda personnel's perceptions of threat severity, organisational vulnerabilities, and the effectiveness of continuity plans (Reza Faryabi et al., 2023). As a result, the theory serves as a framework for evaluating whether resilience measures boost confidence and preparedness or if operational weaknesses hinder protective actions.

While PMT offers a helpful framework for understanding preparedness and decision-making, it has limitations in organisational contexts. Initially designed to explain individual protective behaviours, it may not fully account for factors such as organisational culture, governance, interagency relationships, or resource limitations. Nonetheless, PMT remains useful for analysing how risk perceptions and organisational capabilities shape preparedness and response during severe weather emergencies.

2.4. Resilient Policing:

The concept of resilient policing has emerged in response to increasingly complex and uncertain operational environments. Traditional methods of policing focused primarily on crime prevention and law enforcement; modern policing organisations are now expected to respond to a wider range of societal risks, including climate-related emergencies, natural disasters, public health crises, and critical infrastructure disruption (Blaustein, 2019).

Blaustein (2019) argues that resilient policing requires police organisations to foresee, absorb, adapt to, and recover from disruptive events while upholding their core functions and public

trust. From this perspective, resilience is not solely about an organisation's ability to resist disruptions but also about its capacity to learn, adapt, and grow after facing challenges.

The adaptive understanding of resilience aligns with broader resilience theory, which emphasises flexibility, learning, and transformation rather than resistance alone (UNISDR, 2009). Resilient organisations understand that disruptions are unavoidable and prioritise building capabilities that support effective adaptation during uncertain times.

Matczak (2025) argues that modern policing cannot function in isolation, noting that disaster planning, response, and recovery phases inherently require police to operate within wider multi-agency and strategic networks. Therefore, policing resilience relies not only on internal organisational capacity but also on successful collaboration with external stakeholders. This view is especially important during severe weather emergencies, when police must work closely with emergency services, local authorities, utility providers, and community organisations.

Although Blaustein (2019) and Matczak (2025) emphasise resilience, their interpretations differ. Blaustein views resilience primarily as an internal organisational capacity involving adaptation, learning, and recovery. In contrast, Matczak stresses the significance of interdependence, collaboration, and networked governance. This difference prompts an important theoretical question: whether policing resilience is primarily driven by internal organisational capabilities or by strong relationships with external stakeholders. Rather than being mutually exclusive, these perspectives may complement each other, suggesting that resilient policing relies on both organisational adaptability and effective interagency collaboration.

Recent studies also emphasise the link between resilience and community trust. Mutongwizo et al. (2024) argue that resilient policing depends on sustaining public trust and legitimacy,

especially during crises and times of major disruption. Essential elements of resilient policing, therefore, include clear communication, visible leadership, and collaboration.

During severe weather events, resilient policing refers to an organisation's ability to sustain operations, support affected communities, coordinate with partner agencies, and adapt to evolving conditions at every stage of the emergency. This broader perspective goes beyond traditional response models by highlighting resilience as a key organisational capability. For AGS, severe weather events provide a practical context for exploring different views on policing resilience, particularly regarding the importance of organisational adaptability, communication resilience, and collaborative governance (Matczak, 2025).

2.5. Business Continuity Management (BCM):

BCM has become a central component of organisational resilience in both the public and private sectors. BCM is defined as a holistic management process that identifies potential threats and establishes frameworks to build organisational resilience and safeguard stakeholder interests (ISO 22301, 2019). Historically, continuity planning focused primarily on disaster recovery and restoring operations following disruptive incidents. However, modern BCM frameworks increasingly emphasise resilience, adaptability, and organisational learning (Herbane, 2010). This shift reflects growing recognition that organisations operate in highly complex and interconnected environments where disruption cannot always be prevented.

Herbane (2010) states that BCM has shifted from a limited focus on recovery planning to a wider strategic approach aimed at maintaining organisational performance amid uncertainty. Likewise, Ali et al. (2023) note growing convergence between BCM and organisational resilience research, indicating that effective continuity planning should support both operational recovery and adaptive capacity.

ISO 22301 (2019) offers the globally accepted framework for (BCM), highlighting essential components such as business impact analysis, risk assessment, continuity planning, exercising, and ongoing improvement. In emergency service organisations, BCM aims to keep critical services functioning despite disruptions to personnel, facilities, communications, or infrastructure. Despite its widespread adoption, BCM has been criticised for placing significant emphasis on documented plans, procedures, and compliance processes that may not fully reflect the realities of dynamic emergency environments. This criticism is particularly relevant to policing organisations where rapidly evolving incidents may require adaptive decision-making that extends beyond the assumptions embedded within a formal continuity plan. Many scholars contend that highly structured continuity plans may be insufficient to address the uncertainty and complexity of major emergencies. As a result, resilience experts are increasingly focusing on adaptive capacity in addition to traditional continuity strategies.

Organisational learning is a vital aspect of continuity management. Gibb and Buchanan (2006) contend that resilience arises not only from documented plans but also from organisational learning processes that foster adaptation and ongoing improvement. This view is especially relevant in emergency management situations, where operational environments are often changeable and unpredictable.

Similarly, Steen, Haug and Patriarca (2023) suggest that building true organisational resilience requires a conceptual synthesis of business continuity planning and active adaptive capacity. This approach allows public institutions to respond effectively to unforeseen challenges while ensuring the continuity of essential functions. This reflects an emerging shift within resilience literature away from viewing continuity plans as static documents and towards understanding resilience as a dynamic organisational capability.

For policing organisations, BCM is especially critical because they are responsible for ensuring public safety during emergencies. Severe weather events can disrupt communication networks, transportation systems, staffing arrangements, and operational facilities. Therefore, continuity planning must cover not only technical recovery but also workforce resilience, interagency coordination, communication systems, and adaptive decision-making processes.

The relationship between BCM and organisational resilience is particularly relevant within the context of severe weather emergencies. As climate-related disruptions become more frequent, policing organisations must increasingly develop continuity arrangements that support both operational recovery and long-term adaptive capacity (Steen, Haug, and Patriarca, 2023). BCM therefore provides a valuable framework for understanding how resilient policing can be achieved during severe weather events. However, ongoing discussions in the literature indicate that resilience may rely just as much on organisational adaptability, leadership, and learning as on formal continuity plans. The tension between structured BCM planning and flexible organisational behaviour is especially pertinent to this study.

2.6. Communication Resilience During Severe Weather Events:

Communication resilience has become a vital element of organisational resilience and emergency management. During severe weather events, emergency services rely heavily on accurate and timely information, even when the communication infrastructure is disrupted (Abbas and Miller, 2025). Effective communication is essential for command and control, situational awareness, resource deployment, inter-agency coordination, and public safety messaging. Therefore, communication resilience is increasingly recognised as a crucial factor in organisational effectiveness during emergencies (Abbas and Miller, 2025).

The World Meteorological Organisation (2018) highlights communication systems as essential to resilient emergency management. Effective communication allows organisations to

anticipate disruptions, coordinate resources, and remain aware of the situation during emergencies. Likewise, Potter et al. (2021) emphasise that communication is a socio-technical process involving both technological systems and human factors such as understanding, trust, and decision-making. This view indicates that organisational resilience depends not only on communication technology but also on how well information is understood and acted upon.

Effective communication resilience goes beyond simply receiving warning information. While impact-based warning systems improve situational awareness and preparedness, organisational resilience ultimately relies on an agency's capacity to interpret, communicate, and operationalise warning information (Bennett, 2019). Therefore, communication resilience requires not only technological capabilities but also the organisational processes necessary to translate information into coordinated actions.

Effective communication resilience goes beyond external warning systems. Internal organisational communication plays a crucial role during severe weather emergencies (Mileti and Sorensen, 1990). Information must move effectively between strategic, tactical, and operational levels to enable coordinated decision-making. In fast-changing incidents, communication delays or failures can weaken situational awareness and cause uncertainty among frontline personnel. Therefore, resilient policing depends on communication systems that can sustain information flow even during disruptions (Mileti and Sorensen, 1990).

From a PMT perspective, effective communication supports both threat and coping assessments. Providing timely and accurate information raises awareness of new risks, while strong communication systems can enhance confidence in the organisation's ability to respond effectively (Samardzic, Doekhie and Wijngaarden, 2020). As a result, communication resilience affects not only situational awareness but also organisational confidence in preparedness and response capabilities.

The literature indicates that communication silence is more than just a technical skill; it is a fundamental organisational function supporting decision-making, coordination, and operational continuity. For AGS, ensuring reliable information flow during severe weather events is crucial, as it significantly influences the organisation's overall resilience.

2.7. Communication Failure and Information Flow:

Communication is widely acknowledged as vital for emergency management; however, disaster research shows that communication systems frequently face vulnerabilities during major incidents. Severe weather can damage telecommunications infrastructure, overload information systems, and cause confusion about operational priorities (EL Khaled and Mcheick, 2019). As a result, communication failures are a common topic in disaster management studies.

Traditional emergency management structures often assume that information flows smoothly from strategic decision-makers to operational personnel. However, severe weather emergencies can disrupt these processes. Information may be delayed, fragmented, or lost as it moves through organisational levels. In rapidly changing situations, frontline personnel might need to make decisions with incomplete information while also responding to evolving operational conditions (Abbas and Miller, 2025).

Although international cases reveal systemic failures on a broad scale, comparable weaknesses in the transmission of strategic information are also evident within Irish emergency management. In Ireland, during severe weather events, strategic communication is handled by the (NECG) (McCartney, 1997). Working within the Framework for Major Emergencies, the NECG brings together the PRAs, facilitating the sharing of weather intelligence and coordinating a unified national response. While these arrangements provide a formal mechanism for information sharing, their effectiveness ultimately depends on how successfully

information is communicated and interpreted across multiple organisational levels (European Union Report, 2018).

However, a vulnerability arises when high-level strategic intelligence from the NECG must be rapidly translated into actionable operational guidance for Garda personnel. This risk is heightened if communication protocols are inflexible or if inter-agency information sharing is inefficient (Alsafwani, Fazea and Alnajjar, 2024). Although national coordination structures aim to promote information sharing, disaster research consistently shows that communication often breaks down at organisational boundaries where strategic information must be converted into operational action. This indicates that having formal coordination mechanisms does not automatically ensure effective information flow (Bharosa, Lee and Janssen, 2009).

When technological systems fail, the responsibility for maintaining information flow shifts significantly from technical networks to human leadership. This is particularly evident in studies of the response to the Australian Black Summer Bushfires. These evaluations showed that during network collapses and radio blackouts, local managers, such as Sergeants, played a crucial role in ensuring operational continuity (Harrison and Williams, 2016).

A key insight was that, in the absence of explicit command-and-control directives for control rooms, sergeants needed to exercise significant autonomous judgment. They acted as vital human links, interpreting incomplete information, performing local risk assessments, ensuring personnel safety, and maintaining situational awareness. For police organisations like AGS, this underscores that operational resilience during severe weather cannot depend solely on technology. Instead, resilience also depends on the frontline personnel's judgment, adaptability, and leadership, especially when decisions must be made under uncertain conditions.

2.8. Infrastructure and Resource Resilience:

2.8.1. Critical Infrastructure and Organisational Resilience:

Resilience of infrastructure has been identified as a critical component of organisational resilience and emergency management. Modern police forces rely heavily on interdependent infrastructure such as transportation, communications, power generation, police facilities and IT systems (Rehak, Senovsky and Slivkova, 2018). Although these systems are able to provide efficient services in the normal course of events, they may cause hazards in heavy weather, as large numbers of people can be affected by disruptions to infrastructure. In today's business environment, infrastructure products are highly interconnected, and a failure in one product can impact many others in a short time, as recognised in a standard business continuity framework. The chain reaction failures are especially important during extreme weather conditions. For example, power failures may also disrupt telecommunications, which can impact emergency communications, coordination and situational awareness. The resilience of an organisation should not be just about the way they cope with events of disruption as it should also consider their dependence on the networks of wider infrastructure (Rehak, Senovsky and Slivkova, 2018).

In times of crisis, public agencies have grown more vulnerable due to their reliance on the digital resilience and interconnection of their communications systems, as noted by Corrales-Estrada et al. (2021). Digital transformation has proved to be an enabler of business process efficiency, but has also made organisations more reliant on critical physical assets. This is evident during the Katrina experience, when strategic response decisions at the top did not correlate with clear instructions on the ground, resulting in front-line responders being disconnected from the larger response efforts (Deflem and Sutphin, 2009). Organisational

resilience, therefore, requires not only preparedness within the organisation, but also the infrastructure systems that emergency services use.

