

Mobilising Social Capital and Participation: Deaf Organisations and Access in Disasters

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STATEMENT OF ORIGINALITY

This is to certify that the content of this thesis is my own work and has not been submitted for any other degree or purpose.

I also certify that the intellectual content of this thesis is the product of my own work, and that all assistance received in preparing this thesis and all sources have been acknowledged.

Leyla Craig

AUTHORSHIP ATTRIBUTION STATEMENT

Parts of this thesis contains work that has been published as follows:

Craig, L. and Whitburn, A. (2023) 'Having a seat at the table: disability and disasters ', *Australian Journal of Emergency Management*, pp. 20-21. This material comprises *Section 3.2.4* of this thesis, which discusses my role with Fire and Rescue NSW in the Fire Proofing At-Risk Communities project. In this capacity, I worked closely with the Australian Federation of Disability Organisations (AFDO) on the development of the Fire Proofing At-Risk Communities project, an AFDO-led initiative developed in response to the long-standing issue that emergency management in Australia has often been hierarchical and exclusionary, with decisions affecting people with disabilities being made for them rather than with them.

Nguyễn Trần Thủy, T., Cooper, A. C. and Craig, L. (2022) 'Deaf Community and DiDRR Network in Viet Nam Call for Action: Ensuring that No One is Left Behind', *Deaf Community and DiDRR Network in Viet Nam Call for Action: Ensuring that No One is Left Behind*. This material is discussed in *Sections 1.4.1, 2.8, and 6.2.2*, where I draw on this published work to highlight how DiDRR frameworks, although well intentioned, often overlook the linguistic and cultural dimensions of deaf people, resulting in their exclusion from the DiDRR process. The conceptual framing and analysis developed for the original blog piece provide important insights that inform the literature review in this thesis, particularly regarding deaf people's and organisations' experiences of disasters and DiDRR.

Takayama, K., Craig, L., Cooper, A. and Stokar, H. (2022) 'Exploring deaf students' disaster awareness and preparedness in U.S. higher education settings: Implications for university-level DRR policy and programming', *International Journal of Disaster Risk Reduction*, 83, pp. 103409. DOI: <https://doi.org/10.1016/j.ijdr.2022.103409>. Discussed in *Section 6.2.2*, this material focusses on the ways international and national disability policies for deaf people often conceptualise accessibility as a matter of “protection” rather than “participation”, leaving deaf people and organisations to negotiate their own inclusion in disaster planning and response. Insights from this publication, informed by the wider experiences of deaf people in DRR and DiDRR contexts, contribute to the analysis presented in this section.

Calgaro, E., Craig, N., Craig, L., Dominey-Howes, D. and Allen, J. (2021) 'Silent no more: Identifying and breaking through the barriers that d/Deaf people face in

responding to hazards and disasters', *International Journal of Disaster Risk Reduction*, 57, pp. 102156. DOI: <https://doi.org/10.1016/j.ijdr.2021.102156>. This material is drawn upon in *Section 6.3.2* to argue that deaf people should not be positioned as passive recipients of information, but rather as knowledge holders and advocates in their own right. Insights from this publication, particularly those relating to deaf people's lived experiences of DRR and the value of their expertise, inform the analysis presented in this section.

Calgaro, E., Dominey-Howes, D. and Craig, L. (2021) 'We always come last': Deaf people are vulnerable to disaster risk but excluded from preparedness'. This material is referenced in *Section 2.8.1* to illustrate how deaf people experience recurrent communication barriers with emergency services, resulting in diminished trust and a perception that they receive critical information later than hearing people. Insights from this publication, particularly those stemming from the work I was involved with through the *Increasing the resilience of the Deaf Community in NSW to natural hazards* project, inform the discussion of persistent disconnects between deaf people and emergency services presented in this section.

Craig, L., Craig, N., Calgaro, E., Dominey-Howes, D. and Johnson, K. (2019) 'Chapter 13 - People with disabilities: Becoming agents of change in Disaster Risk Reduction', in Rivera, F.I. (ed.) *Emerging Voices in Natural Hazards Research: Butterworth-Heinemann*, pp. 327-356. DOI: <https://doi.org/10.1016/B978-0-12-815821-0.00020-5>. This material is covered in *Section 3.2.4* to discuss the hierarchical and often exclusionary nature of some emergency services organisations, where decisions affecting people with disabilities are made for them rather than with them. Insights from this chapter, particularly my reflections on practice-based experiences in DRR and humanitarian settings, inform the critique of these top-down approaches and support the argument for greater inclusion of people with disabilities as agents of change in disaster planning and response.

Calgaro, E., Johnson, K. and Craig, L. (2017). *Needs Assessment of the Philippines Deaf Community. Global Resilience Partnership: Disability and Disasters Project Report Sydney: University of Sydney, 136 pp.* This material is included in *Sections 2.4* and *2.7.2* to examine the systemic barriers that deaf people face in disaster contexts, and in *Section 3.2.3* to highlight the importance of community trust, identity, and lived experience that influences researchers' ability to build rapport with local deaf people. Insights from this report, particularly those emerging from the Disability and Disasters project in Southeast Asia,

inform the analysis of structural exclusion and the centrality of community-led engagement presented in these sections.

In addition to the authorship statements above, in cases where I am not the corresponding author of a published item, permission to include the published material has been granted by the corresponding author.

Candidature name: Leyla Craig

As a supervisor for the candidature upon which this thesis is based, I can confirm that the authorship attribution statements above are correct, based on advice from the candidate, noting that I am not an author of these publications.

Lead supervisor name: Associate Professor Josephine Gillespie

ABSTRACT

Disasters continue to expose deep inequities in how information and support are designed, delivered, and accessed, particularly for groups whose linguistic, cultural, and access needs are routinely overlooked. Deaf people, who have diverse experiences and identities and are sometimes positioned at the intersection of disability and cultural-linguistic minority status, continue to be underserved in both disaster risk reduction (DRR) research and practice, despite facing persistent barriers to accessing lifesaving information. This thesis takes Deaf support organisations as its starting point, asking how they mobilise alongside with health and emergency services, the challenges they face in delivering accessible disaster information, and the systemic gaps leave deaf people at heightened risk. To address this, this thesis investigates how their mobilisation strategies influence the accessibility of disaster information and services and shape the inclusive participation of diverse deaf people in DRR.

Drawing on qualitative case studies from nine countries (Aotearoa New Zealand, Australia, Haiti, Indonesia, Italy, Japan, Nepal, the Philippines, and the USA), the research examines how organisational strategies affect deaf people's opportunities to access information, participate in DRR processes, and build the social capital necessary for resilience. This research draws on Deaf ways of knowing and critical intersectionality to examine the assumptions underlying knowledge and interpretation. Using Bourdieu's (1986) concepts of capital, field, and habitus, I employ critical reflexivity to explore how my own positionality as a deaf researcher shapes methodological choices and the conduct of this study with Deaf support organisation staff, sign language interpreters, community and professional advocates, and emergency services.

The findings reveal that Deaf support organisations play a critical but often undervalued role in ensuring accessible communication during disasters. Despite limited resources, they bridge communication gaps and support resilience, yet their contributions and constraints remain poorly understood within emergency management research and practice. Critically, the research also shows that marginalisation is shaped not only by external systemic barriers but also by internal hierarchies and hegemonic practices within Deaf communities, leaving groups such as deafblind people, migrants and refugees, Indigenous deaf people, and those experiencing education and language deprivation particularly excluded. Building on these findings, a relational framework integrating concepts of social capital and participatory inclusion is developed to interpret how power, recognition, and access shape participation in DRR.

By bringing these organisational and community perspectives into academic and policy spaces, the thesis provides evidence to guide policymakers in honouring language and accessibility commitments within national and international frameworks, including the UNCRPD and the Sendai Framework 2015-2030. Strengthening Deaf support organisations, alongside recognising and addressing the needs of those most marginalised amongst deaf people and community members, is essential for achieving accessible, sustainable, and inclusive disaster preparedness and response for all.

AUSTRALIAN GOVERNMENT SUPPORT

I wish to recognise that this research was supported by an Australian Government Research Training Program, without which the completion of this thesis and doctoral degree would have not been possible. It is my hope that this support continues to enable future scholars—particularly those with lived experiences of marginalisation—to contribute to research and practice, challenging whose knowledge is valued and for whom.

ACKNOWLEDGEMENTS

I wish to acknowledge and offer my gratitude and respect to the Gundungurra and Dharug peoples of the Ngurra Nation in the Blue Mountains and the Gadigal people of the Eora Nation in Sydney, the Traditional Owners and Custodians of the lands which I have lived and where my research and data collection took place, and their connections to land, sea, and community. I pay my deepest respects to the Elders, past, present, and emerging, and honour their enduring connection to Country, culture, and community and also extend that respect to all Aboriginal and Torres Strait Islander peoples.

My PhD journey would also not have been possible without the support of those who accompanied me along the way. Whilst this thesis contributes to scholarship, it is truly those researched who should be recognised for their knowledge, lived experiences, and expertise—without them, there would be no research or knowledge to contribute. I would like to first express my sincere thanks to the forty-five people from nine countries who generously contributed to this research, whom I refer to as co-researchers. Without your stories, this thesis would not exist. To all of the co-researchers, please know that your contributions are valued and are helping to address a pressing gap in understanding access deprivation and its implications for access, participation, and representation.

I would also like to express my deepest gratitude to my three supervisors for their world-class support and guidance throughout the various stages of my candidature. Professor Dale Dominey-Howes, thank you for stepping in as one of my supervisors and although you retired unexpectedly on medical grounds, the encouragement and direction you provided during the early stages of my PhD laid an important and invaluable foundation for this thesis. Dr Emma Calgaro, thank you for remaining on my supervisory team even after transitioning from academia into government—your continued support, generosity of your time, and insightful guidance were instrumental in carrying this research forward is much appreciated. Associate Professor Jo Gillespie, thank you for joining my supervisory team midway through my candidature; your constructive feedback, guidance, and commitment to helping me refine this work have been critical in shaping the final thesis, for which I am grateful.

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process—from coursework and academic workshops to presentations and fieldwork. Your contribution in providing the access I needed to participate in my academic journey is also deeply appreciated.

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I have also been privileged to work with scholars who bring diverse experiences, perspectives, and lenses to the study of underserved and overlooked groups in disaster contexts. My thanks to Dr Jody Cripps for highlighting the experiences of deaf high school students and the access inequities they face in emergencies—a group often absent from current research. Thank you also to Dr Alina Engelman and Dr Alastair Iles for bringing shared perspectives on how disability-inclusive practices and the lived experiences behind them must remain central to creating solutions for climate change, disasters, and public health crises. Lastly, I extend my thanks to Dr Annmaree Watharow for your valuable insights into how disasters and public health responses continue to fail people who are deafblind and the ongoing lack of representation they face in these conversations. I am grateful for the insightful conversations with all of you, which have helped co-construct the knowledge, experiences, and understandings of whose perspectives are recognised and represented—and whose remain excluded—in disaster and crisis contexts.

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GEN AI ATTRIBUTION STATEMENT

The student utilised ChatGPT for text enhancement purposes, including spelling corrections, minor sentence restructuring, and clarity enhancements. The author confirms that all AI-assisted modifications were subsequently reviewed by the author to identify for possible errors, inaccuracies, or bias. The author accepts full responsibility for the submitted thesis, attests that the work is their own and has used generative AI in accordance with University guidelines and policies.

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USE OF TERMS

The following terms are defined as they are used in this thesis, reflecting their context-specific application to the people, communities, and organisations described.

Co-researchers: In this thesis, individuals who contributed through interviews are referred to as co-researchers rather than “participants” or “key informants”. This terminology recognises that the research would not have been possible without their knowledge, expertise, and lived experiences, and reflects an intentional commitment to more equitable power relationships between the researcher and those interviewed.

“deaf” and “Deaf”: It is important to clarify how the terms “deaf” and “Deaf” are used throughout this thesis. These terms have long been debated in Deaf Studies, raising questions about identity, authority, and representation, and who is positioned to define them (Pudans-Smith *et al.*, 2019).

- **“deaf”** (with a lowercase ‘d’): Historically “deaf” referred to individuals who are audilogically deaf but who may not use sign language or identify with the Deaf community (Padden and Humphries, 1988; Ladd, 2003; Bauman and Murray, 2014).
- **“Deaf”** (with a capital ‘D’): “Deaf” has been used to describe those who identify as members of the Deaf community and who use their country’s national or local sign language as their primary language (Padden and Humphries, 1988; Ladd, 2003; Bauman and Murray, 2014).

It should be noted that the Deaf community also extends to hearing people who use one or more signed languages, such as hearing sign language interpreters, Children of Deaf Adults (CODA), parents of deaf children, people with a deaf family member, and/or friends who grew up with one or more deaf people (Hodge *et al.*, 2024).

Recent scholarship shows that “deaf” is now often used as an inclusive term for individuals in varied contexts, whilst “Deaf” is reserved for cultural, linguistic, or community-based references (Kusters, De Meulder and O’Brien, 2017; Bauman and Murray, 2014). In this thesis, I follow this inclusive approach by using the phrase *“deaf people and community members”* to encompass the full diversity of deaf identities—deaf, culturally Deaf, hard of hearing, deafblind, Deafblind, and those with additional disabilities and intersecting identities. A capital ‘D’ is used when referring to the broader Deaf community, Deaf Studies and

emerging concepts, as well as Deaf support organisations. However, in the case studies presented in Chapters 4 and 5, the terms “deaf” and “Deaf” are used interchangeably where appropriate, reflecting interviewees’ own preferred usage. They were given the opportunity to review their case studies and chose how they wished the “d/Deaf” terminology to be represented in relation to their work and identities. This approach reflects contemporary scholarship, acknowledges the complexities of identity whilst ensuring representation of the many ways deaf people engage with society, including in disaster contexts.

Deaf support organisations: This term refers to both Deaf advocacy organisations and Deaf service providers. Although their work often overlaps, they differ in their primary roles and functions for deaf people and community members.

- **Deaf advocacy organisations:** Usually peak bodies led by and for deaf people, these organisations focus on systemic advocacy, monitoring accountability, and ensuring legal compliance. They frequently work with service providers and public institutions by advising on, and referring to, appropriate service provisions such as interpreting, communication, and translation support for deaf people. For this thesis, co-researchers included representatives from the following Deaf advocacy organisations:
 - Deaf Australia
 - DeafACT
 - Japanese Federation of the Deaf
 - Emergenza Sordi Association
 - Philippine Federation of the Deaf
 - Deaf Disaster Assistance Team-Disaster Risk Reduction
 - National Federation of the Deaf Nepal
 - Gerkatin
 - International Deaf Emergency
- **Deaf service providers:** These service providers focus on delivering services directly to consumers and to public institutions, including but not limited to interpreting, communication, and translation services. Co-researchers who contributed to this thesis included representatives from the following Deaf service providers:
 - Deaf Connect
 - Deaf Can Do (now Deaf Connect)
 - Deaf Society (now Deaf Connect)

- Expression Australia
- Karli Health Centre
- Deafness and Mental Health Services
- Deaf Counselling, Advocacy, and Referral Agency
- Japanese Association of Social Workers for Deaf and Hard of Hearing

Dual Category Status: Deaf sign language users are often positioned within the disability framework due to communication barriers—sometimes compounded by other disabilities, yet at the same time, many identify as members of a cultural and linguistic minority shaped by Deaf culture and national sign language(s) (De Meulder, 2014; WFD, 2018).

Language Deprivation: In this thesis, language deprivation is understood as extending across spoken, signed, and written modalities, rather than referring solely to the absence of sign language. This broader framing is informed by practice-based insights from Deaf international development practitioner Jen Blyth (personal communication, 2025) and aligns with concerns raised in the existing scholarly literature regarding limited data on how deaf children acquire language across contexts (Dougherty, 2017).

GLOSSARY

Many of the terms used in this thesis do not have fixed or universally agreed definition; their meanings can vary on context, perspective, and the communities to whom they refer. The following definitions outline how these terms are used for the purpose of this thesis.

ACCESSIBILITY: Understood as multidimensional that involves the process of developing, delivering, and benefitting from accessible environments, products, and/or services across facilities, information, and opportunities for participation (Iwarsson and StÅhl, 2003; Persson *et al.*, 2015; Bourke *et al.*, 2017).

ACCESS DEPRIVATION: Refers to systemic barriers that restrict access to information and communication, social services, education, and safety (Murray, 2020).

COMMUNICATION: Interactions conveyed through accessible modes and formats, including spoken and signed languages, text, Braille, tactile methods, large print, plain language, audio, accessible multimedia, augmentative and alternative communication, and accessible ICT (United Nations Office of the High Commissioner for Human Rights, 2006).

DEAF SPACE: Temporarily created by deaf people and community members to meet social and cultural needs, such as during sports or community events, appearing when people gather and dissipating when they leave (Gulliver, 2007; Kusters *et al.*, 2024).

DISABILITY INCLUSIVE DISASTER RISK REDUCTION: An approach that integrates people with disabilities into all DRR processes, recognising them as active agents and addressing social barriers that increase their disaster risk (Calgaro, Villeneuve and Roberts, 2020; Villeneuve *et al.*, 2021).

DISASTERS: The intersection of hazard, exposure, and vulnerability, where hazards impacting people, places, or systems exploit structural vulnerabilities to create disasters (UNDRR, 2017). The definition is context-dependent, subjective, and multi-dimensional.

DISASTER JUSTICE: The fair treatment of all people in disaster policies, ensuring accountable resource distribution, diverse representation, and recognition of multiple knowledge forms (Verchick, 2012; Shrestha *et al.*, 2019; Lukasiwicz, 2020).

DISASTER RISK REDUCTION: Efforts to address disaster risks by tackling not only structural but also systemic causes, recognising that all DRR initiatives operate within broader social, cultural, and contextual landscapes (Weichselgartner and Pigeon, 2015; Kelman and Stough, 2015).

EQUITABLE RESILIENCE: A concept emphasising fairness, access, and social justice in resilience practice to ensure that all individuals and communities can benefit from and contribute to resilience-building efforts (Matin, Forrester and Ensor, 2018).

HEGEMONIC COMMUNITIES: Dominant groups possessing various forms of capital that allow them to shape and control community narratives and practices (Cue *et al.*, 2019).

INCLUSION: The extent to which individuals are accepted, valued, and able to participate fully by both group actions and the accessibility of practices, products, or services (Shore *et al.*, 2011; Jansen *et al.*, 2014).

LANGUAGE: The use and recognition of spoken and signed languages, as well as other forms of non-spoken languages (United Nations Office of the High Commissioner for Human Rights, 2006).

MARGINALISED: Individuals or groups excluded, disadvantaged, overlooked, or misrepresented in social, cultural, political, or economic systems, resulting in reduced access to resources, decision-making, and services (Gaillard and Fordham, 2018; Uekusa, 2020).

PARTICIPATION: Equal and equitable involvement that requires both accessibility and inclusion to ensure they are included, valued, and able to participate (Iwarsson and StÅHL, 2003; Shore *et al.*, 2011; Jansen *et al.*, 2014).

PEOPLE WITH DISABILITY: Refers to people who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others (United Nations Office of the High Commissioner for Human Rights, 2006).

REPRESENTATION: Inclusion of individuals or groups in decision-making or discussions, with attention to the diversity within those groups or communities (Gaillard and Fordham, 2018; Uekusa, 2020).

RESILIENCE: In the context of marginalised groups, the capacity not only to adapt to disasters but to transform systems so they no longer reproduce accessibility barriers and social exclusion (Uekusa, 2018).

SOCIAL CAPITAL: The total resources, both actual and potential, available to individuals or groups through their social networks (Bourdieu, 1986).

VULNERABILITY: The degree to which people are constrained by structural barriers and social positioning, affecting their access to essential resources and shaping their exposure to disaster risk (Kelman *et al.*, 2016; Gaillard, 2019).

ABBREVIATIONS

ABBREVIATIONS AND ACRONYMS	TERMS
ABC	Australian Broadcasting Corporation
ACT	Australian Capital Territory
ADA	American Disabilities Act
AED	Automatic External Defibrillator
AFDO	Australian Federation of Disability Organisations
ASB	Arbeiter-Samariter-Bund
ASL	American Sign Language
AMA	Auslan Media Access
ASLIA	Australian Sign Language Interpreter Association
Auslan	Australian Sign Language
BLSD	Basic Life Support and Defibrillation
BISINDO	Indonesian Sign Language
CAT	Community Access Team
CaLD	Culturally and Linguistically Diverse
CDI	Certified Deaf Interpreter

CISOM	Italian Relief Corps of the Order of Malta
CRT	Critical Race Theory
DeafACT	Deaf Australian Capital Territory
DA	Deaf Australia
DB NSW	DeafBlind NSW
DCD	Deaf Can Do
DC	Deaf Connect
DCARA	Deaf Counselling Advocacy & Referral Agency
DDAT-DRR	Deaf Disaster Assistance Team-Disaster Risk Reduction
DLO	Deaf Liaison Officer
DRT	Deaf Response Team
DS	Deaf Society
DMHS	Deafness and Mental Health Services
DSWD	Department of Social Welfare and Development
DDA	Disability Discrimination Act
DiDRR	Disability inclusive Disaster Risk Reduction
DiDRRN	Disability inclusive Disaster Risk Reduction Network
DRR	Disaster Risk Reduction

DPO	Disability Peoples Organisation
FSL	Filipino Sign Language
FENZ	Fire and Emergency New Zealand
FRNSW	Fire and Rescue New South Wales
GRP	Global Resilience Partnership
HFA	Hyogo Framework for Action
IDE	International Deaf Emergency
IDA	International Disability Alliance
JASWDHH	Japanese Association of Social Workers for Deaf and Hard of Hearing
JFD	Japanese Federation of the Deaf
JSL	Japanese Sign Language
KHC	Karli Health Centre
LIS	Italian Sign Language
MP	Members of Parliament
MDG	Millennium Development Goal
MoH CoP	Ministry of Health's Community of Practice
NAD	National Association of the Deaf

NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
NEMP	National Emergency Management Projects
NFDN	National Federation of the Deaf Nepal
NRS	National Relay Services
NSL	Nepalese Sign Language
NSW	New South Wales
NSW SES	New South Wales State Emergency Services
NZSL	New Zealand Sign Language
NGO	Non-Governmental Organisation
NCADB	Northern California Association of the DeafBlind
NT	Northern Territory
OTG	Off-the-Grid Missions
PPE	Personal Protective Equipment
PARD	Psycho-Education and Applied Research Centre for the Deaf
PFDF	Philippine Federation of the Deaf
PNASLI	Philippine National Association of Sign Language Interpreters
QLD	Queensland

SA	South Australia
SME	Subject Matter Expert
SDG	Sustainable Development Goal
TTY	Teletypewriter
UK	United Kingdom
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
USA	United States of America
WA	Western Australia
WFD	World Federation of the Deaf

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LEGISLATION

Aotearoa New Zealand

[Human Rights Act 1993](#)

[Fire and Emergency New Zealand Act 2017](#)

[New Zealand Sign Language Act 2006](#)

Australia

[Disability Discrimination Act 1992 \(Cth\) \(DDA\)](#)

[Australian Sign Language as a Community Language](#)

Haiti

[The Law on the Integration of Persons with Disabilities](#)

Indonesia

[Law No.8/2016](#)

Italy

[2007 Verona Charter](#)

[Lingua Dei Segni Italiana \(LIS\)/Italian Sign Language](#)

Japan

[The Enactment of the Act on Promotion of Measures Concerning Sign Language \(2025\)](#)

Nepal

[The Disability Rights Act of 2017](#)

Philippines

[BP344 \(Batas Pambansa Blg. 344/Accessibility Law\)](#)

[The Magna Carta for Persons with Disability \(Republic Act No. 7277\)](#)

[The Filipino Sign Language \(FSL\) Act \(Republic Act No. 11106\)](#)

USA

[American Disabilities Act 1990 \(ADA\)](#)

[Section 504](#)

[Section 508](#)

INTERNATIONAL TREATIES

UNITED NATIONS CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES

[UNCRPD Preamble and Article 1 of the Convention](#)

[Article 4: General Obligations](#)

[Article 5: Equality and non-discrimination](#)

[Article 9: Accessibility](#)

[Article 11: Situations of risk and humanitarian emergencies](#)

[Article 19: Living independently and being included in the community](#)

[Article 21: Freedom of expression and access to information](#)

[Article 25: Health](#)

SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

[Sendai Framework](#)

PREFACE

This thesis is twofold, drawing on both personal and professional reflections on navigating barriers and marginalisation as a deaf person in a world that is not always designed to enable equitable participation or representation. My early experiences of access, exclusion, and belonging shaped the questions that underpin this research and my professional work in disaster contexts.

On a personal level, I grew up deaf in a hearing family within a multicultural context. My exposure to other deaf people was limited to a small number of deaf classmates in a mainstream hearing school supported by sign language interpreters. Whilst I had access to written and spoken English, this did not equate to equitable access on the same level as my hearing peers. Although I could read and write my own expressions, I was often unable to follow my classmates' conversations with ease or feel confident using spoken English to fully articulate my opinions. As a result, my interactions with hearing peers were frequently constrained, at times limited to one-way communication or characterised by exclusion from group discussions, games, and social activities. These experiences led me to recognise early on that participation in the hearing world would often require constant adaptation and compromise.

As an adult, I found my way into local and international Deaf communities. Initially, I assumed that a shared "deaf" identity would naturally facilitate connection and belonging. However, over time I came to understand that Deaf communities—like all communities—are shaped by histories, norms, and practices that can influence who feels included and how belonging is negotiated. Because my background did not align with some dominant Deaf cultural pathways, such as growing up in a deaf family, attending a Deaf school, or long-standing involvement in Deaf sports or organisations—I was at time perceived as having a less clearly defined position within the community. This occasionally required me to adapt how I signed or engaged socially in order to access linguistic and cultural spaces and to participate more in Deaf events, discussions, and everyday interactions.

My experiences as a university student created valuable opportunities to engage with Deaf organisations and networks, whilst also highlighting that access to Deaf communities is not equally experienced by all deaf people. Despite many years of involvement and a deep appreciation of the diversity of deaf identities that extend beyond any single pathway or paradigm, I continue to reflect on how boundaries of belonging are formed and navigated.

These reflections raise important questions about access to language and cultural capital—questions that matter not only for cultural inclusion and community sustainability, but also for access to information, opportunities and critically, everyday survival. These issues become particularly pronounced in disaster and emergency contexts, where timely and equitable access can be life-shaping or lifesaving.

Having lived through significant disasters including hurricanes in Hawai'i, earthquakes in California, bushfires in Australia, floods in the Philippines, and the global impacts of the COVID-19 pandemic—I have come to see that disasters are no longer exceptional events, but a persistent and embedded part of everyday life. Whilst I have been aware, often subconsciously, that these events were becoming the “new normal”, what became increasingly pronounced was the uneven access to disaster information and participation in emergency-related conversations experienced by deaf people. Throughout my life, I had relied on my hearing family members to access emergency information and updates. This reliance became especially apparent during the 2013 Blue Mountains bushfires, when access to information was often uneven and delayed. Around this time, I was involved in a research project in New South Wales examining deaf people's experiences of disasters. Working alongside a research team to collect and analyse these accounts provided a critical lens through which I began to make sense of my own experiences, whilst also recognising the broader systemic barriers that shape access to disaster information and services. The narratives shared by deaf people underscored that these challenges were not isolated or localised, but part of a wider global pattern of exclusion. This realisation has guided my professional trajectory, including three years in the Philippines working with deaf people and those with disabilities in disaster contexts—one year with the Australian Red Cross and two years on a University of Sydney research project—and continues to shape my current work with Fire and Rescue NSW.

This reflection also led to broader debates concerning communication access and language access, and how they intersect in disaster and emergency contexts. Whilst not all deaf people identify as having a disability and “Deaf” identity is often understood primarily as cultural and linguistic rather than disability-based (see page 19), questions raised about my role as a Disability Inclusion and Engagement Officer at Fire and Rescue NSW highlight ongoing and unresolved distinctions within this space. One such distinction lies between communication access and language access. Whilst closely related, these concepts are not interchangeable. Communication access often refers to how information is shared and received, an area

traditionally prioritised by some emergency services. However, access to information does not necessarily equate to understanding. Language access, by contrast, concerns the language used to convey information, including its structure, complexity, and cultural relevance. This distinction becomes particularly significant when information is delivered to diverse audiences with varying language backgrounds and access needs.

In my professional practice, I have grappled with questions about who determines the appropriate level and form of language used in emergency communications and how inclusivity can be achieved. For example, feedback from a fire safety project involving people with disabilities—including deaf consumers with diverse educational and language backgrounds from Deaf organisations and service providers, highlighted a preference for plain English delivered in short sentences supported by visual pictures. In response, fire safety resources were developed in Easy Read, using very simple English with visual pictures, primarily for people with cognitive disability. Simplified English resources are also being developed using plain English without technical jargon. In parallel, Auslan video resources have been created to align with both Easy Read and simplified English materials, ensuring that the signed content reflects the intended language level and context. Whilst some Deaf community members have critiqued the use of Auslan in Easy Read formats, these responses underscore the diversity amongst deaf people and the presence of those with additional access needs, including cognitive disability.

These tensions highlight the complexity of designing inclusive disaster communication and the need to move beyond singular assumptions about identity, language, and access. This brings to a final point concerning recognition. Without recognising the diversity of deaf people, access to disaster information and services risks remaining exclusionary, with some groups continuing to be marginalised from language and cultural capital, as well as from critical disaster information and services.

CHAPTER 1

“Access to opportunity is the key to unlocking human potential.” – Unknown

1.1 Introduction

Globally, disasters are on the rise and marginalised individuals and communities continually bear a disproportionate burden of the impacts. This reality has brought into question how disaster information, support, and services are delivered—and crucially, for whom they are designed and who has a say to determine what is delivered. International scholarship has increasingly turned its attention to the needs and capacities of marginalised groups in disasters, yet these groups are too often represented as a homogenous whole (Gaillard, Gorman-Murray and Fordham, 2017; Uekusa, 2020). Within this landscape, deaf people remain significantly under-researched (Takayama *et al.*, 2022; Takayama, 2025). They are commonly subsumed either under the category of disability or cultural minority, with little recognition of their distinct experiences and language needs. Moreover, deaf¹ people are frequently overlooked even within the disability and cultural minority frameworks, rendering them marginalised within marginalised communities. Specifically, this thesis examines how the mobilisation strategies of Deaf support organisations influence the accessibility of disaster information and services, as well as the inclusive participation of diverse deaf people in disaster risk reduction (DRR).

As a deaf person in Australia and an emergency service professional, my positionality offers a unique vantage point for this research. It enables me to analyse the intersection between DRR, accessibility, deaf people, and community resilience and how these intersections contribute to marginalisation. This perspective provides a critical lens for analysing existing theoretical and applied approaches, exposing systemic barriers, and identifying opportunities for more accessible and culturally appropriate practices. In this chapter, I introduce the disaster and accessibility context that underpins the research. I set out the international frameworks that shape DRR and highlight their relevance for accessibility. The way in which international frameworks shape DRR and accessibility in Australia and eight other countries will be examined in Chapters 4 and 5. I illustrate how disaster preparedness and response are managed and experienced from the perspectives of Deaf organisations, whilst acknowledging a key limitation that such perspectives are situated within specific contextual frameworks and may not fully capture the diverse ways in which disaster preparedness and response are defined, managed, and experienced by deaf people across broader cultural contexts beyond

¹ The terms “deaf” and “Deaf” are explained in the Use of Terms section on page 19.

Western paradigms. Within the context of an examination of Deaf support organisations, particular attention is given to the implications of disaster preparedness and responses for deaf people. Through this research journey, it becomes clear that systemic and contextual factors create both barriers to, and opportunities for, more inclusive approaches.

1.2 Disasters: the problem and solutions

With the Earth destabilising rapidly, disasters of all types are becoming more frequent and severe worldwide (Cutter *et al.*, 2015; Dominey-Howes, 2018; Cutter, 2020). No country or region is immune. According to the United Nations News Centre (2023), approximately 75% of all declared disasters are weather-related and this proportion is expected to rise, with an anticipated increase of around 1.5 additional disasters per day. In 2024, the countries most affected by disasters were distributed across the world's major regions—most prominently in Asia, followed by the Americas, Africa, and Oceania—highlighting the global significance and urgency of this challenge (CRED, 2024). Despite improvements in countries' capacity to cope with crises, the growing number of people exposed to hazards has intensified overall risk, with a significant increase observed between 2016 and 2025, driven by conflicts, displacements, and major shocks such as the COVID-19 pandemic (European Commission Joint Research Centre, 2024), underscoring the urgent need to understand and address disaster risks across diverse contexts.

The rising occurrence of disasters highlights the critical importance of countries' capacities to respond to, and recover from, associated losses (IFRC, 2023; UNDRR, 2022). Whilst the growing number of disasters has pushed many countries to strengthen their disaster management capacities and capabilities, these efforts have also placed new pressures on coping capacities (European Commission Joint Research Centre, 2024). Despite some improvements, coping mechanisms alone have been insufficient to balance out the increasing exposure to hazards (European Commission Joint Research Centre, 2024). As Gaillard and Fordham (2018) and Lukasiewicz (2020) point out, these risks are not distributed evenly nor experienced uniformly; rather their impacts vary according to socio-cultural, legal, geographic, economic, political, and religious contexts.

The UNDRR (2017) defines disasters as the intersection of hazard, exposure, and vulnerability: when the exposure of hazards affects people, places, or systems, structural vulnerabilities can turn these events into disasters. But the act of defining disasters is highly contextual, subjective, and multidimensional. How disasters are understood depends on who is doing the defining—those in power, academics from different disciplines, or people with

the lived experiences and their own perceptions of what disasters mean to them (Gaillard, 2016; Perry, 2018; Gaillard, 2021). Historically, disasters have often been defined in terms of exposure to hazards and the processes associated with them (Wisner *et al.*, 2004; Webb, 2018). However, a strong focus on physical attributes of the natural and built environment can present a one-sided view, neglecting the human dimensions that reveal the dynamic drivers and root causes of differences in vulnerability and resilience, discussed further in *Section 2.2*. Culture, social relations, political contexts, and economic conditions are integral to how disasters are both experienced and understood (Perry, 2018).

Another problem is that definitional processes are often Western-centric; they are dominated by privileged voices, which may not align with the perspectives of those with the lived experiences and/or from cultures in non-Western contexts (Gaillard, 2019; Gaillard, 2021; Tran and Kim, 2023). Although researchers, policymakers, and practitioners have increasingly recognised the importance of cultural perspectives in shaping how disasters are defined and understood (Krüger *et al.*, 2015; Webb, 2018), Gaillard (2021) cautions that the term ‘disaster’ is not always representative. Definitions imposed by researchers on behalf of affected people often reflect power imbalances, highlighting tensions between interpretation and lived reality (Uekusa and Matthewman, 2017; Gaillard, 2019; Gaillard, 2021). Against this backdrop, this thesis adopts a combined emic and etic perspective, defining disaster as a form of social disruption that exposes inequities within systems and relationships (Uekusa, 2018; Gaillard, 2019). Such inequities arise when individuals or groups have limited or no access to resources and entitlements shaped by their social structures and networks, which constrains their ability to withstand and recover from crises. Increasingly, scholarship emphasises that disasters often emerge “... *from the unequal distribution of power and resources between those who are more vulnerable and those who are less so ...*” (Gaillard, 2019, p. 57).

A priority for policy makers is to reduce people’s exposure to disaster risks and their structural vulnerability. The United Nations Office of Disaster Risk Reduction (UNDRR) defines DRR as “*preventing new and reducing existing disaster risk and managing residual risk, strengthening the resilience of people, systems and approaches*”, [UNDRR](#) (2017). Effectively reducing and managing disaster risks requires systematic efforts to understand and address the underlying causal factors (Stough and Kelman, 2018), raising critical questions about what knowledge, in what context, and who informs decision-making. Weichselgartner and Pigeon (2015) highlight the importance of examining how societal and structural inequities shape marginalised groups’ access to social and economic capital and influence

DRR processes. My research demonstrates that the root causes of risks are not only structural but also deeply systemic, emphasising that all DRR efforts must be understood within broader social, cultural, and contextual landscapes.

1.3 Understanding Accessibility and Inclusion

As with disasters, defining *inclusion* and *accessibility* is highly contested, contextual, and multidimensional, varying according to who is being asked, and for whom it is being defined. These terms are often misunderstood as meaning the same thing or are used interchangeably. Iwarsson and StÅhl (2003) note that accessibility is widely recognised in legal and policy contexts, whilst Persson *et al.* (2015) argue that it should not be viewed solely as a government responsibility but as an area involving multiple stakeholders who develop, deliver, and benefit from accessible environments, products, and/or services. Accessibility can also be understood through several dimensions. Iwarsson and StÅhl (2003) note that the physical environment has received the most attention, with Bourke *et al.* (2017) finding that international research links investments in accessible buildings, premises, and facilities to an ageing population and changing attitudes amongst people with physical disabilities. A growing but still less emphasised dimension is accessibility to information. Meltzer, Barnes and Wehbe (2024) observe that, although well recognised within disability policy, it receives less attention across other intersecting policy areas and groups such as older peoples, Indigenous communities, and culturally and linguistically diverse groups. Iwarsson and StÅhl (2003) also identify participation in societal activities and services as another important but often overlooked dimension—one that relies heavily on accessible information, as emphasised by Meltzer, Barnes and Wehbe (2024).

The term *inclusion* is also increasingly used as a buzzword across various settings, including disasters, to describe places, products, and services designed to be “inclusive” for all. Like accessibility, inclusion has multiple dimensions. Armstrong, Armstrong and Spandagou (2011) raise critical questions about how inclusion should be practiced, how its effectiveness can be measured, and for whom and by whom it is intended. Social inclusion is the most widely recognised dimension in policy discourses, emerging from debates on social exclusion that highlighted barriers beyond poverty, including difficulties in adjusting to mainstream society and the marginalisation of certain groups (Sen, 2000; Rawal, 2008). The dimensions of inclusion are relational and span social, emotional, economic, political, and cultural aspects. From a user’s perspective, Shore *et al.* (2011) describe inclusion as the extent to which individuals feel accepted and valued by a group in ways that give them both a sense of belonging and recognition of their uniqueness. Jansen *et al.* (2014) further note that inclusion

is a process driven by the group's actions to include the individual rather than the individual's attempt to connect with the group. For inclusion to be effective, Persson *et al.* (2015) argue that it is necessary to consider how inclusive the *design* of a practice, product, or service is and the *degree* to which people can access it.

Whilst accessibility and inclusion are closely related, the design and processes required to achieve them are not always practiced together in disaster contexts. Accessibility can exist without inclusion. For example, Uekusa's (2019) work with linguistic minorities noted that although resettlement support organisations provided localised disaster education for refugee groups, other linguistic minorities such as voluntary migrants and transients, were excluded and may lack linguistic competency and disaster knowledge to access critical information. Conversely, inclusion can be emphasised without accessibility. Maguire, Boisvert and Villeneuve (2025) note that Disability inclusive Disaster Risk Reduction (DiDRR) (see *Section 2.4*) actions need to recognise the diversity of deaf people and their experiences in DRR, rather than focussing solely on those who use sign language and excluding others who may not sign or rely on hearing devices. For equal and equitable participation to happen, both accessibility and inclusion are required, as one without the other creates significant gaps. In this thesis, I refer to accessibility and inclusion as interconnected but distinct concepts. Accessibility refers to removing physical, informational, and social barriers that prevent people from participating (Iwarsson and StÅhl, 2003; Bourke *et al.*, 2017; Meltzer, Barnes and Wehbe, 2024). Inclusion refers to the attitudes, practices, and conditions that ensure people feel welcomed, valued, and able to contribute (Shore *et al.*, 2011; Jansen *et al.*, 2014; Persson *et al.*, 2015). Each can exist without the other: spaces may be accessible but not inclusive, or inclusive in intent but not accessible in practice. However, effective participation requires both.