2.8.2. Communication Infrastructure and Technology Failures:

During extreme weather events, communication infrastructure is one of the crucial vulnerabilities. The radio network, mobile communications, the Internet and digital technologies are vital resources for police agencies to coordinate their response (Niall O'Connor, 2025). In Ireland, AGS is based on the National Digital Radio Services (NDRS), based on TETRA. It has been designed for high security, to withstand network congestion and includes local batteries, but is still susceptible to long power outages and loss of transmitter sites. Damage to transmitter sites or depletion of backup power can have a significant impact on the resiliency of the communication network (Tetraireland, 2020). Although TETRA has backup batteries, public mobile networks often crash. This issue needs to be addressed as frontline Gardaí are reliant on the use of standard mobile phones to receive up-to-the-minute information, to reach injured parties or to map. In the event of the mobile network failing, TETRA will enable Gardaí to communicate with each other but not with the area which they serve. Vulnerabilities were also noted in Hurricane Katrina, as there was substantial damage to telecommunications and power systems that greatly impacted situational awareness and emergency coordination (Tetraireland, 2020).

These exemplars illustrate the fact that a major problem for policing organisations is how to align their internal goals with community expectations. Communication technologies have become more complex over the years, but they rely on supporting infrastructure, including radio repeaters, telecommunication towers, and electricity networks. Communication resilience is not simply the presence of reliable communication systems, but also the ability to have systems that can perform in the event of failure of the primary system.

2.8.3. *Resource Resilience and Operational Continuity:*

Resource resilience is the ability of an organisation to continue to access key resources in the event of a disruption. These are men and women, vehicles, fuel, equipment, facilities and accommodation for policing organisations. As climate change leads to ever more extreme weather events, these events can have a significant impact on resource availability, such as through impacts on transport, damage to infrastructure, or higher operational demands (Duchek, 2020). Identification of critical resources is a key element of business continuity literature and involves business impact analysis and continuity planning (ISO 22301, 2019). But there is growing debate that resource resilience is not just about inventory, and that organisations must be prepared to have adaptive capacities to allow for flexible use of resources in emergencies.

Police organisations can be resilient if they have backup plans when vehicles are unavailable, have alternative facilities for their staff, generators, and have plans for moving operational activities when their facilities are no longer available. It is therefore not only about the availability of resources, but also about how the organisation can adjust the allocation of resources according to the changing circumstances, which also affects resilience (Mutongwizo, Blaustein and Shearing, 2022). In contrast to some communication problems, shortages of resources are not necessarily malleable, subject to improvisation, or adaptive decision-making. Therefore, resource resiliency is still an important factor of operational capability during severe weather emergencies.

The literature generally suggests that the resilience of infrastructure and resources is necessary for resilient policing. When disaster strikes, weaknesses in interdependent infrastructure systems can be exposed, creating problems that require more than the usual response. This

means that infrastructure dependency and flexibility are becoming vital aspects of how police organisations plan for resilience.

2.9. Workforce Resilience and Human Factors:

Workforce resilience is essential for resilient policing because, in times of disruption, organisations must continue to operate with people to ensure that key functions are delivered. Although the term resilience is frequently associated with infrastructure, technology and formal plans, emergency service organisations also rely heavily on their staff, who are required to work in a context of uncertainty, stress and higher demand. Corrales-Estrada et al (2021) point out that old continuity plans frequently ignore important human factors and systemic cognitive pressures, and that an organisation's survival requires both the administrative implementation of the continuity plan and having the flexibility to implement a plan that is embedded in its workforce.

The demands of severe weather events can be an extremely challenging task for police staff. They also have to work longer shifts, make quick decisions, change their schedules, change their travel plans, and provide services while at the same time having to deal with the same conditions as the rest of the population (Olumuyiwa Ayorinde et al., 2024). This presents a distinctive challenge to resilience as emergency managers can have operational pressures and personal pressures from the same event. Workforce fatigue has been identified as a significant challenge for emergency responders during the Australian Black Summer Bushfires, where workers were required to work long shifts and manage work commitments and personal concerns associated with the emergency. The need to consider resilience not just at an organisational level, but also as related to the well-being and sustainability of individual members of staff, is also recommended by Blaustein et al. (2023).

The welfare aspect is therefore combined with the business continuity aspect of workforce resilience. Staffing can cause fatigue, stress and housekeeping issues which may impact staffing levels, judgement, situational awareness and operational performance. For policing organisations, this also implies that staff welfare is not looked after as a separate entity from resilience planning; it is ongoing support to ensure essential delivery during severe weather emergencies.

Adaptability is often regarded as a crucial characteristic of workforce resilience. As highlighted by Laufs and Wambold (2020), operational resilience during significant disruption is crucial to having the ability to be flexible internally, having adaptive leadership and having some level of staff support. In policing, for instance, operational needs can change quickly, and frontline supervisors can be confronted with uncertainty in a decision-making situation. Mutongwizo et al. (2024) also point to the need for visible leadership to ensure both legitimacy and trust, and effective operations, in emergencies.

Workforce resilience should be considered not only as a personal attribute, but also as an organisational capability. Staff support is required via welfare, flexible work, leadership and training to ensure staff are effective during disruption. Resilient policing is not just about plans, infrastructure and communication systems; it is also about the ability of Garda personnel to adapt, decide and function during times of severe weather. The focus on people leadership and adaptability continues the concept of the organisation's resilience, which is based on the fact that organisational effectiveness in times of disruptions is as dependent on human capability as it is on formal structures and procedures.

2.10. Interagency Coordination and Collaborative Governance:

The coordination between agencies is essential for good emergency management and organisational resilience. In times of severe weather emergencies, a multi-agency, multi-sector,

multi-level government response is frequently required, as the capacity of individual agencies to handle such events is often not enough. In the event of severe weather emergencies, a multi-agency, multi-sector, multi-level government response is often needed, due to the fact that individual agencies are limited in their capacity to handle such emergencies. Consequently, there is now a greater focus on sharing information, collaborative management of resources, and establishing shared objectives in relation to relief and disaster management.

Collaborative governance is also seen as a key element to achieving disaster resilience in the Sendai Framework for Disaster Risk Reduction (UNISDR, 2015). It proposes that resilience is a product of the combined efforts of government, emergency services, communities and infrastructure providers. The perspective suggests a shift in emphasis from individual organisation-based emergency management to the need for whole-of-society emergency management. The Framework for MEM, which sets out structures for collaboration between the PRAs and other relevant stakeholders, facilitates inter-agency coordination in Ireland. The Framework aims to offer a coordinated and harmonised approach to preparedness, response and recovery operations and to facilitate information sharing and coordinated decision making in case of emergency.

Although it is acknowledged that interagency collaboration is essential to be considered in the current context, there is evidence in the literature that coordination problems often arise during major emergencies. Organisational cultures, communication systems, operational priorities, and governance structures can differ, which may present challenges for effective collaboration. Pollock (2013) states that policy commitments towards integrated response arrangements are not always happening in practice in organisations which plan and operate in silos. This shows that there is a major paradox in the emergency management literature. While policy frameworks tend to focus on formal structures for collaborative governance, empirical research

shows that pre-existing relationships, trust and informal communication networks are more important for successful coordination. The conflict between formal and informal relationships is significant when considering resilient policing, because there is a challenge of building trust and understanding between colleagues that takes place in a relationship before an emergency occurs. Resilience can also be tied to interagency relationships that underlie organisational arrangements, which can be poor or good (Davidson et al., 2022).

The need for information sharing and interoperability in response to severe weather and disasters is also reflected in related research. In the WMO (2018) report, collaboration between the forecasting agencies, emergency services and government officials is essential to effective warning systems. Insufficient and/or delayed information sharing can hinder organisational decision-making and effectiveness. Inter-agency coordination is therefore frequently considered a critical element of resilience. Many studies suggest that collaboration is not necessarily formal. The relationships, trust, communication, and understanding that are developed before the emergency are essential for effective coordination (Zimmerman et al., 2025). Collaborative governance should be viewed as an organisational capacity that is dynamic and must be developed and sustained, not as a process that only occurs during emergencies. This separation of formal coordination systems and relationship-based collaborations is especially applicable to how AGS coordinates with partner agencies related to severe weather events.

2.11. Lessons from Hurricane Katrina and the Australian Black Summer Bushfires:

Disasters around the world serve as case studies for understanding the issue of organisational resilience during large-scale disasters. The lessons learned in the emergency management literature from Hurricane Katrina and the Australian Black Summer Bushfires include their

extensive study and how they both provide lessons about communication, leadership, workforce resilience and organisational adaptation (Blaustein et al., 2023).

Hurricane Katrina is often used as a case study in the failure of emergency management as an event that revealed weaknesses in communication systems, emergency planning organisations and inter-agency coordination mechanisms (Deflem and Sutphin, 2009). The disaster illustrated the issues of information dispersion and the impact of the disruption of infrastructure on operational effectiveness in a large-scale disaster.

The Australian Black Summer Bushfires in 2019/2020, however, were different and presented their own unique, but equally challenging, opportunities. The bushfires extended emergency response operations over a length of time, unlike Hurricane Katrina, where infrastructure collapsed. Emergency workers had to stay on duty for months and deal with evolving conditions over vast geographic areas (Blaustein et al., 2023).

The operational challenges identified from the research on bushfires were the lack of resources, communication and fatigue amongst the workforce. It also emphasised the critical roles of adaptive leadership, interagency collaboration, and community involvement (Blaustein et al., 2023). Formal systems could not keep up with the evolving operational needs of responders, and they frequently turned to local knowledge and flexible decision-making.

The two disasters shared several common themes, but both brought a strong focus on themes that are crucial for resilient policing. They range from communication resilience and workforce sustainability to infrastructure dependence and collaborative governance, which are deeply important to the effectiveness of the organisation. Importantly, both case studies show that a formal plan and procedure are not the only way to ensure resilience. Instead, it depends on an organisation's adaptability, learning and continued operation in an uncertain environment.

As opposed to the geographically broad dimensions of the Australian Bushfires, Ireland's small operational area may mean that a severe weather event could cause operational pressures in several AGS Divisions at the same time. Although Storm Éowyn is not exactly like Hurricane Katrina and the Australian Bushfires, the key issues discussed in the literature are still very relevant to police organisations aiming to operate during major disruption (Delisi, 2006).

Collectively, these case studies demonstrate that organisational resilience problems sometimes transcend hazard categories. Emergency service organisations have consistently struggled with problems such as communication, coordination, resource management, staff sustainability, and organisational adaptation in hurricanes, bushfires and severe storms. These themes provide a useful way to consider the AGS reaction to Storm Éowyn.

2.12. Organisational Learning and Adaptive Capacity:

The concept of organisational learning has been a central issue in the resilience and business continuity literature. Although the traditional method of emergency management has been preparedness and response, the current approach of resilience also includes learning and adaptation, and continuous improvement. This is a recognition that there are no guarantees that organisations will know in advance what disruptions will occur, and they must build the ability to learn from experience.

In addition to procedures that are documented, Gibb and Buchanan (2006) argue that resilience is also created through learning experiences in the organisation, which contribute to adaptability and knowledge development. In a similar way, Herbane (2010) suggests that contemporary BCM has evolved from disaster recovery planning to a more comprehensive approach to organisational resilience, which is oriented to learning and continuous improvement. It can happen in policing organisations, for example, in post-incident reviews,

de-briefs, exercises and training, which can help to identify weaknesses and improve future preparedness.

But the learning of the organisation is sometimes more difficult than the frameworks of policies imply. Post-incident reviews can show how things went wrong, but the lessons learned are not always translated into a meaningful change in the organisation. There is a risk that these recommendations will not be able to be implemented in the future due to internal barriers, resource limitations or competing priorities (Basten and Haamann, 2019). This can lead to organisations experiencing the same challenges over and over. Identifying lessons and implementing them has become a common theme in organisational resilience studies.

This is especially true for AGS, as severe weather events are not one-off occurrences but rather regular events. Three storms, Ophelia, Emma, Babet and Éowyn all highlighted the need for operational learning to be translated into enhanced preparedness through emergency organisations. It is therefore important that lessons can be learnt, implemented and monitored to enhance policing resilience and that organisational learning can be followed and measured by improvements in preparedness and continuity capability.

In the literature, the focus lies not only on the learning after the event, but also on the occurrence of organisational learning as a continuous and proactive process. Lessons learnt, reviews, debriefing, and evaluation are essential to identifying areas for improvement; however, lessons should be used to inform policies, practices, training and planning within the organisation to build resilience. So adaptive capacity depends on two things: learning from disruptions and an organisation's capacity to turn lessons into lasting change.

2.13. Research Gap:

The literature reviewed highlights the importance of organisational resilience (BCM) and emergency management. It highlights the importance of communication resilience, inter-agency coordination, workforce resilience, reliance on infrastructure, and organisational learning to facilitate effective actions and responses during disruptions. Despite these contributions, however, there are still certain areas of the knowledge base where there is a gap. Organisational resilience (also referred to as BCM) and disaster management have been studied in great detail, but comparatively little has been written on how they function in policing organisations in the context of severe weather events. There is a lack of understanding in relation to what resilience looks like on the ground within Irish police organisations in the event of a severe weather emergency.

Additionally, there is limited research into the nature of business continuity and resilience principles in extreme weather events that impact AGS. Also, little attention has been given to communication and information flow between strategic, tactical and operational levels in weather-related emergencies in existing studies. The ability of police organisations to maintain their operational continuity in the context of climate-related disruption is an important area for further investigation.

Another gap in the literature is the link between formal continuity arrangements and adaptive operational behaviours. Structured planning and documented continuity frameworks are emphasised in BCM literature, while flexibility, learning, leadership and adaptation are increasingly mentioned in the resilience literature (Awang Ali, Hanafiah and Mogindol, 2023). There is very little research that examines these perspectives in the context of policing organisations in the face of severe weather events.

These are important issues to be explored in an Irish context, and Storm Éowyn is an ideal opportunity to do so. The purpose of this research was to increase understanding of how resilient policing can be maintained during severe weather events and whether there is a gap between the existing resilience and business continuity plans and the reality of operational policing in severe weather events.

2.14. Chapter Conclusion:

The review of the literature presented in this chapter indicates that communication resilience, flexible working, interagency collaboration, reliable infrastructure and organisational learning are key elements of effective policing during periods of extreme weather. Organisations need to prepare for disruptions, but they also need to have the capacity to adapt, learn and sustain core functions in challenging situations, which is a common theme in emergency management and business continuity studies. Hurricane Katrina and the Australian Black Summer Bushfires have demonstrated the need for organisational flexibility, leadership and coordination in response to a major crisis. Lastly, this research seeks to improve understanding of the practice of resilience in the context of AGS in extreme conditions and the extent to which the existing resilience and business continuity frameworks adequately capture operational reality.

Chapter 3: Methodology

3.1. Introduction:

This chapter outlines the methodology employed in investigating the maintenance of resilient policing during adverse weather conditions and focuses on a specific case study of Storm Éowyn in AGS. This chapter is going to explain the philosophies, methodologies, designs, data collection and analysis approaches and ethics of this research.

Increasing occurrence and magnitude of climate-induced emergencies have raised operational concerns for emergency services on the front lines, particularly policing, whose mandate includes the preservation of public safety and continuity of operations in times of crisis. As mentioned in the literature review, resiliency in policing not only involves continued operation during extreme weather conditions but also organisational flexibility, personnel resilience, infrastructural integrity, and proper collaboration with other agencies. This research endeavours to shed light on the experiences and perspectives of policing officials involved in the process of emergency planning and response in such extreme weather conditions.

The primary research question that guided this study is: ***How can resilient policing be delivered during severe weather events?*** To address this question, the study employed a qualitative, inductive, multi-method case study focused on Storm Éowyn. The research's methodological choices are informed by Saunders, Lewis, and Thornhill's (2015) Research Onion framework, which offers a structured process for selecting suitable research philosophies, approaches, strategies, methods, and procedures. This chapter begins with an overview of the research philosophy and methodological approach based on the Research Onion framework. It then describes the research setting, sampling strategy, and participant selection process. Following that, the chapter details the data collection and analysis procedures

used. Finally, it addresses ethical considerations and the measures taken to ensure credibility and dependability.

The methodology utilised in this study was intended to help in comprehending the experience of the Garda officers during the disruption caused by Storm Éowyn. The methodology involved collecting rich qualitative data that would provide answers to the research questions identified in the literature review.

3.2. Research Philosophy and Methodological Approach:

3.2.1. The Research Onion:

The concept of the Research Onion was developed by Saunders et al (2015) to facilitate methodological decision-making processes for researchers. This model illustrates a significant shift from broad philosophical presumptions to particular research techniques and approaches. The layers of the onion include research philosophy, theory-building approach, methodology selection, research strategy, time dimension, and research approaches for data gathering and analysis.

The Research Onion was selected to conduct this research since it provides the researcher with a tool to ensure coherence between the research question, philosophical assumptions and methodology used. The integration of the Research Onion in this research can ensure that the study will have a proper methodological structure. In this research, the researcher applies the interpretivist philosophical approach and inductive methodology. This study uses the multi-method qualitative methodology, case study research design and cross-sectional time horizon. Semi-structured interviews and thematic analysis were selected as data collection techniques.

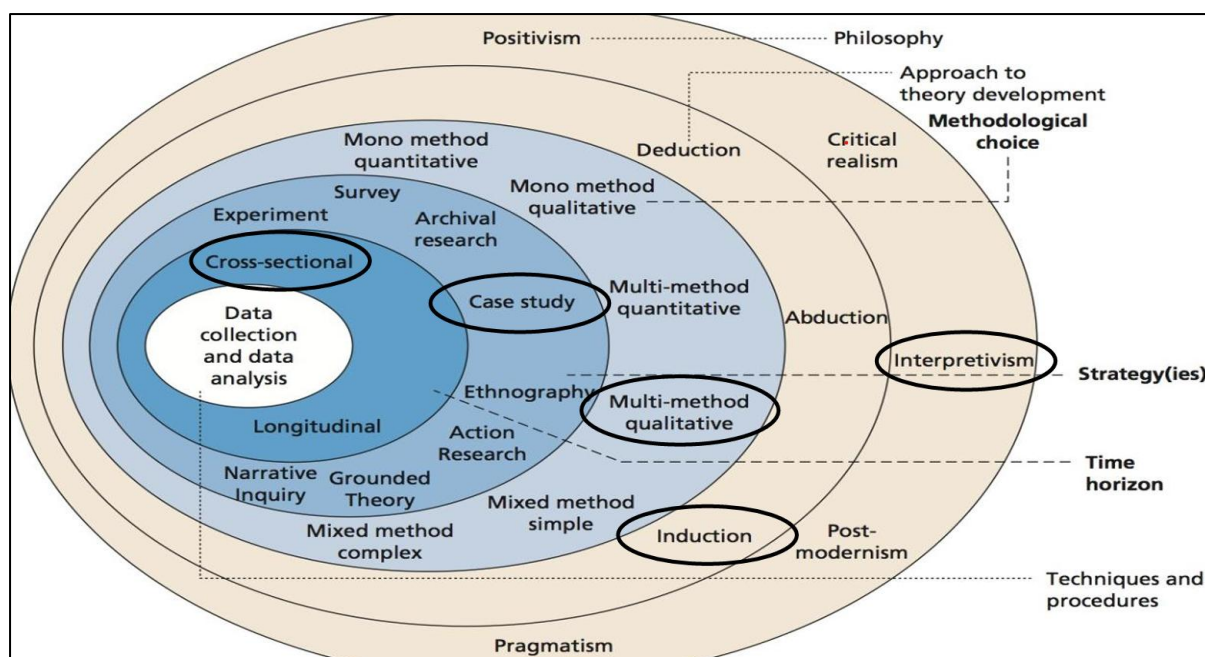


Figure 1: Research Onion Framework (Source: Saunders et al. (2019, p.108))

3.2.2. Research Philosophy: Interpretivism:

According to Saunders, Lewis, and Thornhill (2015), research philosophy involves beliefs and assumptions about knowledge development. Selecting an appropriate philosophical position is important as it affects the research design, methodology of data collection, and analysis of the results. The interpretivist approach is used in this study, and the essence of this approach is the search for the meaning given to events by the people involved in the process. Contrary to positivism, which emphasises objectivity and measurement, interpretivism views reality as socially constructed, which involves personal experiences, perceptions, and interactions.

An interpretivist paradigm fits well in this study since resilient policing in relation to severe weather events is more than a technical or operational challenge; it is socially and organizationally constructed. This study attempts to uncover the way people understand and react to severe weather events through their operational perspective (Barasa, Mbau and Gilson, 2018). This study highlights organisational learning, adaptability, communication, leadership, workforce resilience and multi-agency cooperation, all of which have a subjective perspective

on the operational experience. Therefore, this philosophical position is appropriate because the purpose of this research is to understand how members of the Garda personnel interpreted and responded to challenges posed by severe weather within their operational environment.

Additionally, interpretivism is also consistent with the focus of the research on Storm Éowyn as an operational occurrence in the real world. In order to understand how the employees of the Garda were affected by communication breakdowns, infrastructure problems, workforce exhaustion, and other similar issues, it is important to look into their viewpoints instead of relying on factual and objective data. Interpretivism supports reliance on qualitative methods, including semi-structured interviews and thematic analysis, to have an in-depth understanding of participants' perspectives and experiences. The study, through the use of an interpretivist approach, seeks to gather practical and real-world examples of policing and organisational resilience and how they affect the police and their operations in severe weather events.

3.2.3. Research Approach: Induction:

Research approaches explain how theory connects with research. Saunders, Lewis, and Thornhill (2015) highlight deduction, induction, and abduction as the main methods for developing theory. This study uses an inductive research approach. Induction focuses on deriving concepts, patterns, and potential theories from empirical data instead of testing existing hypotheses. It is especially well-suited to exploring complex organisational phenomena and gaining deeper insights into participants' experiences.

The inductive approach was chosen because the study aims to explore how resilience in policing is implemented during severe weather events within AGS. Instead of testing existing theories on resilience, the research focuses on collecting practical insights from law enforcement personnel involved in emergency planning and response. The literature reviews highlighted key themes in resilient policing, including infrastructure resilience, workforce

resilience, and inter-agency coordination. However, there is limited research on how these issues manifest in operational settings in the Irish policing context during severe weather events such as Storm Éowyn.

An inductive approach, therefore, enabled the researcher to

- Explore participant experiences openly
- Identify emerging patterns and operational challenges
- Develop practical recommendations identified in lived experiences
- Provide insights into organisational learning that are pertinent to enhancing policing resilience.

The inductive approach is also compatible with thematic analysis, which seeks to identify recurring themes and meanings across qualitative data sets (Braun and Clarke, 2006). This method allowed themes and patterns to emerge naturally from participants' experiences rather than being constrained by predefined theoretical ideas.

3.2.4. Methodological Choice: Multi-Method Qualitative Research:

The current research utilises a qualitative methodology, which emphasises the investigation of meanings, perceptions, experiences, and organisational processes, rather than the measurement and evaluation of variables or the analysis of their interrelationships statistically. It is reasonable to apply qualitative methodology as the research intends to investigate the experience of severe weather events by police officers, the maintenance of continuity of operations, and the development of organisational resilience under crisis conditions. Whereas the quantitative method cannot address the complex nature of operational realities, as it does not provide insights about subjective experiences (Meyer, 2020).

Qualitative research employs a variety of methodologies such as semi-structured interviews, document analysis and case studies. The integration of all these methods helps achieve deeper knowledge using data triangulation from diverse sources. Document analysis includes organisation policies, emergency management strategies and operating reports on Storm Éowyn. Moreover, the semi-structured interview technique can offer an elaborate insight into the views and reactions of participants. According to Sauder, Lewis, and Thornhill (2015), the use of multiple research methods is essential for developing a holistic understanding of organisational phenomena by facilitating the use of a variety of data sources. The combination of semi-structured interviews and document analysis makes the results of this study more credible. The use of document analysis and interviews together helped to make methodological triangulation and obtain deeper knowledge about organisational resilience in relation to Storm Éowyn.