1.4 International treaties and frameworks that facilitate inclusive-DRR

National policies on accessibility in DRR are often enabled by international disability policies and frameworks, supported by the United Nations (UN) as they provide a rights-based foundation that transcends national boundaries. In the provision of frameworks for defining the legal and ethical obligations of governments and institutions, they ensure that accessibility is recognised not just a technical or logistical issue but as a fundamental human right. They establish standards for participation, equality, equity, and protection, which can then be applied to disaster preparedness, response, and recovery. Two key policy-shaping documents

are the *UN Convention on the Rights of Persons with Disabilities* (UNCRPD)² and the Sendai Framework for Disaster Risk Reduction 2015–2030³ (hereafter referred to as the Sendai Framework). Each is outlined in this section.

The adoption of the UNCRPD marked a progressive shift from the charity and medical models of disability toward a human rights-based approach (Degener, 2016). Formally adopted in 2006 and entering into force in 2008, the UNCRPD ensures that all people with disabilities have the same rights, freedoms, and opportunities for participation in personal, public, and political life, and encourages respect for their dignity (UNCRPD, 2006; WFD, 2018). To ensure that people with disabilities enjoy the same rights as everyone else, the UNCRPD sets out 50 Articles⁴ that outline principles, rights, and measures to be promoted, practiced, and protected by governments and civil societies. Of these, seven Articles specifically address the rights of people with disabilities in emergency and humanitarian contexts (see Table 1.1).

Table 1.1: *Seven UNCRPD Articles that addresses the rights of people with disabilities in emergency and humanitarian contexts*

ARTICLE	RIGHT PURPOSES
Article 1: Purpose	Equal enjoyment of all human rights and fundamental freedoms.
Article 4: General Obligations	Requires States to promote and ensure rights of people with disabilities in all contexts.
Article 5:	

² *The Convention on the Rights of Persons with Disabilities A/RES/61/106, adopted by the United Nations General Assembly on 13 December 2006. Available at: <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>. Accessed 28 October 2025.*

³ United Nations Office for Disaster Risk Reduction (UNDRR), Sendai Framework for Disaster Risk Reduction 2015-2030, adopted at the Third United Nations World Conference on Disaster Risk Reduction, Sendai, Japan, 18 March 2015. Available at: <https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>. Accessed 28 October 2025.

⁴ UNCRPD Preamble and Article 1 of the Convention:
<https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

Equality and non-discrimination	Equal access to legal protection without discrimination.
Article 9: Accessibility	Accessibility to all services, information, and infrastructure.
Article 11: Situations of risk and humanitarian emergencies	Obligates states to take all necessary measures to ensure the protection and safety of persons with disabilities during natural disasters, armed conflict, and other emergencies.
Article 19: Living independently and being included in the community	Equal rights to live independently and be fully included in the community with access to necessary supports.
Article 21: Freedom of expression and access to information	Equal rights to freedom of expression and access to information in accessible formats and modes of communication.
Article 25: Health	Equal access to healthcare and protection from discrimination in health-related services and insurance.

All UNCRPD articles are legally binding for the State Parties who have ratified or agreed to the Convention. The Convention currently has 160 signatories and 175 global ratifications/accessions from countries or regional integration organisations **Error! Bookmark not defined.**, including the countries examined as case-study sites in this research. These include Aotearoa New Zealand, Australia, Indonesia, Italy, Japan, Nepal, and the Philippines, all of which have signed and ratified the UNCRPD, whilst the United States is the only case-study country that has signed but not ratified the Convention (see Chapters 4 and 5). For this thesis, I adopt the UNCRPD Article 1 definition of *people with disabilities*:

*Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.*⁵

Another key instrument in the international policy arena is the Sendai Framework. With the support of 187 countries, the Sendai Framework is the first DRR-focussed multilateral agreement that specifically calls for the inclusion of people with disabilities in DRR policies, strategies and practices. Table 1.2 provides an overview of the provisions for disability inclusion in DRR.

Table 1.2: *Sendai Framework Provisions for Disability Inclusion in DRR*

Paragraph Number	Focus Area	Relevancy
19d	Strengthen engagement between people with disabilities, Disability People’s Organisation (DPOs), and DRR stakeholders as well as increasing participation of people with disabilities in all aspects of DRR.	Participation and engagement
36a		
19g	Collect data on disability and DRR to better understand disaster risks and inform inclusive policies and practices.	Data and evidence

⁵ UNCRPD Preamble and Article 1 of the Convention:
<https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>

27h	Provide inclusive training for people with disabilities on DRR preparation and response to meet their access needs.	Capacity building
33n		
33b	Ensure DRR information and early warning systems are accessible.	Accessible information
30c	Develop universally accessible DRR policies and practices, as well as ensure inclusive infrastructure.	Policy and infrastructure
30h		
48c	Promote international cooperation by sharing and exchanging best practices and technology for DRR in collaboration with DPOs.	International cooperation
48e	Monitor and report on progress to ensure accountability for disability inclusion in DRR.	Monitoring and accountability

The Sendai Framework emphasises the importance of embedding the principles of inclusion, accessibility and the participation of people with disabilities in all aspects of disaster planning. Operationalising the Sendai Framework should give people with disabilities a seat in all decision-making and planning to ensure the accessibility of infrastructure and information systems. In this thesis I consider how these international commitments are interpreted and implemented at the national and community levels. I examine the extent to which disability inclusion is being embedded in disaster policies and practices and analyse the

role of DPOs—advocacy organisations that are led for and by people with disabilities—in shaping more equitable and resilient outcomes.

International disability policies are designed to guide and strengthen national approaches, but when considered through the lens of deaf people, particularly for those who use sign language to communicate, they reveal what Deaf scholar De Meulder (2014) calls a “dual-category” status. On one hand, deaf people are positioned within the disability framework because their access is constrained by communication barriers (WFD, 2018) and for some, compounded by additional physical, sensory, or cognitive disabilities. On the other hand, deaf sign language users often identify themselves as members of a cultural and linguistic minority, with their identities shaped by Deaf culture and their national sign language(s) (WFD, 2018) (covered in Chapter 2). This duality creates important tensions in how international policies frame deaf people’s rights, a challenge that many peak Deaf organisations face through their advocacy work.

Global disability treaties, frameworks, and policies can provide vital protections, particularly in fostering greater accessibility through communication rights, as linguistic rights are not always fully recognised. De Meulder and Murray (2017) highlight important distinctions between implicit and explicit legal recognition of sign languages. Implicit recognition occurs when sign language(s) are acknowledged within broader disability or accessibility laws, whilst explicit recognition elevates them as official national or minority languages in their own right (De Meulder and Murray, 2017). The case of New Zealand Sign Language (NZSL) illustrates this dual recognition: it is protected both as a minority language and as a modality of access under disability legislation (De Bres, 2015). But this dual framework also creates significant challenges for public institutions, which must balance obligations to provide disability accommodations with responsibilities to uphold linguistic rights—something they often struggle to operationalise in practice (De Meulder and Murray, 2017).

These international treaties and frameworks create both opportunities and challenges for peak Deaf organisations and service providers⁶ in translating policy into practice. The shift from segregated services towards societal inclusion led to the establishment of sign language interpreting services, which met accessibility obligations for deaf people and supported campaign for the legal recognition of sign languages (De Meulder and Haualand, 2021). Through sustained government advocacy, interpreting later became a legal requirement in

⁶ Peak Deaf organisations represent deaf people and community members in advocacy and policy spaces, whereas Deaf service providers focus on delivering direct services to deaf people.

public services under disability and human rights legislation (De Meulder and Haualand, 2021). For peak Deaf organisations such as national associations and advocacy bodies, translating these broad disability and linguistic rights treaties and frameworks into practice involves interpreting them in ways that reflect the lived realities of deaf people. This has meant that much of their advocacy work strategically frames sign language recognition as a gateway to broader linguistic, educational, and human rights, offering straightforward policy solutions to complex issues of cultural and linguistic recognition (De Meulder and Murray, 2017). Whilst the *dual category* membership of deaf has often been effectively used by peak Deaf organisations to advance sign language recognition, De Meulder and Murray (2017) argue that challenges persists because policy traditions continue to conceptualise “deafness” primarily through a medical lens, as a sensory deficit defined by hearing loss rather than recognising deaf people as a cultural and linguistic minority (Turner, Hogan-Brun and Wolff, 2003; Emery, 2011). What remains particularly complex is the blurred boundary between deaf people as people with disabilities and their claims to linguistic rights. In most cases, sign language recognition legislation extends beyond the right to use sign language; it also entails the right to access to key domains such as education, healthcare, and social care through sign language—most often realised through the provision of sign language interpreters (De Meulder and Murray, 2017).

The UNCRPD helps push against this narrow medical framing. Across multiple Articles, it explicitly affirms that accessibility includes all forms of communication, treating sign languages as equal to spoken languages, and it recognises cultural and linguistic identities, including Deaf culture (De Meulder, 2014). Importantly, countries that have signed and supported the UNCRPD signal their obligation to ensure accessibility across all areas of life, including specific provisions such as Article 11, which addresses situations of risk and humanitarian emergencies. Despite these commitments, Deaf support organisations (both peak advocacy organisations and service providers) continue to document and advocate around the persistent systemic inaccessibility that deaf people experience in disaster contexts. This persistent gap between the promise of global ambitions articulated in provisions (particularly Article 11) and the lived realities of deaf people demonstrates how they remain continually marginalised in disasters, reinforcing the urgent need for research and practice that centres their experiences and leadership.

1.4.1 Has the Sendai Framework successfully facilitated inclusive-DRR?

Nearly ten years since the Sendai Framework called for disability inclusion in disaster planning, deaf people and community members remain largely overlooked (as noted in the

works of Takayama, 2017; Calgaro, Dominey-Howes and Craig, 2021; Calgaro *et al.*, 2021; Cooper *et al.*, 2021; Nguyễn Trần Thủy, Cooper and Craig, 2022; Cooper *et al.*, 2024). The available research consistently highlights common barriers such as lack of representation in essential services (see the works of White, 2006; Takayama, 2017), inadequate support for preparedness and response (see the works of Engelman, 2012; Cripps, Cooper and Austin, 2016; Calgaro, Dominey-Howes and Craig, 2021; Cooper *et al.*, 2021; Nguyễn Trần Thủy, Cooper and Craig, 2022), and ongoing neglect and marginalisation during relief and recovery efforts (see the works of White, 2006; Takayama, 2017; Nguyễn Trần Thủy, Cooper and Craig, 2022; Engelman, Booze and Izquierdo, 2024).

Culturally sensitive initiatives designed to build deaf people's resilience to disasters have demonstrated that informal networks often provide more effective and trusted support than formal relief organisations, precisely because of their cultural awareness and direct communication access (White, 2006; Takayama, 2017; Nguyễn Trần Thủy, Cooper and Craig, 2022; Takayama, 2025). White (2006) observed during her experiences in disaster response following Hurricanes Katrina and Rita in the USA that local Deaf community networks were more effective in mobilising support for deaf people affected by disasters than formalised services, highlighting how shared deaf identity fosters collective action and trust. Similarly, Takayama (2017, 2025) described how national Deaf support organisations in Japan, operating without government assistance, coordinated efforts to locate and evacuate deaf survivors of the Kobe and Tohoku earthquakes who had returned to unsafe homes after finding evacuation centres inaccessible. This demonstrated the effectiveness of Deaf-led leadership in disaster contexts. In addition, Nguyễn Trần Thủy, Cooper and Craig (2022) emphasised that community trust is paramount, as seen during Tropical Storm Linfa and the COVID-19 pandemic in Viet Nam, where deaf people relied on Deaf community leaders for information in their native sign language rather than on formalised communication channels. These examples demonstrate the value of social capital, which Bourdieu (1986) conceptualises as the total resources (both actual and potential) available to individuals or groups through their social networks. In this context, it highlights how deaf people draw on community relationships to access information, opportunities, and support, thereby mobilising social capital as a key resource.

It becomes clear that Deaf support organisations leverage social capital to support deaf people during disasters, highlighting the importance of culturally aware and community-led strategies. Building on this understanding, the following section outlines the research aim and objectives of this thesis, which examine how Deaf support organisations mobilise resources to

improve access to disaster information and foster inclusive participation in disaster risk reduction.

1.5 Aims and Objectives

Over the past two decades, research has increasingly acknowledged the barriers deaf people and community members face in disasters. Yet, the organisations that deaf people and community members most often turn to for communication access and advocacy, their Deaf support organisations, remain almost invisible in the disaster studies and policy. As a deaf researcher who has worked closely with deaf people, Deaf communities, and emergency services, I have witnessed first-hand how these organisations step into critical roles during crises, often without recognition or resourcing. Their expertise is not in crisis management but in communication and language access, and it is precisely this expertise that determines whether deaf people and community members can understand warnings, access services, and make informed decisions during emergencies.

The aim of this thesis is to investigate how the mobilisation strategies of Deaf support organisations influence the accessibility of disaster information and services and the inclusive participation of diverse deaf people in DRR. This aim will be achieved through the following objectives:

- 1) Identify and analyse the mobilisation strategies of Deaf support organisations and assess how these strategies deliver accessible disaster information and services to deaf people and community members;
- 2) Examine how these strategies address or overlook needs and how this shapes the capacity of deaf people to mobilise and participate in DRR processes, and
- 3) Compare case studies from Australia and overseas to identify inclusive and exclusive practices for strengthening equitable participation in DRR.

1.6 Structure of the thesis

The remainder of this thesis is organised into eight chapters. Chapter 2 situates the study within the global disaster landscape, examining how vulnerability and resilience are defined and how these concepts intersect with the experiences of deaf people and community members—who are often framed through disability policy rather than as a cultural and linguistic minority. Chapter 3 outlines my positionality as an interpretivist and constructivist

and explains how this shaped the methodological design and thematic development. Chapters 4 and 5 present the perspectives of 44 co-researchers across four subgroups: professional community researcher/advocates, Deaf support organisations, sign language interpreters, and emergency services. Chapter 4 examines international case studies from eight countries outside of Australia: Aotearoa New Zealand, Haiti, Indonesia, Italy, Japan, Nepal, the Philippines, and the United States; whilst Chapter 5 focusses on Australia. Chapter 6 extends this analysis by comparing the international and Australian case studies across three overarching thematic dimensions. These dimensions align with the three research objectives, which identify, assess, and compare the mobilisation strategies used by Deaf support organisations and examine practices that either enabled or constrained deaf people's participation in DRR (see *Section 1.5*). Chapter 7 synthesises the findings, contrasting national and global perspectives, and proposes a theoretical framework linking mobilisation and social capital to stronger participation amongst deaf people and community members who are most often silenced. Finally, Chapter 8 outlines the study's limitations and offers directions for future research.

Crucially, this thesis pushes beyond the well-rehearsed accounts of barriers facing deaf people in disasters to confront a more uncomfortable truth: marginalisation is not only imposed from the outside. It is also reproduced within the inside, as this thesis will show amongst deaf people and community members where certain groups—such as deafblind people, those with additional disabilities, individuals from Indigenous or multicultural backgrounds, migrants and refugees, and those with limited access to education and language—may be overlooked, marginalised, or rendered invisible. This is a gap that much research has left unchallenged. By exposing these internal hierarchies and the mechanisms that sustains them, this thesis seeks to disrupt the comfort of dominant narratives and point towards ways of dismantling cycles of exclusion, both within and beyond the Deaf community.

CHAPTER 2: Background and Literature

2.1 Introduction

This chapter provides the context and background for this thesis by reviewing the body of literature that underpins its key themes. As noted in Chapter 1, disasters pose risks that no country or region can avoid. A rich body of socially oriented research has emerged to examine how risk intersects with vulnerability, resilience, and disaster justice, and how these dynamics affect people—particularly those who are marginalised. Whilst much of this work has focussed on general populations, there is a growing recognition of the need to explore the experiences of marginalised groups in the context of hazards and disasters. Examples include research on gender and sexual minorities (see Dominey-Howes, Gorman-Murray and McKinnon, 2014; Gaillard *et al.*, 2017; Gaillard, Gorman-Murray and Fordham, 2017), cultural and linguistic minorities (Uekusa and Matthewman, 2017; Uekusa, 2019), Indigenous peoples (Lambert *et al.*, 2012; Kelman, Mercer and Gaillard, 2012; Lambert, 2022), and people with disabilities (Robinson and Kani, 2014; Villeneuve, 2019; Calgaro, Villeneuve and Roberts, 2020).

Despite this progress, there remains a need to recognise the diversity within these groups, where sub-marginalised populations continue to be strikingly under-researched. This study focusses on deaf people, who hold a dual status as being part of the disability group as well as a cultural and linguistic minority (see Chapter 1, *Section 1.4*). Whilst broader research exists on both groups, there is often an implicit assumption that the challenges and barriers they face are the same. A growing body of research has begun to explore the experiences of deaf people and disasters—some framed through a disability lens and others through a cultural and linguistic perspective. However, little is known about the experiences of Deaf support organisations within the disaster context. This chapter therefore examines how accessibility for deaf people is situated within the disability framework, the evolution of Disability inclusive Disaster Risk Reduction (DiDRR), and literature on deaf peoples' disaster experiences that reflect their cultural and linguistic identity distinct from disability-based perspectives. The lack of sustained attention to these groups highlights an urgent need for further research, particularly in relation to DRR policy and practice as they affect deaf people and community members. Addressing this gap is essential if DRR is to meet its stated goals of inclusiveness, equity, and resilience for all.

2.2 Understanding Vulnerability and Resilience and Redressing Inequity in DRR

Reducing disaster risk is not just about preparing for storms or floods—it is about understanding the human stories behind them. Some communities face greater danger than others, not by chance, but because of the ways society is structured. Their vulnerability is shaped by social, economic and environmental factors, whilst their resilience—how they withstand and recover from shocks—depends on the support, resources and opportunities available to them. At the heart of these dynamics lies a question of justice: who bears the brunt of disasters, who has the tools to cope, and who is able to rebuild and adapt when the world around them changes? In this section, I explore vulnerability and resilience in the context of disasters, paying close attention to how inequities and injustices influence people's experiences, capacities, and futures in the face of hazards and climate change.

2.2.1 Vulnerability

Vulnerability⁷ is a contested term with multiple meanings shaped by the systems examined and the perspectives applied. Disaster scholars emphasise that vulnerability is not simply a matter of individual traits or circumstances, but is embedded within complex social, political, and environmental structures that generate risk (see the works of Wisner *et al.*, 2004; Adger, 2006; Birkmann *et al.*, 2013). Whilst acknowledging the historical development of the concept, this thesis emphasises that its foundations lie in the everyday structures and processes that consistently privilege certain groups whilst marginalising others, a theme noted early works by Pelling (2003), Wisner *et al.* (2004), and Adger (2006). Alongside these socio-political framings, human-environment interactions emerging from sustainability science have also shaped how vulnerability is analysed. Drawing on systems thinking, early vulnerability analysis frameworks, most notably Turner *et al.* (2003), sought to identify sustainable ways of managing human-environment interactions. These ideas were later reconceptualised by Birkmann *et al.* (2013), who refined the place-, scale-, and time-based elements that structure vulnerability.

More recent scholarship foregrounds power, resources, and social positioning as central to understanding why some individuals and communities have greater capacity to act within disaster contexts than others (Uekusa, Matthewman and Lorenz, 2022). Kelman *et al.* (2016)

⁷ From an individual perspective, I wish to note the use of terminology. In my experience, the term *vulnerability* is often viewed negatively by people from marginalised groups, who may associate it with weakness or deficit. In this thesis, I use the term solely to describe environmental and contextual factors that place certain groups at heightened risk. In Chapter 3, *Section 3.2*, I reflect further on my own positionality and how it informs this research.

argue that the root causes of disasters lie not in environmental hazards themselves but in the social decisions and processes that continually produce and reinforce vulnerability. At its core, vulnerability reflects how people are positioned within society—whether they can access essential resources or are constrained by structural barriers such as poverty, discrimination, and exclusion (Kelman *et al.*, 2016; Gaillard, 2019), a point also echoed in earlier works by Pelling (2003), Wisner *et al.* (2004), and Adger (2006). These barriers are reinforced by unequal power relations, governance systems that privilege some groups whilst marginalising others, and cultural norms that determine whose voices are amplified or silenced (Gaillard and Fordham, 2018). Together, these forces influence how risk is felt, experienced, and managed by individuals and communities when disasters strike (Adger, 2006; Wisner *et al.*, 2004; Birkmann *et al.*, 2013). Due to this complexity, vulnerability is best understood as a multidimensional process that unfolds across different places, scales, and times.

Vulnerability is shaped by overlapping social, political, cultural, environmental, geographical, and economic factors that interact in complex ways. Economic pressures—such as poverty, loss of livelihoods, and unequal access to resources—directly deepen social vulnerability. Communities with fewer financial means are less able to prepare for, respond to, or recover from disasters, and have limited influence over how resources are distributed (Wisner *et al.*, 2004; Birkmann *et al.*, 2013). Lukasiewicz (2020) argues that these dynamics reinforce systemic vulnerability and marginalisation. Moreover, for countries in the Global South, dependence on remittances and international aid from the Global North has been shown to reproduce inequities and sustain structural vulnerability. Le De, Gaillard and Friesen (2015) found that, following Cyclone Evan in 2012, households in Samoa that relied on remittances were better able to cope and recover than those without such support, revealing a widening disparity gap. Lukasiewicz (2020) also highlights the controversy surrounding aid dependency, where debates often centre on accountability versus charity, both of which can contribute to reinforcing structural vulnerability.

Beyond social vulnerability, exposure also plays a critical role, occurring where hazards intersect with people and the systems they rely on, including characteristics of the built and natural environment (Turner *et al.*, 2003; Adger, 2006). Unsafe housing, inadequate infrastructure, and settlements located in hazards-prone areas can increase exposure, meaning that marginalised groups, who are often poorer and may be forced to live in unsafe areas, are disproportionately affected when disasters strike (Adger, de Campos and Mortreux, 2018). These physical risks often reflect broader social inequalities, which Baldwin (2020) argues reinforces cycles of disadvantage, as demonstrated in their case study of the Rocklea area

during the 2011 Brisbane floods in Australia. Political or governing processes further shapes vulnerability. Gaillard and Fordham (2018) point out that marginalised groups are frequently excluded from DRR decision-making and policymaking processes, leaving their needs unmet and their voices silenced, thereby challenging prevailing notions of what constitutes “inclusion”. Paradoxically, it is precisely these groups with the lived experiences and contextual knowledge can inform more effective approaches to reducing vulnerability (Gaillard, 2019). This is critical, as Kelman *et al.* (2016) emphasise through their work on disaster vulnerability, resilience, and historical practice that when history is not acknowledged or integrated into research, policy, and practice; political vulnerability continues to amplify social vulnerability by embedding inequality into governance and disaster response—a concern Baldwin (2020) warns will further widen existing gaps.

Culture too, is critical. Disasters can erode traditions, knowledge systems, and identities, especially within Indigenous and minority communities. Kelman, Mercer and Gaillard (2012) note that local knowledge and lived experiences are essential to resilience. Whilst cultural practices can provide tools for coping, strengthening networks, and sustaining identity during crises, others do not experience this. For some, this may be by choice, due to social isolation, or as a result of internal oppression within their own communities or societies (Lambert *et al.*, 2012; Uekusa and Matthewman, 2017). Lambert (2022) observed that assuming traditional Māori cultural or tribal institutions represent all Māori responses to disasters is a misconception that overlooks the diversity amongst Māori who may be physically, socially, and culturally distant from these networks. Uekusa (2020) similarly found that some immigrants and refugees in Canterbury and Tohoku chose not to affiliate with cultural groups due to issues of trust, identities, and representation.

Environmental change also underpins these dynamics. When ecosystems are damaged and biodiversity is lost, climate change research has found that the impacts fall most heavily on those who are already marginalised (Adger, de Campos and Mortreux, 2018). Similarly, Islam and Khan (2018) forewarn in their study that Southeast Asia, where people face pre-existing social vulnerabilities and poverty, sudden and slow onset climate related hazards are likely to increase future migration and displacement as a means of survival.

Together, these dimensions show that vulnerability is not only about exposure to hazards, but also about how social inequalities are reinforced through economic disadvantage, political exclusion, cultural marginalisation, and environmental disruption (see the works of Wisner *et al.*, 2004; Adger, 2006; Birkmann *et al.*, 2013). Placing social vulnerability at the centre

highlights how disasters both expose and amplify the everyday injustices that shape people's lives. Uekusa (2018) observed that many studies recognise the value of social capital (refer to *Section 1.4.1* for its definition; this concept will be revisited in *Section 2.6* in relation to my research) in strengthening resilience, noting that marginalised groups often rely on social networks as their primary source of support to compensate for the structural barriers and inequities they face with other forms of capital—particularly economic (see Warren, Thompson and Saegert, 2001; Morrow, 2008). However, Uekusa (2020) also cautions that much of this literature focusses on sources and outcomes within a traditional top-down social vulnerability approach, rather than on bottom-up perspectives grounded in the lived experiences, with limited attention paid to the processes through which social capital is built. Uekusa (2020) further stresses that studies on social capital tend to privilege those with access to social networks, neglecting those with limited or no access due to internal oppression. This exclusion has significant implications for the levels of resilience people can exercise in responding to and recovering from disasters. Understanding how vulnerability constrains people's options also sheds light on the ways resilience is framed in disaster studies.

2.2.2 Resilience

Resilience has gained considerable attention in the climate change adaptation and disaster risk reduction fields, yet the direction of resilience practice remains unclear (Islam and Khan, 2018). Conceptually, it has been defined in diverse ways. Kelman *et al.* (2016) view it as a long-term ongoing process rather than an outcome, whereas others such as Boon *et al.* (2012) and Bergstrand *et al.* (2015) describe it as a quality or trait developed through adaptive processes. Cutter (2016) observed that in the broader literature, it is sometimes controversially framed as “*bouncing back*” to the same state or condition, highlighting persistent tensions between static outcomes and dynamic processes. Despite growing contributions from multiple disciplines and the increasing exploration of integrated approaches, such as those combining vulnerability and resilience, reflected in the works of Turner *et al.* (2003), Adger (2006), Miller *et al.* (2010) and Kelman, Gaillard and Mercer (2015)—there remains considerable discord and confusion regarding its definition and meaning (Uekusa and Matthewman, 2017; Baldwin, 2020). As these studies show, definitions of resilience depend largely on the context in which it is applied, with disaster scholars often suggesting social-ecological systems (SES) as a useful starting point for understanding the dynamic processes involved (Berkes and Folke, 1998; Miller *et al.*, 2010).

Over the past two decades, socio-ecological systems (SES) have been used to understand resilience (Berkes and Folke, 1998; Miller *et al.*, 2010) through three interrelated features:

persistence (*'bouncing back'*), adaptability, and transformability (Folke, 2006; Folke *et al.*, 2010; Miller *et al.*, 2010). From this perspective, resilience is viewed as an interdependent property of coupled human-environment systems. Here, Folke *et al.* (2010) explain that human activities and behaviours act as external drivers of change that destabilise ecosystems, with feedback loops shaping the overall dynamics of how each affects the other. However, some disaster scholars argue that the notion of 'bouncing back' is problematic because it implies a return to pre-disaster conditions rather than fostering a capacity to adapt and build a more sustainable future (Kelman, Gaillard and Mercer, 2015; Uekusa, 2018). In contrast, the concept of *'bouncing forward'*, described by Manyena *et al.* (2011), emphasises resilience as an ongoing process of adaptation and transformation rather than simple recovery. A 'bouncing forward' approach influences planning both before and after disasters and encourages psychological and behavioural shifts amongst those affected (Manyena *et al.*, 2011; Baldwin, 2020). Critically for this research, it highlights how support is both structured and delivered, as explored through the case studies presented in Chapters 4 and 5.

Yet scholars such as Frerks, Warner and Weijs (2011) also caution that 'bouncing forward' may risk reproducing pre-existing inequalities rather than overcoming them. Uekusa (2018) goes further by asking what kind of resilience is being promoted and for whom. This tension highlights the important distinctions between resilience and vulnerability frameworks. Whereas resilience often emphasises the adaptive capacities of coupled social-ecological systems, theories of vulnerability place the focal point on the human system destabilised by hazard events, often triggered by environmental processes. Adaptability and transformation are needed to counterbalance the SES equilibrium from tipping into a new state. Adaptability occurs when people in a system have the capability to access and utilise resources that strengthen their capacity and resilience, drawing on past experiences, adjusting to respond to current challenges, and continuing to modify as needed (Folke *et al.*, 2010; Miller *et al.*, 2010). However, when ecological, economic, or social structures cause the existing system to collapse, Folke *et al.* (2010) notes that transformability becomes necessary—the capacity to create a new system through three stages: (1) change, (2) transition, and (3) building and developing a resilience approach (see the works of Olsson, Folke and Hahn, 2004). The applied focus then rests on two dimensions: (1) the capacity of people or systems to recover and restore following disruption (Islam and Khan, 2018; Miller *et al.*, 2010) and (2) the extent to which systems can be disrupted and adapted without exceeding thresholds (Miller *et al.*, 2010; Folke *et al.*, 2010). The *success* of transformation into a new system ultimately depends on how *inclusive* and *equitable* the process is, a dimension that Pelling, O'Brien and Matyas (2015) and Roberts and Pelling (2020) note is often absent in adaption theory and practice.

The presence or absence of inclusive and equitable processes directly informs the focus of this thesis. For marginalised groups, resilience is not simply about adaptation within existing systems, but about transforming those systems so that they no longer reproduce accessibility barriers and social exclusion in times of disaster. Uekusa (2018) notes that social capital plays a critical role in shaping how people and communities navigate disruption and transformation. For marginalised groups, including deaf people and community members, networks of support—family, peers, and community organisations, can strengthen adaptability and provide pathways for transformative change. However as noted earlier, access to social capital is uneven and those with limited networks may experience reduced resilience (Uekusa, 2020). By examining both social capital and system-level adaptation, this thesis demonstrates that achieving inclusive resilience requires not only transforming structures (Deaf support organisations) but also actively empowering people and communities whose voices and capacities have historically been marginalised (deaf people).

2.2.3 The Problem of Inequity in Vulnerability and Resilience Praxis

For this thesis, it is imperative to critically examine the epistemic authority, power, and injustice embedded in how vulnerability and resilience are defined and perceived—who gets to decide what counts as vulnerability, whose resilience is being prioritised, and how social, political, and structural inequalities shape outcomes. This approach moves beyond static or one-dimensional views, emphasising the dynamic, context-specific, and socially constructed nature of vulnerability and resilience in disaster contexts.

In practice, vulnerability assessments are often limited to ‘*a snapshot*’ at a specific point in time, such as immediately after a disaster (Miller *et al.*, 2010), which restricts the ability to examine long-term impacts on communities and the influence of pre and post-disaster interventions and adaptation measures (Birkmann *et al.*, 2010; Miller *et al.*, 2010). However, assessments vary depending on the context and methods used. As Cutter (2024) notes, the choice of qualitative or quantitative measurement depends on the objective (e.g. a place, community, specific group), the type of vulnerability or system (e.g. social, economic, infrastructural, or physical) and the hazard or stressor being studied. Disaster scholars further emphasise the importance of considering historical, political, and geographical processes, including class and race relations, particularly in locations with entrenched patterns of social or spatial segregation (Kelman *et al.*, 2016; Bolin and Kurtz, 2018; Uekusa, 2020). Taken together, these insights highlight that vulnerability is not a fixed or neutral property, but a complex, context-dependent construct (Pelling, 2003; Wisner *et al.*, 2004; Adger, 2006).

Beyond issues of measurement, deeper questions arise: (1) what should be considered an acceptable level of vulnerability and adaptive capacity, and (2) who defines this and for whom (Miller *et al.*, 2010; Cutter, 2016; Uekusa, 2020). Historical knowledge on climate patterns and how various social groups have previously responded to environmental shocks and stressors cannot, on its own, identify with accuracy which groups or places will be “most at risk” in the future or determine the exact “degree of vulnerability” (Dow *et al.*, 2006). Nor can it fix vulnerability in advance, as responses to risk are dynamic, evolving, and shaped by feedback loops that influence social and ecological systems (Bolin and Kurtz, 2018; Baldwin, 2020). This limitation is significant, as frameworks of vulnerability and resilience frequently rely on fixed hierarchies that overlook the relational nature of social processes across places, scales, and time (Mackinnon, 2011; Calgaro, 2019), which is central to this study. Integrating the two perspectives helps address the challenges of social-ecological change whilst exposing inequities and injustices in how people cope, adapt, and build resilience within pre-existing structures of vulnerability (Miller *et al.*, 2010; Calgaro, Lloyd and Dominey-Howes, 2014). This integration is central to advancing more just and sustainable human-environment relations (König and Ravetz, 2018).

Miller *et al.* (2010) outline existing challenges that hinder the integration of vulnerability and resilience. Whilst Miller *et al.* (2010) observe that resilience approaches emphasise processes such as system interlinkages, thresholds, and feedback loops, Matin, Forrester and Ensor (2018) and Uekusa (2018, 2020) argue that such approaches often neglect the human and social dimensions that vulnerability perspectives highlight—namely power, equity, and access to resources. Miller *et al.* (2010) and Uekusa (2018) also note that the lack of common terminology and methodologies has further slowed progress, where concepts remain fragmented between academic debates and applied disaster management. When discussing resilience, Miller *et al.* (2010) argue that it should not only consider the types of challenges faced, but also *for whom*—that is, who actually benefits from efforts to build resilience. Lambert (2022) adds that examining ‘*resilience for whom*’ must also consider systemic inequalities and structural injustice. Matin, Forrester and Ensor (2018) extend this perspective through the concept of ‘*equitable resilience*’, which calls for centring fairness, access, and social justice in resilience practice to bridge this gap.

Placing equity at the heart of analysis, Gaillard (2019) demonstrates how unequal power, wealth, and influence undermine the resilience of marginalised groups, whilst privileging those with resources and connections. History shows that inequity is a constant in disaster

contexts. After Cyclone Evan in 2012, those households in Samoa that did not have relatives overseas and benefit from regular remittances were excluded from accessing recovery loans, making recovery difficult and entrenching preexisting economic challenges (Le De, Gaillard and Friesen, 2015). Similarly, during Hurricane Katrina, marginalised communities in New Orleans, Louisiana that lacked health, mobility, and social networks were unable to evacuate and became trapped by pre-existing structural vulnerabilities (Adger, Safra de Campos and Mortreux, 2018). The aftermath of the 2010-2011 earthquakes in Aotearoa New Zealand revealed the enduring impacts of colonisation on Māori, highlighting that resilience must go beyond merely surviving hardships to encompass responses to ongoing economic vulnerability and systemic racism (Lambert, 2022). Disaster experiences amongst linguistic minority groups involving migrants, refugees, and transients during the 2010-2011 earthquakes in Aotearoa New Zealand and the 2011 Tohoku disasters in Japan revealed that the language barriers and structural inequality increased their risks to disasters (Uekusa, 2019). The global COVID-19 pandemic heightened the risks faced by people with disabilities. Pre-existing structural inequalities left many with unmet health needs and disproportionately affected their socioeconomic wellbeing (Shakespeare, Ndagire and Seketi, 2021). These cases illustrate that resilience is not evenly distributed but is shaped by deep-seated social, political, and economic inequalities. Addressing these inequities is therefore essential to building disaster responses that are not only resilient but also just and inclusive.

Building on these concerns about inequity, Matin, Forrester and Ensor (2018) propose the concept of equitable resilience, arguing that it shifts the focus away from integrating vulnerability and resilience as complementary theories to more important questions on how fairness and justice are addressed in practice. Rather than proposing a single resilience theory, equitable resilience examines how resilience thinking is applied on the ground across disaster risk management, development, and climate change adaptation. Matin, Forrester and Ensor (2018) highlight four interconnected themes that captures how equity and power shape resilience: (1) subjectivities (how place, identity, and lived experience influence perceptions of resilience and policy responses), (2) inclusion (ensuring excluded groups gain access to planning and resources), (3) scale (recognising how power and marginalisation intersect across levels and processes), and (4) transformation (addressing root injustices and enabling incremental but long term change). Drawing on the previous point about transformation, this highlights the need to understand the distinction between adaptive resilience and transformation.

Cutter (2016) explains that adaptive resilience focusses on learning and adjusting to new conditions within the current system, with Folke *et al.* (2010) identifying capacity as the most influential factor shaping resilience. Transformation, on the other hand, extends beyond adaptation. Roberts and Pelling (2020) describe it as a response to loss and damage that exceeds the limits of adaptation. Pelling, O'Brien and Matyas (2015) argue that adaptation often remains confined to protecting existing systems, even when those systems contribute to underlying risks, whereas transformative adaptation provides an opportunity to address the root causes of these failures. Practicing transformation raises critical questions about adaptation, particularly who decides what kind of changes occur, what should be changed, and what contexts or conditions influence how these changes begin and evolve over time (Pelling, O'Brien and Matyas, 2015). Such questions highlight how power relations shape outcomes and place ethical and procedural considerations at the centre of adaptation decision-making. Recognising the political and governance dimensions of disaster governance—including accountability and citizen participation—is critical, as policy decisions (or their absence) can directly create or perpetuate vulnerability (Lukasiewicz, 2020). Together, these insights underscore the importance of integrating disaster justice perspectives into resilience and adaptation planning.

2.3 Disaster: Moving Towards Justice

Disaster justice is an emerging research focus in disaster management research (Lukasiewicz, 2020)⁸. Originally coined by Robert Verchick (2012), the term describes “*the fair treatment of all people in policies relevant to catastrophic hazards*” (Lukasiewicz, 2020, p. 8). Whilst definitions vary, three key domains are commonly associated with disaster justice: (1) accountability in resource distribution, (2) representation of different voices, and (3) recognition of different knowledge forms (Shrestha *et al.*, 2019; Baldwin, 2020; Lukasiewicz, 2020). These domains overlap with concepts from equitable resilience, particularly regarding how power, knowledge, and resources are accessed and distributed amongst disadvantaged groups (Matin, Forrester and Ensor, 2018). Dovers (2020) highlights three ways disaster justice contributes: (1) by advancing justice research, using disasters as opportunities to explore inequalities from multiple lenses; (2) by broadening disaster policy already in place to frame inequalities as human rights issues and (3) by providing a “comprehensive set of descriptors” (Dovers, 2020). Identifying existing and potential injustices has the potential to strengthen policy responses.

⁸ In this thesis, the broader literature on environmental justice is acknowledged as relevant but largely tangential. Whilst the core elements of environmental justice—distributional, procedural, recognition, and capacity, inform understanding, the focus here is on the more specific context of disaster justice.

To understand disaster justice in practice, it is important to consider how justice operates within disaster management. Whilst *justice* is often seen as an outcome of a decision or event, Lukasiwicz (2020) argues that it shapes the entire process from start to finish. Exposure to pre-existing barriers, exclusionary practices, and systemic inequalities are often revealed or worsened by disaster response and recovery efforts, and reflect unjust processes that pre-existed, limiting the ability of marginalised groups to respond, recovery, and adapt (Lukasiwicz, 2020; Baldwin, 2020). Furthermore, two key elements of disaster justice, distributional and procedural justice, highlight how resources and decision-making processes shape resilience for marginalised groups (Lukasiwicz, 2017). Distributive justice concerns the allocation of resources, whilst procedural justice focusses on who participates in decisions and how those decisions are made. The power of those involved in procedural justice determines distributive justice.

A key challenge in achieving disaster justice is the lack of cultural knowledge and understanding of the needs of diverse groups affected before, during, and after disaster events (Lukasiwicz, 2020). Although at-risk populations can provide valuable insights for disaster management, their knowledge is frequently excluded (Kelman *et al.*, 2016; Gaillard and Fordham, 2018; Gaillard, 2019). These groups include Indigenous peoples (see works of Lambert *et al.*, 2012; Kelman, Mercer and Gaillard, 2012; Lambert, 2022), linguistic minorities (see works of Uekusa and Matthewman, 2017; Uekusa, 2019), people with disabilities (see works of Robinson and Kani, 2014; Kelman and Stough, 2015; Villeneuve, 2019), and those with diverse gender identities (Dominey-Howes, Gorman-Murray and McKinnon, 2014; Gaillard *et al.*, 2017). However, too often these groups are represented as homogenous entities. Disaster scholars, including Gaillard and Fordham (2018), Uekusa (2020) and Lambert (2022) caution that such representation risks overlooking the diversity that exists within marginalised communities. This continued exclusion rather than inclusion, remains a persistent barrier to achieving disaster justice.

2.3.1 Participation: Linking Justice, Power, and Inclusion

Understanding the connections between disaster justice and inclusionary processes requires recognising and addressing the systemic injustices that affect people during disasters, particularly the inequitable access to opportunities, support services, and resources experienced by marginalised groups. Applying Fraser's (2020) principles of recognition and redistribution, addressing both economic and cultural dimensions of social justice, helps illuminate these inequalities. Baldwin (2020) supports this view, arguing that equitable

disaster resilience depends on social and participatory processes, not just the provision of preparedness information and resources. Similarly, Matin, Forrester and Ensor (2018) highlight the importance of people understanding their role within human-environment systems and having opportunities to prevent future power inequities, emphasising the need for stronger inclusionary processes to guide equitable resource distribution. In a disaster justice context, the principle of redistribution ensures resources are allocated fairly to marginalised groups, whilst recognition ensures that diverse cultural perspectives, experiences, and practices are incorporated into planning and response.

Whilst disaster justice highlights the importance of redistribution and recognition, giving voice to those who have historically been excluded remains a persistent challenge. Gaillard and Fordham (2018) note that recognition can bring either fair access to—or denial of—resources, with meaningful access requiring some form of participation. For effective DRR, marginalised groups must not only be recognised, but also included in decision-making processes with existing powerholders (Gaillard and Fordham, 2018). It is important to note that *participation* is also a contested concept. To achieve more equitable outcomes, marginalised people must be afforded the opportunity to have a genuine say in decisions that affect them and to co-develop solutions that address their needs and foster ownership (Hore *et al.*, 2020). In this thesis I examine whether “inclusive” participatory initiatives succeed or fail in practice, and consider the role of social political, or structural barriers in the prevention of some groups from fully participating, leaving inequities unaddressed.

Understanding participation practices reveals how empowerment—or exclusion—operates in DRR decision making. Hore *et al.* (2020) note that best practice approaches often fail to incorporate local knowledge, build community capacity, or develop solutions that address the needs of marginalised groups. Critically, the “margins of the marginalised” in disasters remains under-researched, this is evident in the field of disability inclusive disaster risk reduction (DiDRR) and more specifically, in the limited literatures on the experiences of deaf people and community members. Positioned both within disability and as a cultural-linguistic minority (see Chapter 1, *Section 1.4*), deaf people and community members face dual marginalisation. These dynamics of marginalisation highlight the need to critically interrogate participation itself. The following section draws on Arnstein’s (1969) Ladder of Citizen Participation and Bourdieu’s (1986) concepts of field, capital, and habitus to examine how power and influence are distributed in DRR decision-making.

Arnstein's (1969) classic work on citizen participation presents a people and community-centred approach that highlights how power imbalances and inequitable redistribution can undermine participation (Fainstein and Lubinsky, 2020). The Ladder presents eight levels of participation, ranging from nonparticipation to full citizen control, illustrating a shift from powerlessness to citizen power. Whilst Arnstein's framework focusses on power dynamics between citizens and institutions, it has limitations: barriers such as racism, paternalism, sexism, ageism, audism, ableism, and a lack of intersectional recognition can prevent meaningful participation (Arnstein, 1969). Critics also note that the Ladder is more applicable in Western contexts than in developing countries, where political, economic, social, and locational constraints may restrict participation (Choguill, 1996; Swapan, 2016). Despite these limitations, Arnstein's Ladder continues to be adapted to diverse contexts, emphasising varying degrees of participation, the quality of engagement, shifts in institutional power, and applicability to both developed and developing countries (Choguill, 1996; Tritter and McCallum, 2006; Swapan, 2016). As Swapan (2016) points out, participation practices vary widely, and non-participation can also be a deliberate choice. Swapan's "community participation model" notes that the level of participation depends on three dependency types: (1) self-reliance, (2) dependency on informal networks (parallel systems), and (3) reliance on formal planning structures. Level (1) occurs when citizens are unaware of their options to engage or lack trust in institutions, leading them to ignore or reject participation. Level (2), 'dependency on socio-political network', reflects participation mediated through social connections or community and political groups, where citizens may be represented by others rather than participating directly. Both are important to highlight for the purposes of this thesis.

Building on these insights into uneven participation, Bourdieu's (1986) concepts of field, capital, and habitus offer a valuable lens for understanding the structural and social factors that shape access to participation in DRR. According to Bourdieu (1986), a field is not a fixed structure but a dynamic social arena in which certain forms of capital are valued, contested, and exchanged. It is a structured space in which power and legitimacy are unequally distributed, making access to capital crucial. Bourdieu (1986) identifies four forms of capital: economic (financial assets and material wealth), cultural (knowledge, skills, education and cultural competencies), social (networks, communities, connections), and symbolic (institutional recognition and credibility). The degree of access to these capitals largely determines who is seen and/or heard, who can influence decisions, and who is marginalised. The habitus, the embodied dispositions and experiences shaped through

interactions amongst people, cultures, and social arrangements within field(s), mediates how people and communities engage with this social space.

Whilst access to participation rights are formally protected under disability frameworks, deaf people are often excluded from both disability and cultural minority-focussed DRR initiatives. This layered exclusion has been noted in the literature as limiting engagement and reinforcing structural inequalities. Arnstein's (1969) Ladder of Citizen Participation provides a conceptual lens to understand how formal inclusion does not necessarily translate into genuine participation or shifts in power. Complementing this, Bourdieu's (1986) concepts of field, capital, and habitus offer insights into how access to resources, social positioning, and embodied dispositions shape who is able to participate and influence decision-making processes. Together, these frameworks highlight the structural and social dynamics that govern participation, providing a foundation for examining the experiences of deaf people and community members in the context of DiDRR.

2.4 People with Disabilities: the DiDRR approach

Prior to the development of current international UN policies and initiatives supporting the inclusion of people with disabilities in DRR (see Chapter 1, *Section 1.4.*), there was little reference to their participation. The Hyogo Framework for Action (HFA), an international platform that shifted DRR response to prevention, preparedness and mitigation, made no mention of disability, nor did the Millennium Development 2000-2015 Goals (MDGs), which set eight global development priorities for achievement by 2015 (Robinson and Kani, 2014). Although awareness and support for disability inclusion in DRR has since increased, implementation remains challenging due to systemic gaps in capacity, accessibility, and participatory approaches:

- i. DRR stakeholders often lack the knowledge, skills, and capacity to enable inclusion (Craig *et al.*, 2019).
- ii. There are also limited mechanisms to connect stakeholders with expertise held by DPOs and people with disabilities themselves (White, 2006, Robinson and Kani, 2014).
- iii. Many also do not know where to seek help and assistance before, during, and after disasters (see, for examples, Peek and Stough, 2010, Calgaro and Dominey-Howes, 2013, Calgaro *et al.*, 2017), and

- iv. whilst international policies claim to protect and provide service for people with disabilities in disasters, participatory and inclusionary practices are largely overlooked, leaving affected communities with limited agency (Takayama *et al.*, 2022).

Consequently, people with disabilities are less likely to receive or understand risk warnings, which are often delivered in inaccessible or passively distributed formats (Calgaro, Craig and Johnson, 2017; Maguire, Boisvert and Villeneuve, 2025) and inequity in recovery processes remains unchallenged.

The ongoing disconnect between people with disabilities and DRR stakeholders has led disability scholars and practitioners to develop a Disability inclusive Disaster Risk Reduction (DiDRR) approach (Robinson and Kani, 2014). This approach ensures people with disabilities are embedded in all DRR policies, processes, and practices (Calgaro, Villeneuve and Roberts, 2020). Conceived as a shared responsibility between emergency services and local communities, Calgaro, Villeneuve and Roberts (2020) highlight that DiDRR seeks to dismantle the social barriers that heighten disaster risk for people with disabilities, whilst also challenging dominant perceptions by positioning them as active agents of change rather than passive recipients of support. This is further supported by Villeneuve *et al.*'s (2021) DiDRR work in Australia, whilst Maguire, Boisvert and Villeneuve (2025) extend this emphasis by focussing on their strengths, capabilities, and support requirements. Over time, the framework has broadened to incorporate concepts such as capability (Ton *et al.*, 2019), person-centred strategies (Villeneuve *et al.*, 2021), the role of DPOs in contributing to DRR (Pertiwi, Llewellyn and Villeneuve, 2019), and systems-based approaches (Calgaro, Villeneuve and Roberts, 2020).

Despite these advances, some studies and activities still treat people with disabilities as a homogenous group, overlooking the unique experiences and needs of different populations. This has resulted in a paucity of research on highly marginalised groups within disability. As mentioned in *Section 1.3*, Maguire, Boisvert and Villeneuve (2025) highlight that DiDRR does not account for the diversity of experiences with deafness in disasters and that it should not be limited to one subgroup, such as Deaf community members who use sign language, at the expense of excluding others who use hearing devices and do not sign. The diverse experiences of people with varying deaf identities therefore continue to be underserved in both research and practice. The need to expose the limits of disability inclusion in DRR and to

examine how the “margins within the marginalised”—such as deaf people and community members—experience participation, access, and resilience within disasters and DiDRR remains.

2.5 What it means to be deaf

Given that DRR is strongly influenced by social structures and inequalities, examining what it means to be deaf is critical to understanding how marginalisation is produced and experienced in disaster contexts. Being deaf is not a singular experience but a complex and socially mediated identity shaped by culture, language, and lived experience. The politics of terminology—distinguishing between ‘*deaf*’ and ‘*Deaf*’ will be covered in this section reflecting the broader debates about identity, belonging, and access. These categories capture the diversity within the deaf spectrum, which includes individuals with varying degrees of hearing loss, communication preferences, and cultural affiliations. Everyone’s experience of being deaf is shaped by their interactions with the world, including access to language, education, and social support, as well as their encounters with hearing-dominated environments. These lived experiences, in turn, influence how deaf people navigate hegemonic practices, societal norms, and institutional structures that continue to privilege those with certain forms of capitals and marginalise those who do not.

2.5.1 *d/Deaf Distinction*

In the *Use of Terms* section of this thesis (see page 19), I noted key terms relating to ‘*deaf*’ and ‘*Deaf*’, which I will unpack further in this section. Acknowledging the diversity of deaf and deafblind people involves respecting how they choose to identify and affiliate themselves as ‘*deaf*’ or ‘*Deaf*’. The usage of ‘*deaf*’ and ‘*Deaf*’, particularly in academia, is highly contested and politicised, raising questions about authority and privilege, agency, and representation (Pudans-Smith *et al.*, 2019). Some scholars use this distinction to differentiate between those who are ‘*audiologically deaf*’ (lowercase ‘*d*’) and those who identify as ‘*culturally Deaf*’ (capitalised ‘*D*’), based on cultural identity, shared sign language, and common beliefs and practices transmitted across generations, akin to an ethnic community (Padden and Humphries, 1988; Ladd, 2003; Bauman and Murray, 2014). Pudans-Smith *et al.* (2019) challenge this notion, arguing that this distinction fails to clarify who qualifies as ‘*deaf*’ or ‘*Deaf*’. Furthermore, Friedner and Kusters (2020) contend that acquiring the necessary behaviours, beliefs, and practices to identify as ‘*Deaf*’ is difficult in areas with a sparse deaf population or without the presence of intergenerational deaf families to serve as cultural models. Additionally, the number of intergenerational deaf families is relatively small,

whilst the majority of deaf people are born to hearing families and, for some of them, learn sign language at a later age (Ladd, 2003; Miller, 2010; Cue *et al.*, 2019).

The concept of ‘deaf’ and ‘Deaf’ are socially and culturally complex, extending far beyond biological or medical definitions. The evolution of the term ‘deaf’ with a lowercase “d”, from simply being “*biologically deaf*” (Kusters, De Meulder and O’Brien, 2017, p. 13) to being medicalised as “audiologically deaf”—referring to those who do not sign and/or use hearing aids or cochlear implants, is a disputed misconception that scholars have refuted and challenged (Kusters, De Meulder and O’Brien, 2017; Kusters, 2014). There are deaf people who do not sign, and for some, it is a choice whilst for others, it is not. As mentioned, the majority of deaf people are born to hearing families and their exposure to sign language varies; some are fortunate enough to be exposed early, whilst others learn later in life (Ladd, 2003; Miller, 2010; Cue *et al.*, 2019). Additionally, there are deaf people who wear hearing aids or cochlear implants and also use sign language, where some of them may identify as ‘deaf’ or ‘Deaf’ (Cue *et al.*, 2019).

Not everyone has the privilege of being exposed to sign language, as geographic, socioeconomic, political, and institutional factors often limit opportunities to learn it, making it unfair to assess a person’s identity according to “culturally Deaf” criteria alone (Senghas, 1995). Education, or lack thereof, play a major role in shaping deaf identity. The World Federation of the Deaf (WFD, 2019) reports that approximately 80% of the 70 million deaf people worldwide receive no education at all. Of the 20% who do, only about 1-2% access learning through sign language—the rest attend institutions that either prohibit sign language and/or employ hearing educators who are not fluent in their country’s national sign language(s) (WFD, 2019). Edwards (2025) notes that this lack of access leads to widespread educational and language deprivation, limiting deaf people’s ability to acquire the linguistic and cultural capital needed to understand and advocate for their rights in environments designed primarily for hearing and sighted people.

These deprivations have long term impacts that extend into adulthood, adding further barriers for individuals who require language and cultural capital but may have little to no access to signing communities or awareness of resources such as Deaf organisations, educational institutions, or even the existence of their country’s sign language(s) (Edwards, 2025). This is evident in the documented experiences of migrants and refugees (Sivunen, 2019; Emery and Iyer, 2024), in Indigenous communities (Adams and Gilroy, 2024; Barney, Howard and Devine, 2025), as well as in diverse cultural contexts, including countries in the Global South

(Jacq, 2015; Moriarty Harrelson, 2019). Deaf people in these contexts face limited opportunities to communicate with family members due to language barriers and are often cut off from meeting other deaf people, acquiring a shared sign language, or participating in the local Deaf community (Sivunen, 2019; Emery and Iyer, 2024). Edwards (2025) stresses that deprivation has lifelong consequences that continue to shape deaf children's and adults' everyday experiences.

Applying uniform criteria of 'deaf' and 'Deaf' across different countries, cultures, and communities is not only restrictive but also exclusionary. This distinction, initiated in Western countries within the Anglo-Saxon context (Kusters, De Meulder and O'Brien, 2017), neglects the diverse ways of understanding what it means to be deaf/Deaf in various cultures and contexts such as those who identify as Indigenous (Avery, 2024; Barney, Howard and Devine, 2025), deafblind (Watharow and Wayland, 2024), non-signers who rely on hearing devices (Maguire, Boisvert and Villeneuve, 2025), and from culturally and linguistically diverse backgrounds (Wehbe, 2025). These concerns also create a significant gap for deaf people who do not fit into either identity paradigms, such as those who are language-deprived and rely on signing deaf people for communication, new signers, deaf with additional disabilities, or those with multiple intersectionalities (Hodge, 2024b). Their experiences hold critical value for Deaf scholarship (Friedner and Kusters, 2020). Excluding them means losing important perspectives that can inform scholarly research and advocacy, highlighting the need for greater inclusivity and understanding of the barriers deaf people face (Cue *et al.*, 2019). For this reason, I use the term "*deaf people and community members*" throughout this thesis (see in the *Use of Terms* section on page 19).

2.6 Deaf Studies

Deaf Studies emerged as a distinct disciplinary field that first began with the development of sign linguistics in the 1950s and 1960s founded by William C. Stokoe (Stokoe, 1960; Bauman and Murray, 2017). Amongst the first to recognise sign languages as formal natural languages with equal communicative potential to spoken languages (Armstrong and Karchmer, 2009), Stokoe's work has since gained critical support from deaf people advocating for linguistic and educational rights worldwide (Armstrong, 2000). This, along with the civil and human rights movements of the 1960s and 1970s (where marginalised groups in the U.S. began advocating for recognition of equality across gender, race, disability, economic class, ethnicity), catalysed the establishment of Deaf Studies as a formal academic discipline in 1971 (Bauman, 2008; Bauman and Murray, 2010; Bauman and Murray, 2014). Deaf Studies encompasses the study of anything related to deaf people. Kusters, De Meulder and O'Brien (2017) note that the field

was initially shaped by top-down concepts defining “Deaf culture”, “Deaf community” and “Deaf identity”, but has since shifted towards a bottoms-up approach, focussing on deaf people’s ontologies (deaf ways of being) and epistemologies (deaf ways of knowing) to better capture their lived experiences. The field has provided a platform for the voices and perspectives of deaf people, similar to other academic disciplines focussed on specific ethnicity, cultural, or religious groups (Bauman, 2008). However, the worldwide decline of deaf schools (Ladd, 2003; Bauman and Murray, 2017), the rise of cochlear implantation and the consequent placement of deaf children in oral education or mainstreamed schooling (Johnston, 2006; Bickford and McKay-Cody, 2018), biomedical interventions aimed at eliminating the deaf gene (Bauman and Murray, 2010), and the endangerment of sign languages (De Vos and Zeshan, 2012; Bickford and McKay-Cody, 2018) continues to challenge the transmission of language, culture, and the very existence of Deaf Studies (Bauman and Murray, 2010).

Whilst some scholars believe there is a need to defend the very existence of deaf people and their languages (Bauman and Murray, 2010), Kusters, De Meulder and O’Brien (2017) cautiously emphasise the importance of acknowledging that the first generation of Deaf Studies scholars in the 1980s and 1990s were predominately from Deaf, Westernised hegemonic communities in the Global North and largely captured the experiences and concepts defined by native signing deaf people from Western countries. Cue *et al.* (2019, p. 417) observe that grassroots deaf groups, who have historically mobilised “*to break down educational, communication, and employment*”, are often perceived as “*uneducated*” and their experiences are underrepresented from a hegemonic perspective. Kusters, De Meulder and O’Brien (2017) note the importance of including and acknowledging diverse perspectives on deaf people’s ontologies and epistemologies. This challenges which narratives of deaf people are included and excluded. Research examining the intersectional identities of deaf people across dimensions such as gender, socioeconomic status, ethnicity, religion continues to expand (Woll and Ladd, 2011; Kusters, De Meulder and O’Brien, 2017).

This section introduces three interconnected components of Deaf Studies: the *Deaf* ‘community’, ‘epistemology’, and ‘ways’. Understanding these dynamics is essential for improving inclusion and equitable policy, as they reveal the communication and language barriers that deaf people and community members encounter in disasters. These barriers also help explain why Deaf support organisations, including community-based advocacy groups and service providers, have formed and continue to play a crucial role. The discussion highlights how deaf people process and validate information through repetition, shared

sociality, and the linking of new concepts to the lived experiences—patterns of understanding that Deaf support organisations recognise, but that emergency services do not yet fully grasp. Together, these elements sustain the cultural, linguistic, and social networks that many deaf people and community members rely on for belonging, identity, and mutual support.

At the same time, they reveal gaps and hegemonical practices that marginalises those who do not fit dominant norms, restricting their access to cultural and social capital. Examining these dynamics is critical to this thesis, as it exposes how structural exclusions within the Deaf community itself shape opportunities for participation and resilience, particularly for those who exist at the margins within an already marginalised community.

2.6.1 Deaf Communities and Belonging

As a cultural and linguistic minority, history has shown that global Deaf communities have always had their own culture (WFD, 2019). Like any group of people with a common interest, a culture is created. There exists a Deaf culture that unites a network of people who share a sign language, stories, traditions, values, and a history of common experiences (Padden and Humphries, 1988; Bauman and Murray, 2014; Cue *et al.*, 2019). Deaf places—such as schools, organisations, associations, or events—facilitate the transmission of sign language. Where sign language exists, interaction amongst deaf people occurs, fostering a cultural community (Gulliver, 2007). For some, sign languages emerge through deaf schools where deaf children are brought together, as exemplified in Senghas (1995)’s research in Nicaragua. Even if teachers do not sign, children develop and thrive with sign language amongst themselves (Senghas, 1995; Bickford and McKay-Cody, 2018), forming a Deaf community through language transmission (Ladd, 2003; Gulliver and Fekete, 2017). This continues through organised national, state, and local networks of sporting, recreation, interest-based, and advocacy groups that bring together social and community opportunities for deaf people (Padden and Humphries, 1988; Ladd, 2003).

Another example of language transmission can be found through the intergenerational transmission of Indigenous sign languages, which are used by both hearing and deaf Indigenous people to communicate and pass on cultural knowledge that belongs to specific cultural groups (McKay-Cody, 2019; Murphy, 2021; Adams and Gilroy, 2024). Although many Indigenous sign languages have declined worldwide due to the impacts of colonisation, there are ongoing efforts to document, preserve, and revitalise them. These efforts include but are not limited to the work on Yolŋu Sign Language in Australia’s remote North East Arnhem (James, Adone and Maypilama, 2020), Hawai’i Sign Language in Hawai’i, USA (Woodward

Jr, 2015), Inuit Sign Language in Nunavut, in Canada's northern part (MacDougall *et al.*, 2019), and Plains Indian Sign Language across the Northern American continent (McKay-Cody, 2019). Whilst Indigenous sign languages are culturally specific languages transmitted amongst Indigenous deaf and hearing people with cultural significance, '*shared signing communities*' are communities where local sign languages are used by both deaf and hearing people in areas with a high prevalence of hereditary deafness (Kusters, 2014; Green, 2024). Notable examples include Martha's Vineyard (Groce, 1985), the Deaf Lutheran Church in Adamorobe (Kusters, 2014), and Desa Kolok in Bengkulu (De Vos, 2012). Whilst '*shared signing communities*' are declining, De Vos and Zeshan (2012) note that all known village sign languages are considered endangered due to the dominance of urban sign languages, which are more widely recognised and used.

However, Green (2024) argues that even in the absence of spatial and familial clusters of signers, signs can still be transmitted across time and space through hearing and deaf people. This is exemplified through natural signs, which Green (2024) describes as a form of signing that uses a small set of simple commonly understood signs and relies on gestures such as pointing or acting things out with the body to represent people, places, actions, or objects. Although these natural sign practices vary across contexts, Green (2024) contends that they are generally more widely understood than "home signs" (which families create on their own), yet less standardised than shared or emerging sign languages created within communities. These social and linguistic networks provide deaf people with cultural capital, shaping how they access knowledge, resources, and community support, a theme that is central to this thesis.

A shared language, one of the key pillars of Deaf culture, provides deaf people with "*linguistic membership*" (Woll and Ladd, 2011, p. 162). Linguistic membership involves access to cultural capital, where sign language, culture, and social/professional networks are transmitted (Cue *et al.*, 2019). To access the Deaf community, Ladd (2003, p. 42) identifies three routes: (1) being born into an intergenerational deaf family, (2) attending or graduating from a Deaf school, or (3) finding one's way into the Deaf community as an adult after being mainstreamed. However, the increasing closure of Deaf schools has led many deaf students to be placed in mainstream settings through local schools, challenging the way sign language transmission and communities are currently formed (Ladd, 2003; Johnston, 2006; Kusters, De Meulder and O'Brien, 2017). The mainstream settings has left some deaf people language-deprived and struggling to access the Deaf community (Ladd, 2003; Cue *et al.*, 2019). In a

study on Deaf epistemology examining D/deaf experience in the U.S., Cue *et al.* (2019, p. 409) describe how

...the Deaf of Deaf [intergenerational deaf families] community often felt that Deaf of Hearing [deaf born to hearing families] participants were not Deaf enough to be part of the community because of their newly acquired sign skills.

This was reinforced elsewhere in the study, where another Deaf of Hearing participant shared that he did not feel part of Deaf culture because it was exclusive to “*Deaf of Deaf...*” (Cue *et al.*, 2019, p. 409). This highlights the exclusivity within deaf culture for those from intergenerational deaf families. Perceived as “*attitudinal deafness*”, Woll and Ladd (2011, p. 163) note that this concept bears resemblance to two key features of ethnic identity related to community membership: (1) “paternity”, defined in biological terms as being born deaf and having deaf family members, and (2) patrimony, aligning with the cultural behaviour and shared values associated with being deaf. These dynamics illustrate how hegemonies within Deaf communities can limit access to cultural and linguistic capital for those who do not meet these traditional criteria, reinforcing exclusion for some deaf people.

2.6.2 Deaf Epistemology and Communication

This exclusivity can also be problematic for deaf people who require language access to participate in Deaf communities. An examination of how deaf people acquire language is critical to understanding the different perceptions and practices that shape Deaf communities. Deaf people from diverse backgrounds and languages connect through their shared experiences and identities, providing spaces where knowledge is transmitted visually rather than through the primarily auditory modes of the hearing world (Friedner, 2016; Cue *et al.*, 2019). Drawing on what may be understood as a foundation for Deaf epistemology, how deaf people acquire and interpret knowledge, Friedner (2016) notes that ‘*understanding*’ and ‘*not understanding*’ are central to how deaf people construct their ontologies based on the perceptions of the world. For example, access to sign language for communication and learning (Deaf epistemology) is central to influencing the lived experiences and existence of deaf people (ontology). Within this context, deaf people validate what is considered understood and what is not through a process called ‘*deaf sociality*’ (Friedner, 2016). Deaf sociality refers to the interactive practices amongst deaf people and its importance in facilitating the ‘understanding’ process is discussed in more depth in *Section 2.6.3*.

Deaf people's capacity to navigate processes of 'understanding' and 'not-understanding' is closely tied to their access to language. For example, Senghas (1995) observed that deaf people and community members in Nicaragua distinguished between those who had language and those who did not, referring to the latter as "*NO-SABE*" ("*doesn't know or 'know-nothing'*"). Once individuals began 'to show competence in sign language; they are then re-categorised and are no longer considered to be "*NO-SABES*" (Senghas, 1995, p. 270). This interpretation has been challenged by Moriarty Harrelson (2019), who argues that such individuals do communicate in other ways but remain marginalised because they do not use a recognised spoken or signed national or local language. An example of this is the natural signs that Green (2024) draws on, used by deaf people who are not part of Deaf communities or shared signing communities, or who are but are communicating with hearing people. Whilst some of the deaf natural signers experience the most difficulty with everyday communication, the mix of being understood, misunderstood, or ignored is constant, shaping their everyday social experience (Green, 2024). These examples highlight the ways in which Deaf community boundaries can become exclusionary when defined solely by language proficiency (Kusters *et al.*, 2020). It also begs the question of how one can develop language proficiency without access to the Deaf community, and who decides which languages *qualifies* within what Kusters *et al.* (2020) describes as forced linguistic paradigms rooted in ideological classification systems.

Access to language is particularly critical for deaf people who are displaced, seeking refuge or migrating to new countries, where they often have limited social, cultural, and linguistic capital to navigate unfamiliar environments. Sivunen (2019) observes that refugees displaced by political wars and conflicts often lack opportunities to maintain and practice their native sign language. The absence of sign language access in a new country underscores the importance of local deaf volunteers who act as bridges "*to the signing community of the host country*", providing these deaf refugees with opportunities for social community participation (Sivunen, 2019, pp. 12-13). Emery and Iyer (2024) documented deaf migrants discovering sign language and deaf culture in the United Kingdom. They observed that established networks across London and the UK—deaf clubs and particular "deaf cafes"—were instrumental in gaining social and linguistic capital (Emery and Iyer, 2024). The internet also played a crucial role for deaf migrants in finding "*information and knowledge on where to go and what to do*", citing social media as the most popular avenue for them to find places to socialise and acquire British Sign Language (Emery and Iyer, 2024, pp. 107-108). These studies illustrate how access to social, cultural, and linguistic networks is essential for deaf

people (particularly those with limited prior exposure) to develop the capital needed to participate fully in both Deaf communities and broader society.

Many deaf people have experienced isolation or disconnection in hearing environments due to a lack of communication engagement (Ladd, 2003; Friedner, 2016; Cue *et al.*, 2019; Kusters *et al.*, 2024). Inaccessibility to communication engagement opportunities also curtails access to crucial learning opportunities and cultural capital (Cue *et al.*, 2019). Examples include deaf students attending schools with hearing teachers who do not know sign language (Friedner, 2016), those living in isolated areas with no exposure to a shared sign language (Moriarty Harrelson, 2019), living with hearing family members who do not sign or understand the ‘Deaf epistemology’ (Ladd, 2003; Friedner, 2016; Cue *et al.*, 2019), or deaf refugees seeking asylum with no interpreter access or with inexperienced interpreters (Sivunen, 2019; Emery and Iyer, 2024). Those communication barriers have forced some deaf people to struggle with understanding, which deepens marginalisation. For instance, some have to repeatedly ask their hearing family members for clarifications, only to be told, “*I will tell you later*” (Cue *et al.*, 2019, p. 408). A deaf migrant trying to secure approval for their application to stay in the UK from the UK Home Office had to sit passively whilst people discussed and made decisions about them due to communication barriers (Emery and Iyer, 2024). Similarly, deaf asylum seekers often face limited participation and learning opportunities about the asylum procedure compared to their hearing counterparts, severely impacting their asylum decision-making process (Sivunen, 2019).

In this context, linguistic capital plays a critical role in mediating access to communication and understanding. O’Brien and Emery (2014), in their work on deaf people in the academia, emphasise that even possessing linguistic capital is essential for accessing and benefitting from communication support, including sign language interpreters, note-takers, and lip-speakers. However, linguistic capital is not limited to deaf people; it is equally relevant for interpreters and translators, as the process of interpreting or translating spoken communication can shape the linguistic content of a message, depending on the interpreter’s mastery and fluency in conveying nuance and detail (O’Brien and Emery, 2014). Despite the common assumption that these communication support provide effective communication access, this does not necessarily maximise the full potential of the language itself (De Meulder and Murray, 2017). Burke’s (2017) work on the selection of accommodations further highlights that staff responsible for coordinating accessibility services rarely recognise the language competencies of deaf people and interpreters, consider access quality as an essential aspect of accessibility, consult qualified access and language experts, or act on feedback when

it is provided. Institutional practices surrounding access provision frequently prioritise convenience, time efficiency, and cost for hearing stakeholders at the expense of user-centred access for deaf users (Burke, 2017), as well as compliance with disability and/or language legislation (Haualand, Meulder and Napier, 2022). As a result, limited attention is given to the perspectives of those receiving these services, namely deaf people and community members, and to the impact on their understanding (Haualand, Meulder and Napier, 2022).

Collectively, these experiences contribute to perceptions amongst deaf people that hearing society views them as '*abnormal, broken, and disabled*' because of their inability to hear and/or speak (Kusters, De Meulder and O'Brien, 2017; Cue *et al.*, 2019). Such perceptions are reinforced when deaf people are overlooked in favour of institutional priorities or hearing norms (Burke, 2017; Haualand, Meulder and Napier, 2022), or when they are burdened with the costs associated with communication support (O'Brien and Emery, 2014; Burke, 2017). These dynamics are further shaped by institutional racism and discriminatory practices (Emery and Iyer, 2024), whilst cultural stigmatisation in some countries compounds these experiences (Sivunen, 2019). In turn, these communication barriers reveal prevalent practices of "*audism*" (a term coined by Humphries (1977, p. 12), denoting the idea "*that one is superior based on one's ability to hear or to behave in the manner of one who hears*" and "*linguicism*" (a term coined by Skutnabb-Kangas (1989, p. 37) that refers to "*the domination of one language at the expense of others*" by hearing people. Audism and linguicism contribute significantly to deaf people's experiences of 'not understanding' information that is conveyed. Whilst the experiences vary, these studies highlight how creating spaces of belonging and knowledge exchange is a critical enabler for deaf people and community members in accessing the social, cultural, and linguistic capital so often denied to them in inaccessible environments that marginalise participation.

2.6.3 *The Deaf Way*

Building on the shared experiences and spaces of deaf people and community members, the '*deaf way*' extends this further by describing the unique cultural practices, values, and modes of interaction through which they navigate and make sense of both deaf and hearing environments. The '*deaf way*' is part of Deaf epistemologies (Ladd, 2003, p. 18), that frame and validate how deaf people think and view the world. One common practice for ensuring 'understanding' is the tendency of deaf people to explain terms and concepts multiple times in a conversation and double-check for understanding (Friedner, 2016; Cue *et al.*, 2019). A deaf person will explain something and then ask either in the middle or at the end of a

conversation, if others understand (Friedner, 2014) or gives a “thumbs up” with a slight nod. This ensures comprehension. Any lack of understanding initiates the calibration process.

Calibrating is described as adjusting one’s signing to align with the communication style and abilities of the person they’re conversing with, metaphorically akin to turning one or two dials on their body (Hodge and Goswell, 2021; Moriarty and Kusters, 2021; Moriarty *et al.*, 2024). This technique is often used between people with limited shared or common languages to adapt different ways of signing and ensure ‘understanding’ (Zeshan, 2015; Moriarty *et al.*, 2024). It is often used when conversing with a person from a different region and/or a new signer within and outside a country (Ladd, 2003; Zeshan, 2015; Friedner, 2016; De Meulder, 2019; Sivunen, 2019; Emery and Iyer, 2024). The nuance of calibrating is important in communicating and ultimately, for enhancing participation practices.

Engaging in calibration may include slowing down their signing speed, using different signs for the same concept, or incorporating more visual and gestural signs (Sivunen, 2019; Friedner and Kusters, 2020; Moriarty and Kusters, 2021; Moriarty *et al.*, 2024). It can also involve the use of multiple semiotic resources to facilitate ‘understanding’, e.g. writing, visual modes, sign language videos, emoticons, GIFs, photos, and images (Kusters *et al.*, 2017; Sivunen, 2019; Moriarty *et al.*, 2024). Introducing a new term and sign in this exchange may require a process involving unpacking its meaning using examples “*that relate to the shared experiences of deaf signers*” (Hodge and Goswell, 2021, pp. 1072-1073). This may include comparing and contrasting past experiences in environments they understood with those they did not (Friedner, 2016). This contextualisation is critical, as some deaf people and community members may otherwise be unfamiliar with the term or sign (Hodge and Goswell, 2021). Whilst deaf people and community members often calibrate their everyday communication with both deaf and hearing people, there will always be some who need to work harder to ensure mutual understanding, depending on how well the communication is grasped (Hodge and Goswell, 2021; Moriarty *et al.*, 2024).

2.7 Beyond Deaf Studies: From Geographies to New Horizons

Emerging theoretical trends have further challenged traditional frameworks within Deaf Studies. One such development is *Deaf Gain*, which reframes “being deaf” as a source of advantage and diversity rather than deficit (Bauman and Murray, 2014). More recently, scholars such as Kusters, De Meulder and O’Brien (2017) have extended this trajectory by integrating Deaf Studies with other disciplines—most notably Mobility Studies, to form *Deaf Mobility Studies* (Kusters *et al.*, 2024), reflecting a growing recognition of the value of cross-

disciplinary engagement. But questions of hegemonic control—who defines legitimate knowledge and whose interest those definitions serve—remain (Kusters, De Meulder and O’Brien, 2017; Cue *et al.*, 2019). Deaf ontologies and epistemologies are still shaped by Western culture frameworks and the dominance of the English language, thereby constraining the global representation and visibility of deaf scholars within Deaf studies (Kusters, De Meulder and O’Brien, 2017).

2.7.1 *Deaf Geographies*

Building on these convergences, *Deaf Geographies* emerged from the study of *Deaf Space* (Gulliver, 2009; Gulliver and Fekete, 2017). Although its intersection with Geography was not initially self-evident (Gulliver and Fekete, 2017), the spatial turn—which links the production of space to human agency (Gulliver and Fekete, 2017) and embodied experiences (O’Brien, 2021)—helped establish its conceptual foundation. Scholars within Deaf Geography have since drawn on Lefebvre’s (1991) theory of the production of space to examine how deaf spaces are socially and materially produced (O’Brien, 2021). Drawing on Lefebvre’s (1991) theory of the production of space, Deaf Geography examines how space is socially produced and experienced through three interconnected dimensions: (1) *spatial practice* (everyday use and interaction), (2) *representations of space* (institutional planning and conceptualisation), and (3) *representations of space* (symbolic and cultural meanings). Lefebvre (1991) contends that these three dimensions continually shape one another—the design of space influences its use and its use transforms its meaning. Space, therefore, is not fixed but actively produced, experienced, and contested within society.

This is exemplified by deaf people and community members who share a sign language and a history of common experiences, frequently interacting in spaces such as deaf schools, sports activities, and social events. These interactions support the concept of “deaf space”, which was first introduced in the early 2000s. Gulliver (2007) highlights how a “*Deaf ecosystem*”—shaped by organisations and associations that foster communication in sign language—contributes to the creation of deaf spaces. One defining feature of deaf space is its temporality, with the exception of ‘shared signing communities’ (see *Section 2.6.1*), as it is created and constructed by deaf people and community members to meet their social and cultural needs, appearing and disappearing as required (Gulliver, 2007). For instance, during sporting or community events, deaf people and community members gather to socialise, thereby generating a deaf space that dissipates once everyone leaves (Gulliver, 2007; Kusters *et al.*, 2024). Kusters (2017) documents this phenomenon in Mumbai, where members of the Deaf community regarded the “Handicapped” carriage on the city’s trains as their “deaf space”.

This carriage enables deaf Mumbaikars commuting long distances to transform their travel time into opportunities for social interactions. As long as deaf commuters occupied the carriage, the deaf space *comes alive*, once they disembarked, it dissolved. The “Handicapped” carriage thus became a recognised place of attachment and belonging for deaf Mumbaikars (Kusters, 2017). These temporary yet meaningful deaf spaces not only facilitate communication and social interaction but also foster a sense of belonging and attachment to particular places (Massey, 2013), highlighting how place attachment is experienced and negotiated by deaf people and community members—an insight that becomes critical when examining their resilience and participation in disaster contexts covered in Chapter 7.

Drawing on Gulliver’s (2007) concept of the *Deaf Ecosystem*, space and language are mutually produced and transmitted, with each element relying on the other. When there is a deaf place—such as a school, organisation, association, sign language is transmitted; when sign language is present, interactions amongst deaf people occur; and when these interactions happen, deaf spaces are created (Gulliver, 2007). This process is critical in disaster contexts, as research shows that Deaf support organisations—perceived as creating and maintaining deaf spaces—play a role in bridging the gap between deaf people and community members and disaster management professionals. Their communication skills, cultural competence, and established social networks enable them to effectively reach and support deaf people during emergencies (see works of the following involving humanitarian efforts: White, 2006; Jacq, 2015; Takayama, 2017; Rotondi, Zuddas and Rosati, 2018; Engelman, Booze and Izquierdo, 2024). Deaf support organisations are a key social asset amongst deaf people and community members, as exemplified in the works of White (2006) and Takayama (2017), and supported by Calgaro and Dominey-Howes (2013), Calgaro, Johnson and Craig (2017), Takayama (2025). These issues are discussed further in Chapters 4-6.

2.7.2 Deaf Mobility Studies

Whilst Deaf Geographies emerged as a field attentive to the spatial dimensions of deaf people and community members’ lives, it has primarily examined them as collective entities. This orientation risks reproducing hegemonies, as research has tended to privilege those with access to social, cultural, and linguistic capital, whilst paying less attention to people and groups positioned at the margins. In contrast, the emergence of Mobility Studies in the early 2000s, signalled by the “mobility turn” in the social sciences, reconceptualised movement, travel, migration, flows, and networks as fluid and constitutive of social life rather than as fixed or static phenomena (Sheller and Urry, 2006). Salazar and Smart (2011) emphasise that mobility should be understood in terms of how movement is experienced, constrained, and

enacted across different contexts, rather than being reduced to hierarchical or upward forms of progress. This conceptual shift has facilitated productive intersections between Deaf Studies and Mobility Studies, with some scholarship extending beyond Deaf Geographies to foreground the mobility processes through which deaf people and community members negotiate access to social, cultural, economic, and/or linguistic capital. What distinguishes Deaf Mobility from Deaf Geographies is its critical attention to the inequalities of mobility, illuminating how differential capacities for movement produce stratified experiences of inclusion, marginalisation, and exclusion (Salazar and Smart, 2011; Kusters *et al.*, 2024).