A multi-methods qualitative approach also adds richness and depth to the research as a variety of sources of evidence support and corroborate. In the field of organisational studies, this method is especially useful because of the difficulties involved in grasping complex social processes and context in a single way of inquiry. The use of documentary evidence alongside the participants' stories allowed the researcher to make comparisons between formal policies and operational experiences and practices during Storm Éowyn. As a result, the study gives a detailed account of resilient policing, including the institutional structures as well as the practice of emergency response workers.

3.2.5. Research Strategy: Qualitative Case Study:

The primary research strategy adopted for this study is a qualitative case study. According to Yin (2014), a case study involves a comprehensive investigation of a present situation in its actual environment. This research approach is quite important when studying complex

organisational and operational situations where it is essential to understand the contextual factors.

Storm Éowyn was chosen as the case study because it is one of the most impactful severe weather events in recent years in Ireland. Disruption in operations was evident in communication, infrastructure, power grid and a significant impact on emergency services. The case study method is appropriate in this instance since resilient policing during extreme weather conditions is highly dependent on the context. Operations, organisational structure, leadership, inter-agency collaboration and environmental factors influence it (Storm Éowyn Review, 2025).

It was evident from the literature review that extreme weather conditions such as Hurricane Katrina and the Australian Bushfires present numerous challenges in organisational resilience, communication systems, workplace fatigue and continuity management. Storm Éowyn serves as a valuable Irish point of contact for investigating similar organisational and operational issues. The case study approach also supports the interpretivist philosophy adopted in this research by enabling detailed exploration of participants' experiences and organisations' responses.

Storm Éowyn served as an ideal case study for examining organisational resilience in a policing setting. The event caused notable operational disruptions, providing a valuable opportunity to observe how resilience processes are implemented in real-world settings

3.2.6. Time Horizon: Cross-Sectional Study:

This research uses a cross-sectional design, in which data are collected at a single point in time or within a specific time frame (Seale, 2018). This method is suitable because the study aims to explore participants' experiences and organisational responses after Storm Éowyn, rather

than analysing long-term changes over several years. The study provides a snapshot of organisational resilience and operational continuity after the severe weather event. A longitudinal approach was not feasible within the time constraints of a master's thesis.

Although a cross-sectional design has practical limitations, this snapshot was intentionally used to gather vivid post-crisis reflections while the lessons from Storm Éowyn were still fresh. Collecting data shortly after Storm Éowyn allowed participants to reflect on experiences while events remained relatively recent.

3.3. Research Setting:

The study focuses on AGS, Ireland's national police service. AGS is a highly centralised, hierarchical organisation responsible for internal security and regular policing nationwide. In emergency management and disaster risk reduction, AGS operates as one of the PRA agencies under the MEM. This role requires the organisation to maintain complete operational continuity during catastrophic events to protect public safety and vital national infrastructure.

This research focused on how AGS responded to Storm Éowyn. The severe weather event put immense pressure on the state's public safety infrastructure, resulting in widespread telecommunications failures, physical obstructions, and lengthy power grid outages. Examining this context offers a valuable chance to assess how the AGS responds under intense operational stress. AGS was selected because it is a PRA with statutory obligations for emergency management and public safety during severe weather events.

AGS was chosen because it is a PRA which has statutory duties in relation to emergency management and has a pivotal role in coordinating a response to major incidents throughout Ireland. It is widely present across the country, hierarchical and has significant experience of emergency management, making it an important context in which to look at organisational

resilience in action. In addition, Storm Éowyn gave us the opportunity of a unique study of the adaptation of a nationwide policing organisation to the needs of rapidly changing operations while continuing to provide the necessary services. The study of AGS in this context allows the research to produce practical lessons regarding resilience, continuity planning and adaptive decision making in the event of severe weather.

3.4. Sampling and Participants:

3.4.1. Sampling Strategy:

To collect the detailed, content-rich data needed to answer the research question, a purposive sampling strategy was used (Bryman, 2016). This method was selected because the study required participants with direct experience, operational roles, and knowledge of the phenomenon, rather than aiming for statistical representativeness of the broader population. Such an approach is well-suited to qualitative case study designs focused on gaining in-depth analytical insights into specific organisational behaviours during emergencies.

The target population was limited to senior and operational members within AGS who had decision-making responsibilities during the Storm Éowyn emergency response. Such criteria ensured that all interviewees were provided with sufficient information about the organisation to allow criticism regarding the connection between formal planning and actual execution. In total, the sample size comprised six semi-structured interviews, which is considered to be adequate in an interpretivist qualitative case study that focuses on depth of understanding and experience.

3.4.2. Participant Profile:

The participants included AGS members who were engaged in emergency planning and coordinating during severe weather conditions, indicating the inclusion of a wide range of Garda ranks and their experiences. The varying ranks in the Garda ensured that the collected

data was not limited to only one perspective and that comparisons could be made between policy and practice. It clearly shows that the perception of the threats is different at various levels, creating an interesting multi-level database showing weaknesses in the business continuity of the organisation.

The participants were requested to take part in the study voluntarily, and they were given information on the aim of the study, confidentiality, and their right to withdraw at any stage of the process. Before the start of the interviews, the participants were given an information letter, consent forms, information about confidentiality and anonymity, and data storage procedures, along with their right to withdraw from the study as per their willingness.

3.5. Data Collection Methods:

3.5.1. Overview of Data Collection:

For the data collection process in this study, the two main qualitative methodologies used included document analysis and semi-structured interviews. The use of several sources for data collection made possible the process of data triangulation, greatly improving the overall validity, depth, and reliability of the results obtained.

The sequence in which the various processes of data collection took place played a key role in the research process. Document analysis was purposely conducted first in order to have a thorough understanding of Storm Éowyn, national emergency planning frameworks, and the business continuity plans of organisations before engaging with the subjects. The process of document analysis directly helped in formulating the interview schedule, and analysis of official documents before the interviews helped ensure that the interview questions were focused specifically on practical concerns that would not normally arise from a textbook question.

3.5.2. Document Analysis:

Document analysis in this research entailed a review of Government reports, the National Framework for (MEM), media releases during the event, and storm reports, especially the review of Storm Éowyn. According to Bowen (2009), document analysis provides an understanding of the situation and the organisation and assists in data triangulation in qualitative research. Through the document analysis, the researchers were able to develop interview questions by analysing operational themes and resilience issues from the literature.

3.5.3. Semi-Structured Interviews:

Although the process of document analysis provided the organisational context, the primary data collection technique focused on semi-structured interviews, as it allowed the researchers to understand the practical experiences of Storm Éowyn. Semi-structured interviews are particularly valuable due to their structured strategy and flexible approach. In particular, by using an interview guide prepared in line with the Interview Protocol Refinement framework (Castillo-Montoya, 2016), the research team was able to make sure that all key themes were discussed in each session of the interview while ensuring that participants could talk about unforeseen intricacies. Examples of constructs identified in the literature review that helped shape the questions were organisational vulnerability, response efficiency, and adaptability. Specific to the questions were the manner in which Garda personnel assessed risk associated with severe weather conditions and the manner in which the Garda's organisational arrangements supported the effective operation of resilience strategies.

This interactive approach was critical because accurate policing during severe weather conditions consists of complex human experiences, intuitive decisions made under pressure, and spontaneous adaptive behaviours that cannot be represented accurately through the use of

standardised quantitative surveys. Each interview guide was developed on specific operational themes.

1. ***Operational impacts of severe weather:*** The immediate physical effects of extreme weather on routine policing operations.
2. ***Business continuity:*** Participants' awareness and perceptions of divisional continuity planning.
3. ***Communication systems:*** The technical stability and backup protocols of command networks during infrastructure failures.
4. ***Interagency coordination:*** Involves the practical aspects of implementing collaborative emergency governance across all involved agencies.
5. ***Workforce well-being:*** Workforce pressures affecting staff well-being and operational capacity.
6. ***Infrastructure disruption:*** Refers to the tactical blockages caused by failures in transport, power, and fleet operations.
7. ***Organisational learning:*** The mechanisms through which post-event recommendations are converted into permanent changes.

All six interviews were conducted individually, audio recorded with clear participant consent, and transcribed verbatim to ensure data accuracy. Before starting, each participant was reassured that their involvement was voluntary, that they could withdraw their data at any time, and that all responses would be kept anonymous using pseudonyms.

3.6. Data Analysis:

This study employed thematic analysis in analysing qualitative data through document reviews and semi-structured interviews. Thematic analysis involves the identification, examination, and reporting of patterns or themes in qualitative data (Braun and Clarke, 2006). The approach was

selected based on its flexibility and suitability in investigating the experiences of the participants as well as organisational perspectives. This approach was appropriate in the research as it helped in revealing shared meanings and operational issues, especially on the topics of resilient policing, communication stability, workforce pressure, and collaboration in emergency governance.

To maintain the high degree of methodological rigour, the analysis was done systematically through Braun and Clarke's (2006) six-stage process:

1. ***Familiarisation with the data:*** This stage involved repeated reading of interview transcripts and relevant documentary material to get acquainted with the data on the operations from the perspective of AGS.
2. ***Open coding:*** This stage facilitated the development of codes that are related to the concept developed based on operational experiences and resilience challenges experienced by the respondents in the database.
3. ***Searching for themes:*** Codes were systematically arranged and put in thematic categories based on the relevance of their responses to the research problem.
4. ***Reviewing themes:*** Themes identified by the researchers were cross-examined against the data and the whole data set to confirm if they are a true representation of the boundary of empirical data.
5. ***Defining and naming themes:*** This stage helped refine the conceptual definition of the themes and name them according to their structural reality of the emergency response.
6. ***Producing the report:*** This stage involved developing the final analytical narrative by combining empirical data and the theoretical framework to develop an effective and strategic argument.

While an inductive approach to coding was a huge part of the research, allowing the real-world experiences of frontline responders to emerge naturally from the textual data collected, inductive codes were constantly refined based on conceptual insight from other studies in the literature. Like inductive codes, the detailed codes were developed directly from the vivid expressive language used by participants to describe the physical and emotional impacts of Storm Éowyn; however, the organisation of these codes into three major themes was primarily to offer a critical analysis assessment of certain major elements identified through the literature review, including:

- Infrastructure Resilience
- Workforce Resilience
- Interagency Coordination
- Communication Systems
- Organisational Learning
- Business Continuity

These rigorous coding protocols ensure that the final analytical outcomes go beyond simple summaries of the emergency. The coding framework ensured a transparent and systematic analytical process, enabling themes to be developed directly from the empirical data.

3.7. Ethical Considerations:

All research activities were conducted with ethical consideration as a guide, in accordance with DCU Business School requirements regarding informed consent, confidentiality and data security. Before participating, the participants received information, consent forms and insights about rights and data protection. They were informed of their voluntary participation and the right to withdraw at any time. In addition, pseudonyms were utilised, recordings and data were securely kept and identifiable data was only accessible to the researcher. The participants were

assured that the sensitive data would be destroyed after the completion of the study to reduce concerns about confidentiality. The researchers were aware of power and sensitivity issues while interviewing and asking about operational experiences with AGS; therefore, the researchers ensured that questions did not cause distress to the participants.

3.7.1. Trustworthiness:

The establishment of a robust structure of trustworthiness is essential to uphold the integrity, credibility, and relevance of the findings in qualitative research. This study adopts the well-established evaluative framework established by Lincoln and Guba (1985), which moves away from conventional quantitative measures of validity to four criteria: credibility, transferability, dependability, and confirmability.

3.7.2. Credibility:

Credibility refers to the extent to which the final results of the research accurately and truthfully reflect the actual experiences and operational realities of participants (Lincoln and Guba, 1985). The credibility of this study is increased through several systematic measures of quality assurance, as the participants were carefully selected from the most experienced members of AGS, who work in strategic planning for severe weather events. Interviews were triangulated against policy frameworks and the official Review of Storm Éowyn. Interviews were carried out in a consistent manner for all six interviews, with each participant's data evaluated against the same thematic baseline. Methodological consistency was maintained by following strict interview protocols across all six interviews, ensuring that each participant was assessed against the same thematic baseline, and Verbatim transcripts were completed to ensure accurate representation of the participants' views and opinions.

3.7.3. Dependability:

Dependability is associated with the uniformity and clarity of the research process, and this keeps a thorough record of the important methodological decisions, including data collection and final analysis, to guarantee its dependability. The implementation of consistent interview protocols, clear documentation of coding procedures and processes, transparency of methodological decisions, and detailed documentation of the analytical steps facilitated the achievement of dependability in this study. In addition, the semi-structured interview schedule contributed to the consistency of interviews and provided a stable foundation that aligned with analytical and coding steps.

3.7.4. Confirmability:

Confirmability is associated with the extent to which the findings of the research are supported by the data, instead of the researcher's assumptions or bias. The subjectivity was minimised by adhering to a strict approach when collecting the data, and confirmability was maintained by presenting raw participant quotes verbatim in the findings chapter. This allowed operational managers' voices to support the analysis and to ensure that each thematic conclusion can be directly traced to text excerpts.

3.7.5. Transferability:

Transferability refers to the extent to which the results can be transferred to other organisational settings in a similar context. This research is focused on the case study of AGS and their reaction to Storm Éowyn, but cannot be generalised on a statistical level. Rather, transferability is achieved by being explicit about the research context, institutional limits and disruption of operations. This comprehensive background allows external practitioners to determine if the structural lessons learned apply to their own public safety system.

3.8. Limitations of the Methodology:

Despite the effective methodology, this study has certain limitations, as it purposively utilised a smaller sample size from a single policing organisation. This allowed for an exploration of operational experiences in depth but may not represent the broader experiences of policing in all environments. Moreover, the cross-sectional design only recorded experiences at one moment after Storm Éowyn, and a longitudinal design might give a better understanding of the organisational learning and resilience process over time. The responses may be influenced by participants' organisational loyalty or their retrospective interpretation of events. Moreover, as the researcher is embedded in the policing context, reflexivity and possible biases need to be well managed when analysing the data. Despite these limitations, the methodology employed is suitable for the study due to an emphasis on depth rather than generalisation. The qualitative case study method gives depth to understand how organisations are resilient, how they continue to operate and what policing actions they take when facing severe weather events.

One constraint is that the data are self-reported qualitative information from semi-structured interviews. Participants' accounts are subjective and based on their own perceptions, experiences, and recollections of Storm Éowyn, and could be subject to memory bias or selective recall. Interviews can be very rich and detailed in the information gained about organisational resilience, however they may not reflect every aspect of operations or do not always cover informal practices that took place in the emergency response. In addition, participants could have been reticent to address organisational weaknesses or operational concerns for confidentiality, professional integrity or the culture surrounding the organisation. This could have muted the views of the interviewees during the interviews.

Furthermore, the study is grounded in a specific case of a severe weather event in the Irish context of policing, which might constrain the generalisability of the results to other emergency

services organisations or other countries with different institutional, legislative and organisational structures. The conclusions drawn from the findings are informative about resilient policing in the AGS but care needs to be taken when applying conclusions to other contexts. Comparative case studies of different organisations and jurisdictions could offer a wider picture of resilience implementation and practices in the event of a severe weather event.

3.9. Chapter Summary:

This chapter outlines and justifies the methodological framework employed to study policing during severe weather events within AGS. It details the study's philosophical and methodological positions using Saunders, Lewis, and Thornhill's (2015) Research Onion model. The chosen approach includes an interpretivist philosophy, an inductive methodology, a multi-method qualitative design, a case study strategy, and a cross-sectional time horizon, all selected as the most appropriate methods for addressing the research question.

Data collection was well planned in two phases, in which the first phase focused on a review of the national emergency management framework, storm review documents, and relevant policy documents to set the context for the study. This baseline directly informed the creation of an interview guide for 6 semi-structured interviews with experienced Garda Personnel. Data from the texts were analysed using the six-step thematic analysis method proposed by Braun and Clarke (2006).

Chapter 4: Results and Analysis

4.1. Chapter Introduction:

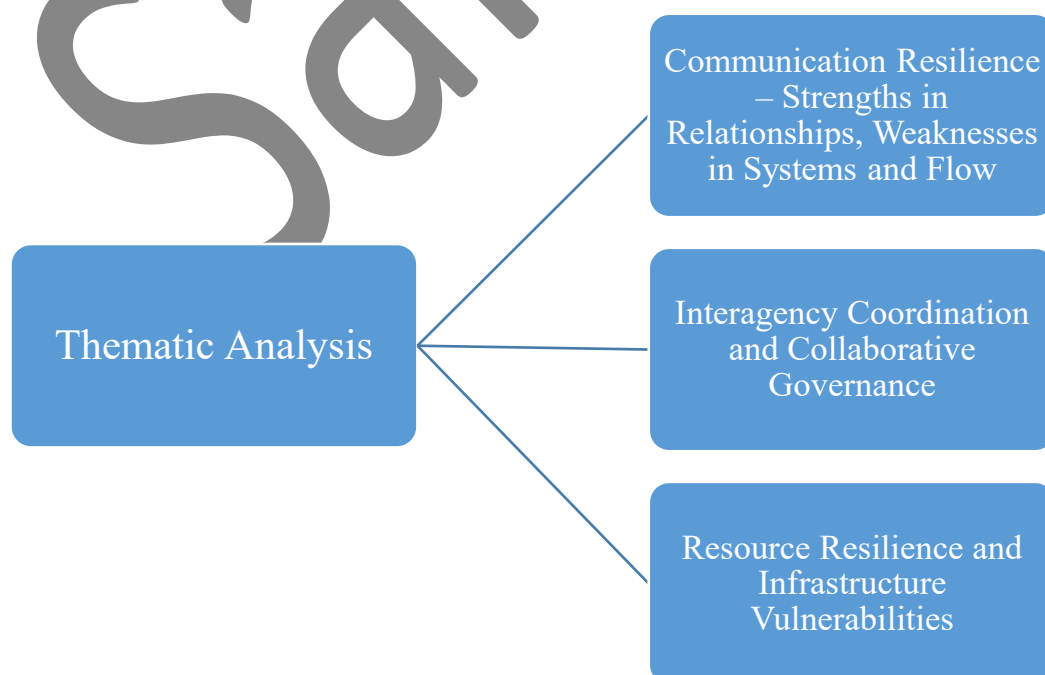
The key findings from the qualitative analysis of the semi-structured interviews conducted with six (AGS) personnel and documentary evidence on Storm Éowyn (January 2025) are presented in this chapter. The analysis was used by Braun and Clarke (2006) in their 6-phase thematic analysis and was guided by the study research question. This inductive but theory-informed approach enabled patterns and meaning to be identified directly from the participants' lived experiences, but also was sensitised by the theories and literature identified from the literature review, such as Protection Motivation Theory (PMT), Business Continuity Management (BCM) and resilient policing principles.

The results are presented under 4 themes that are closely interrelated that demonstrates the multifaceted nature of organizational resilience during the storm. Each theme is foregrounded through extensive illustrative quotes from participants' discussions, supported with key quotes from the official Storm Éowyn Review and quotes from the MEM Framework. Throughout the text there are pseudonyms used to ensure anonymity.

Results presented in this chapter are largely descriptive and interpretative, giving emphasis to the voices of operational and senior personnel. A separation between the empirical findings and the wider scholarly and practical contexts helps to make empirical findings present and then place them in a wider context. In the event of a connection between themes, the systemic and interdependent nature of the challenges of resilience faced by AGS is highlighted, where appropriate.

This chapter explores the experiences and reactions of Garda personnel to Storm Éowyn and offers a grounded account of the strengths and weaknesses of existing resilience arrangements. The findings indicate that although adaptive capacity and public safety commitment were strong at AGS, there were aspects of public safety preparedness which were not aligned with the actual delivery of the service during operations on ground in extreme conditions. The findings of this study provide an empirical basis for the research contributions to an understanding of resilient policing in the Irish context, and provide lessons for emergency management in general.

4.2. Analysis of the Findings: Thematic Analysis:



4.2.1. Theme 1: Communication Resilience – Strengths in Relationships, Weaknesses in Systems and Flow:

Communication is the most dominant theme across the six interviews and represented the core to successful resilient policing during severe weather. Communication was highlighted as being both a key strength both in terms of senior command and in inter-agency working and also a recurring weakness in relation to technology, flow of information, and a national consistency to approach. This duality is consistent with the sociotechnical literature of emergency communications (Abbas and Miller, 2025; Potter et al., 2021).

At strategic and regional levels, particularly in the Cork/Kerry southern region, interviews with the respondents described comprehensive interagency and interpersonal communication network.

Consistent quarterly (MEM) meetings, pre-storm technical briefings from the National Directorate for (NDFEM) and Met Éireann, and the physical co-location of Principal Response Agencies (PRAs) enhanced strong relationships and shared situational awareness. One of the senior respondent with extensive interagency experience (Participant 2) stated:

“Communication is key... shared situational awareness is the most important thing.”

This perspective is supported by other participants as well who praised and fostered the effectiveness of regional coordination. Rapid problem solving is enabled by personal relationship is highlighted by participant 3:

“It’s all about relationships in a time of crisis we are able to pick up the phone to each other.”

Majority of the participants observed that these developed networks enable proactive planning like prioritizing tasking (e.g., dialysis patients), mobilizing volunteers and coordinating road clearances. The interagency office in Cork was consistently referred as a gold standard model, where trust and joint working develop over years emerged into effective decision making during Storm Éowyn. In advance of storm events an official calendar invite is circulated by NDFEM prior to the commencement of events and models are obtained from Met Éireann to ensure “proper understanding” of impacts that allow PRAs “to anticipate needs”.

The regional strengths extended to operational and practical approaches. Respondents indicated sharing directly via phone line to Sergeants in communication room, to use same Excel Tasking as HSE and utilize informal WhatsApp or emails groups for real-time updates. One of the interviewee elaborated that how providing contact details of patrol officers significantly enhance the coordination with the HSE and local authorities, lowering the frustration during the Midletom flooding response.

However, systematic weaknesses in organizational awareness and downward dissemination critically contrasts the concept of these strengths. Majority of the participants stated that strategic details from NDFEM and NECG, often unsuccessful to reach frontline Gardaí effectively. Another participant supported the concept:

“I don't think we have an actual continuity or resilience plan in place, but what I would say is being involved in emergency management training. In terms of having people trained in the region, and I suppose it's the northern region, so we're talking in Donegal and Sligo when we're delivering that training. I think between the PRAs now; we have over the years a lot of people trained in various roles.” (Participant 1)

Moreover, Participant 2 with over 16 years of service experience explained frustration:

“I didn’t know I was 16 years’ service before I heard about a framework for emergency management... there’s something wrong there when we have nationally, as an organisation signed up to implementing it and no one knows about it.”

The lack of awareness around the MEM Framework and relevant procedures was an issue raised consistently. The frontline participants (eg. Participants 4 and 6) explained they either relied on local sergeants or ad-hoc emails instead of structured briefings. Sometimes information arrives too late or lacking of particular local conditions can lead towards confusion. They reported that relevant information did not always arrive in time, was too general to meet their local needs or caused confusion. One participant recalled;

“We’re not doing anything” despite activity at higher levels”

Furthermore, technological failures significantly accelerate these issues. Tetra radio blackouts were broadly indicated, specifically in West Cork, Dingle, Kerry and Beara Peninsula during Storm Éowyn. It has been seen that mobile networks were become extremely overloaded, as experienced during the Middleton flooding when local coordination grounded to struggles to contact Garda personnel (Storm Éowyn Review, 2025). Moreover, these problems are further increased through power outages, rendering backup systems and charging unreliable. Several Participants showed that while Tetra has prolonged outages, theoretical resilience and black spots in coastal and rural areas encountered its limitations.

Moreover, participants also discussed about numerous workarounds. They have elaborated that The Amateur Radio Emergency Network (ARAN) was accessible but yet was under-mobilized because of the limited awareness at national level. Local authorities and civil defense successfully tested the starlink satellite systems and it offers reliable Wi-Fi services even in the remote areas. The direct personal calls and Stirling device (a device with a limited mobile mesh

system) were also incorporated. However, these solutions were opted and implemented locally instead of systematically. Participant 2 further recounted passing ARAN accessibility towards the upper chain of the national MEM office only for it not to be actioned

“There was a solution... and we did not avail of it because they didn't know about it.”

The resilience in communication for Storm Owyn were mainly based on individuals and informal networks, rather than on solid standardized systems. In order to achieve efficient local results, it's quite adequate, but creates deficiencies when it comes to national level of coherence, technological redundancy and knowledge sharing. If for example the MEM Frameworks is introduced in Templemore training it would establish a clearer understanding, similarly to backup of communication technology, or improved downward communication flow, these deficiencies needs to be address in order to achieve resilient police practices.