Whilst Deaf Geographies of space provide a useful framework for identifying the cultural and spatial practices that shape deaf-centred environments (see Bauman, 2014; Kusters, 2017), Deaf Mobility studies builds on this by examining how deaf people engage with, move through, and sometimes reconfigure these environments in their everyday lives (Kusters *et al.*, 2024). Here, mobility is not only about the physical movement of deaf people and community members across spaces but also about the capitals that enable or restrict such movement as reflected in the works of O'Brien (2021) and Kusters *et al.* (2024). Although Deaf Geographies has been valuable in highlighting the spatial dimensions of deaf people and community members' lives, it has often approached these experiences as collective (O'Brien, 2021), which risks privileging those with greater access to social, cultural, and linguistic capital and overlooking people positioned at the margins (Uekusa, 2020). For those on the margins within the marginalised, limited access to social, cultural, and linguistic resources directly constrains their mobility, further entrenching their exclusion from both deaf spaces and broader societal participation (Sivunen, 2019; Emery and Iyer, 2024).

Building on these insights, Deaf Mobility studies has increasingly examined the international scale of deaf mobilities, as exemplified by the Mobile Deaf Project, which investigated temporary and short term international mobilities as well as settlements for long periods of time (Kusters *et al.*, 2024). Within this sub-field, the concept of '*deaf cosmopolitanism*' has emerged to describe an attitude shift and sense of belonging that repositions '*world citizenship*' from a single nation-state to the international Deaf community (Moriarty and Kusters, 2021). Whilst this international mobility mentality challenges long-standing stereotypes—prevalent in Global South advocacy and missionary work that depicts deaf people as isolated, immobile, and language-deprived (Moriarty and Kusters, 2021; Kusters *et al.*, 2024), it still has its limitations. Access to cosmopolitan identities and practices requires mobility, linguistic repertoire, and economic and digital resources that are not equally available to all deaf people and community members. Moreover, this discourse can be vexing

for local Deaf support organisations, which must respond to the realities of deaf people who remain immobile, isolated and language deprived, and whose needs may not align with cosmopolitan narratives of global connectedness or even with national-level agendas—a tension also evident in the disaster context (see case studies through Chapters 4 and 5).

Despite the growing scholarship on Deaf Mobility, literature examining domestic mobilities remains limited and there is a notable gap in the documentation of how deaf people contribute to deaf spaces and Deaf Geographies during disasters. This imbalance in the literature underscores the need to move beyond dominant narratives and consider how spatial access, or the lack thereof, shapes mobility for deaf people and community members in both daily life and in the disaster context. This gap presents opportunities to further integrate insights from Deaf Studies, Deaf Geographies, and Deaf Mobility Studies, particularly by focussing on the experiences of deaf people and community members who are marginalised or excluded from mobilising participatory processes. By prioritising issues of unequal mobility, social and linguistic capital, and access, such as scholarship can illuminate the ways in which structural, spatial, and socio-economic factors shape opportunities for engagement, inclusion, and resilience in both everyday and disaster contexts. Expanding research in these areas not only enriches theoretical understandings of Deaf mobility but also has practical implications for advocacy, policy, and service provision.

2.7.3 Bourdieu's Conceptual Framework in Deaf Studies and Beyond

Whilst emerging areas such as Deaf geographies and Deaf mobility studies expand understandings of space, movement, and social interaction, questions of power, access, and knowledge production remain central. To critically examine these dynamics, Bourdieu's (1986) concepts of field, capital, and habitus (see *Section 2.3.1*) offer a valuable framework for understanding how social structures shape participation, belonging, and legitimacy within Deaf Studies and related domains. These concepts have been widely applied by scholars across Deaf Studies, Deaf Education, and critically, the broader field of Deaf geographies, particularly in examining the imbalances deaf people face in accessing and mobilising different forms of capital.

This is significant because, as highlighted earlier in *Section 2.5.1*, communication barriers and language deprivation can affect how deaf people access different forms of capitals. For example, O'Brien and Emery's (2014) work on contested spaces between Deaf and hearing academics within Deaf Studies demonstrates how opportunities and capital are unevenly distributed and negotiated. They argue that a Bourdieusian framework enables a critical

examination of how hearing academics have historically dominated spaces within Deaf Studies and call for more constructive and equitable relationships between Deaf and hearing scholars. Further to this, O'Brien (2021) notes that applying Bourdieu's conceptualisations can help situate individuals with social space, particularly deaf people who may experience physical and linguistic isolation when navigating hearing dominated environments. This involves drawing on deaf people's embodied, sensory, and spatial experiences, which contribute to the production of deaf spaces within broader hearing contexts. Such experiences reflect an embodied deaf habitus, shaping how deaf individuals mobilise and acquire different forms of capital (O'Brien, 2021). This is further evident in a study of the social capital experiences of ten Australian adolescents who identify as deaf or Deaf navigating hearing environments (Byatt, Duncan and Dally, 2024), which highlights how systemic structures, such as the organisation of schools or programs, shape individuals' access to social and cultural capital. In particular, communication barriers were shown to limit adolescents' ability to build and maintain social capital (Byatt, Duncan and Dally, 2024).

O'Brien and Emery (2014) also emphasise the importance of linguistic capital amongst deaf people, highlighting how political and institutional dominance continually reproduces systems that privilege majority languages at the expense of minority language users, including those who used signed languages. As a result, deaf people—whether they use signed or spoken language, may experience reduced capital due to communication barriers. This is critical because, as Bourdieu and Thompson (1991) argue, linguistic capital becomes legitimate only when the intended meaning is understood by others in interaction. O'Brien and Emery (2014) further emphasised that linguistic capital is not only about the language itself, but also how individual's proficiency in conveying meaning effectively. This is particularly important in context involving communication support, such as sign language interpreters, where the accurate transmission of nuances and detail can shape understanding and may result in "lost in translation".

Additionally, these dynamics have important implications for deaf migrants. Emery (2020) suggests that a Bourdieusian framework can help to understand how deaf migrants navigate the acquisition of linguistic capital within fields often dominated by spoken languages and/or national sign languages. For example, in the context of British Sign Language, levels of proficiency can influence access to cultural capital, whilst also reflecting broader dynamics of power and intersectionality. This is further supported by Duggan (2023), who highlights that deaf and hearing migrants experience language acquisition differently in Western contexts. In line with Bourdieu and Thompson's (1991) notion of linguistic legitimacy, even when

migrants are multilingual, their capital is only recognised if they possess the “legitimate” language. In Sweden, Duggan (2023) notes that whilst adult migrants may face challenges learning Swedish as a second language, these challenges are intensified for deaf migrants, some of whom may not have access to a fully developed first language due to language deprivation. These barriers are further compounded when deaf migrants are expected to simultaneously learn both the written language and the national sign language (Duggan, 2023).

In conclusion, Bourdieu’s concepts of field, capital, and habitus offer a valuable framework for interrogating the structural and relational inequalities embedded within Deaf Studies and related domains. The literature demonstrates that access to and recognition of different forms of capital, particularly linguistic capital, are not neutral, but are shaped by broader systems of power that privilege dominant languages, norms, and ways of knowing. These inequalities are reproduced across multiple contexts, including education, academia, and migration, and are further shaped by embodied and spatial experiences of deaf individuals navigating hearing-dominated environments. These insights are critical when considering disaster contexts, where the ability to access and mobilise information is unevenly distributed. Understanding how these structural dynamics operate provides an important foundation for examining how deaf people experience, respond to, and are supported within disasters.

2.8 Deaf people’s experiences in disaster contexts

Wood and Weisman’s (2003) analysis of deaf people’s experiences with weather-related disasters in the United States represents one of the earliest scholarly contributions to Disaster studies. Since that time, the literature has expanded to encompass a range of international contexts. A consistent finding across this body of work is the heightened risks deaf people and community members face in disaster situations, arising primarily from barriers to accessibility, including communication and language. Empirical accounts have documented these patterns in relation to Hurricanes Katrina and Rita in the USA (White, 2006), the 2010 Haiti earthquake (Jacq, 2015), the Kobe and Tohoku earthquakes in Japan (Takayama, 2017), the Amatrice earthquake in Italy (Rotondi, Zuddas and Rosati, 2018), Tropical Storm Linfa in Viet Nam (Nguyễn Trần Thủy, Cooper and Craig, 2022), the COVID-19 pandemic, including perspectives from international Deaf and Deafblind peak organisations (Murray, 2020; Wittich, Nicholas and Damen, 2022). Research has also examined disaster evacuation and displacement efforts during the 2022 Ukraine invasion and the 2023 Türkiye-Syria earthquake (Engelman, Booze and Izquierdo, 2024), as well as highlighted a gap regarding the experiences of hard of hearing people who do not sign and use hearing devices (Maguire,

Boisvert and Villeneuve, 2025). These systemic barriers parallel the broader exclusionary experiences of other marginalised groups in disaster contexts, including older adults (Neuhauser *et al.*, 2013; Bogdan *et al.*, 2024), LGBTIQI and other sexual and gender minorities (Gaillard, Gorman-Murray and Fordham, 2017; Gorman-Murray *et al.*, 2017), people with disabilities (Kelman and Stough, 2015; Stough and Kelman, 2018; Engelman, Booze and Izquierdo, 2024), immigrants and refugees (Uekusa and Matthewman, 2017; Uekusa, 2019), and Indigenous communities (Kelman, Mercer and Gaillard, 2012; Petzold *et al.*, 2020).

Notwithstanding the gradual expansion of this scholarship, limited attention has been directed towards the role Deaf support organisations play in disaster contexts. Little is known about how organisations mobilise resources, networks, and knowledge to reduce risk, increase accessibility, and strengthen resilience amongst deaf people and community members. This research addresses this gap by examining the mobilisation strategies employed by Deaf support organisations to deliver accessible disaster information and services, with particular attention to how these strategies engage with the diverse social capital needs of deaf people and community members. Drawing on case studies from Australia and overseas, the analysis interrogates the extent to which these efforts facilitate or constrain inclusive participation in DRR.

The following sub-sections critically review the literature relevant to these concerns, starting with an examination of social capital barriers that shape deaf people and community members' experiences of disasters. The review then considers strategies adopted by Deaf support organisations to mobilise participation, before addressing representational challenges that affect access to disaster support and services.

2.8.1 Deaf Experiences and Barriers in Disasters

A historical archive on the Australian Federation of Adult Deaf Societies (1969) shows that advocacy for improved communication access to televised emergency broadcasts has been going on for decades. Yet thirty years later, Wood and Weisman's (2003) analysis of deaf people's disaster experiences found that 81% of survey respondents feared being unprepared for weather emergencies due to inadequate information dissemination, limited education and language access, and insufficient assistive technologies. This continuity of barriers illustrates what Lukasiewicz (2020) noted in *Section 2.3*: pre-existing structural constraints that place deaf people at higher risk when preparing for, responding to, and recovering from disasters, shaping whether and how social capital (refer to *Section 1.4.1*) can be developed and

mobilised. As discussed in *Section 2.2*, much of the social capital literature draws on a top-down social vulnerability approach that privileges those with access to established networks, whilst overlooking the lived experiences that do not. This risks obscuring how social capital is actually built and enacted from the ground up (Uekusa, 2020). For deaf people, the structural barriers identified by both the Australian Federation of Adult Deaf Societies (1969) and Wood and Weisman (2003) not only restricted access to timely and usable disaster information but also limited opportunities to participate in preparedness activities and engage with emergency services. Consequently, these structural inequalities also constrained deaf people's ability to access, develop, and mobilise the forms of capital needed to support disaster resilience.

A further two decades on, similar barriers remain evident worldwide. The WFD (2019) assert that systemic barriers contribute to educational deprivation amongst deaf people and community members (see *Section 2.5.1*), which may be further compounded by poverty and/or disproportionately affect those who are linguistically deprived, older, or from marginalised groups (Senghas, 1995; White, 2006; Engelman, 2012; Neuhauser *et al.*, 2013; Jacq, 2015; Nguyễn Trần Thủy, Cooper and Craig, 2022; Cooper *et al.*, 2021; Engelman, Booze and Izquierdo, 2024). Efforts to remove these systemic barriers continue to fall short, even in those countries that have signed and/or ratified national and international policies supporting accessibility rights in emergencies (see Chapter 1) (WFD, 2019). This is critical because deaf people and community often face pre-existing structural barriers that not only persist but are frequently exacerbated during disasters (Takayama, 2017; Cooper *et al.*, 2024; Takayama, 2025).

Angela Nardolillo, founder of Off-the-Grid (OTG) Missions—a deaf-led international NGO—highlights how language deprivation can pose life-threatening risks in the moments leading up to and during crises (Engelman, Booze and Izquierdo, 2024). Nguyễn Trần Thủy, Cooper and Craig (2022) further noted that deaf and hearing people experience disasters differently, with sound-based alerts such as loudspeakers presenting one the barriers that have led many deaf people to miss critical information and services, as was evident during Tropical Storm Linfa in Viet Nam. Similar challenges were observed by Rotondi, Zuddas and Rosati (2018) during the 2016 Amatrice earthquake in Italy, where deaf people faced barriers in accessing to information and updates because it was delivered via radio and TV without captions. Even in disasters situated in active war zones, OTG noted that alerts delivered through sirens, word of mouth, or radio often leave deaf people as one of the first to be cut off from information and the last to receive help (Engelman, Booze and Izquierdo, 2024). Access to technology is also uneven, with some deaf people lacking TV, internet, or other devices due

to poverty, limited technological skills, or living in areas without electricity (White, 2006; Jacq, 2015; Engelman, Booze and Izquierdo, 2024). In addition, current access provisions for deaf people are often not designed for those who use hearing devices (such as hearing aids or cochlear implants) and do not sign (Maguire, Boisvert and Villeneuve, 2025).

Decisions about access in emergency and health sectors are often made by hearing and sighted dominant groups rather than by deaf people and community members, which contributes to longstanding trust issues, compounds structural constraints, increases deaf peoples' vulnerability, and robs them of the opportunity to participate in disaster-related practices and processes. For example, major relief agencies dismissed the need for mental health professionals fluent in a country's respective sign language, effectively excluding deaf people and community members from accessing critical post-disaster support (White, 2006; Takayama, 2017; Engelman, Booze and Izquierdo, 2024). This was evident during Hurricane Katrina in the United States (White, 2006) and the Kobe and Tohoku earthquakes in Japan (Takayama, 2017; Takayama, 2025). Wittich, Nicholas, and Damen's (2022) observed many deafblind people had their autonomy over the risk of touch removed during COVID-19 due to safety policies that were arguably oblivious to their human rights. Calgaro, Dominey-Howes and Craig (2021) and Engelman, Booze and Izquierdo (2024) also reported that deaf people experienced repeated communication barriers with emergency services, leading to loss of trust and a perception that they consistently receive information later than hearing people. Lastly, Maguire, Boisvert and Villeneuve (2025) emphasise that emergency services need to recognise the diverse communication preferences amongst deaf people, particularly those who rely on hearing devices and do not sign, noting that accessibility should not just be limited to providing sign language interpreters.

Murray (2020), current president of the WFD, describes these systemic barriers as forms of '*access deprivation*', classified into four categories: (a) access to information and communication; (b) access to social services, (c) access to education, and (d) access to safety for deaf children. Although access deprivation has been documented across disasters worldwide, it became especially pronounced during the COVID-19 pandemic. These barriers restrict not only access to essential services but also the capacity of deaf people and community members to build and mobilise social capital in times of crisis. Collectively, these experiences demonstrate how inaccessibility and the absence of culturally and linguistically appropriate crisis responses contribute to systematic exclusion from health, education, social, and mental health services (White, 2006; Takayama, 2017; Cooper *et al.*, 2021; Engelman, Booze and Izquierdo, 2024). In this context, Deaf support organisations play a crucial role as

connectors between deaf people, community members, and emergency responders, drawing on their communication and language accessibility skills (White, 2006; Cooper *et al.*, 2021; Engelman, Booze and Izquierdo, 2024; Takayama, 2025), a resource too often overlooked by formal relief organisations. Whilst this discussion centres on Deaf support organisations and community-based networks, it is important to acknowledge that the experiences of deaf individuals within hearing family contexts are less represented here, despite their potential influence on access to communication and support in disaster situations. This is further explained in *Section 8.4*.

2.8.2 Deaf Support Organisations' Mobilisation Strategies

Whilst formal relief organisations often overlook the communication and language accessibility of deaf people and community members, Deaf support organisations step in to fill these gaps. By leveraging their linguistic expertise, cultural knowledge, and community networks, these organisations can play a central role in mobilising support before, during and after disasters. Although community-led initiatives have been developed worldwide to increase deaf peoples' resilience in accessible, culturally, and linguistically appropriate ways, very little research has examined the processes behind these mobilisation strategies or their effectiveness in building the social capital necessary for resilience.

The limited research on mobilisation processes makes firsthand accounts valuable for understanding how Deaf support organisations and networks have responded during crises. Reflecting on her experiences after Hurricanes Katrina and Rita, White (2006, p. 49) concluded that the “*Deaf Community and its networks were better positioned to provide help than organised relief agencies*”, a point echoed in later scholarship (Takayama, 2017; Cooper *et al.*, 2021; Nguyễn Trần Thủy, Cooper and Craig, 2022; Engelman, Booze and Izquierdo, 2024; Takayama, 2025). When the needs of the deaf evacuees were unmet in shelters, deaf volunteers and community members established “*deaf shelters and relief centres*” in Deaf schools, community centres, and churches, offering basic necessities and services through formal and informal networks (White, 2006; Takayama, 2017; Engelman, Booze and Izquierdo, 2024; Takayama, 2025). Similar patterns emerged in Japan after the Kobe (1995) and Tohoku (2011) earthquakes, where Takayama's work found that survivors relied on personal connections with local Deaf organisations, alongside counselling support from the Japanese Federation of the Deaf (JFD) and Japanese Association of Social Workers for Deaf and Hard of Hearing (JASWDHH) (Takayama, 2017; Takayama, 2025). During COVID-19, Nguyễn Trần Thủy Tiên, founder of the Psycho-Education and Applied Research Centre for the Deaf (PARC), was mobilised by community members to produce public health

information in Vietnamese sign language to ensure access to life-saving information (Nguyễn Trần Thủy, Cooper and Craig, 2022). Likewise, Nardolillo from OTG noted that Deaf-led teams leveraged linguistic diversity to provide information in multiple regional sign languages, distributed solar lights to enable communication in areas without electricity, and developed online emergency hubs sharing vital information on essential services including food, shelter, health, and financial assistance (Engelman, Booze and Izquierdo, 2024). Collectively, these cases reveal a common trend: Deaf support organisations mobilise by filling gaps left by formalised organisations, drawing on cultural and linguistic expertise, community trust, and social networks to ensure access to critical resources in times of crisis.

The varying mobilisation efforts and community partnerships documented over nearly two decades—from White (2006) to Engelman, Booze and Izquierdo (2024)—reveal that the barriers deaf people and community members face in engaging with emergency and health organisations have remained largely unchanged, despite national and international accessibility policies and commitments (see *Section 1.4*). However, it is critical to note that research reveals stark differences in how local emergency services and deaf people evaluate materials and in how each defines their own capabilities (Engelman *et al.*, 2013; Calgaro and Dominey-Howes, 2013; Neuhauser *et al.*, 2013; Ivey *et al.*, 2014). Whilst mobilisation efforts vary depending on organisational capacity, less attention has been given to the decision-making behind these efforts and their effectiveness in enabling deaf people and community members to capitalise on resources for future disasters.

In a disaster setting, Deaf scholar Dr Gabrielle Hodge (2024a), who was involved in the *Deaf Emergency Information* project, noted that institutional priorities tended to focus on producing resources, despite recognition that more substantive education was needed. She further noted that the limited uptake of online resources illustrates the wider difficulties marginalised communities face in sustaining education and overcoming access barriers that extend beyond surface-level solutions, such as visual alerts. Yet, this also requires partnerships with emergency and health services is required, as Deaf support organisations' expertise lies in language and communication accessibility rather than crisis subject matter experts. This is a critical point that highlights public institutions' limited understanding of accessibility processes. Maguire, Boisvert and Villeneuve (2025) note that whilst deaf and hard of hearing people are experts in their own lives, emergency services are experts in DRR, assistive technology manufacturers and suppliers are experts in their products, and Deaf organisations are uniquely positioned to connect these areas of expertise. This is further explored in Meltzer's (2024) work on the accessibility sector in Australia (see *Section 6.4.1*).

Despite the challenges of mobilisation, what remains consistent across Deaf support organisations is the vital role of different forms of capital that they contribute, a point underscored in the work of Engelman, Booze and Izquierdo (2024) and Takayama (2025). Yet, many organisations describe how public institutions often overlook or undervalue these contributions in disaster contexts. As Takayama (2025) notes, recognising and harnessing such capitals is critical for understanding how Deaf organisations navigate crises, shifting attention from deficits to the strengths and assets of marginalised communities. These resources are often drawn upon through Deaf spaces—such as schools, community centres, and churches (see *Section 2.8.1*), as well as through shared community and culture (see *Section 2.8.1*). Whilst these capitals are central to Deaf support organisations’ mobilisation efforts, access to them is not always evenly experienced. Differences in community recognition and representation may shape who is best positioned to draw on these resources, meaning that some groups can find themselves less connected or supported. This includes deaf people who do not sign, or those who have difficulty hearing but do not identify as having a disability, as noted by Maguire, Boisvert and Villeneuve (2025). These dynamics point to the need for reflection on representational challenges within Deaf support organisations, which the following section explores further.

2.8.3 Deaf Organisations and Representational Challenges

Uneven access to the support provided by Deaf support organisations raises critical questions about who amongst deaf people and community members can draw on their resources and what happens to those with limited social capital or no connection to these organisations during disasters. Building on the discussion of linguistic membership and hegemonies in *Section 2.6.1*, those with pre-existing linguistic and cultural capital are more likely to access support from Deaf support organisations during crises than those who do not, as Maguire, Boisvert and Villeneuve (2025) point out. Takayama (2025) further noted that his study on disaster resilience focussed primarily on organisational members of the Japanese Federation of the Deaf (JFD) and affiliated local associations—representing only an estimated 5-10% of the population, thereby overlooking non-affiliated people who may face different forms of exclusion and fewer opportunities to build social and cultural capital. This is particularly significant given that, as highlighted in *Section 2.5.1*, an estimated 80% of deaf people worldwide do not receive formal education and of the 20% who do, even fewer have access to adequate communication and language support (WFD, 2019). These people—many of whom may experience language deprivation, have additional disabilities, or other intersecting marginalisations across diverse socioeconomic and cultural backgrounds—constitute the

majority of the population, yet remain at the margins of both research and organisational support.

Evidence of marginalisation amongst deaf people and community members demonstrates that certain groups are disproportionately impacted during disasters. White (2006) found that during Hurricane Katrina in New Orleans, some deaf people from marginalised communities—including the Deaf African American community—were particularly affected by poverty and limited “*access to technology such as mobile phones, internet, and TV with captions*” (White, 2006, p. 49-50). Similarly, Jacq (2015) documented that following the 2010 earthquake in Haiti, the absence of a local sign language, limited access to education, political underrepresentation, and exclusion from subsidies further undermined collective organisation and advocacy amongst deaf people. OTG’s international humanitarian work has highlighted that deaf people who experience displacement, live in poverty, face language deprivation, have limited mobility, or have mental and health conditions are often at heightened risk during disasters, particularly in areas affected by political unrest or active conflict (Engelman, Booze and Izquierdo, 2024). Whilst Engelman, Booze and Izquierdo (2024) and Takayama (2025) noted that linguistic and cultural capital are critical for survival in disasters, very little research has examined the experiences of those who lack these forms of capital. This is crucial, as effective disaster planning must begin with those who are disproportionately impacted, ensuring that responses address the inequities they face (Engelman, Booze and Izquierdo, 2024).

Whilst scholarship highlights that Deaf support organisations are often better positioned than formal relief organisations to assist deaf people and community members (see *Section 2.8.2*), this emphasis can inadvertently overlook those who could benefit from their services but are excluded from accessing them. Such gaps may negatively affect service provision, community trust, and engagement. In this thesis, I address this issue by developing a theoretical framework that links the mobilisation of social capital—drawing from Bourdieu’s concept on capital—with Arnstein’s Citizen Participation Ladder, enabling deaf people and community members on the margins to mobilise depending on the resources provided by Deaf support organisations (see *Section 7.4*).

2.9 Chapter Summary

This chapter began by examining disaster concepts as highly contextual and multidimensional, with particular attention to the structural barriers that shape people’s risks and capacity to become resilient (see *Section 2.2*). Earlier works by Pelling (2003), Wisner *et*

al. (2004), and Adger (2006) reiterate that disasters are not just natural events but socially produced through unequal systems and conditions. Although definitions of disaster related concepts vary across the literature, a shared theme is the growing call for integrating the lived experiences and contextual local knowledge—especially the knowledge of marginalised groups often excluded from mainstream disaster narratives and decision making. Scholars such as Kelman, Mercer and Gaillard (2012), Gaillard and Fordham (2018), Uekusa (2020), and Lambert (2022) (see Sections 2.2.1) emphasise that recognising cultural knowledge and diverse experiences across all disaster processes can lead to more effective DRR approaches and policies, particularly in addressing structural vulnerability. This recognition enables fairer access to resources and entitlements (Gaillard and Fordham, 2018; Fraser, 2020), advancing the conditions for equitable resilience (Matin, Forrester and Ensor, 2018), and Lukasiewicz’s (2020) conceptualisation of disaster justice and its iterative processes. This is critical, because the principles underpinning this thesis—access, inclusion, and equity—are inherently tied to diverse meanings, experiences, and access needs.

However, achieving this shift requires moving away from top-down interpretations of disaster vulnerability toward bottom-up approaches grounded in people’s lived experiences and the processes through which social capital is built or constrained (Uekusa, 2020). Such an approach exposes gaps embedded within structural barriers and reveals who can and cannot access support. Whilst bottom-up perspectives validate the marginalised groups’ experiences, it is erroneous to assume these groups are unified or homogeneous; diversity within marginalised groups is often overlooked (Gaillard and Fordham, 2018; Uekusa, 2020; Lambert, 2022) (see *Section 2.3*). A lack of recognition for this diversity pushes some individuals and groups to the margins *within* the marginalised.

Despite increasing efforts toward inclusion in DRR, the persistent assumption of homogeneity has resulted in the exclusion of those who do not fit dominant representations of their group. One example is DiDRR, grounded in disability legislation frameworks (see *Section 1.4*), which seek to ensure that people with disabilities are involved across DRR policies, processes and practices (Calgaro, Villeneuve and Roberts, 2020). However, when accessibility is framed only through a generic disability lens, the varying communication barriers experienced by deaf people and those who may have additional physical, sensory, or cognitive disabilities, are often overlooked or constrained. The literature documents ongoing exclusion of deaf people, such as in Viet Nam, where strong support for disability inclusion in disaster planning has not translated into any deaf participation (Nguyễn Trần Thủy, Cooper and Craig, 2022). Cooper *et al.* (2021) and Takayama (2025) observe that such gaps have resulted in Deaf organisations

stepping in to lead their own DRR efforts through Deaf-led leadership. Maguire, Boisvert and Villeneuve (2025) argue that DiDRR must more fully acknowledge the diversity across the deaf spectrum and avoid privileging one subgroup's experience of 'being deaf' at the expense of others.

The current literature on deaf and disasters reveals three critical points for Deaf scholarship. The first is that despite limited studies on the role of Deaf support organisations in DRR, the literature consistently shows that mobilisation efforts for deaf people affected by disasters are often led through Deaf-led leadership (White, 2006; Cooper *et al.*, 2021; Engelman, Booze and Izquierdo, 2024; Takayama, 2025). These efforts demonstrate how shared lived experiences and commonalities bring deaf people together in temporary Deaf spaces created for and by deaf people through community mobilisation (see *Section 2.7.1*)—to fill gaps that formalised relief organisations have struggled to address (White, 2006; Takayama, 2017) (see *Sections 2.8.1 and 2.8.2*). Such spaces allow deaf people to rely on trusted sources for clarification and validation, highlighting how deaf sociality creates vital spaces for understanding (Friedner, 2016) (see *Section 2.6.2*). This leads to the second critical point: the importance of research that examines how deaf people and organisations mobilise in disasters across local, national, and international contexts. These emerging strategies provide opportunities for further exploration within Deaf Mobility Studies.

The third critical point highlights a central limitation in the existing literature. Deaf people encompass a wide range of sign languages, cultural transmission patterns, shared signing communities, natural signs, and communication modalities, along with the widespread language deprivation and diverse identities (see *Section 2.5.1*). Yet, disaster-related studies on deaf experiences often reflect deaf hegemonic practices, privileging those with strong language and cultural capital and overlooking those with limited access to such resources (see *Sections 2.5 and 2.8*). This concern is echoed by Adams and Gilroy (2024), Barney, Howard and Devine (2025), and Maguire, Boisvert and Villeneuve (2025), who argue that existing studies insufficiently represent the breadth of deaf identities and intersectional realities. Reiterating Kusters, De Meulder and O'Brien's (2017) call for more diverse deaf perspectives across cultures and contexts, this gap can be addressed by adopting Uekusa's (2020) bottom-up approaches that validate marginalised experiences and better inform future Deaf scholarship and advocacy (Cue *et al.*, 2019).

The literature from this chapter will be revisited again in Chapter 6 (Discussion) aligning with the results and Chapter 7 (Theoretical Framework). In this research, I adopt a critical theory

paradigm (Denzin, 2017) to examine how Deaf support organisations mobilise resources, partnerships, and strategies to deliver accessible disaster information and services, whilst also considering how these efforts address—or fail to address—the social capital needs of deaf people and community members. At the same time, elements of an interpretivist approach guide attention to the lived experiences and social contexts (Alharahsheh and Pius, 2020; Van der Walt, 2020), complemented by a constructivist lens (Van der Walt, 2020) through examining how Deaf support organisations and emergency services co-create new practices and networks that shape how disaster information is delivered and accessed. Together, these perspectives enable an analysis that not only documents current practices but also critiques the exclusions that limit more equitable participation in DRR. This positionality and methodological approach are discussed in Chapter 3.

CHAPTER 3: Approach, Methodology and Methods

3.1 Introduction

In this chapter, I situate myself in relation to this research, positioning my work at the intersection of Disaster studies, Deaf studies, Deaf Geographies and Mobility studies. These domains have rarely been brought into conversation with one another, yet they form the terrain of my lived, professional, and scholarly experiences. My positionality therefore underpins the way I approach and make sense of this thesis. I begin by outlining my philosophical orientation, which is grounded in interpretivism and constructivism and situated within a critical theory paradigm. This perspective provides the foundation for how I understand knowledge, meaning, and power in the research process. By drawing on Deaf epistemologies and the insights of critical intersectionality scholars, I reflect on the ontological and epistemological commitments that inform how I approach knowledge and interpretation. I also employ critical reflexivity, guided by Bourdieu's (1986) concepts of capital, field, and habitus, to examine how my own position shapes the methodological choices I make. From this theoretical grounding, I move to describe the design of my qualitative study and the processes of data collection and analysis. The chapter concludes with reflections on the insights gained through navigating these methodological and positional pathways, highlighting how they shaped both the research process and the outcomes of this study.

3.2 Research Philosophies Shaping My Positionality

Conducting qualitative research necessitates acknowledging how researchers interact with participants to document human experiences. For me, this is deeply personal: my lived and professional experiences as a deaf female researcher who has lived and worked in the Philippines (as an international development worker) and now in Australia, where I work for a government emergency service organisation, shaped how I approach the field, build relationships with the interviewees, and interpret the meanings in their accounts. Within a critical theory paradigm, I view my research participants as equal co-researchers—their knowledge, expertise, and experiences are not merely sources of data but central to co-producing the understandings generated through this research. Positioning them otherwise risks reinforcing unequal power relations and silencing the very perspectives this research seeks to foreground—dynamics that I have observed in my previous research and engagement with deaf people and community members. Whilst I recognise that the term “co-researchers” is also used in formal academic and professional research roles, in this thesis it is used

deliberately to reflect the specific context of this research, particularly in response to the power imbalances experienced by deaf people and community members who are often the subjects of research. These experiences are therefore essential not only for interpreting data but also for shaping the theoretical frameworks and methodologies guiding this research. To fully capture co-researchers' responses—and my own responses to them, it is necessary to clarify my positionality and how it informs my methodological choices, approached through the lens of Bourdieu's theories (Bourdieu, 1986; also used by Uekusa, 2024).

My positionality, including the privileges I hold as a researcher and the power dynamics between myself and the co-researchers, is shaped by several scholars, including Billo and Hiemstra (2013), Obasi (2014), Caretta and Jokinen (2017), and Uekusa (2024). Billo and Hiemstra (2013) show that reflexivity and embodiment in research are not fixed; researchers must remain flexible and responsive, as field realities are fluid and continually changing. Caretta and Jokinen (2017) note a tendency to avoid discussing fieldwork challenges and their emotional consequences, emphasising that acknowledging such experiences also requires confronting the privileges researchers hold and the power dynamics embedded in their relationships with those researched. Obasi (2014) explores how these negotiations of privilege through the emic/etic lens, highlighting the blurred boundaries between insider and outsider roles. Uekusa (2024) further critiques the emic/etic divide, questioning who is considered an insider or outsider, and noting the broader lack of critical reflection on researcher positionality in disaster research, which remains dominated by traditional, technical, and positivist approaches that often overlook identities, values, and power relations.

Drawing on my positionality as a deaf female researcher from overseas has challenged me to examine my own reflexivity and embodiment within this research involving deaf co-researchers. Although my deaf identity might suggest an emic standpoint, differences in the lived experiences often created distance between myself and some co-researchers with whom I have worked professionally (see *Sections 3.2.2, 3.2.3, and 3.2.4*). Acknowledging my privileges as a deaf academic, which comprises a small but growing number of deaf scholars worldwide, has required me to negotiate power and privilege, as Obasi (2014) describes. This tension between emic and etic perspectives has deepened my understanding of reflexivity and reinforced the need to treat identity as dynamic and context-dependent rather than static, as argued by Uekusa (2024).

Neglecting the lived experience of researchers and participants is not only what Flowerdew and Martin (2005) describes as dehumanising but also detracts from what Johnston (2016)

calls an understanding of the process of ‘human becoming’. Research is therefore a relational process shaped by mutual influence, not a detached or completed analysis, as Billo and Hiemstra (2013) emphasise. Caretta and Jokinen (2017) stress that reflexivity functions as a form of social critique grounded in one’s positionality and the contributions of participants. Consequently, acknowledging these lived and evolving experiences is integral to qualitative research (Johnston, 2016), demonstrating how subjectivity informs every stage—from topic selection to data analysis and interpretation (Billo and Hiemstra, 2013; Uekusa, 2024).

Guided by interpretivist and constructivist paradigms, my positionality is further shaped by the socially constructed nature of reality and the subjective meanings people attach to their experiences (Fodouop Kouam, 2024). Interpretivism emphasises that perceptions and beliefs can only be understood within social and cultural contexts, making research contextual and interactive rather than generalisable (Alharahsheh and Pius, 2020; Crotty, 2020; Pervin and Mokhtar, 2022). This perspective requires ongoing reflection on my background, experiences, and assumptions, which shape how I engage with co-researchers, both professionally and within this study, and interpret their realities. Constructivism complements this by highlighting that knowledge is actively constructed and interpreted by people, recognising multiple realities (Kamal, 2019; Fodouop Kouam, 2024). As Crotty (2020) notes, meaning is neither purely objective nor subjective but emerges through social interaction and shared understanding. Together, these paradigms affirm that knowledge is co-created through interpretation, interaction, and the ongoing construction of social realities (Fodouop Kouam, 2024)—processes in which my own positionality is inherently present and influential.

These approaches resonate strongly with Deaf and intersectionality epistemologies. Standard epistemologies, often developed by those with greater privilege (Hauser *et al.*, 2010), tend to overlook knowledge emerging from lived experience. In contrast, I approach knowledge as constructed through social interaction and through the individual and collective experiences of co-researchers (both professionally and within this study), who I regard as the true holders of knowledge (Kara, 2015). My thinking is also informed by feminist epistemology, particularly Harding’s (1987) recognition of how gendered power relations influence experiences. This perspective challenges traditional representations of knowledge that have historically excluded gendered perspectives, emphasising that power shapes who is recognised as a producer of knowledge and for whom that knowledge is created (Doucet and Mauthner, 2006). These commitments align closely with Deaf epistemologies (Hauser *et al.*, 2010) and intersectional approaches rooted in Crenshaw’s (1989) critical race theory, both of which foreground the importance of lived experience, identity, and power in shaping knowledge.

Finally, Bourdieu's concepts of habitus, field, and capital (Bourdieu, 1986) provide a critical lens for reflecting on my role in the research process. This framework highlights how my dispositions, experiences, and forms of social and cultural capital interact with co-researchers and my interpretation of their accounts, professionally and through this study. Habitus draws attention to assumptions I carry, whilst field and capital illuminate power relations and inequalities within the communities and institutions I have studied. Understanding through this perspective positions me not as a neutral observer but as an active professional and community co-researcher in knowledge production, and challenges me to consider how my practices may either reproduce or resist existing social structures and power dynamics.

3.2.1 Deaf and Intersectional Epistemology

Extending from these epistemological and reflexive commitments, Deaf epistemology provides a framework that grounds this thesis in ways of knowing that is shaped by my lived experience of navigating a predominately hearing society (Ladd, 2003; Hauser *et al.*, 2010; Friedner, 2016). Unlike the Western epistemologies discussed in Chapter 2 (see *Section 2.5.1*), Deaf ways of knowing are shaped by cultural, linguistic, and social realities unique to deaf people and community members. As a deaf researcher, my own experiences of communication, identity, and participation within these communities inform how I interpret and engage with this knowledge.

Part of this approach involves a growing recognition of intersectional identity, an emerging area of study amongst current and future Deaf scholars who navigate multiple, overlapping identities in their scholarly work (Kusters, De Meulder and O'Brien, 2017). Intersectionality originates from Critical Race Theory (CRT) and is widely recognised as a term coined by Crenshaw (1989). The concept highlights how discrimination linked to race, gender, class, and other identities does not operate in isolation but instead intersects and compounds. Crenshaw's research into the experiences of Black women demonstrated that racism, sexism, and classism must be examined together to be fully understood. Building on this, Davis (2014) stresses the importance of recognising researchers' own multiple positionings, whilst Obasi (2014) reminds us that these positionalities shape methodological processes, particularly in relation to the cultures and languages involved.

Within this context, Billo and Hiemstra (2013) describe reflection as a crucial tool for recognising how personal biographies and positionalities shape both research and knowledge

production. With my past experiences of living and working in the Philippines and currently in Australia have shaped my identity and form the backdrop to my research practice. Navigating a predominantly hearing world, whilst documenting the accounts of deaf people, sign language interpreters, Deaf support organisations, and emergency services for this study has profoundly influenced how I position myself as a deaf female researcher. These experiences lay the foundations for understanding how I have engaged with DRR work both in Australia and overseas, and they inform the ways I approach my positionality within this field.

3.2.2 Positionality: Australia

My first research experience in Australia was the project, *'Increasing Deaf Communities' resilience to natural hazards and disasters in NSW (New South Wales)*, hereafter referred to as the NSW Deaf project, which ran from 2011-2013 and was funded by the NSW State Government. This study explored deaf people's knowledge of natural hazards, their past experiences, and the solutions they envisioned to respond more effectively to future risks. Participating in this project challenged my understanding of my positionality, as I occupied a dual role that positioned me simultaneously as a Deaf community member (an 'emic' insider) and a research assistant (an 'etic' outsider) (Obasi, 2014; Graham and Horejes, 2017). Similar to Uekusa's (2024) reflections, I have never fully felt that I completely belong to or am a part of any of the deaf people and community members I study. Whilst the shared 'deaf identity' often enabled connections and rapport-building (see, *Section 2.6.1*), particularly with key informants in this project—I realised that my positionality was not always straightforward.