4.2.2. Theme 2: Interagency Coordination and Collaborative Governance:

During severe weather events, resilient policing requires a decentralised network governance and robust interagency collaboration. The participants stressed that strong coordination between An Garda Síochána (AGS) and other Principal Response Agencies (PRAs), including the Health Service Executive (HSE), Local Authorities, along with supporting groups, such as the Defence Forces, Civil Defence, Irish Coast Guard, and Mountain Rescue, is essential for success under the Ireland's Framework for Major Emergency Management (Government of Ireland, 2006). The participants acknowledged the role of personal relationships, mutual agreements, and trust as the factors for increasing collaboration, despite the availability of a formal framework for establishing an effective structure.

The southern region (Cork/Kerry) was consistently utilised as an example of best practices. The participant stressed that the role of established collaboration, scheduled MEM meeting held on

a quarterly basis, and a designated cross-agency hub, are significant in promoting the success of the programme. Participant 5 played an important interagency role and shared perspectives that are as follows:

“Organizationally, and again came out of Stormyón, is we're trying to push for the senior leadership team to stand up a crisis management team. And to, we've put in a proposal to walk them through what that would look like. And we're a little bit, almost a year and a half after Stormyón and they....”

This emotional connection was evident during interviews, as participant 3 demonstrated the significance of pre-existing relations and systems, which facilitated immediate actions and effectively addressed issues during Storm Éowyn. The scheduled pre-storm meeting arranged by NDFEM encouraged the agencies to exchange information about weather data, analyse high-risk zones, including Kenmare, Midleton, and Bantry, strategically place emergency equipment, such as pumps and sandbags, and facilitate synchronisation of important operations. Participants observed the effectiveness of these connections in allowing organisations to transcend strict structural isolation:

“the success or failure would be communication, so I suppose the Starlink has been great, and we've tested it. And we've tested it numerous times, and it's a fabulous system. Yeah, we have tested it in remote areas, but we've also tested in the likes of Pairc Ui Chaoimh, where there would be crowds, just to make sure that we have that emergency capability for communication”

The significance of the activation of volunteers and external partnerships was regarded as the main pillar of success. The deployment of the Civil Defence, Mountain Rescue, the Irish Coast Guard, and the 4x4 Southern Response Group was facilitated to assist with operations in challenging geographical locations. The examples from Storm Éowyn and subsequent snow/ice events were observed by the participants, as volunteers played a critical role in driving dialysis

patients to treatment, transportation of medical staff, and providing care to vulnerable individuals. Participant 6 described that prior arrangements and existing personal connections facilitated rapid deployment.

“Our resources in our station would be quite poor I suppose we have either just a standard patrol car, or we would have a Garda van, which wouldn't suit the terrain in a good bit of our area at the best of times but we would have no 4 x 4 available to us.”

The assistance provided by the Defence Forces was considered effective and appreciated during times of need. But participants also highlighted the issue related to the mobilisation of volunteers. Under the framework, the responsibilities related to supervision, insurance, and welfare of volunteers were dependent on AGS. As told by one participant, during snow or ice events, volunteers get stuck, and they need to be rescued by local farmers with tractors:

“That is the danger of mobilising the additional resources... we need to mind them.”

(Participant 2)

Some problems arose regarding the need for adequate food supplies, warm clothing, charging points for phones, and briefing sessions, because these things were not adequately provided by the authority. However, regardless of the issues, participants acknowledged that the volunteers provided lifesaving help and were rooted in the community spirit.

The southern region stood out among the divisions for its strong collaborative nature and slower progress at the national level. Participants pointed out that Cork/Kerry were favoured due to their strategic geographic assets, like ports and COMSAH sites, which fostered interagency cooperation. While other regions, such as Dublin, seemed comparatively less cohesive. The expression about long-term sustainability was highlighted by participant 1:

“That’s the fear in the local authority and I know the local authority had them with Tetra because, you know, and with not even Tetra, but their own communication systems there, like there was no electricity in a lot of parts of the country.

Official frameworks, such as NECG meetings, MEM Framework and meetings, were considered to be insufficient, and the lack of mutual trust and informal network significantly reduced coordination. To overcome persistent operational silos, participants emphasised the need for Ireland to adopt the UK’s JESIP (Joint Emergency Services Interoperability Principles) as a robust and standardised approach. One senior officer stated:

“Time after time in an inquiry, who’s the one that’s criticised the most? It’s the police... because they haven’t implemented JESIP.” (Participant 2)

The effectiveness of practical solutions, such as increased collaboration, shared-task tracking, including colour-coded Excel sheets with the HSE, and lists of patrol contacts, along with centralised command centres, was highlighted by participants. These measures fostered increased awareness and eliminated overlapping efforts.

Consequently, interagency collaboration was one of the most powerful enablers of resilient policing that was seen during Storm Éowyn, especially in areas where the relationships were established. However, the inconsistent implementation of this theme across the country demonstrates how collaborative governance is still more a goal to be achieved than an established principle. Enhancing the theme via additional interagency training in Templemore, protocol development on managing volunteers, and sharing best practices nationally is therefore an essential step forward in future adverse weather events.

4.2.3. Theme 3: Resource Resilience and Infrastructure Vulnerabilities:

During Storm Éowyn, the maintenance of adequate resources was a major issue, which challenged the operational capacity of AGS. It was repeatedly emphasised by the participants how the lack of appropriate equipment, such as specialised vehicles, power backup facilities, and equipment suitable for the territory, negatively affected the operational capabilities of the organisation, which resulted in the inability to provide law enforcement services under conditions of damaged infrastructure. These issues are consistent with the research on critical infrastructure interdependencies (Rehak, Senovsky and Slivkova, 2018; Rinaldi, Peerenboom, and Kelly, 2001) and highlight the weaknesses in the conventional continuity strategies when exposed to severe weather in Ireland's varied rural and coastal areas.

The consistent issue that came up was the insufficient availability of 4x4s, especially in rural and coastal divisions, since regular patrol cars were useless in such cases of fallen trees, flooding, and windy weather. Participant 6, one of the officers on the frontlines, stated this clearly:

“We have no 4x4 available to us... no one trained... our equipment sometimes would let us down.”

Interviewees consistently highlighted that the absence of off-road vehicles hindered officers from quickly reaching vulnerable and isolated individuals, thus reducing their ability to effectively respond to the crises. It is a fundamental policy under the Framework for Major Emergency Management, but the problem is exacerbated due to a lack of adequate training regarding managing specialised vehicles, thereby creating a significant gap due to the unavailability of resources and lack of trained personnel. The Government of Ireland (2025) reviewed Storm Éowyn, which indicates that emergency teams faced significant delays, with

blocked roads and limited vehicle capabilities restricting access to affected areas, which validates earlier reports regarding the availability of resources.

Another weakness related to the provision of backup power was also identified, as various Garda stations did not have a backup power supply or had generators which could not perform effectively during prolonged outages. More than 750,000 customers were affected by the blackout during the storm, and the impact of the power outage on policing services was huge, as the TETRA radio communication system broke down, and stations lost light and heat, while ICT communications became unstable (Tetraireland, 2020). Participants expressed that workers had to work in darkness and were forced to use their phones until the batteries died, thus indicating that the stations were operated in total darkness. Such practices do not align with the divisional contingency plans, which rely on the availability of reliable backup power for at least 24 to 48 hours.

Many participants highlighted that the transition to electric vehicles (EVs) in the AGS fleet presents significant challenges during extreme weather. The key issues included range limitations, unreliable charging networks, and decreased vehicle efficiency in cold and wet climates. According to participant 3, the use of EVs promotes sustainable practices, but at the same time creates dependency on an already fragile electricity grid infrastructure, which is an effective example of infrastructure interdependency failures.

“.....big inspiration now is about electric vehicles to make sure that they are charged up and ready to go”

The participants noted that there had been some improvements since previous events, including Storm Emma, which include the purchase of more 4x4s and the formation of special teams for managing situations that require rapid response. However, progress was often criticised for being too slow and not evenly distributed throughout various departments. Utilising external

assistance through the help of volunteers and partner organisations turned out to be an effective fall-back solution, but it was always overburdening the entire resource pool of the system.

According to the Protection Motivation Theory (PMT) analysis (Rogers and Dunn, 1997), the situation demonstrates that these deficiencies affected the officers' coping appraisal. Although there were high levels of threat appraisal associated with Storm Éowyn because of effective warnings, there was a low level of perceived response efficacy due to the apparent lack of equipment. This gap between formal business continuity plans (ISO 22301, 2019) and actual operational readiness highlights a major flaw, as the plan was present on paper, but the unavailability of resources made it challenging to practically adapt it to real-world situations (Steen et al., 2023).

The results indicate that resource resiliency needs much more than a list of resources in business impact analysis. It requires strategic and proactive investments in a robust resource base, testing of emergency resources and procurement arrangements that can be scalable when warnings escalate. In the case of AGS, overcoming difficulties in working with rural and coastal geography through targeted upgrading of the fleet and resource pooling across the divisions would go a long way in improving their performance in the future. If not addressed, infrastructure vulnerabilities may become an obstacle to resiliency in the future

4.2.4. Theme 4: Workforce Resilience and Human Factors:

Workforce resilience emerged as a key component, but it was not always supported well within the operations of AGS during Storm Éowyn. The participants noted the double burden that the officers had to handle during the incident, including the management of professional responsibilities, along with personal and family issues arising from severe weather events.

This theme is consistent with the evidence on sustaining emergency service personnel (Blaustein et al., 2023; Corrales-Estrada et al., 2021) and indicates the importance of human

factors in directing the success and failure of organisational resilience in practice. Participant 6 has stated:

“We need to put that Garda decision-making model in just learned and improve resilience with these kind of incidents and when they get put to us but the communication is a huge factor.”

Officers had to work for long shifts, changing shift patterns, and increased operational tempo, starting shifts in early morning hours to effectively coordinate tasks; however, it placed a significant strain. In addition, many officers had to live in the communities they were serving, experienced damage to property, electricity issues, and worries about the safety of their own families, while responding to individuals requiring help. A participant shared their experience from Storm Ophelia:

“Guards were told to go on the beat on a red warning... it was bananas.”

During Storm Éowyn, certain improvements were implemented, including the pre-booking of hotel facilities close to railway stations to promote the safe return of officers to their homes, flexibility in shift patterns, and the establishment of proactive welfare communication channels. The peer support systems helped as an informal means of emotional support, and welfare checks after the event were referred to positively in several narratives. However, assistance was largely reactionary and lacked systematic integration into long-term continuity strategies. The differences among various divisions were noted by the participants, as some officers practised effective leadership in promoting well-being, while others provided minimal support beyond basic schedule modifications. Participant 5 has mentioned:

“So because that's our strategies for maintaining the services. And we've maintained a really good relationship with all our counterparts in the other agencies. So it's really just being flexible, adaptable, and having strong stakeholder engagement”.

Fatigue also became an important factor, as lengthy operations prompted concerns regarding the quality of decision-making, situation awareness, and possible mistakes made while operating for a prolonged period of time. This is consistent with the research into fatigued responders during prolonged incidents such as the Australian Black Summer Bushfires (Blaustein et al., 2023). With regard to Ireland, the geographical nature of the country being small in scale implied that, in contrast to larger-scale tragedies, stress would be experienced simultaneously across the nation rather than being isolated.

From an organisational learning perspective (Gibb and Buchanan, 2006), there were positive developments, along with shortcomings, within the case of Storm Éowyn. The positive developments included effective improvements in communication and accommodations, which focused on the welfare of people and demonstrated the increasing capacity of the organisation. However, the consequences of the event on the employees were not evaluated in a systematic manner, which indicates that lessons on human resiliency have not been integrated into standard practices. PMT offers additional insights by highlighting that the officers' coping appraisal was aided by supportive leadership in certain aspects but hindered in others because of uncertainty about their own and their families' safety. An increased sense of self-efficacy through improved family support planning prior to an event could improve performance levels.