Although a shared identity can help foster relationships, it does not guarantee automatic access to the situated knowledge of other deaf people. As Uekusa (2024) highlights, access to communities depends on a complex interplay of factors beyond identity alone. In my case, my outsider status set me apart from participants in two ways. First, I was not a local. Whilst I could relate to deaf people and community members in Australia through our shared 'deaf identity', my level of engagement differed from what it might have been had I been raised and educated in Australia. For example, the 2022 Deaf Census conducted by Deaf Australia revealed significant barriers that continue to shape the lives of deaf people in Australia. One in four respondents reported having no communication access in primary school, with similar patterns of one in three continuing into secondary education (Deaf Australia, 2023). Many also described being forced to communicate without Auslan, their preferred language (approximately 73%), experienced most commonly in schools (43%), medical appointments (41%), hospitals (39%), family events (38%), and everyday situations such as shopping (37%)

(Deaf Australia, 2023). Furthermore, 77% identified the lack of qualified Auslan interpreters as a major barrier (Deaf Australia, 2023). These statistics highlight the systemic inequalities faced by deaf people and community members in Australia: inadequate access to education, language deprivation, shortages of Auslan interpreters, and ongoing discrimination from hearing people. Such experiences have shaped distinct realities and for some, led to withdrawal into Deaf community spaces where their struggles are most readily understood. Having not lived this lifestyle myself, my background set me apart from these participants.

A second relevant point is that researchers are inherently placed as outsiders in relation to their research participants (Brayboy and Deyhle, 2000; Innes, 2009; Obasi, 2014). During the NSW Deaf project, this dynamic became clear when some of the deaf and community members, with limited exposure to research, struggled to understand why interviews involved lengthy questions, what would happen to the information collected, and how it would be used. Key informants were also unaccustomed to the formal structure of group interviews, particularly those that required them to recall and document detailed accounts of natural hazard events and disasters. As a deaf person, I could appreciate this discomfort because I recognised the ‘deaf way’ of communication, which often relies on unpacking new concepts through metaphors, storytelling, and the sharing of lived experiences within the community (see *Section 2.6.3*) (Hodge and Goswell, 2021). Yet, in my role as a research assistant, I also had to balance this understanding with the academic need to collect detailed contextual information—such as participants’ gender, education, socio-economic status, and so on—that would help interpret their perspectives and experiences of disaster events.

3.2.3 Positionality: Philippines

The Deaf NSW project inspired me to continue pursuing research in this field beyond Australia. In 2014, I joined the Australian Red Cross as a volunteer under the Australian Volunteers for International Development program and was assigned to work with the Deaf community in the Philippines for one year (2014-2015). During this time, I developed a rapport with the local Filipino Deaf community, which laid the foundation for a partnership on a Global Resilience Partnership (GRP) funded project led by one of my University of Sydney supervisors, Dr Emma Calgaro⁹. Within this broader project, *Disability and Disasters in Southeast Asia*, I co-led a sub-project that focussed on the Filipino Deaf community. This

⁹ Professor Dale Dominey-Howes, one of my supervisors who retired during my candidature, was also involved in the GRP project as an overarching scientific advisor, contributing in various capacities.

research explored the challenges, barriers, and solutions that could strengthen the community's resilience to natural hazards and disasters.

My positionality in the GRP project as an emic researcher, due to my shared deaf identity, mirrored aspects of my experience in the NSW Deaf project. Yet, there were added complexities to being a deaf overseas researcher in a non-Western country (Billo and Hiemstra, 2013; Boland, Wilson and Winiarczyk, 2015; Caretta and Jokinen, 2017). My three years of lived and immersed experiences in the Philippines (one year as an Australian Red Cross volunteer and two years on the GRP project) enabled me to critically reflect on the practices of conducting human geography research in the field (Cloke *et al.*, 2004). This immersion offered a more nuanced understanding of the challenges local deaf people face, including high levels of poverty and barriers to engaging with broader civil society (Calgaro, Craig and Johnson, 2017). At the same time, I acknowledge that as a deaf person from overseas, I am unable to fully access the situated knowledge and lived experiences of local deaf people, which created a divide between myself and the co-researchers I have worked with professionally (Uekusa, 2024). Despite our shared deaf identity, this divide made me more aware of the privileges I hold in terms of language and cultural capital—privileges that some of the local co-researchers I worked with have been denied, not through any fault of their own, but because of the systemic barriers that have failed them.

This dual positioning also placed me as an etic observer. The local Deaf community has historically been studied by outsiders, often leaving participants feeling devalued and fostering mistrust (Brayboy and Deyhle, 2000; Innes, 2009; Obasi, 2020). Local deaf people were well aware that external researchers carried the privilege of leaving the field and returning to their lives elsewhere (Caretta and Jokinen, 2017). Such dynamics complicate the intersection of being both deaf and a researcher and can have negative impacts on those being researched. To minimise this, the GRP project was co-developed with the local Deaf community, who led, facilitated, and created solutions to increase deaf peoples' awareness of DRR. Given their experiences of isolation and scepticism towards hearing people (Calgaro, Craig and Johnson, 2017), it was clear that a deaf researcher was more acceptable than a hearing one due to shared communication styles and identity (Boland, Wilson and Winiarczyk, 2015). Nonetheless, I sensed that local deaf people placed greater trust in researchers from within their own community and culture than an overseas deaf researcher, due to differences in our lived experiences.

Informed by methods and practices from the NSW Deaf project, our Deaf-focussed GRP team hired three local deaf research assistants to tailor and lead the focus group discussions and interviews in ways that reflected their community and cultural contexts. This approach was vital for ensuring that the research captured local experiences with cultural relevance (Obasi, 2014). We hoped that the key informants would feel more comfortable and open when discussions were facilitated by Deaf community members they already knew (Calgaro, Craig and Johnson, 2017). To ensure a collaborative effort, two overseas deaf researchers co-developed the project alongside the local assistants, who were included in every step of the research process. Together, we identified the problems faced by deaf people in disaster situations, co-developed interview questions, translated them from academic English to plain English and Filipino Sign Language (FSL), and designed recruitment strategies. We also provided guidance on facilitating focus groups and interviews in culturally meaningful ways, and we conducted the data collection collaboratively. Recognising that trust is crucial in research, we valued and drew upon the skills and knowledge of local deaf people and community members, who understood their lived realities far better than outsider researchers like myself.

Across these projects, I gained insights into the barriers deaf people and community members face, the strategies they develop to increase resilience, and the importance of trust, collaboration, and culturally appropriate methods in research. These experiences laid the groundwork for my subsequent work with Australia's emergency services, where I have been able to apply these lessons to improve inclusive disaster preparedness and response.

3.2.4 Working for an emergency service organisation

Lastly, since 2021 I have been employed by Fire and Rescue NSW (FRNSW), a government emergency service organisation, and my role focusses on disability inclusion. This role has given me firsthand insight into the challenges of making emergency services accessible, whilst allowing me to view these issues from both insider and outsider perspectives. As someone who identifies with Deaf culture, I understand the importance of cultural and linguistic recognition. However, I also recognise that, in practice, immediate access to services and information is often secured through the disability framework rather than a cultural or linguistic lens (see Chapter 1, *Section 1.4*). Whilst advocacy by Australia's Deaf support organisations continues to push for formal recognition of sign language as a cultural and linguistic right, disasters do not wait and urgent attention to accessibility is essential. Beyond any single community, my commitment lies in ensuring that everyone, regardless of ability, can receive information in formats they can access and understand, a principle that

guides both my professional work and research. This commitment also aligns closely with Australia's obligations under international and DRR frameworks, such as the UNCRPD and the Sendai Framework, which call for inclusive approaches that leave no one behind.

Australia's commitment to the UNCRPD Article 11 and the Sendai Framework for Disaster Risk Reduction 2015-2030 emphasises the inclusion and protection of people with disabilities in all DRR and humanitarian actions (see *Section 1.4* and *Tables 1.1* and *1.2*). These commitments challenge emergency services organisations to assess whether their community safety and prevention strategies are '*inclusive, accessible, and understood*' (Craig and Whitburn, 2023, p. 20). FRNSW recognises the necessity of not only addressing the needs of people with disabilities in emergencies but also fulfilling obligations outlined in Section V of the Sendai Framework (Craig and Whitburn, 2023). Section V of the Sendai Framework emphasises the shared responsibilities between governments and stakeholders in co-designing emergency and DRR planning with communities (UNDRR, 2015, p. 23). Additionally, these efforts support the rights of deaf people under the UNCRPD, particularly concerning two of the five articles relevant to DRR that promote sign language: Article 9 (Accessibility) and Article 21 (Freedom of expression, opinion, and access to information) (WFD, 2018).

I was employed by FRNSW to help bridge the gap between emergency services and disability organisations. My role involves drawing on the lived experiences of people with disabilities alongside using my professional knowledge, skills, and networks to foster ongoing community engagements. In this capacity, I have worked closely with peak organisations such as the Australian Federation of Disability Organisations (AFDO), contributing to the development of the 'Fire Proofing At-Risk Communities' project led by AFDO (2022-2024). This initiative responds to the reality that emergency management in Australia has often been hierarchical and exclusionary - where decisions affecting people with disabilities are made for them rather than with them (Craig *et al.*, 2019; Craig and Whitburn, 2023). Without accessible disaster-related information, it is impossible to gauge people with disabilities' understanding of fire prevention and preparedness. This project seeks to overcome this by co-developing and testing resources created for and by people with disabilities to improve fire safety awareness and reduce injuries and fatalities amongst this social group. The project strengthens inclusive practices and capabilities by enabling people with disabilities and their lived experiences to inform accessible fire safety information in multiple formats, and by producing disability awareness training for firefighters.

This project also raised challenges for my own positionality when engaging with deaf people, many of whom identify primarily as a cultural and linguistic minority group rather than people with disabilities. Emergency services, however, operate within the framework of the UNCRPD, which upholds the rights of people with disabilities and promotes the use of sign language under Articles 9 and 21. This creates a tension between the two worlds I inhabit—as a Deaf community member and as an emergency services employee, placing me between groups whose expectations and experiences do not always align. Whilst I acknowledge that not all deaf people identify themselves as having a disability, their rights to accessible emergency information and services are supported and protected by national and international disability laws. My experiences as a deaf person working within emergency services have helped build and strengthen relationships with some Deaf support organisations, ensuring that deaf people and community members have opportunities to participate and provide feedback on FRNSW’s fire safety resources and messaging. My emic perspective often made it easier to gain the support of some Deaf support organisations for this initiative. Yet, despite direct communication and feedback sessions held in Auslan, I also sensed that some participants regarded me more as an etic outsider than as a fellow deaf person, a perception shaped partly by my institutional affiliation with emergency services and by the language and cultural capital they felt I possessed and they did not.

At the same time, my industry experience within emergency services has been invaluable in shaping my research from an emic perspective. This mirrors the work of Moskos (2008), who undertook a job as a US police officer to understand police socialisation, only to discover that his journey as an emic led to new theoretical insights on ‘experience, knowledge, and understanding’ (Moskos, 2008, p. 6). Before joining FRNSW, my understanding of emergency services was shaped mainly by the barriers I had experienced myself and those I seen deaf people and community members face in accessing emergency information and messaging during disasters. I held assumptions about the reasons for these barriers, not only for deaf people but also for others with varying access needs. Through this project, I came to realise that the issue extends beyond accessibility and understandability; it also raises critical questions about *how* information is mobilised into actionable outcomes—a central theme of this research.

3.2.5 Synthesising Positionality: Reflexivity, Power, and Research Practice

Positionality is central to this research, as my background, identities, and experiences have shaped how I engaged with co-researchers (both professionally and within this study), interpreted their accounts, and navigated institutional and community contexts. Whilst I draw

on an emic/etic lens to frame my positionality as a deaf researcher working within Deaf communities, this binary risks oversimplifying my social positioning. My positionality is instead shaped by the intersection of multiple identities, including deaf, gender, international background, language acquisition history, and geographical location. Being deaf provided insider insight into social norms, language practices, and community dynamics, however my status as a deaf person from overseas also created distance from local deaf people, limiting access to situated knowledge and historically embedded experiences. My professional experience in disaster-related work further shaped my positionality by affording familiarity with institutions and in some cases, established relationships with local co-researchers I have worked with. At the same time, this required ongoing reflexivity to ensure that my professional research work did not overshadow co-researchers' knowledge and expertise.

Language acquisition and communication practices were also central. Learning local sign languages facilitated engagement, yet differences in dialect and local signing practices required ongoing negotiation, highlighting how linguistic capital shaped access, understanding, and the depth of data collected. In presenting my positionality, I offer only a partial account, deliberately avoiding a totalising depiction of my identities and their influence. This approach recognises positionality as complex and dynamic, whilst reflecting on how multiple intersecting identities shaped relationships, access, rapport, and interpretation throughout the research. It also foregrounds the perspectives, knowledge, and agency of the co-researchers I worked with as central.

As mentioned earlier, I remain mindful of the power relations inherent in my positionality and the privileges I hold that may not be shared by those interviewed in this research. This awareness is critical within the contested space of academic researchers, where ethical concerns have been raised regarding the potential exploitation of local researchers and participants (Uekusa, 2024). The fluidity of my positionality—shifting between emic and etic—has also informed my methodological approach, particularly in striving to minimise potential negative impacts. By foregrounding the experiences of deaf people, sign language interpreters, Deaf support organisations, and emergency responders, this study investigates how the mobilisation strategies of Deaf support organisations influence the accessibility of disaster information and services and the inclusive participation of diverse deaf people in DRR (see *Section 1.5*). Grounded in a constructivism paradigm which stems from interpretivism, I acknowledge that human subjectivity plays a central role in generating knowledge by interpreting experiences through individual perspectives, beliefs, and personal bias (Dowling, 2005). This orientation aligns with my epistemological commitments and

shapes my ontology, embracing a two-way construction of knowledge that reflects an understanding of the world through lived experiences (Adom, Yeboah and Ankrah, 2016).

3.3 Research design

The research design for this study was initiated when I was a Master of Philosophy student. My aim was to conduct a comparative case study to examine: (i) the successes, failures, and sustainability of resilience-building activities and projects designed to increase the disaster resilience of deaf people to disasters in Australia, while drawing lessons from other countries; and (ii) how resilience-building actions and processes can be improved to enhance sustainability and promote greater equity in DRR policy and practice. However, conducting research with case studies from around the world revealed that the scope was too large for a Master's level study. This realisation led me to upgrade to a PhD, focussing on the mobilisation strategies that Deaf support organisations employ to influence the accessibility of disaster information and services and the inclusive participation of diverse deaf people in DRR (see *Section 1.5*). This shift allowed me to expand the case studies with a significant comparative sample, incorporating perspectives from four groups: deaf people and community members, Deaf support organisations, sign language interpreters, and emergency services. I have chosen case studies as the overarching method for this research.

3.3.1 Overview of case studies as a method for data collection

Case studies are amongst the earliest types of research employed in qualitative research (Baxter and Jack, 2010; Starman, 2013). They are often categorised by paradigm, study design, and selected methods (Hyett, Kenny and Dickson-Swift, 2014). Whilst the definition of “case study” is contested, Yin (2009) describes it as an empirical enquiry aimed at gaining a better understanding of phenomena by investigating their complex situations and contexts, relying heavily on multiple sources of information and evidence (Mezmir, 2020). This approach is effective for applying findings to real-world settings because it enables researchers to explain the “why” and “how” in an interpretive, constructive, and meaningful manner (Tsang, 2014; Harrison *et al.*, 2017). Utilising a social constructivist approach supports a “transactional method of inquiry”, in which researchers interact with their subjects and co-construct knowledge through those interactions (Hyett, Kenny and Dickson-Swift, 2014, p. 2). This method recognises the relational dynamics involved in research and emphasises how knowledge is shaped by the interactions between the researcher and subjects. Importantly, this method aligns with my research aims and objectives outlined in *Section 1.5*.

I incorporate perspectives and experiences from nine countries in this thesis, presented across two chapters. Chapter 4 examines the international individual and organisational case studies—Aotearoa New Zealand, Haiti, Indonesia, Italy, Japan, Nepal, the Philippines, and the United States—each of which is treated either as a standalone case study or as part of a vignette. Chapter 5 then focusses on the Australian individual and organisational case studies. Having a diverse range of case studies enables me to unpack the nuances of these experiences (Squires, 2023) and contribute to the development of a contextual grounded theory (Mezmir, 2020).

The co-researchers who contributed their knowledge and experiences were drawn from four different groups—deaf people, Deaf support organisations, sign language interpreters, and emergency services, from eight different countries and one international NGO. These diverse perspectives provide valuable insights into how deaf people and community members experience disasters and the mobilisation challenges faced by Deaf support organisations in meeting their social capital needs (Squires, 2023; Mezmir, 2020).

3.4 Methods: Secondary Documentary Analysis and Interviews

I employed two main methods in this research: secondary document analysis (Chatfield, 2020; Sherif, 2018; Corti, 2018), and semi-structured interviews (Guest, Namey and Mitchell, 2013; Porta, 2014). The research for this thesis received approval from the University of Sydney Human Research Ethics Committee (Protocol Number 2019/540, see Appendix A). An exploratory literature review and secondary document analysis were undertaken to examine the experiences of deaf people in disaster contexts. Sources were identified through the University of Sydney's databases (Scopus and Web of Science) and Google Scholar. This review analysed the types of disaster information and services Deaf support organisations to assist deaf people and community members affected by disasters, addressing research objectives 1 and 2 outlined in Table B1 (in Appendix B).

The research questions were developed in direct alignment with the overarching aim and objectives of this study (see *Section 1.5*), ensuring coherence between the study's conceptual focus and methodological design. Each question was designed to operationalise key components of the objectives, guiding the investigation of how Deaf support organisations mobilise in disaster contexts and how these strategies influence the accessibility of disaster information and services, as well as the inclusive participation of diverse deaf people in DRR. The research questions were informed by critical engagement with relevant literature (see Chapter 2), through which key gaps, assumptions, and underexplored areas were identified and adapted to the focus of this study on Deaf support organisations, accessibility, and

participation in DRR. This, in combination with the study's theoretical and epistemological framing (see *Section 3.2 and 3.2.1*) and my professional experience in disaster-related work (see *Sections 3.2.2, 3.2.3, and 3.2.4*), also informed the development of the interview questions. Whilst this iterative process enabled the refinement of questions to capture both the enabling and limiting dimensions of mobilisation strategies, as well as to support comparative analysis across Australian and international case studies, it also provided a structured and flexible approach for examining inclusive and exclusive practices in DRR.

The interview questions supported semi-structured interviews conducted with 44 co-researchers across nine countries. These interviews formed individual and organisational case studies or were incorporated into vignettes, enabling comparison and contrast of experiences. This component of the study addresses Research Objective 3 (see Table B2 in Appendix B). The purpose of semi-structured interviews is not to produce consistent or standardised data, but to generate rich, contextual insights that deepen understanding of each participant's experiences and perspectives (Mason, 2004; Azungah, 2018). I adopt this approach because semi-structured interviews allow co-researchers to share their experiences in their own words and perspectives (Azungah, 2018), aligning with the ontological and epistemological stance that reality is socially constructed and interpreted through co-researchers' worldviews (Mason, 2004). In this study, the interviews examined the mobilisation strategies of Deaf support organisations, exploring how these strategies influenced the accessibility of disaster information and services and whether they supported the inclusive participation of diverse deaf people in DRR. I argue that this analytical focus strengthens both knowledge construction and data development within the thesis.

3.4.1 Interview Phases

Building on my prior experiences and informed by the literature review and secondary data analysis of Deaf support organisations involved in disasters and COVID-19 response (Chapter 2, *Section 2.8*), I was able to identify and recruit co-researchers for the semi-structured in-depth interviews. The interview process was conducted in four phases, initially focussing on disasters and later expanding to include the COVID-19 pandemic, over a period of 31 months (July 2019 - February 2022).

Of the forty-four co-researchers, 65.9% were deaf, hard of hearing, or deafblind (n=29); 17.7% were sign language interpreters (n=8), and 15.5% were hearing people from government and emergency services (n=7). In terms of gender, 57.7% of co-researchers were

female (n=26) and 40.9% were male (n=18). The sample comprised 66.6% from Australia and 33.3% from overseas.

All co-researchers were provided with a consent form approved by the University of Sydney Human Research Ethics Committee (see Appendix E), which allowed them to choose whether to be identified or remain de-identified. Appendix J lists the co-researchers interviewed: those who consented to be identified have their names included, whilst those who opted to be de-identified have been assigned an interview number in the form of “I(number)” (e.g. I5).

Phase 1: World Federation of the Deaf (WFD) Conference

Phase 1 coincided with the WFD Conference held in July 2019 in Paris, France. This conference occurs every four years and brings deaf people from 134 different nations together, providing a unique opportunity for networking. The recruitment criteria for the first phase were broad, encompassing deaf, hard of hearing, and deafblind individuals who work for or represent Deaf organisations, service providers, or emergency services (see Table C1 in Appendix C). Key participants for this study were identified through snowball sampling, using meetings and networking opportunities (see Table C2 in Appendix C). Whilst I recruited six potential co-researchers from Deaf support organisations and emergency services who expressed interest, I only interviewed and filmed one during the conference due to time constraints. Of the remaining five potential co-researchers, two were eventually interviewed via video calls between November 2019 and August 2020 (see Table C3, Appendix C), whilst the reasons the other three did not participate remains unknown. The two interviewed had direct professional and community involvement in disaster response with deaf people and community members in their respective countries.

The three co-researchers who contributed to this study had prior experiences assisting deaf people before, during, and/or after disasters:

- One was involved in the project, *Disability and Disasters, Empowering people and building resilience to risk in Southeast Asia: Needs Assessment of the Philippines Deaf Community*¹⁰

¹⁰ Disability and Disasters, Empowering people and building resilience to risk in Southeast Asia: Needs Assessment of the Philippines Deaf Community: <https://www.globalresiliencepartnership.org/challenge-project/disability-and-disasters/>

- One was a community advocate who assisted during the 2015 Earthquake in Nepal
- One was an emergency service responder who had provided humanitarian assistance to deaf people during disasters

Phase 2: Deaf Support Organisations

Building on one co-researcher's involvement in a Phase 1 project supporting deaf people, I was prompted to explore other Deaf support organisations worldwide that had participated in similar initiatives. This formed the basis of Phase 2. The recruitment criteria for the second phase specifically focussed on deaf, hard of hearing, and deafblind people who worked for or represent Deaf organisations or service providers (see Table C4 in Appendix C). Particular attention was given to those who had been involved in previous projects relating to deaf people and DRR (see Table C5 in Appendix C). This phase involved interviews with Deaf support organisations engaged in emergency preparedness and humanitarian efforts for deaf people in Australia and overseas. In Australia, I reached out to Deaf support organisations involved in the following projects:

- *Increasing the resilience of the Deaf Community in NSW to natural hazards*¹¹
- *Get Ready Deaf Community NSW*¹²
- *National Auslan Communications for Emergencies Project* (Expression Australia, 2016)

Deaf Australia¹³, the national peak organisation advocating for deaf, hard of hearing, and deafblind people, was also interviewed about their advocacy work in the DRR space. Internationally, I contacted organisations and academics involved in:

- *ASB Indonesia on DiDRR*¹⁴

¹¹ *Increasing the resilience of the Deaf Community in NSW to natural hazards:* https://www.ses.nsw.gov.au/sites/default/files/2024-02/milestone-7_final-report_pdf_0.pdf

¹² *Get Ready Deaf Community NSW:* <https://knowledge.aidr.org.au/resources/ajem-jul-2018-get-ready-a-model-for-deaf-community-leadership-and-preparedness/>

¹³ **Deaf Australia:** <https://deafaustralia.org.au/>

¹⁴ **ASB Indonesia and DiDRR:** <https://www.asbindonesia.org/what-we-do/disaster-risk-reduction/>

- *A Facebook Page used during the Amatrice Earthquake*¹⁵
- *Project Nakama* (Takayama, 2017)
- *DCARA (Deaf Counselling, Advocacy and Referral Agency) Disaster Response Team*

International Deaf Emergency (IDE)¹⁶, an NGO that advocates for and supports humanitarian aid for deaf people during emergencies, was also interviewed about their past humanitarian efforts.

I contacted these organisations via email and received responses from all. Seventeen representatives contributed to this study, with each able to choose the mode of participation that best suited them—in person, via a video call, or through an online REDCap survey¹⁷, ensuring accessibility and accommodating the schedules of both local and overseas co-researchers. As a result, seven interviews were conducted in person, seven via video calls and three via RedCap between September 2019 and July 2020 (see Appendix C and Table C6 for further details on the co-researchers).

Phase 3: Expanded Interviews

As my research gained traction within Deaf organisations in Australia and overseas during Phase 2, I received five interview requests from organisations in disaster-affected areas. This development, combined with the onset of the COVID-19 pandemic, led to the addition of Phase 3, which involved interviews with sign language interpreters and deaf advocates (see Table H1 in Appendix H). The research for this addition received approval from the University of Sydney Human Research Ethics Committee (Protocol Number 2021/447, see Appendix G). In total, twenty-three Deaf support organisations and deaf advocates were contacted—including the five who had previously reached out—with fourteen responding: six Deaf support organisations, six interpreters, a public health researcher/advocate, and a community advocate (see Table H3, Appendix H). Altogether, nineteen representatives, including some who were affiliated with the same Deaf support organisations, contributed to interviews conducted via video calls between August 2020 and February 2022 (see Table H3, Appendix H).

¹⁵ **Emergenza Sordi:** <https://emergenzasordi.org/it>

¹⁶ International Deaf Emergency (IDE): <https://www.ideafe.org/>

¹⁷ REDCap is a secure web-based platform for creating and managing online databases and surveys, which research students can use to develop tools for their studies. Available at: <https://redcap.sydney.edu.au/>. Accessed on 27 November 2025.

Phase 4: Emergency Services

Phase 4 focused on emergency service organisations that were either involved in initiatives for deaf people and other marginalised groups or had disability policies on DRR (see Table H4, Appendix H). I contacted five government and emergency services organisations (see Table H5, Appendix H) and four responded. Six representatives took part in interviews via video calls between March 2020 and January 2022 (see Table H6, Appendix H).

3.4.2 Language, Translation, and Transcription Processes

Given that these interviews were conducted with co-researchers across nine countries and included deaf, hard of hearing, and hearing co-researchers, it is necessary to outline the languages used and the processes of translation and transcription. Language choice was guided by accessibility, participant preference, and the linguistic diversity of co-researchers. For deaf and deafblind co-researchers based in Australia, interviews were conducted in Auslan and typed English. For deaf co-researchers based overseas, interviews were conducted using International Sign, American Sign Language, Filipino Sign Language, and typed English, depending on the linguistic context and accessibility needs of participants. The interviews were video recorded either in person or via Zoom and were subsequently transcribed into English by reviewing and repeatedly watching the recorded data to ensure accuracy and consistency in meaning.

Interviews with hearing co-researchers, all of whom were based in Australia, were conducted via Auslan interpreters using Zoom or Microsoft Teams. These interviews were recorded, with simultaneous transcription undertaken during the interview process. In addition, some participants based both in Australia and overseas completed interviews online via REDCap, providing typed responses in English. Across these modes of data collection, translation and transcription processes were integrated into the research design to ensure accessibility and consistency in data capture across multiple languages and communication modalities.

3.5 Data analysis

A major strength of qualitative data analysis is its capacity to draw on both deductive and inductive approaches. The analysis was undertaken in three stages, each informed by a distinct mode of reasoning that aligns with Braun and Clarke's (2006) six phases of thematic analysis. These phases are:

1. Familiarisation with the data

2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

Although the study is primarily grounded in an inductive approach (consistent with interpretivist and constructivist traditions), deductive processes, whilst more common in quantitative research, can also be meaningfully applied in qualitative research (Hyde, 2000).

Drawing on Azungah's (2018) work, stage 1 of the analysis adopted a sequential process beginning with a deductive lens. Here, *a priori* categories, were used as sensitising concepts to frame the initial engagement with the data (Azungah, 2018). These categories were informed by the literature (Azungah, 2018; Mezmir, 2020) and a critical theory paradigm foregrounding power, inequality, and exclusion (Bourdieu, 1986; Harding, 1987; Crenshaw, 1989). The second stage followed an inductive approach, which allows themes to emerge organically from co-researchers' accounts whilst remaining critically attuned to the structural conditions shaping their experiences (Braun and Clarke, 2006). This stage enabled both detailed descriptions of the lived experiences (e.g. Deaf support organisations' perspectives) and facilitated cross case comparisons to identify similarities or differences that could inform theory development (Mezmir, 2020).

To operationalise this analytical approach, data analysis was conducted using NVivo, a computer assisted qualitative data analysis software that facilitated systematic coding and thematic analysis (Kalpokas and Radivojevic, 2022). NVivo supported the management, organisation, and analysis of substantial qualitative data, consisting primarily of interview transcripts from 45 co-researchers. Importantly, NVivo's capacity to support theme-based coding (Allsop *et al.*, 2022; Kalpokas and Radivojevic, 2022) was central to the process, enabling the systematic identification and interpretation of patterns—a crucial component of the abductive, critical theory informed analysis discussed further below.

3.5.1 Data Preparation

All interviews, whether conducted in person and online, were recorded with permission and transcribed from various sign languages to English (see HREC approval for 2019/540, Appendix E for the Participant Consent Form and Participant Information Statement

used in Phases 1 and 2 and Appendix F for the Plain English version of the Participant Consent Form and Participant Information Statement used in Phases 1 and 2 and for 2021/447, Appendix G and Appendix K for the Participant Consent Form and Participant Information Statement used in Phases 3 and 4). This process produced a total of 811 pages of text data, with each transcript subsequently imported into NVivo. The coding process draws on Braun and Clarke's (2006) six phases of thematic analysis presented in Section 3.5.

This analysis began with the first phase, *familiarisation with the data* (Azungah, 2018; Mezmir, 2020; Xu and Zammit, 2020). This involved reviewing the literature to identify key issues, gaps, and potential themes, carefully reading secondary documents to understand their context and relevance and repeatedly engaging with interview transcripts to recognise emerging patterns, informed by sensitising concepts drawn from the critical theory paradigm.

3.5.2 Coding Process

Braun & Clarke's (2006) deductive second phase, *generating initial codes* was adopted as the starting point. The existing literature on deaf people and disasters was used to identify what is already known about the phenomenon, guided by the research aims, objectives, and interviews (Azungah, 2018). Key insights from the literature feature in Table I1, Appendix I. This informed the first round of coding, which was conducted using *in vivo* methods, where key words or phrases were identified to align with theoretical themes derived from the literature review (Mezmir, 2020; Kalpokas and Radivojevic, 2022). This stage focussed primarily on what was being said rather than on the underlying meaning (Allsop *et al.*, 2022). A preliminary coding framework was developed, comprising 16 themes (see Table I1, Appendix I and seven additional sub-themes within "access" and "community" (see Table I2, Appendix I).

Given the high volume of themes identified in the data, an iterative inductive approach was adopted, consistent with Braun & Clarke's (2006) third phase: *searching for themes*. This second round of coding involved moving back and forth between the first round of coding and the consolidation of the most critical topics (Azungah, 2018; Kalpokas and Radivojevic, 2022), which were merged into five overarching themes: access, accountability, human capital, governance, and policies.

The key distinction between the first and second rounds lies in the locus of interpretation. The first round focussed primarily on "*informant-centric terms*", reflecting co-researchers' own words and interpretations of their lived experiences (Van Maanen, 1979; Gioia, Corley and

Hamilton, 2013; Azungah, 2018). By contrast, the second round introduced “*research-centric terms*”, representing the researcher’s interpretation of those accounts in relation to the study’s phenomenon (Van Maanen, 1979; Gioia, Corley and Hamilton, 2013; Azungah, 2018). As I immersed myself in the data, new themes emerged organically from co-researchers’ narratives, leading to the identification of two additional themes: mobility, and shared responsibility (see Table I3, Appendix I). This process also helped pave the way for grounded theory and leads to Braun & Clarke’s (2006) fourth phase, *reviewing themes*.

To deepen conceptual understanding, this iterative process (Azungah, 2018; Kalpokas and Radivojevic, 2022) involved comparing empirical data with theoretical concepts, examining their relationships to broader categories, and assessing how the data aligned with these categories (Mezmir, 2020). At this stage, the *policies* theme was merged into *governance*, reducing the number of themes from seven to six (see Table I4, Appendix I). This refinement laid the groundwork for developing higher-level abstractions and supported a more robust conceptualisation of the phenomenon in the fifth phase of thematic analysis (Mezmir, 2020).

In the final stage of the analysis, corresponding to Braun & Clarke’s (2006) fifth phase of *defining and naming themes*, I reviewed the themes derived from the first round (deductive approach) and the second round (inductive approach) to identify connections and construct a broader, overarching understanding of the data (Azungah, 2018). These themes were then grouped into three broader categories, referred to as theoretical dimensions: access, participation, and representation (see Table I5, Appendix I). These themes align closely with the literature review and directly address research objective 1, which examines the mobilisation strategies of Deaf support organisations and how they deliver accessible disaster information and services to deaf people and community members. They also address objective 2, which explores how these mobilisation strategies either meet or overlook community needs and how this shapes deaf people and community members’ capacity to mobilise and participate in DRR processes.

3.6 Challenges and limitations

Conducting research is an intricate process that inevitably presents challenges and is subject to limitations, both of which can influence the outcomes and interpretations of a study. Acknowledging these challenges and limitations is critical for not just establishing the credibility of this research but also for providing practical insights to guide future scholarship in the field (Billo and Hiemstra, 2013; Obasi, 2014; Caretta and Jokinen, 2017; Kusters, De Meulder and O’Brien, 2017; Uekusa, 2024; Azungah, 2018; Squires, 2023). Several

challenges emerged during the implementation phase. These included difficulties with participant recruitment, the constraints of a limited and heterogeneous sample, and time pressures faced as a researcher.

3.6.1 Challenges

There were several challenges in conducting an international research study, particularly regarding recruitment, conducting interviews, building rapport with co-researchers, and as noted earlier, sharing a ‘deaf identity’ can be beneficial but this identity alone does not guarantee automatic access to deaf people or community members (Uekusa, 2024). This became evident during Phase 1 at the WFD Conference, where some Deaf support organisation gave me ‘the runaround’ about who would be the most appropriate contact for an interview. Whilst this initially generated interest from six people, only three were successfully interviewed. Despite repeated follow ups with the remaining three through email and social media, no further responses were received. This may partly reflect barriers for some living in the Global South, where internet access can be limited or costly, making in-person interviews potentially more effective (Tremblay *et al.*, 2021; Keen, Lomeli-Rodriguez and Joffe, 2022). These barriers were likely compounded by the impact of the COVID-19 pandemic, which disrupted communication and research participation globally (Roberts, Pavlakis and Richards, 2021; Reñosa *et al.*, 2021). Another constraint was the time difference between Australia and other countries, which added to the difficulty of scheduling suitable time frames for online interviews (Joshi *et al.*, 2020; Khan and MacEachen, 2022).

During Phases 3 and 4, further challenges arose when referrals were made to people within organisations. Without proper introductions or prior relationship-building, most of these contacts did not respond. This highlights the difficulty of engaging with a wide range of Deaf support organisations and emergency services, particularly when entry points and structures differ between countries. Approaching new contacts without prior connection or endorsement often felt like making a cold call with no face to match the name (Billo and Hiemstra, 2013; Caretta and Jokinen, 2017; Uekusa, 2024). Establishing trust and rapport, especially in cross-cultural and organisational contexts, was therefore a significant barrier during recruitment.

The final challenge was conducting interviews and transcribing across different sign languages into English. Whilst many Deaf support organisations expressed interest in participating, my capacity as a researcher to manage multilingual interviews and transcriptions constrained the scope of the study. As a result, this study provides only a snapshot through a sample of co-researchers who shared their experiences and perspectives.

Further research is needed on Deaf organisations and emergency services supporting deaf people from diverse communities affected by disasters. Additionally, although I had intended to include 16 more government and emergency service organisations across Australia, doing so would have exceeded my capacity to conduct and transcribe interviews. Consequently, the research focussed on emergency services in NSW, where most of my current and prior professional work in the emergency sector is based.

3.6.2 Limitations

The number of people from diverse backgrounds remains limited in this study, a concern that resonates with the work of Kusters, De Meulder and O'Brien (2017) (*Section 2.6*). Deaf people and community members that were interviewed represent a small percentage of those with language and cultural capital. But despite the focus of this research being on those who need the access, there is an absence of participants who lack social capital (see *Sections 2.6.1, 2.6.2, and 2.6.3*). This was most marked in Australia. Efforts were made to reach out to various Deaf support organisations that supports deaf people from marginalised groups, including people who are deafblind, Indigenous communities, culturally and linguistically diverse communities, and faith-based groups (six in total), but no responses were received (see Appendix J, Table J3). As a result, only organisations that are recognised by the hegemonic group of deaf people and community members participated (see Table J2, Appendix J).

Of the 7 additional international countries that participated in this study, 4 were from the Global North and 3 were from the Global South (see Table J4, Appendix J). Whilst the sample size from the Global South is relatively small, this highlights the need for more research on Deaf support organisations in that region and their capacity to respond to disasters.

3.7 Chapter Summary

This chapter has outlined how my positionality as a deaf female researcher, shaped by my lived experiences in both the Philippines and Australia, as well as my work within an Australian state government emergency service, has influenced every stage of this research. Working within a critical theory paradigm, I approached the interviewees in this research as co-researchers whose experiences and expertise were central to co-producing knowledge. Acknowledging this relationship was essential not only for avoiding the reproduction of unequal power dynamics, but also for ensuring that co-researchers retained ownership of the knowledge they shared as the true “knowledge holders” (Kara, 2015). This approach helped me recognise how my identity, assumptions, and experiences shaped the methodological choices, interpretations, and theoretical framings used in this research, including the

application of Bourdieu's concepts on field, capital, and habitus (Bourdieu, 1986; also used by Uekusa, 2024).

Drawing on scholars such as Billo and Hiemstra (2013), Obasi (2014), Caretta and Jokinen (2017), Uekusa (2024); I reflected on the fluid, shifting nature of insider-outsider roles and the need for ongoing reflexivity. Whilst my identity as a deaf researcher might position me as an insider, differences in culture, background, and lived experiences often created a sense of distance between myself and the co-researchers. Uekusa's (2024) critiques prompted me to examine the privileges I hold and to recognise identity as dynamic and context-dependent. In several field experiences, I felt the tension between my roles as a deaf person, a researcher, and a community member, negotiating what (Obasi, 2014) describes as the emic/etic boundary. These experiences, although sometimes emotionally challenging, formed an important part of the research process. As scholars such as Flowerdew and Martin (2005), Johnston (2016), and Caretta and Jokinen (2017) argue, acknowledging these emotions and positional tensions is essential in understanding research as a relational and evolving process shaped by mutual influence (Billo and Hiemstra, 2013).

My interpretivist and constructivist stance further emphasised that knowledge is socially constructed—shaped by context, values, and lived experiences (Kamal, 2019; Crotty, 2020; Fodouop Kouam, 2024). This aligns with Deaf epistemologies (Hauser *et al.*, 2010), feminist epistemology (Harding, 1987), and intersectional perspectives (Crenshaw, 1989; Obasi, 2014), all of which foreground identity, power, and experience in knowledge production (Doucet and Mauthner, 2006). Bourdieu's (1986) concepts of habitus, field, and capital provide an additional lens to understand how my own forms of habitus and capital interacted with those of co-researchers, Deaf support organisations, and emergency services. Together, these perspectives reinforced that I am not a detached observer but an active co-contributor in the creation of knowledge—requiring continual reflexivity and attention to power, identity, and experience throughout the research journey (Uekusa, 2024).

This chapter also outlined the evolution of the research design. Originally proposed as a Master of Philosophy project on resilience-building initiatives for deaf people in disasters, the scope proved too large. The project was upgraded to a PhD, refocussing on the mobilisation strategies of Deaf support organisations and how these strategies influence access to disaster information, services, and inclusive participation in DRR. This led to the selection of case studies across eight countries and Australia, explored through secondary documentary analysis and 45 semi-structured interviews conducted over four phases. These methods

enabled a rich, multi-layered comparison across four groups: deaf people and community advocates, Deaf support organisations, sign language interpreters, and emergency services; forming the basis of the case studies and vignettes presented in Chapters 4 and 5.