The findings indicate that workforce resilience is not only a welfare issue, but it is an essential issue that affects business continuity initiatives. It is necessary to provide support for workers through structured programmes, such as fatigue management strategies, mental health services, and family support programmes, to promote the efficacy of operations. According to the research by Mutongwizo et al (2024), visible crisis leadership and trust-building are crucial factors for increasing organisational credibility and long-term stability. For AGS, formalisation of such elements through BCM frameworks, which include well-being impact assessments in continuity plans as mandatory, would demonstrate significant progress

4.3. Discussion of the Overall Findings:

The research methodology took a qualitative, interpretivist approach, with the focus on Storm Éowyn, an extra-tropical cyclone that occurred on January 2025 in Ireland with the potential of winds of up to 180 km/hr and beyond. Data was gathered from six semi-structured interviews with An Garda Síochána (AGS) staff from various ranks and operational roles, as well as through the analysis of key documents such as the official Storm Éowyn Review (Government of Ireland, 2025) and related policy documents, including the Framework for Major Emergency Management (MEM). Combining the data was performed using thematic analysis (Braun and Clarke, 2006) which yielded rich insights in the realities of extreme conditions of policing resilience.

The findings show a complex and nuanced picture of organisational resilience. On the other, AGS showed great adaptability, on-the-firing-line commitment and a real concern for public safety. Officers improvised well, maintained essential services as far as practical, assisted the vulnerable and worked well with other Principal Response Agencies (PRAs) who were under considerable stress. On the other hand, the event revealed certain longstanding shortcomings, such as lack of connection between formal preparedness plans (e.g. business continuity plans) and the need of operational delivery (Garda, 2025). These tensions occurred in several overlapping areas, and highlighted the difficulties of maintaining policing operations during periods of multiple hazard stress on infrastructure, resources and personnel.

The analysis identified four primaries, overlapping themes. Communication resiliency was both a strength and vulnerability. While the impact-based weather warnings helped participants to increase their awareness, participants noted that the challenge lay in converting strategic information from the (NECG) to actionable information at divisional and frontline levels. During extended power losses, technological dependencies were extremely fragile, requiring

informal solutions and human judgement in channels such as TETRA radio networks or mobile systems.

The importance of the MEM Framework was emphasized whilst also exposing some practical tensions. Overall, strategic level collaboration between AGS, the (HSE), Local Authorities and utility providers was generally effective. But there was a challenge with the differences in organisational culture, communication protocols and resource priorities that hindered operational integration (Gov.ie, 2021). This theme highlighted interdependency, where already established relationships and trust were paramount, and not formal structures.

One of the greatest concerns was resource resilience and infrastructure vulnerabilities (Theme 3). Limited mobility and operational continuity were severely challenged by mobility constraints such as the availability of 4x4 vehicles, inadequate backup generators in many stations, and limitations due to the transition to electric vehicles, particularly in rural and coastal divisions. There had been various improvements since previous storms including Storm Emma, but participants described these as 'patchy and incremental'. Such findings are similar to other critical infrastructure interdependencies concerns, where power outages could affect communications, transportation and emergency response systems (Sarker et al., 2024).

The pressures on officers was highlighted in Workforce resilience and human factors (Theme 4). Staff were forced to work longer hours and fulfil a greater workload, while also dealing with the impact of the storm on their own houses and families. Positive developments during Éowyn included adjusted rosters, hotel accommodations near stations for those unable to travel home, and improved welfare communications. However, continued support was often of an ad-hoc nature and not consistently integrated. Fatigue was a frequent problem, and decision making quality during extended periods of operation was a concern.

Organisational learning is regarded as one of the major element of the study. Participants learned so many things from Ophelia, Emma and Babet were reflected in the fact that they were better prepared in certain areas, but with some degree of scepticism they indicated that recommendations would only be implemented if there was a sustained, organisation-wide change. This continued to be the difference between recognising lessons and taking action to put them into practice.

Collectively, participants portrayed Storm Éowyn as a significant stress test for AGS. The size of the storm, resulting in a massive power failure, widespread infrastructure damage and affecting hundreds of thousands of people, highlighted further existing vulnerabilities and also demonstrated the dedication and ingenuity of Garda personnel. Improvisation on the front line sometimes filled the voids in formal systems, and allowed these fundamental services to be carried on, including community welfare checks, road safety management, and liaison with emergency response centres.

These empirical findings are mostly congruent with current literature on emergency management, business continuity management (BCM), and resilient policing. There are valuable explanatory lenses from the concept of (ISO 22301, 2019), Protection Motivation Theory (PMT) (Rogers and Dunn, 1997) and the concepts presented by (Blaustein, 2019; Matczak, 2025). The study also nuances and at times challenges aspects of this literature. For example, although much BCM research has focused on the importance of structured planning, the AGS experience in the case of Éowyn has shown how adaptive, human-centred responses often had more influence on outcomes than did fixed plans. Likewise, the organisational level application of PMT provides a clear picture of its strengths and limits in cases where structural factors (resource issues, decision-making within the hierarchy) are salient.

The findings thus help contribute to the increasing understanding that genuine resilience occurs when there is formal preparedness, infrastructure strength, workforce sustainability, effective collaboration, and ongoing learning. This overview goes through the deeper critical discussion in subsequent sections, where each theme is assessed in relation to theoretical frameworks, international case studies (e.g. Hurricane Katrina, Australian Black Summer Bushfires) and Ireland's policing context. The discussion also considers the theoretical and practical implications of the study, admits methodological shortcomings, and suggests ways to improve the capabilities of AGS and the national emergency management in a time characterized by growing climate-related risks.

4.3.1. Resource Resilience and Infrastructure Vulnerabilities in Context:

The results of the study on infrastructure vulnerabilities and resources resilience highly corroborate the literature on critical infrastructure interdependencies while indicating the context-specific challenges for a geographically dispersed police service such as AGS. Numerous participants have stated that the lack of 4X4 vehicles, the lack of back-up generators and limitations of the developing EV fleet were repeatedly mentioned as operational challenges. These problems directly affected mobility in rural and coastal areas, as fallen trees and flooding added to restrictions on mobility in these areas.

In line with Rehak, Senovsky and Slivkova (2018), who highlight the interdependency of infrastructure failure elements (e.g. power to communications, transport and policing response). The Storm Éowyn Review (Government of Ireland, 2025) also reported on the extensive power failure with 750,000 customers reporting outages and secondary effects on water and telecoms, corroborating participants' station level generator failures and the impact on TETRA networks.

However, the study shows that implementation is slower than would be expected based upon previous events, a critical point. Participants reported that progress was “slow” and “uneven” after Storm Emma (4x4 acquisitions and response groups). This discovery does contradict the optimistic assumptions in BCM literature that the lessons from previous incidents are being effectively applied to improve preparedness (Gibb and Buchanan, 2006). Rather, it has been argued that meaningful change in organisations is restricted by organisational inertia, lack of resources and competing priorities (Awang Ali, Hanafiah and Mogindol, 2023; Basten and Haamann, 2019).

The criticism of EV's being potentially "not appropriate" in harsh conditions is another example of growing conflicts between sustainability goals and operational resilience. This is an original piece of policing literature that has not received much focus to date in this area, on the effects of fleet decarbonisation on resilience. In the future the BCM frameworks will thus need to include technology assessments which are adaptive to climate change rather than seeing green transitions as universally good.

Theoretically, the gaps in resources led officers to reduce their appraisal of coping under Protection Motivation Theory (PMT) (Babcicky and Seebauer, 2019; Rogers and Dunn, 1997). Although the threat perception associated with warnings during impactful times was high, the confidence in available tools was not always high, and this may have resulted in a reduced motivation to engage in proactive protective actions. This organisational-level use of PMT goes beyond the emphasis on the individual and addresses the need to move towards more context-oriented research in emergency management (Grothmann and Reusswig, 2006).

4.3.2. Workforce Resilience and Human Factors:

The results from workforce resilience demonstrated improvement and ongoing needs. The operational demands and personal and family impacts were not new to the officers as it has been

well documented in disaster literature (Blaustein et al., 2023; Olumuyiwa Ayorinde et al., 2024). Learning from previous storms, including Ophelia, included positive adaptations by participants, including pre-booked hotel accommodation, roster flexibility and communication with welfare. Positive adaptations during Storm Éowyn included pre-booked hotel accommodation, roster flexibility, and communication with welfare, which were recalled by participants in Storm Ophelia.

However, there was a fairly low level of support, and it was unevenly distributed among Divisions. The length of shifts led to concerns about the quality of the decisions made, and this was supported by research on extended emergency operations (Blaustein et al., 2023). This shows an important gap because, although BCM standards (ISO 22301, 2019) highlight the identification of resources, they tend to undervalue the human aspect of continuity.

Most importantly, the study argues that workforce resilience in policing is not considered as a discrete entity, but as a characteristic of the organisation's culture and leadership. Where visible leadership and peer support was present, it was appreciated, aligning with (Mutongwizo, Blaustein, and Cochrane, 2024), arguments of legitimacy and trust during crises. But systematic post event well-being evaluations are not conducted, implying episodic rather than embedded organisational learning. The result partially undermines Steen et al.'s (2023) positive synthesis of BCM and adaptive capacity, indicating that adaptive behaviours may happen in spite of, or even against, the formal system in a hierarchical organisation such as AGS.

The PMT lens is once again lit up. Personal vulnerabilities during the storm may also have influenced officers' threat and coping appraisals which in turn would influence their individual performance and collective efficacy. This further calls for the expansion of PMT beyond individuals to organisational actors, with emphasis on high-stakes public safety jobs.

4.3.3. Broader Findings: Communication, Coordination, and Organisational Learning:

The overall results of this research shows three interrelated aspects of resilience, communication, interagency coordination and organisational learning, that were key factors in Storm Éowyn. Each region showed some signs of improvements, but also highlighted significant systemic issues, which constrained the effectiveness of AGS' overall response.

Communication resilience presented a distinctly mixed picture. Personnel had a generally positive response to impact-based weather warnings using a new approach that went beyond meteorological data, focusing on the potential outcomes. This fits with the current emergency management literature which promotes user-centric approaches (Potter et al., 2021; Brown et al., 2023). But there remained many challenges in converting strategic information from the (NECG) to timely, actionable directives at divisional and frontline levels. Participants reported that information channels were slow and discontinuous, and sometimes overloaded, especially during power outages when digital systems were affected. The technological dependencies were a particular issue; although the TETRA radio network was sound in its design, it was less effective during extended periods of power outages, and officers were left with no option other than the use of their personal mobiles or face-to-face communication. Another participant mentioned that the return to “old-school” approach when digital systems failed highlighted the critical need for infrastructure-based solutions to have their limitations. These experiences resonate with historical experiences of Hurricane Katrina which demonstrated that communication failures were a significant limitation on coordinated response (Deflem and Sutphin, 2009), and the Australian Black Summer Bushfires which demonstrated that communication failures were a significant limitation over the duration of operations (Blaustein et al., 2023). The results indicate that the capacity to adapt to humans and procedures is as

important as technological redundancy in making the policing communication resilient (Abbas and Miller, 2025).

Strategic interagency coordination in Ireland's Framework for Major Emergency Management (MEM) was mostly effective. The NECG was an excellent forum for information sharing and high level decision making between PRAs, such as AGS, the HSE and Local Authorities. The overall response from participants was positive and they appreciated the partnership's work and role in bringing the national response together.

However, there were some 'frictions' at the operational level. There were challenges to ground-level integration due to divergent organisational cultures, priorities, command structures and communication approaches. For example, in some instances, resource allocation and information flow between agencies were delayed causing duplication of effort and gaps in information coverage, especially in rural areas. These observations reinforce Matczak's (2025) focus on networked governance as crucial to contemporary policing resiliency and may also help to validate the practical challenges outlined by (Davidson et al., 2022; Pollock, 2013). The study cautions that, although formal mechanisms offer a basis for effective coordination, it is important that these be built on pre-existing trust, understanding, and training that needs to be ongoing and not limited to crisis situations.

Organisational learning was observed in terms of incremental improvement, while also providing insights into the ongoing “lessons identified versus lessons implemented” gap (Basten and Haamann, 2019; Gibb and Buchanan, 2006). Participants recognised the importance of learning about preparedness for Storm Éowyn from previous storm events (Storm Ophelia and Storm Emma). Changes in welfare support, allocation of resources and warnings were evidence of organisational memory. But there was doubt about the trend for the future. There was some uncertainty among several officers that post-Éowyn recommendations

would result in real and lasting change, citing resource limitations and evolving priorities as hurdles. The theme is also a strong one with regard to broader resilience research that has repeatedly demonstrated that whilst post incident reviews are prevalent, achieving transformative learning is far more likely to be a challenge (Herbane, 2010; Steen et al., 2023).