Finally, the chapter reflected on the data analysis and coding process, which became a journey of learning how to unpack the structural, cultural, and relational issues emerging from the data. Following Braun and Clarke's (2006) six phases of thematic analysis and drawing on both deductive and inductive approaches through NVivo, I moved between participant-led (informant-centric) and researcher-led (research-centric) understandings (Van Maanen, 1979; Gioia, Corley and Hamilton, 2013; Azungah, 2018). Through this iterative process, new themes emerged and were refined into higher level abstractions (Azungah, 2018; Mezmir, 2020; Kalpokas and Radivojevic, 2022), ultimately leading to three overarching theoretical dimensions: access, participation, and representation. These dimensions shape the discussion in Chapter 6 and the theoretical framework developed in Chapter 7.

CHAPTER 4: Deaf Support and Disasters in Selected Global Contexts

4.1 Introduction

Emergencies do not affect all people and communities equally and deaf people often face barriers in accessing critical information and services. Deaf support organisations can play a vital role in bridging this gap, acting as intermediaries between emergency services and the communities they serve. However, these organisations often face sustainability pressures and systemic exclusions that Murray (2020) notes perpetuate deprivations in access to information, communication, social services, education, and safety for deaf children as well as adults (see *Section 2.8.1*). These challenges are not limited to just individuals; organisations themselves may struggle to deliver timely and usable information and opportunities for preparedness and engagement with emergency and health services (see *Section 2.8.1*). This chapter examines eight international case studies to identify inclusive and exclusive practices that strengthen equitable participation in DRR by: 1) analysing how Deaf support organisations mobilise accessible information and services; 2) evaluating how effective these strategies are in meeting the needs of deaf people and community members; and 3) and comparing how these strategies support or hinder deaf people's participation in DRR processes.

This chapter examines the recurring challenges that Deaf support organisations and Deaf professionals in Aotearoa New Zealand, Haiti, Indonesia, Italy, Japan, Nepal, the Philippines, and the United States have encountered during past initiatives and disasters¹⁸, including issues of management, resourcing, and the mobilisation of deaf people and community members during emergencies. It also illustrates how Deaf organisations and deaf professionals have mobilised, collaborated, and adapted across different disaster contexts. The chapter is organised into three distinct sections. Section 4.2 presents the more in-depth country accounts, drawing on detailed examples from Japan, the United States, Italy, and the Philippines. Section 4.3 then shifts to a series of vignettes from Nepal, Indonesia, Haiti, and the Philippines. Section 4.4 provides a different perspective, drawing on the experiences of two deaf and hard of hearing co-researchers working within emergency services in Aotearoa New

¹⁸ This chapter adopts a generalised framing of disasters to support thematic coherence across case studies. However, it is acknowledged that different hazard types (e.g., bushfires, floods, earthquakes, pandemics) produce distinct configurations of risk, communication, and access. Future research could further differentiate how these disaster contexts shape specific access, mobility, and communication challenges for deaf people and community members.

Zealand and the United States. Their accounts show how lived experience, professional responsibilities, and internal advocacy intersect in shaping disability inclusion and accessible communication during emergencies. Together, these findings help assess how Deaf support organisations' mobilisation strategies influence accessible disaster information and the inclusive participation of diverse deaf people in DRR. These case studies provide a baseline for comparative analysis with Australian examples that are examined in Chapter 5.

4.2 In-Depth Accounts of Deaf Organisations' Roles in Disaster Contexts

This section brings together the more detailed country accounts of how Deaf support organisations in Japan, the United States, Italy, and the Philippines worked with their communities across different stages of disaster preparedness, response, and recovery. These accounts show how organisations relied on strong community relationships, trusted communication networks, and specialised skills in accessible information to support Deaf people during emergencies. They also highlight the common challenges they faced, including limited involvement in DRR planning, shortages of qualified interpreters, and ongoing barriers to accessible emergency communication.

Although there are clear similarities across the four countries, the Philippines presented a different set of structural conditions. More limited resources, weaker institutional support, and less consistent government engagement shaped how Deaf organisations navigated their roles, setting this case apart from the others.

4.2.1 Japan: Nakama Support

The Nakama Support project emerged after the March 2011 Tohoku earthquake in Miyagi Prefecture (state), when deaf people faced both immediate survival challenges and long-term psychosocial impacts. This account draws on an interview with Dr Kota Takayama (KT) (Appendix J, I22), who has written on this initiative through his work with the Japanese Association of Social Workers for Deaf and Hard of Hearing (JASWDHH) and the Japanese Federation of the Deaf (JFD) (Takayama, 2017; Takayama, 2025). Arising from a collaboration between JASWDHH, a professional body providing counselling services through trained social workers, and JFD, Japan's national peak Deaf organisation, the Nakama Support project mobilised to deliver services ranging from psychological support and interpreting to medical care, food, and basic necessities. Recognising urgent needs in Miyagi, JASWDHH also secured funding to expand counselling services, compensating for the lack of formal public assistance. These efforts later informed advocacy for a permanent, publicly

funded Miyagi Deaf Support Centre to provide ongoing counselling, interpreting, and emergency support during future crises.

JFD's involvement in Nakama Support reflected its organisational strength: strong levels of social capital (drawn from over 20,000 members across 47 prefectures) and its strong financial base (sustained by automatic contributions from local Deaf associations), helped bolster its capacity to lobby for policy changes (<https://www.jfd.or.jp/en/>). It also works alongside publicly funded community service centres offering Japanese Sign Language (JSL) interpreting, counselling, and other forms of support under Japan's disability legislation. However, KT noted that many community members preferred "Deaf peer counsellors", individuals with lived experience and strong community ties, over formally licenced social workers, a profession only established nationally in the 2000s. The Tohoku disaster disrupted both peer counsellors and local interpreters in Miyagi, impacting JFD's capacity to address the mental health needs of deaf people. Against this backdrop, Nakama Support represented not only an emergency intervention but also a turning point in recognising the need for both professional and peer-led counselling services in disaster contexts.

In the aftermath of the disaster, Japan's Council on Disabilities convened to coordinate national disability responses, encouraging disability organisations to form deployment teams. However, JFD and its affiliated Deaf organisations chose a different path. Acknowledging that other disability groups had greater communication access and external resources, they, together with JASWDHH, adopted a Deaf-led approach that prioritised strategies shaped by the needs of the Deaf community. JASWDHH focussed on psychological support whilst JFD organised five multidisciplinary teams comprising: (1) a licenced social worker from JASWDHH (deaf or hearing, fluent in JSL), (2) a Deaf peer counsellor from JFD, (3) a medical professional from the Deaf and Hard of Hearing Medical Association, (4) a JSL interpreter, and (5) an informal Deaf community liaison to connect with local deaf people. These teams visited deaf people in shelters and homes, conducting assessments of both health and support needs. Recognising that local interpreters were also disaster-affected, KT explained that JFD and JASWDHH brought in interpreters from other regions to fill gaps until local capacity was restored. In parallel, JFD collaborated with community organisations to secure essential supplies such as food and basic necessities.

Although JFD and JASWDHH received no government funding—owing to lengthy approval processes—KT noted their partnership with the Nippon Foundation expedited support. JASWDHH secured a US \$200,000 grant from the Nippon Foundation and the American

Jewish Association (Takayama, 2017) for the first year, followed by five additional years of funding (2011-2016), after which the management of counselling services was transferred to the local Deaf Association in Miyagi. This funding enabled the Nakama Support initiative, which deployed social workers and interpreters under the guidance of an experienced deaf licenced social worker whose leadership was key to its successes. Although the deaf social work coordinator was not interviewed directly for this study, they featured prominently in KT's account as the "coordinator" whose expertise and leadership were pivotal to the project's effectiveness.

Contracted for one year from 2011-2012 in Miyagi, KT explained that he worked alongside the coordinator who oversaw client engagement, matching clients with social workers based on preferences such as gender, deaf/hearing status, and JSL proficiency. The coordinator facilitated introductions, then stepped back to allow consistent ongoing counselling relationships. This supported consistent assignment throughout the engagement to foster trust and minimise disruptions from staff turnover. To prevent vicarious trauma, KT emphasised that social workers were limited to one-week deployments, reflecting JASWDHH's duty of care. KT noted that whilst the organisation recognised that mental health professionals for hearing population were plentiful, those qualified to work with deaf people were scarce and any loss of these professionals could compromise essential services. Aware of the shortage of qualified mental health professionals for deaf people, the coordinator also trained local deaf peer counsellors in trauma and psychological first aid, ensuring the sustainability of support once their own contract ended.

The initiative produced three notable outcomes. First, JASWDHH organised a conference bringing together trustees from hearing social work organisations to discuss practices when referring deaf clients to their services. By educating hearing social workers and strengthening these networks, JASWDHH sought to improve access to support services for JFD deaf members during future disasters. Second, JFD and JASWDHH compiled a disaster report on the March 2011 disaster, revealing the absence of a government funded public community centre for deaf and hard of hearing people in Miyagi, despite the prefecture's larger Deaf population compared to neighbouring areas such as Iwate and Fukushima. The report highlighted the critical need for a dedicated centre to serve as a hub during emergencies and urged the government to commit ongoing funding. This advocacy succeeded: the Miyagi Deaf Support Centre was established, hiring staff trained through the Nakama Support project, including a deaf peer counsellor, a licenced deaf social worker, and interpreters. Finally, the project identified an underserved group: hard of hearing and late-deafened

associations¹⁹, which faced challenges in accessing resources and services from hearing organisations during the 2011 disaster. Historically, relationships with these organisations had been strained, but following the March 2011 disaster, these groups sought assistance, prompting JFD and JASWDHH to extend disaster response education and services to them. These efforts strengthened the partnership between JFD and JASWDHH, fostering mutual recognition of their respective roles and establishing a sustainable model for future disasters that built on the processes developed through the Nakama Support initiative.

4.2.2 Italy: Emergenza Sordi Association

Italy has experienced several significant disasters, with one of the most devastating being the Amatrice Earthquake in 2016. Despite being a signatory to the UNCRPD (ratified through Law No. 18 on 03 March 2009) and drawing on earlier frameworks such as the Verona Charter (2007)²⁰, communication access for deaf people during emergencies remained limited (Rotondi, Zuddas and Rosati, 2018). During the 2016 earthquake, emergency responders were often unaware of the communication access deaf people need and frequently failed to provide qualified interpreting and translation services. Instead, they relied heavily on family members of deaf people and those with disabilities to relay life-saving information (Rotondi, Zuddas and Rosati, 2018). Data collection on affected deaf people and those with disabilities was also restricted by government confidentiality regulations²¹ (Rotondi, Zuddas and Rosati, 2018), compounding difficulties in identifying and assisting those most at risk.

To learn more about these I interviewed two deaf Italians, Dr Luca Rotondi (LR) (Appendix J, I25) and Dr Marta Zuddas (MZ) (Appendix J, I30) and translations were provided to me by Dr Paola Rosati. LR and MZ created an online Facebook platform called *Emergenza Terremoto Sordi (Deaf Earthquake Safety Check)*. The platform provided emergency information and updates in Italian Sign Language (LIS) with Italian subtitles, along with visual materials and contact information for support services (Rotondi, Zuddas and Rosati, 2018). This initiative successfully reached a wide audience—around 60% of deaf users and 10% of hearing users sought further information through the platform, benefitting deaf people and their families, as well as emergency responders in locating deaf people and deploying rescue services (Rotondi, Zuddas and Rosati, 2018). However, the founders identified several limitations. The initiative largely excluded deaf people with limited digital literacy or those

¹⁹ Associations are national or local representational organisations that operate on a membership basis to promote the interests and wellbeing of their constituents.

²⁰ The 2007 Verona Charter was the first to outline principles for including people with disabilities in disaster response. Available from: <https://harjupin.ee/wp-content/uploads/2009/03/VeronaCharter.pdf>. Accessed: [05 October 2025].

²¹ Italian National Providence Social Institution

living in areas with poor internet access. There was also a lack of demographic data on users, minimal engagement with the Italian Ministry of Civil Protection (government emergency services), and a focus on Italian content restricted international reach.

To strengthen these efforts, LR and MZ established the [Emergenza Sordi Association](#) in 2018 (the Association), which now operates under a UNI EN ISO 9001-certified quality management system. The organisation's goal was to raise disaster preparedness awareness amongst deaf people, promote inclusive communication strategies, and ensure the accessibility of emergency information through multiple digital platforms—extending beyond Facebook, X, Telegram, and WhatsApp (Emergenza Sordi, 2024). Both founders brought significant professional and lived experiences²² to their roles. LR and MZ are also qualified Basic Life Support and Defibrillation (BLSD) instructors for adults and children, training both deaf LIS users and hearing people in the use of AED (Automatic External Defibrillator). They were later joined by David Mauri, a deaf person with deaf parents, one of whom has low vision. He is also a certified BLSD operator and a volunteer with the Italian Relief Corps of the Order of Malta (CISOM) and has helped enhance the Association's capacity to address the communication access needs of deaf people with additional disabilities.

Since its establishment, the Association has collaborated with the Civil Protection in Rome and other places within the broader Lazio Region, to provide video tutorials, awareness sessions, and conference presentations on emergency preparedness and response to more than 500 deaf people. Yet, challenges persist. LR and MZ highlighted the lack of Deaf awareness and cultural training amongst emergency services, noting that whilst there is considerable willingness to support, this often fails to translate into practical action. Misconceptions about deaf people—particularly stereotypes portraying them as uneducated, further hindered progress. In response, the Association has been working with emergency responders to change this mindset by utilising local disability policies to facilitate agreements, starting with the capital city of Rome.

Although the Association is a voluntary-run organisation relying on donations, LR and MZ highlight the importance of leveraging strategic partnerships to advance accessibility. One key collaboration involves the “Where are u” app, a government-funded initiative in

²² In this thesis, the term “lived experience” refers to both deaf lived experience and the experience of navigating disaster contexts, including where these intersect. This encompasses the everyday social, linguistic, and cultural realities of being deaf, as well as the situated experiences of preparing for, responding to, and recovering from disasters. Where relevant, distinctions between these dimensions are made explicit.

Lombardy that connects users to Italy's national emergency number (112). The app includes silent calls, allowing users to seek help without speaking, SMS, supports GPS tracking, and chat functions—features made freely accessible to deaf users through a Memorandum of Understanding between the Association and the Lombardian government (Emergenza Sordi, 2024). The Association also partnered with CISOM to establish a Deaf Emergency team within the Monza and Brianza Group to support deaf people in disaster situations (Emergenza Sordi, 2024). Another major partnership, with the Lombardy Region Department and Ca' Foscari University of Venice, supports a free video interpreting services in LIS available across public and private health facilities in Milan (Emergenza Sordi, 2024).

Despite these efforts, the Association encountered internal community challenges. They mentioned some members of the culturally Deaf community criticised the dissemination of emergency information without consulting Italy's national Deaf organisation. Negative attitudes within the community—often described as the “crab theory”, where individuals pull each other down instead of supporting success—undermined the group's voluntary efforts and limited the impact of their work. LR and MZ expressed disappointment that these tensions distracted from the broader goal of improving safety and access for all deaf people during crises. Nonetheless, the Association felt it was critical to continue promoting inclusive disaster communication.

4.2.3 USA: California's Disaster Response Team

The Deaf Counselling, Advocacy, and Referral Agency ([DCARA](#)) is a nonprofit organisation providing advocacy, education, employment, and American Sign Language (ASL) interpreting services for, by, and with Deaf, Hard of Hearing, Late-Deafened and DeafBlind people across the San Francisco Bay Area and northwestern coast of California, USA. This case study vignette examines DCARA's response to the [2019 Kincadee fire](#) in Northern California, set against the backdrop of California's recurrent wildfires, including more recent deadly events in Southern California such as the 2025 [Pacific Palisades](#) and [Eaton fires](#). Whilst support services and resources existed for affected local deaf residents (Communication Services for the Deaf, 2025; Daily Moth, 2025; Greater Los Angeles Agency on Deafness Inc, 2025), no formal deaf-led disaster response teams were mobilised in the same way as during the 2019 Kincadee fire.

Recognising the gap in pre-emptive disaster actions and accessible alerts, four former Deaf staff members from DCARA—Ted Horton-Billard (THB) (Appendix J, I44), Amber Tansey (AT) (Appendix J, I5), Byung Lim (BL) (Appendix J, I9), and Nathan Johnston (NJ)

(Appendix J, I33)—formed the then deaf-led Disaster Response Team (DRT). Supported by DCARA’s CEO at the time, they leveraged their diverse expertise to ensure early mobilisation, communication access, and community engagement for deaf residents, to redress known limitations of conventional relief efforts. The following section draws on interviews with these DRT leaders, beginning with their roles, strategies, and experiences in leading a deaf-led disaster response.

Before the DRT’s formal establishment, THB explained that he sought shelters to locate deaf evacuees and ensure there were communication access. Realising the scale of the task amidst multiple fires, he recruited AT, BL, and NJ to share urgent updates through social media vlogs. As shelters multiplied, NJ noted that tracking deaf evacuees became difficult for two reasons: (1) mainstream relief organisations’ volunteers failed to record disability information and, (2) the lack of Deaf awareness amongst shelter volunteers that was observed by THB. To close the gaps, the DRT established a public email and videophone line, circulating contact details to the public, shelters, relief organisations, interpreting agencies, and evacuation centre volunteers through posters, emails, and social media. NJ ensured vlogs were accessible to deaf and hard of hearing, including deafblind people, whilst AT raised the need for offline communication given technology barriers and device thefts in shelters. In response, AT and THB noted that the DRT reinforced information sharing through hard copy posters and aimed to centralise deaf evacuees in one shelter equipped with videophones and ASL access. BL noted that this approach not only improved access but also prioritised evacuation for deaf residents when other centres reached capacity.

During the Kincade Fires, AT explained that the DRT demonstrated strengthened mobilisation strategies shaped by lessons from the 2017 Tubbs Fire. In 2017, AT observed that many ASL interpreters contracted with DCARA were personally affected and unable to assist, forcing the organisation to negotiate complex logistics for bringing in interpreters from outside the disaster zones. Whilst many were willing to help, she mentioned some also became trapped in the disaster zones due to barriers and evacuation lines they could not cross. This situation required significant negotiation regarding compensation for transportation, accommodation, food, and other logistical needs. AT stated that the DRT was able to learn from the challenges faced during the Tubbs Fires and successfully recruited interpreters from outside the area, with many willing to volunteer their time during the Kincade fires.

This also reaffirms how critical trust and familiarity are critical during crises, a point that BL recognised. During the Kincade fires, Johnson explained that the team worked to identify and

train local community volunteers in DCARA-served regions before staff deployment, ensuring immediate on the ground support. During the fires, these volunteers helped locate deaf evacuees, facilitated communication through video and phone calls, and co-produced targeted information vlogs—forming what AT described as a “temporary Deaf Command Centre”. Operating around the clock, NJ and AT noted the team maintained a flow of accessible information and emotional support, whilst post-disaster efforts extended to interpreting, counselling, and assisting deaf survivors through the complexity of navigating and translating insurance and recovery processes in ASL. THB and BL stated it was critical to provide constant communication and resources to minimise evacuees’ trauma.

The DRT also strengthened partnerships with emergency service agencies and interpreter networks to improve information access during press briefings. Drawing on her experience as both a Certified Deaf Interpreter (CDI)²³ and advocate, AT emphasised that a formal Disaster Response Interpreting (DRI) training through NorCal, which trains ASL interpreters for media interpreting (Norcal Services for Deaf and Hard of Hearing, 2025) is needed for one to interpret press briefings, and for monitoring interpreters’ wellbeing before and after deployments. She also underscored the importance of cultivating relationships with emergency officials to ensure interpreters were included in all media discussions and briefings, appropriately positioned, and fully visible on broadcasts. According to AT, these partnerships are vital for delivering life-saving information to deaf people during emergencies.

THB noted that whilst the DRT’s work during the Kincade fires marked a turning point in deaf-led disaster response, collaboration with emergency services and relief organisations remained challenging. Existing systems lacked consistent accessibility measures, particularly for deaf, deafblind, and those with additional physical disabilities. This became evident during the Kincade Fires when AT approached Sonoma County’s fire department to raise and address problems in emergency communication for deaf residents. She showed that the TTY (teletypewriter) alerts were not reaching deaf people’s phones, prompting the department to rethink their approach and highlighted the need for collaboration with DRT to ensure effective information distribution, including organising media interpreters for press releases. Another

²³ Certified Deaf Interpreter: A Certified Deaf Interpreter (CDI) is a deaf or hard of hearing professional certified by the Registry of Interpreters for the Deaf (RID). CDIs have specialised linguistic and cultural expertise that enables them to interpret for deaf people who use a range of communication modes or have unique language needs. Their role is often to work in tandem with a hearing interpreter, facilitating clearer communication when standard interpreting approaches are insufficient. Available: <https://rid.org/resources/#spp>. Accessed on 03 November 2025.

challenge that THB raised was working with shelter volunteers to share information about resources for deaf evacuees. However, coordination was hindered by the involvement of out of state volunteers unfamiliar with local contexts and occasional resistance from local agencies. These experiences led DRT to pursue a formal agreement with the Red Cross for Deaf Awareness Training, acknowledging that not all volunteers from across the country would be adequately trained in local area dynamics.

Despite these barriers, all the team members felt that the DRT achieved significant progress. During the Kincade Fires, they established an accessible shelter for deaf evacuees, receiving positive community feedback, and strengthened their internal team network. Informal partnerships with the California State Office of Emergency Services, local governments, and Sorenson (which supplied videophones), and the Northern California Association of the DeafBlind (NCADB), were crucial to their operations. Supported by DCARA's then leadership, the DRT identified outreach gaps beyond its existing network, underscoring the need to raise awareness about their services amongst emergency and government agencies. Future plans included a "train the trainer" model to strengthen volunteer systems, a formal partnership with the Northern California Association of the DeafBlind (NCADB)-to improve support for deafblind people and further training in the DRI to improve communication in shelters. Although the DRT dissolved in 2019–2020 due to a political organisational crisis, the model was successful and could have achieved more without those challenges. With wildfires increasing in California, THB believed the state's Department of Social Services should fund similar programs across Deaf organisations.

4.2.4 Philippines: Deaf Disaster Assistance Team-Disaster Risk Reduction

The following case study draws on an interview with a representative from Deaf Disaster Assistance Team-Disaster Risk Reduction (DDAT-DRR), referred to as I31 (Appendix J, I31). I31 explained that repeated large-scale disasters in the Philippines have exposed the communication barriers deaf people face in accessing timely disaster information. They noted that many deaf Filipinos experience heightened trauma during such crises due to limited access to early warnings or emergency broadcasts. A recurring challenge that I31 pointed out lies in the format and language of emergency alerts, often issued in Tagalog. This makes it difficult for deaf leaders to interpret and translate information into Filipino Sign Language (FSL) for their communities, as many deaf people were taught English and less on the local Filipino languages used in their respective areas. I31 highlighted that access disparities further compound the issue: whilst some deaf people with electricity and internet connectivity

can follow updates via television or social media, others in remote provinces have little or no access to phone reception or digital communication.

Carolyn Dagani (CD), former president of the Philippine Federation of the Deaf (PFD) (Appendix J, I12), explained that fragmented government systems for identifying and supporting deaf people intensify access barriers. Existing national disability policies—including BP344 (1982)²⁴, the Magna Carta for Persons with Disabilities (1992)²⁵, and the Filipino Sign Language (FSL) Act (2018)²⁶—are outdated, poorly coordinated, and lack mandatory provisions for sign language interpreters. Implementation is left to the Department of Social Welfare and Development (DSWD), the agency responsible for promoting social welfare and protecting the rights of Filipinos. Despite long-term disability budgets, DSWD had not established a formal interpreting service system at the time of the interview. Whilst I31 and CD conceded that there have been significant improvements in accessibility, and disability and sign language laws, government compliance and enforcement remain low. They stress that this gap between policy and practice leaves many deaf people reliant on grassroots mobilisation by Deaf organisations to interpret, adapt, and share life-saving information during crises, often with limited resources and inconsistent institutional support.

The persistent communication barriers experienced by deaf people during emergencies led to the establishment of DDAT-DRR in 2014, a voluntary, deaf-led non-government organisation (NGO) dedicated to improving access to emergency and disaster information for the Filipino Deaf community. Historically reliant on hearing family members for crisis information, I31 observed that deaf people in the Philippines have shown greater interest in disaster preparedness and community engagement. DDAT-DRR has worked closely with the Philippine Federation of the Deaf (PFD), the national peak body for Deaf representation, and the Philippine National Association of Sign Language Interpreters (PNASLI), but I31 conceded that operations remain modest, run primarily by three volunteers with limited resources. They further explained that recruiting deaf people to volunteer proved challenging

²⁴ BP344 (Batas Pambansa Blg. 344) is a Philippine Accessibility law mandating inclusive design standards in public buildings, transport, and facilities to ensure equal access for people with disabilities. Available from: <https://ncda.gov.ph/disability-laws/batas-pambansa/batas-pambansa-blg-344>. Accessed [04 October 2025].

²⁵ The Magna Carta for Persons with Disability (Republic Act No. 7277) is the primary Philippine legislation safeguarding the rights and welfare of persons with disabilities and ensuring their full participation in society. Available from: <https://ncda.gov.ph/disability-laws/republic-acts/republic-act-7277/>. Accessed [04 October 2025].

²⁶ Republic Act No. 11106, or the Filipino Sign Language (FSL) Act, declares FSL the national sign language of the Deaf in the Philippines and requires its use in government, education, media, and workplaces to promote accessibility and inclusion. Available from: <https://ncda.gov.ph/disability-laws/republic-acts/ra-11106/>. Accessed [04 October 2025].

due to financial constraints, and past fundraising efforts could not fully overcome the organisation's capacity limitations.

To increase inclusion in national and local disaster frameworks, I31 explained that DDAT-DRR joined the Cebu DiDRR Network (DiDRRN), an initiative led by the Arbeiter-Samaritier-Bund (ASB) promoting disability inclusion across all DRR processes. However, I31 reported DDAT-DRR being excluded from key discussions due to limited interpreter availability and short notice for participation. Training sessions through Cebu DiDRRN, whilst practical, were designed for a broad disability audience. I31 felt that this left little room to meet the communication and language needs of the Deaf community. These barriers restricted the organisation's ability to participate in policy dialogues, educate local Deaf organisations, and ensure compliance with frameworks such as the UNCRPD and Sendai Framework (2015-3030).

Amidst these challenges, DDAT-DRR sought to strengthen its advocacy through a collaborative research project titled *Disability and Disasters: Empowering People and Building Resilience to Risk* (2015-2017), led by the University of Sydney and funded by the Global Resilience Partnership (GRP) (refer to *Section 3.2.3*). The GRP is a global network that advances resilience by scaling innovative, on the ground solutions, sharing knowledge, and influencing policy through its operations in South Africa and Sweden (Global Resilience Partnership, 2025). I31 explained that DDAT-DRR staffed three deaf co-assistants who worked alongside two deaf Australians (myself being one of those) to co-lead a sub-project focussed on the Filipino Deaf community, conducting seven focus group discussions with 92 deaf people across 5 regions. The research identified communication breakdowns as the most significant barrier, with deaf people often being the 'last to know' about disasters (Calgaro, Johnson and Craig, 2017). Key recommendations included developing FSL video resources on disaster terminology and providing accessible DRR training workshops (Calgaro, Johnson and Craig, 2017).

Building on these recommendations, DDAT-DRR partnered with the Philippine Red Cross in 2016 to deliver a four-day regional training event in Cebu for seventeen deaf leaders and seven hearing allies on First Aid and basic DRR that reached five regions and 174 deaf people. They noted some of the participants conducted community workshops across the country, both to share their knowledge and to establish links with local Red Cross chapters for ongoing training (Calgaro, Johnson and Craig, 2017). Whilst I31 felt that the training, the first specifically for deaf and hearing FSL users, demonstrated the value of targeted, hands-on

capacity-building, challenges emerged around funding, partnerships, and sustainability. Efforts to formalise ongoing collaboration with the Red Cross stalled due to staff turnover and securing alternative funding through local government remained slow and resource dependent. I31 also emphasised the importance of co-designed, in person training that equips both deaf participants and emergency responders, noting that online options were often unfeasible due to poor connectivity and financial constraints.

Despite these limitations, I31 felt DDAT-DRR's initiative provided critical baseline data and resources, helping to raise recognition of deaf people as legitimate stakeholders in DRR. They explained that presentations at the first National Conference on DiDRR in 2017 increased visibility, but key areas remain underdeveloped, including FSL disaster resources, co-designed training opportunities, and adaptation of national and international disability related DRR policies to meet the learning needs of deaf people. Both I31 and CD stressed the urgent need to upskill deaf leaders and strengthen partnerships with the Red Cross and other emergency services to ensure disaster response systems adequately address the communication and access needs of deaf people.

4.2.5 Challenges and Opportunities: Learning from In-Depth Accounts

Across Japan, the United States, Italy, and the Philippines, Deaf-led individuals and organisations played a central role in addressing gaps in disaster preparedness and response. The ongoing disasters worldwide have led Deaf support organisations facing common challenges that included limited involvement in DRR planning, insufficient recognition of the language and communication access needs, shortages of sign language interpreters, and difficulties engaging with emergency services. Emergency systems were often unable to provide accessible and timely information or identify deaf people during evacuations and response efforts, prompting deaf people and organisations to develop context-specific initiatives. These initiatives emerged from community-identified gaps, with variations on the level of institutional backing each Deaf support organisations had, how that impacted their mobilisation efforts, and gaps that emerged from those efforts.

The lack of institutional support from emergency services has led many Deaf support organisations to rely heavily on community relationships with local Deaf communities, Deaf organisations, and service providers. This dynamic was evident in Japan, when JFD and its affiliated Deaf organisations chose not to join the country's Council on Disabilities to coordinate national disability responses—perceiving that other disability groups had greater access to communication and resources that deaf people lacked (I22, Appendix J). Instead,

they partnered with JASWDHH to establish Deaf-led leadership and through the Nakama Support initiative coordinated a national response involving JFD's local chapters, Deaf service providers, and JSL interpreters (I22, Appendix J). A similar pattern occurred in the United States, where the DRT was created by a deaf DCARA staff member who identified an unmet need during the wildfires. This locally driven mobilisation effort was supported by the then DCARA CEO, along with local Deaf community members, Sorenson (a video relay ASL interpreting company), and consultations with the NCADB (I44, Appendix J). In the Philippines, DDAT-DRR emerged from deaf people with the lived disaster experiences and built partnerships with national Deaf (PFD) and interpreting (PNASLI) organisations to support national data collection and DRR activities (I31, Appendix J). In contrast, Italy's Emergenza Sordi Association, founded by two deaf people to provide accessible disaster information, operated with limited institutional backing from the country's national Deaf organisation, which reported not being consulted (I25, I30, Appendix J). Across these cases, Deaf-led initiatives emerged in response to community-identified gaps, with the scale and effectiveness of mobilisation shaped by the level of institutional support available—an issue explored next.

Across the four case studies, Deaf-led organisations demonstrated effective yet uneven mobilisation shaped by their structural and institutional environments. In Japan, the Nakama Support project's strong backing from national and local Deaf organisations and service providers to advocate successfully for government accountability, resulting in the establishment of a local Deaf Community Centre in the affected area. However, gaps emerged where hard of hearing and late deafened associations, initially unsupported by formal services, turned to JFD for resources that government agencies had not provided. In the United States, the DRT mobilised effectively through partnerships with local Deaf communities, relief organisations, and emergency services to establish a shelter for deaf evacuees, though its reach was limited to areas served by DCARA, excluding deaf people outside its service boundaries. Italy's Emergenza Sordi Association's Facebook page (*Emergenza Terremoto Sordi (Deaf Earthquake Safety Check)*) provided widely accessed LIS emergency updates, yet its reliance on digital platforms excluded those with limited internet access or digital literacy and it had minimal coordination with emergency services—along with their contributions to accessibility initiatives were met with representational tensions with the national Deaf organisation due to the lack of consultations. In the Philippines, DDAT-DRR collected data on deaf people and disasters across the country and delivered the first DRR training and produced FSL resources supported by partnerships with national peak organisations for deaf people and FSL interpreters, but many deaf people in remote provinces

have little or no phone reception or internet access are not able to participate in workshops or access online resources. Collectively, these cases show that whilst Deaf-led initiatives can mobilise effectively, persistent gaps in access, institutional coordination, and inclusivity continue to shape their overall reach and impact.

4.3 Case Study Vignettes: Disaster Responses in Resource-Constrained Settings

This section presents a series of vignettes from countries operating in resource-constrained contexts, showing how Deaf support organisations mobilise and support their communities in environments shaped by limited resources, institutionally stretched systems, and ongoing communication barriers. Whilst this thesis emphasises the importance of context in shaping deaf people's experiences, the inclusion of international case studies in this chapter is intentional. Rather than aiming for direct comparison or generalisation, the examples in this section are used as illustrative vignettes to identify recurring structural patterns, particularly in relation to communication access, linguistic capital, and systemic exclusion, that emerge across diverse national contexts.

The examples involved three co-researchers represented or advocated alongside Deaf-led organisations in Indonesia (Gerkatin), Nepal (National Federation of the Deaf Nepal, NFDN), and the Philippines (Philippine Federation of the Deaf, PFD). In addition, one co-researcher represented International Deaf Emergency (IDE), a Deaf-led humanitarian organisation that has worked in Haiti and another co-researcher represented from Arbeiter-Samariter-Bund (ASB), a German-based NGO focussed on DiDRR in Indonesia²⁷ and the Philippines. Four of these organisations—Gerkatin, NFDN, PFD, and IDE—are voluntary and Deaf-led, with IDE receiving humanitarian funding during the 2010 Haiti earthquake. ASB is the only organisation that receives international funding, including engagement with Gerkatin. Four organisations — Gerkatin, IDE, NFDN, and PFD— are also affiliated with the WFD²⁸.

Although all four countries represented have ratified the UNCPRD (Appendix J, I4, I12, I15, I29) and/or enacted national disability laws (Appendix J, I4, I12, I29), implementing these frameworks remains challenging (Appendix B, I4, I12), particularly during disasters (Appendix J, I4, I12, I15, I29). Indonesia, Nepal, the Philippines and Haiti have faced significant disasters, including notable earthquakes, floods, fires, and typhoons (UNDRR,

²⁷ Arbeiter-Samariter-Bund (ASB) is a German-based NGO focussed on supporting DiDRR in Indonesia and the Philippines. Available at: <https://www.asbindonesia.org/about-us/>. Accessed on: [06 October 2025]

²⁸ The World Federation of the Deaf (WFD) is an international non-governmental organisation dedicated to promoting the human rights, accessibility, and full participation of deaf people in society worldwide. Available at: <https://wfdeaf.org/>. Accessed on: [06 October 2025]

2024; UNESCAP, 2024). For deaf people disproportionately affected by disasters in their countries, local Deaf organisations have stepped in to provide support with the resources and capacities available to them.

4.3.1 Nepal and the NFDN

The co-researcher from Nepal, a community advocate closely involved with the [NFDN](#), is referred to as I4 (see Appendix J). I4 described the widespread devastation caused by the 2015 Nepal earthquake, which resulted in numerous injuries and deaths, including three deaf people. They noted that lessons from previous earthquakes over the past 40-50 years had largely been disregarded. I4 explained that deaf people faced significant communication barriers, particularly outside Kathmandu, where interpreters were unavailable, leaving hospitalised people without access to essential support.

Despite substantial donations for Nepal's recovery, I4 observed that little aid reached the Deaf community, many whom suffered home damage and faced lengthy delays in accessing government financial assistance. Additionally, I4 also mentioned that the NFDN faced similar challenges, needing to document deaf peoples' needs before receiving funding. In response, I4 explained that the organisation mobilised to meet with affected deaf residents, document their experiences, and share this information with governments and international funders, whilst I4 helped solicit global donations.

I4 also described efforts to use donated funds to produce emergency preparedness training videos in Nepalese Sign Language (NSL) for deaf people. The videos took two years to complete due to challenges in recruiting NSL translators and managing filming and editing. Whilst the videos impressed many in the community, I4 noted they focussed primarily on earthquakes and did not cover other natural hazards such as floods and fires. Despite using role-playing and examples to aid understanding, I4 mentioned they are not aware of what monitoring or evaluation processes to assess their effectiveness and little is known about their impact since distribution.

4.3.2 The Philippines and the PFD

The co-researcher from PFD is Carolyn Dagani, a former PFD President (Appendix J, I12). Like Nepal, the Philippines faces frequent disasters, however CD explained that prior to 2014, PFD was largely excluded from DRR training, participating only in discussions on access needs alongside other disability groups. This section focusses on PFD's mobilisation

response during the COVID-19 pandemic. CD noted that whilst DDAT-DRR had previously collected data on deaf experiences, hosted a Regional Red Cross Training, and developed FSL video resources, these initiatives were one-off and their impact was unclear. In response to COVID-19, CD explained that PFD supported the creation of two voluntary-led organisations: the FSL Access Team and the Community Access Team (CAT). The FSL Access Team, comprising FSL interpreters, advocates, creatives, and healthcare workers, disseminated COVID updates via social media and facilitated communication between the Deaf community and government agencies, with hearing team members assisting across multiple cities and channels.

CD further explained that CAT, operating under the FSL Access Team, connected Deaf community members with information and services. Community members seeking assistance sent photos, contact information, and a brief video or text explaining their needs. CAT volunteers then produced vlogs to mobilise support, with helpers either contacting affected deaf people directly or coordinating donations through a designated contact. Whilst CD noted that addressing individual cases could present challenges and potential biases, support requests from multiple affected people strengthened appeals. This process proved adaptable to other disasters, such as a fire on a neighbouring island that promoted requests from seven to eight deaf residents. Although CD observed that PFD viewed the initiative as better situated under DDAT-DRR, she acknowledged the organisation's limited capacity.

4.3.3 Indonesia: ASB and Gerkatin

In Indonesia, two organisations play key roles in supporting the country's Deaf community in disaster contexts: [Gerkatin](#), the national Deaf peak body that established a DRR committee and [ASB](#), an international NGO specialising in DRR. The following sub-section draws on interviews with two co-researchers: I2, a community member from Gerkatin, and I29, a representative from ASB Indonesia (see Appendix J, I2, I29). Both co-researchers described their organisations' ongoing efforts in DRR, beginning with the work of I29 from ASB.

4.3.3.1 The ASB

Since 2007, ASB has been a leading advocate for DiDRR in Indonesia, responding to gaps in the participation of people with disabilities in disaster contexts. According to I29, ASB's programs—supported by international donors and its own funds, have evolved significantly over time. Its mobilisation approach shifted from initially involving people with disabilities as participants and consultants in developing accessible information and communication materials, to engaging them as trainers and collaborators in both local and global advocacy.

I29 reported that over 150 people have participated in ASB's DiDRR projects, including approximately 20 deaf participants. Three of the six project partner organisations were deaf focussed: Indonesian Movement for Deaf Welfare (Gerkatin), Deaf Art Community (DAC), and Matahariku (Deaf local community in Yogyakarta).

ASB's initiatives mobilised people with disabilities into a wide range of DRR roles, including as trainers, community facilitators, data collectors, surveyors, emergency aid distributors, monitoring personnel, capacity building participants, and resource persons for national and international DRR platforms. These activities not only supported local capacity but also strengthened leadership amongst people with disabilities in DRR and humanitarian response, contributing to the implementation of the Sendai Framework for DRR (see Chapter 1, *Section 1.4*). As I29 emphasised, these strategies demonstrated that people with disabilities are active contributors to DRR, not just a "vulnerable" group.

Despite achievements, I29 identified ongoing barriers including stigma, inaccessible information and early warning systems, limited access to sign language interpreters, and a lack of practical DRR training opportunities. I29 also observed that misconceptions persisted—that DRR initiatives for people with disabilities should remain separate from mainstream efforts, despite ASB's efforts to foster collaboration and collective capacity amongst disability organisations. I29 emphasised that disability inclusion relies on meaningful participation and leadership, expressing hope that disability organisations, including Deaf organisations, will become self-sufficient partners, more active in mainstream DRR policy, and that inclusive DRR become common practice in Indonesia.

4.3.3.2 *Gerkatin*

Gerkatin, Indonesia's national peak and voluntary-led organisation for deaf people, advocates for equal rights and access across all areas of life in Indonesian society. In response to the recurring disasters in Indonesia and the lack of support for affected deaf people, I2 explained that Gerkatin established its own Field of Disaster Response subcommittee in February 2021. According to I2, one of Gerkatin's leaders had existing connections with Indonesia's national disaster management agency, which helped identify a gap within the organisation's structure. I2 explained that whilst Gerkatin already have a subcommittee focussed on hospitals and health, it had no disaster preparedness or response focus. To fill this gap, five deaf people were recruited into voluntary roles at the onset of the COVID-19 pandemic.

Access conditions in Indonesia reveal several challenges. Although interpreters exist, their numbers are limited, and many have competing life priorities that reduce their availability for the community. Critically, even fewer interpreters have experience in emergency related interpreting. Whilst there is a program for learning BISINDO, I2 is unsure whether formal interpreting qualifications exist for those interested in becoming professional interpreters. The BISINDO program includes two streams, one of which focusses on sign language interpreting. As of the 2021 interview, televised emergency information included a small inset with sign language interpreters. I2 emphasised the need to advocate for a larger inset to ensure visibility but highlighted an even more critical issue: the mode of sign language used. The inset sometimes displays two interpreters—one using BISINDO, the language widely used by Deaf community members and the other using the government preferred “signed system”, a word for word representation of the Indonesian language.

I2 noted that many hearing people, particularly government officials in DRR, are people they would like to meet, interact with, and learn from. However, both I2 and many other deaf Indonesians feel shy and lack confidence, fearing they might say the wrong thing. This hesitancy is reinforced by cultural expectations that university education is required to understand policies and engage effectively with government. I2 stressed that it is essential for deaf leaders to know how to interact confidently with high profile individuals, including government officials, when advocating for the community. This creates a significant challenge, as many deaf Indonesians feel uncertain using formal, high level language, which can hinder efforts to advocate for systemic change.

Although Gerkatin’s disaster committee’s work is still in its early stages, I2 explained that their subcommittee are keen to build partnerships with government agencies and emergency services to deliver emergency preparedness training for deaf people. However, I2 noted that organisational progress toward formal collaboration remains ongoing as Gerkatin works to strengthen its internal capacity and commitment in this area. At the same time, I2 mentioned that there has been ongoing work within the mental health space in collaboration with an international deaf mental health expert and advocate from the UK, which also extends to supporting deaf people affected by disasters.

4.3.4 Haiti and IDE

International Deaf Emergency ([IDE](#)) was established in response to a critical gap identified during the humanitarian response for deaf people following the Haiti 2010 earthquake. Founded by Emmanuel Jacq (EJ) (see Appendix J, I15), IDE emerged after he recognised that

no international humanitarian organisation specifically supported deaf people affected by disasters. EJ explained that IDE's early humanitarian mobilisation work began in Haiti, where the organisation advocated for a humanitarian camp for deaf people and people with disabilities displaced by the earthquake—an effort aimed at addressing the severe cultural stigma they faced, similar to that identified in Indonesia. Their advocacy proved successful, with Jacq citing the Haitian government at the time approving the initiative, and in cooperation with the Red Cross, French Embassy, and Watermission International (CBM International, 2016). Within two weeks, IDE helped establish a camp with tents, showers, toilets, and security, accommodating over 400 refugees who are deaf and/or have a disability. EJ also noted that IDE worked to locate deaf refugees in other camps to help reunite them with their families.

Whilst IDE provided initial technical and financial support with the assistance of Disability Rights Fund (DRF), Haitian Deaf leaders and their organisations played a central role in shaping the camp, establishing local associations, and contributing to the development of a new national Deaf federation. Building on this locally led mobilisation, EJ explained that IDE subsequently secured international funding to train 13 local Deaf associations and establish Haiti's first national peak body for deaf people. This funding also supported training on women's rights, emergency preparedness, and advocacy in disaster risk reduction (DRR). In collaboration with the Red Cross, IDE facilitated vocational training and cash-for-work program that offered skill-based training in construction for deaf refugees (CBM, 2019). EJ reflected that these initiatives empowered deaf people with practical skills and resources to rebuild their livelihoods after the earthquake.

The foundational humanitarian work in Haiti positioned EJ and IDE as strong advocates for Deaf inclusion in DRR globally. Drawing on this experience, IDE has since provided capacity building training on human rights, DRR, advocacy, and empowerment in countries such as Jordan, Colombia, Senegal, China, and Nepal, reaching more than 400 deaf people. EJ also described IDE's expanding leadership role through advisory work with international bodies such as the International Disability Alliance (IDA), the establishment of the first DRR Expert Group under the WFD in 2020, and a 2020 Memorandum of Understanding between IDE and WFD to create an emergency fund supporting Deaf organisations' capacity building in DRR.

In addition to his advisory work, EJ co-authored the Humanitarian Inclusion Standards for Older People and People with Disabilities (CBM International, HelpAge International, and Handicap International, 2018) and represented Deaf perspectives at the Third UN World

Conference on Disaster Risk Reduction in Sendai in 2015, where the Sendai Framework for Disaster Risk Reduction 2015–2030 was adopted. These roles demonstrate how mobilisation strategies developed in response to the needs of deaf Haitians extended beyond the immediate crisis, enabling Deaf-led knowledge to influence international humanitarian and DRR standards.

By securing formal channels into international coalitions of organisations of persons with disabilities, and by participating as equal partners in drafting guidance and policies, Deaf organisations were able to translate locally grounded experience into structural change. This form of mobilisation not only addressed access deprivation for the Haitian Deaf community during and after the earthquake but also strengthened the visibility and legitimacy of Deaf perspectives—grounded in the lived experiences of Deaf community members who survived the disaster and those who assisted on the ground, including EJ—within global humanitarian systems. In doing so, it contributed to broader efforts to reduce access deprivation for older people and persons with disabilities.

4.3.5 Challenges and Opportunities: Learning from the Vignettes

Access to emergency information and support across different stages of the DRR process varies widely amongst countries in the Global South. In Indonesia and the Philippines, for example, deaf people have some access to televised emergency broadcasts with sign language interpreters and captions. However, co-researchers noted that these interpreter insets are often too small for many to see clearly (Appendix J, I2, I12). In contrast, Nepal lacked technological systems to alert people in advance of disasters, leaving many people—particularly deaf people—without adequate time to plan or evacuate, often with devastating consequences (Appendix J, I4). Whilst the absence of early warning systems affects everyone, co-researchers highlighted that the design of those systems remains largely inaccessible, as alerts often rely on sound or spoken communication, excluding deaf people from receiving timely information (Appendix J, I4, I12). This disparity has led to increasing calls for targeted emergency preparedness training for deaf people, as co-researchers noted concerns many deaf people in their countries continue to be disproportionately affected by disasters, yet have limited or no knowledge of how to respond (Appendix J, I2, I4, I12).

The Philippines was the only country in which deaf people had participated in DRR and First Aid training, delivered by the Philippine Red Cross and organised through DDAT-DRR, however it was a once-off effort rather than an ongoing initiative (Appendix J, I12). Despite this, CD (Appendix J, I12) from the Philippines emphasised the advantages of conducting

separate training specifically for deaf people rather than combining them with broader disability groups. Drawing from experience in an UN-supported training initiative, CD observed that when training was open to multiple disability groups, few deaf participants attended. By contrast, a later pilot training designed exclusively for deaf people, supported again by the UN, drew many deaf leaders from across different countries—which CD explained how a shared deaf identity and accessible communication environment can foster stronger participation and learning outcomes.

Across the case studies, co-researchers identified critical capacity challenges linked to a shortage of leaders within Deaf support organisations. Deaf people in all four countries face barriers in education and language access, which limits their understanding of human rights, advocacy mechanisms, and relevant policy frameworks (Appendix J, I2, I4, I12, I15). In the Philippines, deaf people living in rural or impoverished areas face multiple layers of exclusion, where limited resources and opportunities make it difficult to access education, information, and essential services (Appendix J, I12). Similarly, whilst deaf people in Nepal possess a basic understanding of their rights, many struggle to grasp how to exercise those rights effectively (Appendix J, I4). In Indonesia, education and language barriers further erode confidence in understanding policy language and engaging in high-level advocacy efforts with government agencies (Appendix J, I2). In Haiti, there were 13 local Deaf organisations with limited resources and capacities, however it was not until 2014 that a national Deaf organisation was established and officially becoming a member of the WFD with the assistance of IDE (Appendix J, I15).

Leadership transitions brought both challenges and learning opportunities for Deaf support organisations (Appendix J, I2, I4, I12). In some organisations, younger members are eager to learn from the experience of established leaders, whilst new board members may join without formal handovers, creating opportunities for patience and collaboration to bridge different experiences and approaches during rebuilding efforts (Appendix J, I2, I4). CD (I12, Appendix J) also described how poverty and survival pressures made it difficult to recruit and retain board members or volunteers, as some expected financial incentives, a challenge for Deaf organisations that rely heavily on volunteers to operate (Appendix J, I12).

Funding emerged as one of the most persistent challenges across all voluntary Deaf-led organisations. Co-researchers emphasised the need for resources to expand capacity, involve more deaf people in emergency services, and provide psychosocial support for those affected by disasters (Appendix J, I2, I4, I12). Despite the pressing mental health needs of disaster-

impacted deaf people, many organisations lack the financial means to offer sustained assistance (Appendix J, I2, I4, I12). In the Philippines, whilst disability-related funding opportunities exist, they are often underutilised due to the absence of Deaf leaders in some regions, reluctance amongst some deaf people to identify as having a disability, and mistrust of hearing-led institutions following past exploitation (Appendix J, I12). In Nepal and Indonesia, despite government goodwill toward supporting deaf people, funding distribution remains uneven and local Deaf organisations face leadership shortages or advocacy experience needed to effectively access available funds (Appendix J, I2, I4). By contrast, Deaf organisations in Haiti, supported by IDE, were able to pursue targeted humanitarian funding to strengthen organisational capacity and disaster preparedness training (Appendix J, I15).

Across all contexts, a chronic shortage of qualified sign language interpreters remains a major obstacle. This shortage, combined with the lack of clarity around who bears responsibility for interpreter costs, has hindered Deaf organisations' ability to engage effectively with government agencies and advocate for systemic change (Appendix J, I2, I4, I12, I15). These structural and capacity challenges highlight the complex realities facing Deaf-led organisations as they strive to strengthen their role in DRR within under-resourced environments.

4.4 Deaf Experiences within Emergency Services: Aotearoa NZ and the USA

This section changes focus from deaf people working with Deaf Organisations to the experiences of two deaf and hard of hearing co-researchers working within emergency services in Aotearoa New Zealand and the United States. Their insights offer a different perspective from the previous case studies, showing how lived experience, professional roles, and institutional responsibilities intersect in shaping access for deaf and marginalised communities during disasters. Whilst their work within emergency services intersects with the disability spectrum, they note that not all deaf people identify as having a disability. However, from an emergency services perspective, their need for access aligns with disability laws and policies in their respective countries. Their lived experiences as deaf and hard of hearing people inform their professional roles, enabling them to advocate effectively for marginalised communities, including those with similar experiences. The discussion begins with the experiences of Nick Linton (NL) from Fire and Emergency New Zealand (NZ) (Appendix J, I35), offering insight into how Deaf organisations contribute to disaster preparedness and response.

4.4.1 Aotearoa New Zealand

NL, appointed as the SME (Subject Matter Expert) for disability at Fire and Emergency NZ (FENZ), brought over 15 years of firefighting experience (Appendix J, I35). Although FENZ is relatively new to the disability space, NL quickly became a key driver of internal disability awareness, building on a culture fostered by his former boss, who championed inclusion through recognition, collaboration, and listening to people with disabilities. At a legislative level, NZ's *Human Rights Act 1993*²⁹ protects against disability discrimination, whilst the *Fire and Emergency New Zealand Act 2017*³⁰ requires public building owners to provide safe spaces for those needing assistance (see Sections 76-79; FENZ Act 2017) and mandates the review of evacuation plans, including trial evacuations 2-4 times per year that involve training for fire wardens and people with access needs (see Sections 75-78 and 192, FENZ Act 2017). Yet, NL noted that monitoring compliance across all public facilities remains challenging, often relying on the honesty and engagement of building operators.

Despite the legislated requirements, several problems remain. One example NL shared was evident is an incident when a deaf university student was the last to evacuate during a campus fire drill due to the absence of visual fire alarms and assistance. In response, the student advocated to the NZ Parliament for a mandate requiring visual fire alarms in all public buildings, prompting recommendations from FENZ. NL supported the initiative, emphasising that accessible public safety measures benefit not only deaf people but everyone with disabilities. Moreover, policies for public places exclude domestic dwellings, leaving people, including those with disabilities, responsible for their own evacuation plans. Recognising the gap in domestic settings, FENZ's closest initiative in the disability space involves installing visual fire alarms in homes for deaf, hard of hearing, and deafblind people, along with community talks that discuss fire alarms, including the visual ones, to inform attendees who may know someone who can benefit from one. NL also mentioned that FENZ has built strong relationships with Deaf Aotearoa, National Foundation for Deaf/Hard of Hearing, and Blind/Low Vision NZ, referring consumers and members to them for information about fire alarms and fire safety.

²⁹ Human Rights Act 1993. Available at: <https://www.legislation.govt.nz/act/public/1993/0082/latest/dlm304212.html>. Date accessed: [07 October 2025].

³⁰ Fire and Emergency New Zealand Act 2017. Available at: <https://www.legislation.govt.nz/act/public/2017/0017/latest/DLM6712701.html>. Date accessed: [07 October 2025].

From NL's perspective, effective mobilisation requires a two-way approach. Internal training is crucial to equip firefighters with the skills to engage meaningfully with diverse communities. At the time of interview in 2021, he was the sole point of contact handling disability enquiries and so he believed further efforts should be made to broaden firefighters' awareness of disability issues. Whilst some firefighters gain exposure to disability issues through emergency responses, NL noted structured training beyond visual fire alarms and evacuation procedures is limited. NL advocates moving away from the "pity" model that views people with disabilities as needing help, towards collaborative engagement, emphasising that disability training can address broader societal attitudes whilst empowering firefighters to work inclusively.

Central to NL's strategy is collaboration with disability organisations to co-develop training programs for firefighters involved in community education. With FENZ operating as a single national emergency services organisation, consistent training can be delivered across regions, but its impact depends on accessibility, appropriate language, and culturally relevant information. At the time of interviewing, NL was developing tailored fire safety training for people with disabilities and he highlighted the need for comprehensive information in New Zealand Sign Language (NZSL), whilst noting that the national government provides NZSL interpreters for emergency announcements. He believes that if Fire and Emergency NZ is the lead agency for emergency announcements, they should also include interpreters. He advocates for having at least one qualified interpreter on call or in-house for major disasters. Additionally, he has worked with the communication team to ensure that all social media videos are captioned.

Beyond community engagement, NL emphasised the importance of inclusion within FENZ itself. Whilst he acknowledges restrictions for people with disabilities wanting to serve as operational firefighters, he points out that administrative roles could be filled by those who possess the necessary skills and qualifications. He also envisions establishing a work-experience initiative for people with disabilities to help them build professional skills and gain valuable experiences, thereby promoting inclusivity and changing perceptions about the capabilities of people with disabilities in emergency services. For NL, mobilisation is not just about responding to emergencies—it is about creating inclusive systems that empower communities and the workforce alike.

4.4.2 USA

Like NL, the US co-researcher I36 (Appendix J, I36) brings over 7+ years of experience in disaster recovery, coupled with personal experiences as both a fire and flood survivor. Their work has been shaped by witnessing the barriers deaf people face during disasters and focusses on mobilising emergency services to respond effectively to those needs. Whilst the broader system is guided by the *American Disabilities Act 1990* (ADA) (US), with Sections 504 and 508 ensuring accessibility, at the time of the interview (2020), I36's efforts are centred on translating those policies into action on the ground.

In their role as a SME, I36 served deployments with minimal notice—often with less than a day's notice—and ensures that disaster recovery centres are accessible for deaf and people with disabilities. They work closely with local Deaf and disability support organisations, providing guidance to staff, and advocating for communication access including the presence of ASL interpreters in shelters, media briefings, and public announcements. A key aspect of I36's work involves building partnerships with community stakeholders to strengthen support networks for people with disabilities during disasters. Whilst only around 2% of disaster impacted people are deaf, many more rely on life-saving medical devices or assistive supports, making it impractical to focus solely on deaf people. For deaf people supported by their emergency services, this includes financial assistance for interpreting services, communication access, and disaster preparedness training based on templates from their emergency services. Through these collaborations, I36 has helped foster trust between emergency services and communities that have often been marginalised in disaster planning.

During a deployment to a US territory where deaf people and organisations were often excluded from disaster discussions, I36 stepped in as a Deaf Interpreter, ensuring communication continuity in the absence of professional interpreters. Their visibility drew local media attention and for months, I36 was in high demand. Recognising the need for local capacity, I36 recruited and facilitated CDI training for a local deaf woman, who became the first deaf female CDI. Her appointment marked a turning point, prompting new laws requiring interpreters in media broadcasts and improvements in Deaf education. I36 cited that this initiative illustrated how grassroots mobilisation can spark systemic change, extending well beyond the immediate disaster context.

Despite these achievements, I36 often faces isolation as the only deaf person during deployments. Whilst on deployments, they receive enquiries from hearing colleagues at different locations seeking advice on deaf access, communication strategies, and connections with local Deaf organisations. Although Deaf organisations usually initially approach

emergency services with caution, I36 found that once communities realised they were deaf, engagement shifted to one of shared understanding and mutual respect. Additionally, on the ground interpreter coordination remained one of the most consistent mobilisation strategies. At the time of the interview, ASL interpreters were regularly provided for media briefings and in evacuation centres. However, I36 noted that not all interpreters are qualified for those settings and many state emergency services lacked organising interpreters, leading some to request federal government support. In such cases, a pool of over 100 qualified federal emergency interpreters could be deployed across affected states. These interpreters, screened by deaf employees for language proficiency and crisis competence, support local operations until community interpreters are ready to take over, an approach that blends federal and local resources together.

I36 also observed that once disaster response responsibilities shifted from federal to state authorities, priorities often changed. Whilst federal agencies tended to maintain stronger accessibility standards, some state services deprioritised deaf and people with disabilities once control was transferred. I36 stressed that this inconsistency leaves communities at risk, reinforcing the need for Deaf organisations to advocate directly with state governments for sustained access to interpreters and captions during emergencies.

Lastly, whilst I36 does not personally identify as having a disability, they recognise that others may perceive them as such and see the value in aligning with broader disability movements. They highlighted the crucial role of Deaf and disability organisations in disaster planning and emphasised that their involvement is essential to avoid failures in emergency services. Additionally, I36 urged these organisations to establish dedicated disaster committees that include people with lived or professional experience. Whilst I36 expressed admiration for the National Association of the Deaf (NAD), they were disappointed by its limited engagement in disaster issues, contrasting it with proactive state-level Deaf organisations that mobilise relief committees and maintain strong community ties. When I36 joined one committee to fill a vacancy, they discovered that the previous representative had minimal emergency management experience, underscoring the need for genuine, skilled, and committed advocates who can effectively network with emergency stakeholders and influence decision making from within.

4.4.3 Deaf Experiences in Emergency Services: Challenges and Opportunities

Across the two cases, the perspectives of NL (I35, Appendix B) and I36 demonstrate how the lived experience as deaf or hard of hearing emergency responders can play a critical role in

mobilising more inclusive DRR, whilst also revealing ongoing structural and institutional constraints. Although their professional contexts differ, both emphasise that there is important space for deaf and hard of hearing people to contribute essential cultural, linguistic, and experiential knowledge that is often missing in institutional disaster practice. For NL, working in emergency services extends beyond emergency response to creating inclusive systems that empower both communities and the workforce. I36 similarly values this broader role, but also notes that being the only deaf person on deployment can be isolating, particularly when colleagues lack cultural and accessibility awareness. Both NL and I36 frequently receive enquiries from hearing colleagues seeking guidance on deaf access, communication strategies, and connections with Deaf and disability organisations—highlighting ongoing gaps in organisational capacity.

Both co-researchers also note that their roles extend beyond technical emergency response to advocacy. Their positions allow them to identify systemic gaps affecting deaf and people with disabilities and to influence institutional change from within. NL's support for the successful campaign to mandate visual fire alarms in public buildings—prompted by a deaf student's evacuation experience, demonstrated how internal advocacy can heighten visibility of accessibility issues and benefit a broad population. For I36, supporting a deaf woman to complete CDI training, a first from a US territory, helped build sustained local interpreting capacity and contributed to new laws requiring interpreters for emergency broadcasts as well as improving Deaf education. These examples show how bottom-up mobilisation, when undertaken by deaf and hard of hearing professionals embedded within emergency systems, can catalyse broader structural reforms.

Both NL and I36 stress that effective system-wide change requires navigating legal and policy frameworks. NL, reflecting on FENZ's early-stage engagement with disability issues, argues for a shift away from a "pity" model of disability toward a social rights approach—an orientation that I36 notes is already more established in their emergency services practice. Despite these differences, both frequently shift between the roles of responder and advocate, ensuring compliance with accessibility requirements such as the provision of sign language interpreters, captions, and accessible public information across media and social platforms.

These insights are critical for understanding mobilisation within emergency services, particularly as both NL and I36 are amongst the few points of contact for deaf and disability-related enquiries in their organisations. NL frames mobilisation as a two-way process that involves making emergency information accessible whilst also equipping emergency

responders with the knowledge and confidence to work effectively with deaf and people with disabilities. I36 echoes this through their emphasis on partnership-building, trust, and sustained engagement with community stakeholders. Whilst both stress the importance of collaborating with Deaf and disability organisations, NL highlights an ongoing need for deeper and more consistent disability awareness training amongst firefighters and other emergency responders to support effective mobilisation.

4.5 Chapter Summary

The international case studies presented in this chapter illustrate the complex and uneven ways Deaf support organisations and professionals navigate and influence DRR systems. Across diverse contexts, their mobilisation efforts reflect both resourcefulness and resilience—finding ways to secure communication and language access, advocate for visibility, and share institutional awareness where formal inclusion remains limited. Whether through advocacy, community-led education, or professional engagement within emergency services, their actions often emerged from necessity, filling spaces where formal systems had yet to respond and demonstrating how locally driven initiatives can bridge the gaps between policy intentions and lived realities.

However, a closer examination reveals persistent systemic gaps. Whilst Deaf support organisations try to serve as intermediaries between emergency services and their communities, their capacity to do so effectively depends heavily on existing relationships, funding, and recognition and inclusion within disaster management structures. In several contexts, these organisations compensate for shortcomings in emergency communications, translating or adapting messages into accessible formats, sometimes at their own expense. Their contributions are vital, but they also underscore a troubled dependency: where inclusion relies on community initiative rather than institutional commitment, the sustainability and reach of access remain uncertain. A second concern emerging across the case studies relates to reach and equity—who has access to these Deaf support organisations? The mobilisation strategies observed suggest that those already connected to Deaf support organisations are more likely to benefit from their support, potentially leaving others isolated or overlooked during emergencies.

Insights from Section 4.4 extend this picture by showing how deaf and hard of hearing professionals play a crucial role in mobilising more inclusive DRR by bringing the lived experience into systems that often overlook accessibility. Their work demonstrates both the potential and the limits of insider advocacy. They can influence policy reforms, strengthen

partnerships, and improve communication access—for example, visual fire alarms mandates in Aotearoa New Zealand, and interpreter capacity-building and legislative change in the United States territory. However, they also face persistent institutional constraints, including limited organisational awareness of deaf people and people with disabilities, inconsistent accessibility practices, and the pressure of being amongst the few points of contact for deaf and people with disabilities issues. Both emphasise that effective mobilisation requires not only accessible information for deaf people but also deaf and disability-aware training for emergency responders, along with sustained collaboration with Deaf and disability organisations. Together, their experiences highlight how individual leadership can drive change yet also underscoring the structural gaps that continue to shape the reach and impact of inclusive disaster preparedness and response.

As a deaf professional within an emergency services organisation, I relate closely to the experiences shared in Section 4.4—particularly the advocacy responsibilities that come with lived experiences, the accessibility practices compliance from a disability legislation lens demand, and the challenge of being one of the few points of contact for deaf and people with disabilities issues. Whilst individual advocacy can influence structural change on accessibility, I have also learnt that organisational backing significantly strengthens efforts to shift external systems. For this to occur, accessibility must be seen not just as legislative compliance (as is often the case in emergency services) but as guided by the lived perspectives of deaf people and people with disabilities, some of whom also belong to cultural and linguistic minority groups. Mobilising inclusive DRR requires a shift towards bottoms-up approaches, where accessibility practices are shaped by the lived experiences of deaf people and people with disabilities, acknowledging the diversity within and between groups rather than assumptions that serving one group equates to organisational inclusivity. Yet this shift can be difficult to advance when only a small number of individuals are tasked with driving it.

Together, these insights from different country contexts demonstrate that meaningful inclusion in DRR requires both strong Deaf-led community networks and institutional systems that recognise and support their contributions. They also invite critical reflection on how Deaf support organisations might move from reactive roles toward sustained influence in disaster management and governance. They show that whilst access and representation can be facilitated through determined local action, long term inclusion depends on the capacity and reach of community networks that determines who is informed, supported, and represented.

Whilst these examples span diverse national contexts and cannot capture the full specificity of each setting, they nonetheless highlight recurring structural barriers that shape deaf people's experiences across different disaster environments. The next chapter turns to the Australian context: it examines how similar dynamics shape Deaf support organisations engagement in community outreach, their negotiations with systemic barriers, and their advocacy for equitable participation and representation in DRR.

Chapter 5: Deaf Support Organisations and Disaster Response in Australia

5.1 Introduction

Building on earlier discussions of how deaf people and community members mobilise in international disaster contexts, this chapter explores Australian case studies that illustrate how individuals, networks, and institutions—including deaf people, advocates, organisations, Australian Sign Language (Auslan) interpreters, and emergency services, collectively strengthened disaster resilience through communication and language access. Australian cases trace a gradual evolution in the mobilisation of deaf-led and collaborative initiatives—each revealing different strategies, challenges, and lessons for future practice. Presented chronologically, the first initiative took place in New South Wales (NSW) from 2011-2013: *Increasing the resilience of the NSW Deaf community to natural hazards and disasters* (introduced in Section 3.2.2 to illustrate my positionality). This project identified the needs of deaf people during disasters and catalysed further mobilisation efforts, leading to the action-based project *Get Ready Deaf Community NSW* (2015-2016). Through this program, deaf people were trained as DLO volunteers who served as ‘bridges’ between emergency services and deaf people. Simultaneously, the *National Auslan Communications for Emergencies* project (2015-2016) was established by the Australian federal government to develop national guidelines to improve emergency communication access for deaf Auslan users across all stages of disaster management. The chapter concludes by reflecting on how Deaf support organisations, Auslan interpreters, and advocates mobilised during the COVID-19 pandemic, when overlapping crises—health emergencies and natural hazards—exposed new pressures that they all experienced.

Together, these case studies enable cross-case analysis, comparing strategies and experience across contexts and setting the stage for the critical discussion in Chapter 6. In doing so, the chapter also brings into focus a critical question: how access to support is differentiated amongst deaf people and community members—who is included within these initiatives and who continues to remain beyond their reach. Whilst this chapter is informed by an intersectional and reflexive framework, its primary focus is on the role of communication, language, and institutional structures in shaping access, participation, and representation in disaster contexts. As such, dimensions such as gender, age, and the experiences of deaf Aboriginal and Torres Strait Islander peoples are not examined in depth here. This reflects the scope of the chapter rather than their significance and further research is needed to more fully explore how these intersecting factors shape disaster experiences and outcomes.

5.2 Projects led by the Deaf Society of New South Wales

Documentation of deaf people's experiences during disaster events in Australia has been limited. In response to this gap, the Deaf Society of NSW (hereafter referred to as DS) took a leading role in a series of projects designed to strengthen deaf people and community members' access to disaster information and build resilience. The first of these, the *NSW Deaf project* initiative, was a collaborative initiative between the DS, the University of New South Wales, and NSW Emergency Services, funded by the NSW State Government (Calgaro and Dominey-Howes, 2013). Drawing on 31 focus group discussions with 239 deaf participants and 39 semi-structured interviews, the project generated key recommendations aimed at improving accessibility and engagement between deaf people and emergency services (Calgaro and Dominey-Howes, 2013). Insights presented herein from this case study are informed by an interview with a co-researcher who was involved in this project, as well as my own involvement in this project as a research assistant (see *Section 3.2.2* (I18, see Appendix J).

A major outcome of this collaboration was the inclusion of Auslan interpreters on live television news during the 2013 Blue Mountains bushfires—the first in NSW (Craig *et al.*, 2019), despite earlier calls for this access dating back to 1969 (Australian Federation of Adult Deaf Societies, 1969). The milestone catalysed further efforts to improve accessibility in emergency communication. Building on this momentum, the Deaf Society and NSW Emergency Services launched the *Get Ready Deaf Community NSW* project, supported by both NSW and Commonwealth Governments (Roberts, 2018). This project aimed to increase access to emergency information, strengthen social capital within the Deaf community, and improve emergency services' capacity to support deaf people. Eleven DLOs were trained to deliver preparedness information in Auslan and provide Deaf awareness training for emergency responders: they facilitated 13 workshops that reached 312 deaf participants across nine NSW regions (Roberts, 2018). Co-researchers interviewed for this study include the late Leonie Jackson (LJ), CEO of the DS during implementation (see I24, Appendix J), and several DLOs directly involved in the project's community mobilisation activities (I3, I14, I17, I26, I32, see Appendix J).

The initiatives led by DS revealed diverse perspectives on project delivery, accountability, and the organisation's evolving role within the Deaf community. Historically, DS operated as a community-based, NSW government-funded organisation, which allowed flexibility in allocating resources for group activities and peer support (I3, see Appendix J), supporting

grassroots mobilisation and advocacy. LJ explained that the introduction of the National Disability Insurance Scheme (NDIS)³¹ in 2013 transformed DS into a fee-for-service provider, offering paid Auslan courses, training programs, and contractual partnerships with government agencies. Whilst this expanded DS' professional reach, it also altered community relationships and constrained the organisation's capacity to mobilise resources in response to emerging needs (I3, I18, Appendix J).

At the community level, DS's mobilisation efforts relied heavily on trust and voluntary participation. Co-researchers who were involved as DLOs highlighted that many initiatives succeeded only where strong community relationships existed (I14, I17, I26, Appendix J). Whilst some co-researchers actively worked to improve access to emergency information, others were hesitant to engage, and recruitment to the *Get Ready Deaf Community NSW* project proved difficult (I3, I14, I17, Appendix J). Some of the DLO co-researchers reported feeling pressured to join, whilst others preferred to volunteer independently despite DS offering funding for interpreting and community activities (I14, I32, Appendix J). These dynamics reflected underlying tensions around leadership, communication, and the balance between organisational coordination and community autonomy. Leadership gaps and limited collegiality amongst DLOs hindered trust-building within the community (I3, I14, I17, I26, I32, Appendix J), whilst unclear mentoring structures (I3, I26, Appendix J) and project aims (I3, I17, I18, I26, I32, Appendix J) caused confusion about training and future plans (I3, I14, I17, I26, I32, Appendix J).

Beyond organisational and structural challenges, DLO co-researchers also identified social and attitudinal barriers that affected community mobilisation. Some described difficulties engaging deaf people who rely heavily on hearing family members or who held unrealistic expectations of emergency services to save them (I3, I14, I18, I32, Appendix J). Two DLO co-researchers recounted an incident involving a deaf man stranded in a flood, who blamed emergency services for failing to assist him (I3, I14, Appendix J). One DLO co-researcher stressed the importance of avoiding the "deaf card"—the assumption that being deaf automatically entitles a person to being rescued (I3, Appendix J), as not all emergency responders are aware about deaf people and communication access (I14, Appendix J). Others observed that many deaf people lacked awareness of their own responsibilities in emergency

³¹ National Disability Insurance Scheme (NDIS) provides funding to eligible people with disability to access support and services that increases their community participation and quality of life. Available from: <https://www.ndis.gov.au/>. Accessed [14 October 2025].

preparedness (I14, Appendix J), emphasising the need for ongoing education and sustained engagement rather than one-off activities (I32, Appendix J).

LJ praised the DLO model as a valuable framework for community-based mobilisation and a potential model for replication in other states. She stressed that efforts should extend beyond providing Auslan media interpreters to building practical preparedness within the community. LJ described the *Get Ready* project as an achievement that empowered DLOs to educate their peers and strengthen resilience across local networks. Although the level of DLO engagement varied, LJ emphasised that all participants gained knowledge and even a single DLO progressing to become an official SES volunteer was regarded as a significant success.

Despite these achievements, DLO co-researchers expressed mixed views about the outcomes of DS-led projects, where the negative assessments outweighed the positives. Some acknowledged that preparedness workshops helped shift deaf peoples' expectations of relying on emergency services (I3, Appendix J), yet challenges persisted in delivering these sessions effectively (I3, I14, I17, I18, I26, I32, Appendix J). Promotion of DLO training opportunities was often inaccessible. One DLO co-researcher mentioned that a prospective DLO received a volunteer booklet but preferred information in Auslan whilst others who completed the training faced inadequate guidance to conduct workshops (I17, Appendix J). Another DLO co-researcher mentioned that Auslan videos developed from Red Cross emergency preparedness information lacked feedback opportunities, creating uncertainty about comprehension amongst deaf people (I14, Appendix J). DLO co-researchers also suggested that excessive focus on standardising training limited opportunities for capacity building and transferable skills (I3, I17, Appendix J). Consequently, an overreliance on the project lead for direction (I17, Appendix J), coupled with personal and interpersonal challenges amongst DLOs (I17, I32, Appendix J), constrained grassroots mobilisation and weakened continuity of engagement.

Concerns were also raised about power dynamics and the lack of Deaf leadership in project decision-making. DLO co-researchers felt their lived experiences were often disregarded when planning focus groups, presentations, and interviews (I17, I18, Appendix J), and most had no access to evaluation results, which limited opportunities for learning and adaptation (I3, Appendix J). Training sessions delivered by emergency service personnel were described as overly technical and filled with jargon (I32, Appendix J), leaving little time for DLOs to process new information (I14, I18, I32, Appendix J). Moreover, anecdotal reports indicated that some behaviour of the project lead—including impatience, limited communication and

sign language fluency—negatively affected participation and caused distress for some DLOs (I14, I17, Appendix J). Efforts to reduce interpreting costs by appointing a hearing project lead with limited signing proficiency further disrupted communication (I17, Appendix J).

As funding declined, the project lead informed DLOs that they would be responsible for continuing activities independently, leading to uncertainty and disengagement (I32, Appendix J). Overextension of project commitments beyond time and budget constraints also contributed to unmet expectations (I14, Appendix J). One DLO co-researcher suggested that the scope of the *Get Ready* initiative was too broad for available capacity, proposing that future projects begin as smaller pilot programs before scaling up (I32, Appendix J). The cumulative effect of these issues—limited Deaf leadership, unclear communication, and inadequate support—fostered a perception that DS prioritised organisational outputs over community empowerment (I3, I14, I17, I18, I26, I32, Appendix J). Consequently, some DLOs gradually withdrew from the program and chose to volunteer directly with local emergency services instead (I14, I17, Appendix J).

5.3 Australian Emergency Services

Five co-researchers from Australian emergency services contributed to this research, providing perspectives from organisational, operational, and community engagement roles (I16, I28, I38, I40, I43, see Appendix J). Two had supported the *Get Ready NSW Deaf Community* project (I28, I43, see Appendix J), one had been involved in initiatives with Culturally and Linguistically Diverse (CaLD) communities (I40, see Appendix J), and the remaining two offered insights from operational and frontline contexts. A common theme emerged from their collective experiences: organisational, communicative, and cultural barriers continue to constrain how emergency services mobilise community engagement—particularly for deaf people and other marginalised groups.

Historically, many Australian emergency services have prioritised operational readiness and post-disaster recovery over proactive engagement with communities (I16, I28, I40, I43, Appendix J). Community resilience was often framed as a post-event phenomenon, with investments focussed on recovery rather than preparedness (I28, I41, Appendix J). This reactive model has reinforced community dependence on emergency services, assuming they will “save” people when disasters strike (I28, Appendix J). However, the increasing frequency and scale of disasters have stretched some emergency services to capacity, prompting recognition that resilience must be built before a disaster occurs, requiring communities to take greater responsibility for preparedness (I28, I39, I41, Appendix J). Few emergency

services recognise how these responsibilities intersect with Australia's commitments under national disability laws and the UNCRPD (I16, I28, I41, Appendix J). With little to no training on how to engage or support deaf people in emergencies (I16, I28, I41, I44, Appendix J), responders are often ill-equipped to foster inclusion in preparedness or response contexts. Some co-researchers acknowledged these shortcomings, noting the absence of deaf representation and the lack of tailored accessible preparedness messaging (I28, I41, Appendix J).

Despite recognising the importance of community engagement (I16, I28, I39, I41, I44, Appendix X), it is often treated as an *add-on* skill rather than an embedded organisational practice (I16, I41, Appendix J). Volunteer-based organisations have long advocated for professional development, yet these efforts depend on internal buy-in (I41, I44, Appendix J) and are often undermined by disconnects between leadership and frontline staff (I16, I28, I41, I44, Appendix J). Engagement initiatives frequently focus on delivering information rather than equipping responders with the skills and frameworks needed to build trust, understand community needs, or co-create preparedness activities (I16, I28, I41, I44, Appendix J). Furthermore, emergency messaging often relies on technical jargon or formal language shaped by experts, which can alienate communities and deaf audiences who do not share the same linguistic or contextual knowledge (I28, I39, I41, I44, Appendix J).

Deaf people and community members face challenges in mobilisation. Whilst interpreters, captions, and other accessibility measures are sometimes provided, these actions are often viewed as a way to “tick the accessibility box” (I44, Appendix J) or demonstrate compliance with national and international standards. Accessibility is only one component of meaningful engagement. Some deaf people and community members trained to deliver emergency information face internal restrictions on what they can communicate, requiring approval before messages can be shared publicly (I28, Appendix J). This slows down local mobilisation and leave deaf people and community members without timely information during emergencies. Moreover, translation and message delivery require understanding of both the disaster context and the needs of the community—skills that many responders and volunteers are still developing (I28, I41, Appendix J).

Although disaster preparedness education resources are widely available (I16, I28, I44, Appendix J), organisations face challenges in tailoring them to diverse communities and evaluating their effectiveness (I28, I41, I44, Appendix J). Furthermore, some feel the resources produced for the public are very generic, suitable for people without disabilities and

white Anglo-Saxon adults (I44, Appendix J). Material that is suitable for children is missing entirely (I44, Appendix J). A broader cultural shift is needed—from viewing engagement as a “tick box” activity to embracing it as a two-way process that builds trust, shared knowledge, and local capability (I16, I41, I44, Appendix J). Meaningful engagement requires investing in long term relationships, listening to communities, and creating spaces for dialogue rather than one-off events that prioritise visibility over substance (I41, I44, Appendix J).

It became clear from the interviews that sustained change must begin within emergency services themselves. Inclusion and accessibility need to be embedded in strategic planning, training, and workforce capability development (I28, I41, Appendix J). This involves recruiting diverse staff, partnering with Deaf and disability organisations, and integrating accessibility principles into all community engagement activities (I16, I28, I41, I44, Appendix J). Upskilling responders through collaboration with peak bodies and community representatives can strengthen their confidence and competence in engaging with people with different access needs (I16, I28, I39, I41, Appendix J). Without this internal alignment, initiatives that focus on increasing Deaf Communities’ resilience risk remaining ad hoc—dependent on individual champions rather than institutional commitment (I28, I41, I44, Appendix J). Too often, engagement efforts are limited to one-off, publicity-driven events that creates visibility but little lasting impact (I41, I44, Appendix J).