Together, these general results are indicative of the need for resilient policing during extreme weather events and the complex interplay between technology, relationships, and adaptation processes. AGS showed good flexibility, but the study indicates that over-dependence on human improvisation to fill in gaps in structures has the potential to pose problems for the effectiveness of operation and employee health. These findings further inform the more specific themes of resource and workforce resilience that have been detailed above and the theoretical and practical implications that will follow.

4.4. Chapter Summary:

This chapter has summarized the key empirical results of this research into AGS's response to Storm Éowyn. Thematic analysis revealed five main themes that all relate to the research question: Resilient policing during severe weather events.

During outages there were improvements in communication systems in terms of warning dissemination but challenges with vertical information flow and technological reliability. The interagency coordination was satisfactory at strategic level but operational level faced difficulties due to organisational culture differences and systems. Resource resilience and infrastructure vulnerabilities were also significant, in that there were limitations on mobility and continuity due to shortages of vehicles suitable for the purpose, lack of back-up power and issues around the modernisation of vehicles in the fleet, particularly in rural areas. Workforce resilience raised the issue of double burden on officers and the effectiveness of welfare programmes, but also identified gaps in fatigue management and support. Finally, organisational learning showed that

there have been some incremental improvements from previous storms, but there remain constant challenges to making the lessons learned lead to lasting systemic change.

In general, the outcomes are a reflection of the storm as a major challenge to the resilience of AGS. Structural gaps were bridged by improvisation and dedication on the frontline, allowing the organisation to operate critical functions and keep communities affected by the crisis going. The results also highlight the fact that there are continued gaps between formal BCM plans and the operational reality, and that the human factor is an important determinant of BCM outcomes.

Chapter 5: Conclusion and Recommendation

5.1. Conclusion:

These results collectively show that AGS had a high level of adaptability, commitment and public service zeal during Storm Éowyn. Officers did everything they could in very challenging circumstances to keep essential services running in the community, provide support for vulnerable people, and work effectively with partner Principal Response Agencies, such as the (HSE), Local Authorities, Defense Forces, Civil Defense, and the Irish Coast Guard. This flexibility and commitment to public service are a true strength of an organization and

strengthen the culture and professionalism of an AGS team. But the study also shows that, in many cases, such improvisation was required due to gaps in formal and informal planning at the structural and systemic levels. In the short term, this works well but relies on individuals and informal networks to fill the gaps, revealing a vulnerability in the organization's resilience architecture.

The research was conducted as a qualitative case study of the operational experience of An Garda Síochána (AGS) officers across strategic, tactical, and frontline operational levels in relation to Storm Éowyn, which hit Ireland in January 2025 with record breaking winds exceeding 160 kmph. Thematic analysis was used to gain an empirically grounded understanding of organizational resilience within the context of policing in Ireland, drawing on the results of semi structured interviews conducted with six experienced Garda members and a systematic document analysis of key documents, including the Framework for Major Emergency Management (MEM) and the Government of Ireland (GoI) Storm Éowyn Review.

The four themes that emerged from the thematic analysis were interconnections, and they helped clarify the areas where AGS resilience was effective and ineffective. The first theme, communication resilience, presented two pictures. Strategic and regional level (e.g., Cork/Kerry) working practices, pre-existing inter agency relationships, quarterly MEM meetings, and early warning briefings from the National Directorate for Fire and Emergency Management (NDFEM) and Met Éireann ensured good situational awareness and decision making. But the flow of information downward from the (NECG) to divisional and frontline levels was seriously lacking in strength. Many of the personnel were not aware of the MEM Framework, and the technological reliance on the TETRA radio network and mobile systems proved fragile under extended power outages. Gaps were filled through informal methods such as WhatsApp groups, personal phone calls, and satellite systems that were locally tested by

Civil Defense but were neither coordinated at the national level nor applied consistently. This is consistent with the existing studies who highlight the need for an adequate infrastructure and effective human processes to transform information into coordinated action, which is what communication resilience is about.

As for interagency coordination and collaborative governance, the conclusion was that this was largely the case where there were pre-existing relations, shared agency training and trust between agencies, and good coordination during Storm Éowyn. Once again, the southern area was an exemplary practice area. Structures under the MEM Framework were essential building blocks, but their impact depended largely on the quality of the relationships established over time rather than on the structures themselves. This result corresponds with existing literature which illustrated that formal coordination mechanisms do not necessarily lead to effective collaboration. National level operational integration remains inconsistent across divisions, and the lack of a common approach, comparable to the Joint Emergency Services Interoperability Principles (JESIP) in the United Kingdom, was consistently identified as a gap.

The third theme, Resource resilience and infrastructure vulnerabilities, highlighted actual and enduring gaps in operations. The lack of four-wheel drive vehicles in rural and coastal divisions, the failure of generators at Garda stations during extended electricity outages, and the operational constraints of EVs in adverse weather were all negatively affecting AGS's ability to respond. Studies also have demonstrated that once one infrastructure component fails, others follow right behind. It was important to highlight that some of these concerns, including the 4x4 availability, were identified after previous storms like Emma and Ophelia, raising the question of whether organizational learning from these storms was captured in adequate and sustained resource allocation.

The fourth theme, workforce resilience and human factors, focused on the double burden shouldered by Garda members as they dealt with operational issues related to the storm while also dealing with impact issues. Individual and collective performance was affected by extended shifts, fatigue, changes in work schedules, and concerns for the safety of their families and homes. The participants highlighted positive aspects of Storm Éowyn, such as pre booking accommodation near stations, welfare communication, and peer support. However, these measures were not applied consistently and, in large part, were reactive rather than planned and integrated into business continuity planning. This finding is consistent with the argument put forward by other main researchers that workforce resilience is not a separate welfare function issue but a fundamental organizational competence that influences how well an organization performs when facing a crisis.

All of these results confirm that resilient policing of severe weather events does not happen by just having plans and documented procedures in place. Instead, it is a product of the synergy among structured preparedness, infrastructure strength, adaptive human capabilities, communication networks, collective governance, and organizational learning. The study also confirms the applicability of Protection Motivation Theory (PMT) at an organizational level. Motivation to engage in proactive protective planning was reduced regardless of threat perception when coping appraisal resources were lacking and awareness of formal planning resources was low.

This research is a valuable addition to the emerging body of literature on resilient policing, emergency management, and business continuity in the Irish public sector. It offers empirical evidence that current resilience and business continuity (BC) frameworks need further development to account for the operational nature of policing during severe weather. With the number and severity of these events continuing to increase due to climate change, AGS's ability

to develop truly resilient policing arrangements grounded in investment, training, learning, and collaboration will be key to the safety and trust of communities across Ireland.

5.2. Limitations:

This study offers valuable empirical knowledge on resilient policing in the face of severe weather events. Still, there are important methodological and contextual limitations to consider when evaluating and applying the results, as well as for future research.

The first and most important limitation is the number and extent of the samples. AGS personnel were interviewed using purposive sampling, with six semi structured interviews conducted. This was suitable for a qualitative case study of the interpretivist type that focuses on depth and experiential understanding of the case rather than on statistical representativeness. Still, it limits the number of views included. The opinions expressed by participants are well informed and thoughtful, but do not necessarily reflect the diversity of opinions within the organization. Perspectives from frontline Gardaí at the lowest ranks, civilian support staff, and those from divisions outside the southern and western regions are underrepresented. Larger and more geographically representative samples in future studies would enhance generalisability of the results throughout AGS.

The other restriction is that the research design is cross sectional. Data were gathered at a single point in time after storm Éowyn, when the participant reported their thoughts and memories about the storm. The data were gathered fairly soon after the event, which meant it was a snapshot of organizational resilience at a specific point in time, rather than capturing change, learning, and adaptation over time. It would be much more interesting to see a longitudinal study of AGS across multiple cycles of severe weather, including any reforms after Éowyn, to determine the extent to which organizational learning leads to permanent changes in operations.

Another drawback is that there might be a bias in participants. Although all the ethical safeguards were in place (such as ensuring anonymity, participation, and the use of pseudonyms), some participants may not have been keen to report in detail on specific aspects of the organization, command, or culture. In some instances, the hierarchical structure of AGS, professional loyalty, and the sensitivity of emergency management operations may have led to self-censorship or selective recall in some responses. This is an acknowledged weakness of qualitative interview research in the policing context and should be taken into account when analysing interview results.

A fourth restriction is about the researcher's reflexivity. The researcher is immersed in or near the policing and emergency management context. During the research process, reflexivity was carefully managed. Still, the potential for unconscious bias in the framing of the interview questions, the coding of data, and/or the interpretation of themes cannot be ruled out. To minimize this risk, the analytical process has been clearly documented and has followed the six-stage thematic analysis framework outlined by Braun and Clarke (2006).

Finally, the study is based on a specific national and organizational setting (AGS and the Irish emergency management system) and at a specific storm event. Themes identified resonate with international emergency management literature and lessons from Hurricane Katrina and the Australian Black Summer Bushfires. Still, specific findings cannot be assumed to apply to other jurisdictions with differing governance, legal, or organizational cultures. The results are analytically generalizable to other centralized policing organizations dealing with extreme weather within national emergency management systems, but do not have the statistical generalisability across all emergency service settings.

5.3. Recommendations:

The findings of this study have led to a number of practical recommendations which can be made to reinforce resilient policing within An Garda Síochána and the wider emergency management system in Ireland.

Firstly, with regard to targeted investment in resource resilience, AGS should make protecting the resources its top priority. Acquisition of extra 4x4s for rural and coastal divisions, provision of all stations with reliable long duration generation, and review of the suitability of the electric vehicle fleet for operation in severe weather. Testing and resource sharing practices across divisions should be formalised for low vulnerability during Storm Éowyn.

Moreover, there is a need to integrate workforce resilience more systematically in BCP. The AGS should be working towards national guidelines for fatigue management, family support and mental health support for major incidents. This has only been partially successful in Éowyn, and should be the standard practice and supported by specific welfare officers for pre-event hotel accommodation and flexible rostering.

Thirdly, there needs to be an improvement in communication systems. Redundant, resilient technologies and better processes around converting strategic NECG information to action are vital. Repeated multi-level simulation events with involving all ranks would help close the strategic-operational divide.

Lastly, organisational learning processes must be improved. A Resilience Learning Hub in AGS is recommended to monitor, learn from and take action from major incidents. Workforce impact assessments need to be done as part of the post event review and there needs to be accountability to ensure that recommendations are implemented within agreed timelines.

5.4. Suggestions for Future Researchers:

This study suggests some lines of research to pursue. Firstly, longitudinal studies would give insights into organisational learning processes over time within the context of the implementation and effectiveness of post-Éowyn changes within AGS. This research may help determine if lessons identified will result in measurable improvements in future events.

Moreover, other case studies from the Irish emergency services (HSE, Fire Services) or other police services in similar jurisdictions would enable identification of the transferability of findings and best practices in resilient policing.

Furthermore, experiments based on quantitative or mixed methodologies could be used to explore the use of Protection Motivation Theory at the organisational level, for example in a more extensive survey of threat and coping appraisals among Garda Staff.

Lastly, research that examines community attitudes to the performance of policing agencies during severe weather events, and complements this agency-based research, would yield a more comprehensive picture of policing legitimacy and public trust during crises.

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Sample

Appendices

Appendix A: Interview Questions

- In your experience, what impact do severe weather events have on policing operations?
- In your Division, do you have any continuity or resilience plans in place before a severe weather event? If so, how effective were they?
- What strategies are in place for your division/organisation to help maintain essential policing services during severe weather events?
- What were the biggest challenges faced during the event (e.g., resources, equipment, communication)?
- How were decisions made during the severe weather event, and who made them?
- How well did communication work within your division and with other principal response agencies?
- Were any resources (vehicles, equipment, ICT) disrupted or restricted? How was this managed?
- How did the organisation support the well-being of its officers during and after Storm Eowyn?
- What short-term measures were implemented to ensure policing continuity?
- Were any long-term changes or improvements implemented after the event?
- What lessons have been learned that could improve resilience in future severe weather incidents?
- In your opinion, what is the most important factor for ensuring resilient policing during severe weather?

Sample