5.4 National Auslan Communications for Emergencies and the NEMP program

Expression Australia (formerly Vicdeaf and Tasdeaf), established in 1884 as a not-for-profit organisation by and for the Deaf community, has long served as a key mobilising institution within Australia. Through its promotion of Auslan and Deaf culture, delivery of services ranging from NDIS supports to interpreting and community education, and partnerships across corporate, public, and community sectors, the organisation demonstrates an established capacity to mobilise both professional and community networks toward social inclusion ([Home | Expression Australia](#), 2025). At the time of the interview (2020), Expression Australia employed 130 full time staff—35% identifying as deaf or hard of hearing and 290 casuals, reflecting its structural ability to allocate diverse expertise and human resources to initiatives like the *National Auslan Communications for Emergencies* project.

Between 2015 and 2016, Expression Australia played a leading role in mobilising the *National Auslan Communications for Emergencies* project, a national, multi-organisational collaboration to improve access to disaster information for deaf, deafblind, and hard of hearing people who use Auslan (I10, Appendix J). This project was led by Brent Phillips

(BP), then Director of Language, Partnerships, & Innovation at Expression Australia (I10, Appendix J). Funded under the National Emergency Management Projects (NEMP) program, this project brought together State Deaf Societies (including DS NSW, Deaf Services QLD, Deaf Can Do, Access Plus—now part of Deaf Connect), Able Australia, Monash University, emergency services, and community stakeholders. The project sought to strengthen disaster preparedness and response capacities across all stages of DRR. Its key mobilisation strategies included undertaking focus group (with 43 Auslan users in total) to identify communication barriers and codevelop accessible resources. The subsequent insights were used to inform the creation of a 12-week professional development course for media interpreters that trained 15 experienced interpreters across Australia. National outputs included accessible Auslan and English online resources, best practice guidelines, and training frameworks for implementing media interpreters in emergency broadcasts (Expression Australia, 2016).

BP noted that its achievements included the creation of a website featuring resources and guidelines for Auslan users related to disasters, along with advice dissemination and promotion. However, from an organisational perspective, he could not confirm whether this project was deemed a success, despite acknowledging that Expression Australia had the capacity to continue the work. BP also identified significant barriers. These include limited government funding and investment, along with the rapid turnover of information, which can result in outdated advice that is potentially harmful to deaf people. Whilst he recognised the role of Deaf organisations in providing culturally and linguistically relevant information, advocacy, training, and awareness in emergency and humanitarian assistance, Expression Australia's experiences were primarily limited to providing interpreting services for media news, which also aligns with other Deaf support organisations (I19, I23, I38, Appendix J). He explained that Expression Australia has not had the opportunity to participate in any DRR or emergency preparedness activities but would be interested in the opportunity if it arose. Apart from projects led by the DS, this lack of opportunity to become more involved reflects a broader pattern shared amongst other Deaf support organisations, the DS being the only exception (I19, I23, I38, Appendix J).

Perceptions on the NEMP project's success varied amongst participants, Auslan interpreters, and Deaf community members. Whilst many Auslan interpreters benefitted from information shared on media interpreting through this project (I1, I6, I38, Appendix J), challenges related to the ongoing sustainability of initiatives (I1, I13, I38, Appendix J): One co-researcher thought that it was up to Deaf Societies in each state to seek funding to continue the efforts of the NEMP project due to the lack of funding for ongoing training in media interpreting (I3,

Appendix J). Another co-researcher stated that their organisation is keen to organise a similar media training event (I37, Appendix J). One co-researcher noted that securing partnership agreements with state governments for Auslan media interpreters were difficult, leaving some emergency announcements without interpreter access, and with the sentiment that “interpreter provision is not really their priority” (I38, Appendix J). Other co-researchers indicated that some states were more successful than others in engaging State Deaf Societies with their emergency services for Auslan media interpreters, pointing out that the organisational structure of these emergency services—some being unified in one agency whilst others are separate (I3, I38, Appendix J)—complicates agreement processes, sometimes taking years to achieve (I38, Appendix J).

Despite the presence or absence of agreements, inconsistencies in providing interpreters during past television (TV) broadcasts remain (I3, I27, I38, Appendix J). A notable challenge faced by State Deaf Societies is the shortage of experienced hearing and deaf Auslan interpreters (I1, I6, I27, I34, I37, I38, Appendix J), partly due to many working as casuals rather than full-time, which limits their access to formal education and training opportunities for media interpreting (I1, I6, I38, Appendix J). One co-researcher remarked that some interpreters who participated in the NEMP training for emergency settings have not appeared in any TV emergency broadcasts (I3, Appendix J). Another co-researcher asserted that people change careers and therefore lose those skills (I37, Appendix J) whilst another co-researcher (who was also a training participant) claimed that they have not been asked to interpret in the media at all (I13, Appendix J). It is noted that some deaf interpreters who participated in the NEMP training have left the field due to limited job opportunities, which decreases the pool of deaf interpreters available for media news (I1, I37, I38, Appendix J). This leads us to the next section, which explores the experiences of Auslan media interpreters.

5.5 Auslan Interpreters on the Frontline during COVID-19

Building on earlier discussions of media interpreter shortages, this section explores the experiences of Auslan interpreters in TV broadcasts that have interpreted during floods, bushfires, and the COVID pandemic. They provide insights into how Deaf support organisations and interpreters mobilise in response to emergencies. The material is based on interviews with co-researchers from various Deaf service providers (I1, I6, I13, I27, I34, I37, I38, I42, Appendix J). Common themes emerged around contractual arrangements, monopolisation, workforce shortages, and collaborative strategies.

The availability of Auslan interpreters in media briefings across Australia has historically been inconsistent (I13, I38, I42, Appendix J). The pandemic, alongside recurring disasters, intensified demand and prompted Deaf support organisations to negotiate contracts or agreements with state governments to provide interpreters for live briefings (I1, I6, I13, I27, I34, I37, I38, I42, Appendix J). Establishing these agreements often requires sustained advocacy—for example, VicDeaf (now Expression Australia) lobbied for years before securing formal arrangements in Victoria and Tasmania (I38, Appendix J). In Western Australia, Access Plus (now Deaf Connect) serves as the sole interpreter provider for government briefings, aided by the state’s Language Policy that includes Auslan (I6, Appendix J). Meanwhile, Deaf Connect (formerly Queensland Deaf Services) has grown into a national interpreter service provider (that includes Auslan interpreters for live press conferences) through its mergers with the Deaf Society of NSW and Australian Capital Territory (ACT), Access Plus of WA, and expanded into the Northern Territory (NT) (I37, Appendix J). By contrast, Deaf Can Do (now Deaf Connect) of South Australia (SA) at the time of the interview (2020), faced challenges in convincing the government to fund interpreting services, resulting in ad hoc, as needed contracts rather than ongoing arrangements (I38, Appendix J). Smaller interpreting businesses also stepped in when larger Deaf support organisations were unable to (I13, I27, I34, I42, Appendix J).

Despite these arrangements, the nationwide shortage of qualified media interpreters remained a critical constraint. Organisations highlighted the tension between advocacy and fee-for-service delivery, emphasising that the responsibility for advocacy should rest with Deaf Australia rather than with service providers to avoid conflicts of interest (I37, I38, Appendix J). Advocacy for media interpreters also introduced an additional layer of accessibility barriers when some public services were unaware of their responsibility to fund interpreters for emergency broadcasts (I38, Appendix J). Media interpreters faced significant emotional and physical pressures when interpreting high-stakes broadcasts. Many were required to manage the fast-paced demands of live media work, often receiving very little preparation, whilst also contending with public criticism and scrutiny from both within and outside the Deaf and interpreting communities (I1, I6, I27, I34, I42, Appendix J). At the time of conducting interview (2021), media interpreter numbers varied across jurisdictions: NSW and QLD had the largest media interpreting teams (~25 interpreters), whereas ACT had only one Level 3 interpreter—the minimum qualification for media interpreting (I37, Appendix J). Prior to mergers, Deaf Can Do had a small team of 6 media interpreters (I1, I38, Appendix J). Whilst Access Plus have a few media interpreters, they consistently relied on one interpreter for most of WA’s media briefings (I6, I37, Appendix J). Collectively, these factors

contributed to the ongoing shortages reflected in the limited national pool of qualified media interpreters.

The notable lack of strong support culture amongst media interpreters emerged as a significant challenge, highlighting the need for new approaches to expand and retain them (I1, I6, I13, I27, I34, I37, I42, Appendix J). This became particularly evident during the aftermath of the 2019/2020 NSW bushfires, which exposed the insufficient number of experienced media interpreters available for live announcements. This situation underscored the need for increased training and structured support—needs that became even more crucial during the pandemic (I37, Appendix J). The problem was particularly pronounced in Canberra, where only one Level 3 media interpreter (the minimum qualifications for media interpreters) was available, prompting Deaf Connect NSW to deploy Sydney-based interpreters for national briefings. To address this, Deaf Connect NSW branch developed an innovative strategy to mobilise and strengthen support networks for media interpreters (I1, I6, I34, I37, Appendix J). Recognising the effects of interpreter fatigue (I1, I6, Appendix J) and the public criticisms experienced by media interpreters (I1, I6, I13, I27, I34, I37, I38, I42, Appendix J), Deaf Connect NSW introduced structured rotation of interpreting shifts for media broadcasts and established a WhatsApp³² group to provide a safe space for media interpreters to share information, seek support, and offer feedback. Deaf Connect NSW also engaged with local Deaf community members in Canberra to nominate a local Level 2 interpreter to co-interpret alongside the local Level 3 interpreter, thereby supporting local involvement and creating mentoring opportunities (I27, I37, Appendix J). This approach not only strengthened workforce capacity during periods of high demand, such as the pandemic, but also helped to prevent over-reliance on one or two interpreters (I6, I34, I37, Appendix J), reduce fatigue and public criticism of individual interpreters (I34, I37, Appendix J), foster mentoring opportunities (I6, I27, I34, I37, Appendix J), and empower interpreters by boosting their support networks and confidence (I1, I6, I34, Appendix J).

These experiences also prompted the co-researchers, who are Auslan interpreters, to reflect on the need for more structured feedback and support. Many noted a lack of constructive input from deaf people (I1, I6, I13, I27, I34, I37, I38, I42, Appendix J), despite valuing opportunities to work alongside deaf people who could provide direct feedback within media

³² WhatsApp is a free messaging app that lets people message through text, voice call, video calls and share images, videos, and locations through the internet. Available: <https://www.whatsapp.com/>. Accessed: 03 November 2025

interpreting teams (I1, I6, I34, Appendix J). Several called for increased training for Certified Provisional Deaf Interpreters (CPDI)³³ (I1, I6, I13, I27, I34, I37, I38, I42, Appendix J) and a greater emphasis on expanding local interpreters familiar with community contexts (I27, I37, Appendix J). Some co-researchers described how Deaf Connect’s internal media interpreters and staff who are native Auslan users, consult with their deaf family members to unpack signs for complex or emerging terminologies to ensure understanding (I13, I34, I37, Appendix J). However, some co-researchers cautioned that prioritising educated native Auslan users in these decisions can inadvertently overlook the language needs of most deaf people who are not native users, raising concerns about representation (I1, I13, I34, Appendix J).

Despite the growing visibility of Auslan interpreters during emergencies, their mobilisation efforts are often shaped (and constrained) by contractual and market pressures. Exclusive state contracts frequently designate a Deaf service provider as the sole interpreting service provider (I1, I6, I13, I34, I42, Appendix J) with the aim of “providing general access so that deaf people can make better decisions as to what’s best for their lives” (I37, Appendix J). Whilst intended to streamline access for deaf people, these arrangements have inadvertently centralised control and limited collaboration between organisations. A co-researcher noted that competition for contracts is fierce, with a focus on “*money*” rather than “*access and saving lives*” (I34, Appendix J). The monopolisation of media interpreting by a few Deaf support organisations has significant implications for interpreters’ mobilisation and wellbeing. When organisations perceive themselves as the only “game in town” (I1, I13, I34, I42, Appendix J), competition for visibility and control can limit collaboration and collective advocacy across the sector. For interpreters positioned as public frontliners, this concentration of control heightens professional vulnerability—particularly amid intense public scrutiny and criticism during high-profile broadcasts. These dynamics have prompted calls for stronger organisational support and protection mechanisms, with several co-researchers emphasising the need for safeguarding interpreters from public backlash and workplace stress (I1, I6, I27, I34, I37, Appendix J). One example of mobilising this was Deaf Can Do’s creation of an informal Terms of Reference, allowing the organisation to publicly respond to criticisms on interpreters’ behalf (I1, Appendix J).

³³ Certified Provisional Deaf Interpreter (CPDI): a deaf professional trained to transfer meaning between Australian Sign Language (Auslan), written English, and other signed languages for deaf people who have sensory or cognitive disabilities, who have recently migrated to Australia and use a signed language other than Auslan, and/or who are educationally or linguistically deprived. CPDIs often work in tandem with hearing Auslan interpreters. Available: <https://www.naati.com.au/wp-content/uploads/2023/07/Fact-sheet-CPI-test-Deaf-interpreting.pdf>. Accessed: 21 November 2025

These pressures have also driven interpreters to seek new ways of strengthening their collective capacity. The exclusivity of contracts often restricts professional development to those within the nominated organisations (I1, I34, I37, Appendix J), narrowing the national pool of media interpreters and reducing mobility across jurisdictions (I1, I6, I34, Appendix J). To counter this, interpreters have advocated for more inclusive training pathways and equitable access to upskilling opportunities, particularly for casual or regionally based interpreters (I1, I6, Appendix J). Co-researchers also emphasised the need for greater consultation in contractual negotiations to ensure fair compensation, preparation time, and travel support (I27, Appendix J). These advocacy efforts reflect interpreters' attempt to mobilise professional recognition and sustainability within a system that often undervalues their contribution. Despite limited negotiating power and the absence of a formal pay award, interpreters continue to engage in informal networks and peer support to sustain their participation in emergency communication efforts (I27, Appendix J)—demonstrating resilience and adaptability in navigating structural constraints.

5.6 Mobilising Deaf Service Providers during COVID-19

Access to information has been a constant thread throughout this research, emerging time and again as one of the most critical challenges faced by deaf people and community members during crises. The earlier section captured the experiences of Auslan interpreters who found themselves at the forefront of the COVID-19 response—navigating the tension between professional demands, public expectations, and the urgent need to ensure deaf people were not left behind. Their stories revealed the personal and collective strategies that interpreters drew upon to keep information flowing in a time of chaos and uncertainty. Yet, interpreters were only one part of a broader web of mobilisation. As the pandemic spread, Deaf service providers also had to respond swiftly and creatively. Their mobilisation efforts were not only about ensuring organisational continuity, but about protecting the wellbeing of deaf people, keeping them connected and making sure they could access the information they needed to stay safe.

For many of these service providers, the pandemic blurred the boundaries between “service provider” and “community member”. Staff, with some of them deaf themselves, were working around the clock to support others whilst managing the same anxieties and disruptions in their own lives. Meetings moved online, community events were cancelled, and face to face support were minimised. These challenges placed many service providers in uncharted territory, requiring them to navigate unfamiliar situations and make decisions with

limited guidance. The following vignettes share insights and reflections from co-researchers representing several Deaf service providers: two from Deaf Connect (I8 and I37, see Appendix J), one from Deaf Can Do of South Australia (SA) (DCD, now part of Deaf Connect) (I38, see Appendix J), one from Deafness and Mental Health Services (DMHS) (I11, see Appendix J), and one from Karli Health Centre (KHC) (I20, see Appendix J). Their stories offer a window into the different ways Deaf service providers mobilised resources, knowledge, and community trust during an unfolding crisis.

5.6.1 Deaf Can Do and Deaf Connect

At the time of the interviews, DCD and DC ([Deaf Connect](#), 2025) were separate organisations, each navigating similar challenges of supporting their consumers and staff during the COVID-19 pandemic before they merged together under DC in 2022³⁴. Both faced significant funding pressures: the introduction of the NDIS reduced access to state funding, forcing reliance on fee-based services for eligible consumers (I8, I38, see Appendix J). For DCD in SA, this transition was particularly stark: state funding was cut entirely, based on the assumption that the NDIS would cover all needs without realising that people over 65 and those who did not meet NDIS eligibility criteria were left without coverage (I38, Appendix J). To prevent these community members from slipping through the cracks, DCD continued to provide essential services—funded internally and sustained through their commitment to community care until Auslan Connections (now DC) launched the Ageing Well Program for deaf seniors (I38, see Appendix J).

Whilst managing these financial challenges, both DCD and DC continued to deliver services through multiple funding streams. DCD sustained its Drop-in service through a national grant from Queensland Deaf Services (now DC) and held contracts with SA Health for interpreting and school bookings (I38, Appendix J). DC on the other hand, delivered information services across the Northern Territory, Queensland, NSW, and the ACT (I8, Appendix J). Their model included two key aspects: support coordination for NDIS consumers and open community access via walk-ins and video calls. These services were mainly funded through the NDIS, supplemented by state-based grants such as the Queensland Government’s support for community information sessions and NSW’s “Disability Advocacy Futures Program”, which funded representational advocacy and information sharing.

³⁴ DCD merges with DC: Available: <https://deafconnect.org.au/our-news/acquisition-of-services-from-deaf-cando>. Accessed on: 21 November 2025

When COVID-19 hit, both organisations had to rethink how to keep their consumers and communities informed and connected. I8 explained that they knew many deaf people, particularly those with additional disabilities—often referred to as deaf-plus—faced greater barriers to understanding fast changing public health information. Whilst Auslan video resources about COVID were produced and shared widely, these often did not go far enough. I38 explained that DCD wanted to ensure consumers’ understanding of COVID information. However, passive distribution was not enough for some who needed one on one engagement, conversation and reassurance. Recognising this, DCD and DC mobilised their support staff as key intermediaries. These workers became the human bridge between official messages and individual understanding, helping consumers interpret Auslan videos, unpack complex health terms, and validate what they were seeing and watching (I8, I38, Appendix J). The service providers also worked to refine how information was presented, I18 explained that the translation process from English to Auslan is not always straightforward due to linguistic differences, as some groups require more information to be unpacked than others. DC emphasises their effort to strike a balance in language delivery whilst relying on their support workers to understand the video resources and explain them to consumers afterwards (I8, Appendix J).

Internally, the pandemic tested the business continuity of these service providers. For DCD, maintaining the in-person contact, which was preferred by their consumers, became a delicate issue. Some staff were uneasy about the protections in place whilst consumers preferred accessing services in person than online. This required extensive negotiation between management, staff, and consumers to find solutions that met health regulations whilst maintaining community trust (I38, Appendix J). By contrast, DC had a larger pool of staff due to service expansion across multiple states, which provided more flexibility (I18, Appendix J). I8 explained that DC staff had to comply with government regulations, including wearing PPE and masks when supporting consumers. They also prioritised capacity building, offering mandatory online COVID training for their staff and collaborating with the National Insurance Disability Agency (NDIA) to provide iPads to NDIS consumers, including training on how to participate in video calls and accessing essential information and services. Initially resistant to technology, many consumers eventually adapted to navigating information and services using their iPads, especially as DC provided them with text links to YouTube videos featuring COVID updates in Auslan.

At the policy level, both DC and DCD confronted systemic challenges. They often found themselves caught between advocacy and service provision, questioning how far they could

push government agencies for better access without jeopardising working relationships (I8, I37, I38, Appendix J). Both organisations expressed frustration that the *Disability Discrimination Act 1992 (Cth)* (DDA) lacked real enforcement power and that there is a general misunderstanding of the DDA. I38 described government engagement as meeting only “the bare minimum”, leaving service providers to fill in the gaps. DC took the view that advocacy should involve placing the onus on government to communicate announcements and updates, leaving service providers to focus on circulating information within their networks. These challenges have led DC and DCD to struggle with their identities as advocacy groups versus service providers (I37, I38, Appendix J). Both feel it creates a conflict of interest to advocate for services whilst benefitting from them, believing that high level advocacy should be the responsibility of Deaf Australia, whilst they focus on service provision (I37, I38, Appendix J).

5.6.2 Deafness and Mental Health Services

DMHS ([DMHS](#), 2025), based in Brisbane, Queensland is a small but vital program serving deaf people across Queensland. Established in 2004, DMHS was born out of a recognition that deaf people were too often misdiagnosed in mental health systems due to the absence of accessible communication and assessment tools. At the time of the interview, the team consisted of four part-time staff and one full-time Clinical Nurse Consultant, Rebecca Reedman (I11, Appendix J) with one professionally licenced psychiatrist. Despite their size, DMHS carried an outsized responsibility supporting deaf people across the entire state (I11, Appendix J).

The overcommitting of DMHS was evident and prevalent during the COVID-19 pandemic where staffing shortages and high demand meant that their capacity was constantly stretched (I11, Appendix J). They were juggling multiple responsibilities from clinical support and research to advocacy and NDIS assessments. I11 explained that DMHS also played a strategic role as a referral and capacity-building service. Rather than case-managing clients directly, they worked alongside mainstream and mental health teams, helping them become more deaf-friendly. As I11 explained, “*people are best served within their own communities*”. This philosophy shaped their mobilisation efforts; instead of centralising support, they focussed on equipping local services to work effectively with deaf clients, using resources, consultation, and interpreter access to make existing systems more inclusive within their own communities.

Partnership became another cornerstone of the DMHS mobilisation strategy. They have collaborated with Deaf Services (now Deaf Connect), Queensland Education, Australian Sign Language Interpreter Association (ASLIA), and groups such as Hear For You and Aussie Deaf Kids. These collaborations, both formal and informal, allowed the small team to expand their reach, share expertise, and fill service gaps. However, I11 also acknowledged the limits of this model, especially when working with deaf Aboriginal and Torres Strait Islanders. Whilst they occasionally worked with Aboriginal or Torres Strait Islanders from Thursday Island, and borrowed some cultural visual resources, I11 recognised that the DMHS framework was not culturally suitable for Indigenous communities. The reality that I11 noted was that most deaf Indigenous clients who did seek their services identified more with Deaf culture—a reflection of the layered and fluid nature of identity amongst deaf people.

The pandemic amplified these challenges and exposed new cracks in the system. Deaf people, though part of the CaLD communities, were often excluded from COVID-19 information campaigns that did not include Auslan, despite efforts to provide materials in other languages. In response, DMHS created a resource compiling links to existing Auslan materials and shared it with clients, helping them navigate the confusing and constantly changing landscape of pandemic information (I11, Appendix J). Additionally, like many services, DMHS was forced to move online. Some clients welcomed the flexibility, whilst others struggled due to the lack of technology or digital literacy. For isolated clients, the experience of lockdown was particularly harsh; some were unaware of the restrictions in place or found the absence of face-to-face connection further isolating. I11 also recalled how difficult it was to maintain consistent mental health support when qualified Auslan interpreters were in short supply. Interpreter shortages, already exacerbated by NDIS-related demand, became even more critical during COVID-19 as services across Australia went virtual.

Reflecting on the pandemic, I11 described it as a wake-up call for the broader health system—one that exposed how deaf people were still continually overlooked. Yet despite the constraints, DMHS continued to mobilise its limited resources, networks, and expertise to fill the gaps: linking deaf clients to information, empowering other professionals to communicate more effectively, and ensuring deaf mental health needs were not forgotten amid the crisis.

5.6.3 Karli Health Centre

Whilst DMHS focussed on language and communication accessibility, the experiences of the Karli Health Centre ([KHC](#), 2025) reveal a different yet equally complex story of

mobilisation. Founded by Karli Dettman (KD) (I20, Appendix J), KHC was established to meet the mental health needs of deaf people who use Auslan as their primary language. As a national NDIS service provider based in Victoria and serves across Australia and New Zealand, KHC sought to remove the communication barriers that come with interpreter-mediated counselling by offering therapy directly in Auslan for clients across Australia (I20, Appendix J). This approach represents a mobilisation effort—reclaiming access to mental health support in a culturally and linguistically aligned way. In addition to founding KHC, KD also serves as its Director of KHC, as well as a Clinical Counsellor and Yoga Therapist.

During the COVID-19 pandemic, KHC's team of twelve, most of whom share lived experiences of growing up deaf, supported over 100 clients across Australia. KD reflected on the unique challenges their clients faced during this period, noting that emergency communication often reinforced societal perceptions of deaf people as “vulnerable”. These perceptions, she explains, stem from systemic barriers such as language deprivation and educational exclusion—what KD terms “Deaf Trauma” (Deaf Mental Health, 2019). Emergencies, KD explained, can intensify this trauma when communication barriers re-emerge in moments of crisis. In response, KHC mobilised quickly to provide accessible Auslan video updates and remote support (I20, Appendix J). Recognising gaps in culturally appropriate mental health outreach, the team also trialled a free national online counselling program during the Christmas lockdown of 2020, highlighting the importance of accessible mental health services for deaf people (I20, Appendix J).

However, the mobilisation came with personal and financial strain. KD noted that one of her therapy assistants travelled long distances to teach a deaf client how to use Zoom, whilst she also met with several clients who either did not know how to use Zoom or lacked access, hosting in-person sessions outdoors to ensure they remained safe from COVID-19. These experiences highlighted critical gaps in community-based mobilisation for deaf people who rely on direct, relational, and visual communication rather than written or spoken information. KD emphasised the ongoing need for Auslan video content, noting that many deaf people prefer dynamic visual communication over written English. For KD, the lesson was clear: effective mobilisation requires accessible, culturally aligned communication channels that go beyond one-way media broadcasts.

KHC staff mobilised to fill these service gaps through community-driven mental health outreach. Although the Australian national government heavily invested in online and phone counselling for people affected by the 2019-2020 Black Summer bushfires and COVID-19,

these services were largely inaccessible to deaf clients. This was compounded by the fact that many deaf clients lacked pre-approved NDIS funding for mental health support, leaving them ineligible for immediate assistance during lockdowns. In the absence of systemic flexibility, KD volunteered substantial time to ensure that deaf people received the mental health they needed—a critical priority for KHC. These acts of unpaid support and voluntary labour represent a significant form of ethical and relational mobilisation, driven by community solidarity rather than profit.

Akin to the insights provided by I24 (*Section 5.2*), KD reflected that broader NDIS context, noting that systemic changes have transformed how service businesses operate. Previously funded by government programs, many service providers now rely on NDIS clients for revenue. KD described the first ten years of establishing KHC prior to the NDIS as challenging, requiring extensive volunteer work to sustain services. Whilst she acknowledged that the NDIS helps maintain KHC's programs, she argued that Deaf-led service providers are more effective when specialising—such as KHC's focus on mental health, rather than managing multiple competing service lines to maintain sustainable mobilisation. However, KD cautioned that the growing trend of internal client allocation risks limiting choice for deaf consumers and reducing cross-organisational collaboration. KHC's efforts to mobilise partnerships illustrate these tensions. KD described attempts to build cooperative relationships with other deaf and mainstream organisations. Their partnership with Deaf Australia to support Deaf Mental Health's charitable status—an initiative operated by a volunteer group that has fundraised to support deaf mental health since 2019—have demonstrated a successful, culturally aligned collaboration. In contrast, engagement with a Queensland public mental health service was described as “hearing-led” and disconnected, illustrating how cultural mismatches can hinder mobilisation across sectors (I20, Appendix J). These reflections underscore the critical role of mobilisation in Deaf mental health service delivery during COVID-19—not just in providing communication access, but also in activating networks, reallocating labour, and challenging systemic exclusions that continue to marginalise deaf people in times of crisis.

5.7 A Professional Health and Policy Researcher Perspective

Dr Annmaree Watharow's (AW) (I7, Appendix J) accounts demonstrate how lived experience can powerfully shape advocacy and mobilisation during disasters. As a deafblind health and policy researcher, consultant, and former general practitioner, she has combined her professional expertise and lived experience to challenge systemic failures and push for more inclusive disaster and health systems. Drawing on over twenty years of experience in general

practice and health governance, including service on the NSW Ministry of Health's Community of Practice (MoH CoP) for disability, AW has consistently worked to integrate disability inclusion into health policy and practice. Her mobilisation efforts—spanning local community engagement, advisory roles, and national advocacy—highlight the crucial role of lived expertise in driving reform, particularly in the absence of coordinated disability disaster frameworks.

During the COVID-19 pandemic, AW's involvement in the MoH CoP was vital but challenging, as she worked without face-to-face support and in an unpaid capacity, using her own NDIS funding to meet accessibility needs. She repeatedly raised concerns about assumptions that people with disabilities were a homogenous group and that digital systems for information, bookings, and consent were automatically "accessible". AW acknowledges that digital platforms have benefitted many people with disabilities, however the benefits are not always universal. The increased reliance on digital solutions excluded those without technology, digital literacy, or support, leaving many isolated, especially during the first lockdowns when support workers were ill or quarantined. She also critiqued the vaccine rollout for creating barriers for support workers and people with disabilities, including the lack of funded vaccinations or recovery leave, referral requirements for home vaccinations, and poorly advertised or inaccessible vaccine hubs. AW argued that accessibility should be embedded in all public health and emergency responses, rather than added retrospectively. Another concern was the failure to recognise Auslan interpreters as essential frontline workers, who were not prioritised for PPE, infection control training, or vaccination, despite their vital role in enabling communication for deaf and deafblind people. For AW, this oversight reflected a broader pattern of invisibility for people with sensory disabilities, particularly those without access to digital communication tools or who lacked training in accessibility features on devices.

AW also described the damaging public discourse that emerged in the first year of the pandemic. Debates about "health versus economics" and eugenic-style arguments about sacrificing at risk populations for the greater good left her deeply disturbed; these narratives dehumanised people with disabilities and ignored the profound loneliness of dying from COVID-19 without support. Restrictions in hospitals also had severe consequences, with patients with disabilities often denied supports such as interpreters and accessible information. In response, AW became involved in developing solutions, including resources to improve hospital preparedness for people with disabilities, communication disability-identifying wristbands, and a "communication care passport" in partnership with the Physical Disability

Council of NSW. Her ongoing work focusses on equipping both patients and healthcare providers with tools for safer, more person-centred care. For AW, this form of mobilisation—harnessing the lived expertise of people with disabilities to create practical, systemic change—is essential to improving the status quo.

Her experiences during the 1994 southern Sydney bushfires and the H1N1 (swine flu) pandemic exposed recurring issues of exclusion and delayed guidance from authorities. During the H1N1, she mobilised her own networks to ensure people with disabilities, older adults, and children received essential services that official responses failed to provide. These lessons resurfaced during the COVID-19 pandemic, when AW noted breaches of the DDA and highlighted the lack of a centralised disability-specific disaster management body or comprehensive data to guide emergency preparedness and accountability. Despite government guidance permitting mask removal for communication in August 2020, AW observed that many frontline staff continually refused comply, further disadvantaging deaf and deafblind people. In response, she took on direct mobilisation work—distributing vaccine information, helping people make appointments, and writing letters to verify disability or carer status for vaccine eligibility. She described persistent gatekeeping and bureaucratic inertia that delayed access for high-risk communities, underpinned by the mistaken belief that disability services or the NDIS could reach all those in need. Many people with disabilities remain outside these systems—living in rural areas, shelters, or under alternative funding arrangements and thus invisible to policymakers.

AW also highlighted tensions within the disability advocacy sector. She emphasised that not all people with hearing loss identify with or are served by Deaf support organisations, creating further gaps in representation. For her, effective mobilisation requires collaboration across multiple DPOs and individuals; organisations need to broaden their representation and ensure non-discriminatory service delivery. Her eventual departure from an advisory committee reflected disillusionment with organisations unwilling to conduct welfare checks or identify isolated clients during the first lockdown. She felt that disability support systems remained too siloed around single disabilities, neglecting those with multiple or intersecting disabilities, particularly those who are deafblind or older and without adequate support. Participants in her research echoed similar frustrations, describing exclusionary attitudes within some single-disability organisations, a lack of cross-disability understanding, and micro-aggressions towards those who are deafblind, all of which were compounded by an atmosphere of funding uncertainty for deafblind support.

Reflecting on these experiences, AW identified society's rapid shift to online-only services as one of the most damaging aspects of the pandemic, amplifying exclusion for those without digital access and exposing the gap between inclusion rhetoric and lived reality. Her experiences with the NDIS revealed its rigidity and lack of crisis adaptability, as she had to self-advocate for basic supports whilst her requests for contingency care, when her frontline worker partner had to self-isolate, were denied. Caring for her deafblind mother in aged care further exposed the human cost of communication neglect, where withdrawn supports, isolations, and inaccessible PPE led to her mother's decline and underscored the urgent need for communication accessibility in care settings.

AW also highlighted the compounded inequities faced by people with disabilities from marginalised groups, such as the Indigenous people with disabilities, who were further disadvantaged by systemic racism and the exclusion of Indigenous leadership from emergency decision-making processes. Looking ahead, she called for coordinated communication plans developed jointly by DPOs, the NDIS, and aged care providers to ensure individuals receive emergency information and support in accessible ways. She urged all organisations serving people with disabilities to conduct accessible welfare checks and adopt mechanisms such as the Voluntary Patient Registration Scheme to identify and reach clients during crises. More broadly, she advocates for stronger investment in health equity, hospital preparedness, and communication accessibility across all emergency frameworks.

AW further emphasised the need for stable, ongoing funding for DPOs if they are to play a meaningful role in disaster preparedness, response, and recovery. She noted that DPOs representing people with sensory and communication disabilities require additional resources to meet the increased time, staffing, and accessibility costs associated with inclusive communication for both members and staff. However, AW also cautioned against positioning DPOs as the sole holders of disability expertise, advocating instead for shared leadership with lived-experience representatives and greater collaboration between Deaf and low-vision support organisations. Ultimately, she warned that disability, aged care, and health systems must be strengthened during "peace times" to build disaster resilience and that lived-experience experts must be recognised, included, and remunerated as "the expert knowers" in all stages of disaster planning, management, and recovery.

5.8 Community Advocates

This final section focusses on community advocates whose mobilisation efforts were evident at the individual and national level. Each advocate—whether representing a Deaf

organisation, working independently, or collaborating informally within their networks—played a pivotal role in increasing deaf perspectives during emergencies, notably during the COVID-19 pandemic. Their advocacy sought not only recognition, but also systemic change in how accessibility for deaf people and community members is perceived, prioritised, and implemented during emergencies. These advocates challenge the assumption that accessibility is an “add-on”, instead asserting it as a fundamental right that must be embedded within emergency planning and response. Through strategic lobbying, information-sharing, and peer-led initiatives, they worked to bridge critical communication gaps, influence policy responses, and ensure that various perspectives were visible in local and national conversations about crises.

This section begins with vignettes contributed by co-researchers who share their advocacy experiences from *Deaf Australia* as the peak Deaf advocacy organisation; *Deaf ACT* (Australian Capital Territory), and a community voluntary-led initiative for Auslan interpreter access on emergency broadcasts, *Auslan Media Access* (AMA).

5.8.1 *Deaf Australia’s advocacy work*

This vignette explores the advocacy and mobilisation strategies of Deaf Australia (DA), the national peak organisation representing deaf, hard of hearing, and deafblind people, in the realm of emergency management. Former CEO Kyle Miers (KM) (I21, Appendix J) reflected on the organisation’s evolving advocacy efforts on emergencies, tracing them back to the Canberra 2003 bushfires when he first became involved in systemic advocacy. During that crisis, four deaf people were directly affected, exposing severe communication barriers in disaster response and recovery. KM led efforts to document their experiences in a submission to the Canberra Bushfire Commission, marking the beginning of a sustained campaign for accessible emergency information. More than two decades later, he observed that many of those barriers persist; despite technological advances, essential support information such as mental health and financial aid remains largely inaccessible to deaf people and community members. KM emphasised that it should not fall on deaf disaster survivors to navigate various avenues in search of the information they need.

Throughout his 18 years with DA (at the time of the interview in 2020), KM worked to mobilise the Deaf community nationally whilst navigating a challenging advocacy landscape. Following government cuts in 2014, DA relied on small grants and volunteers, limiting its capacity to respond to multiple crises. KM also mentioned the issue of equal representation and compensation, noting that he had at times provided advice and feedback as a SME

without any remuneration. As the sole staff member, KM balanced high-level lobbying with community engagement, a challenge that has persisted over the years. One major barrier was securing access to interpreters for high-level discussions when funding for an in-house interpreter was unavailable. Additionally, KM sought to collaborate with deaf leaders in advocacy without undermining their efforts, as some tended to advocate aggressively without proposing solutions. He emphasised that advocacy work does not yield immediate results. For example, it took 7 years to establish Auslan video relay services under the National Relay Services (NRS). The initial service was limited to a narrow time window that the community felt was insufficient, but KM considered it a victory after years of effort. Other challenges of systemic advocacy in a resource-limited environment include: exclusion from high-level decision-making processes, tensions with service providers who blurred the line between advocacy and service delivery, and the expectation from deaf community members to manage complaints without support or response.

KM highlighted the distinction between Deaf Australia's systemic advocacy and the work of Deaf service providers. Whilst DA concentrates on accessibility issues and UNCRPD compliance, it does not provide direct services during emergencies but advises service providers instead. Some Deaf services providers blur these roles, combining service delivery with advocacy, which can create conflicts of interest, particularly when individuals represent personal perspectives rather than the broader community. This has significant implications. Governments often misunderstand the differences between peak representative organisations and service providers, a gap that has historically contributed to inconsistent advocacy and polarising views.

A central focus of KM's advocacy was legislative reform. He argued that the DDA and related emergency legislation inadequately protect the communication rights of deaf people, relying on individual complaints rather than systemic remedies. He also questioned the *Broadcasting Services Act 1992* (Cth), highlighting the lack of oversight for captioning standards and the absence of Auslan interpreting from national accessibility obligations. For KM, effective mobilisation requires coordinated legal advocacy, adequate funding, and recognition that Deaf-led organisations like DA are essential partners in emergency planning. He emphasised the need for clear legislative guidance on interpreter obligations, on-screen presence, and training for emergency media announcements, acknowledging that navigating these high-level processes demands legal expertise to ensure accountability for accessibility.

KM also reflected on the broader impact of the NDIS on deaf advocacy. The shift to individualised funding dismantled traditional support structures, reducing Deaf Societies of their advocacy roles and leaving DA under-resourced to fill the gap. Whilst KM viewed this as an opportunity for DA to reclaim systemic advocacy, he warned that the lack of stable funding and institutional support undermines sustained mobilisation. He envisioned DA serving as an independent watchdog, monitoring access standards and interpreter quality, but acknowledged that such a role remains aspirational without government investment. His reflections underline the resilience and persistence required for community advocacy in emergencies—where process is often incremental but essential for long term change.

Finally, KM believes that DA should play an advisory role focussed on monitoring service levels, ensuring accountability, and providing feedback for improvement. However, at the time of the interview, no structure was in place for this function. With the rise of media interpreters, there is currently no ‘neutral’ agency to assess their quality. KM stated that DA could fulfill this role if it had the necessary resources and funding—two significant barriers. Securing government commitment to implement these measures poses another challenge.

5.8.2 *DeafACT*

As the only not for profit organisation for deaf people in the Australian Capital Territory (ACT), DeafACT began as a Deaf sports organisation before expanding into advocacy ([DeafACT](#), 2025), represented by then President Jacob Clarke (JC) and Secretary Louise Irvine (LI) (I19 and I23, see Appendix J. Led by a volunteer board of 10 and serving around 200 to 300 community members, the organisation operates with minimal funding and one part-time staff member. JC described DeafACT as both a community hub and a connector between local deaf people, government agencies, and services providers, working closely with affiliated organisations including Deaf Australia, Deaf sports organisations, and other partner organisations.

The COVID-19 pandemic amplified long-standing isolation within the ACT’s Deaf community, forcing DeafACT to rethink how to sustain community connection. JC and LI (I23, Appendix J) recalled that lockdowns halted long-standing voluntary-led activities such as the Deaf Club and Deaf Breakfast—key spaces for socialising and information sharing. In response, DeafACT attempted to mobilise community connection online through Zoom gatherings. However, JC explained that these efforts were met with limited success, particularly for older members who preferred face-to-face interaction and struggled with digital communication platforms. Despite these barriers, DeafACT’s attempts reflected a

broader commitment to maintaining social bonds and protecting community members during an uncertain time. At the time of the interview (2021), JC and LI expressed hopes to rebuild these community spaces once restrictions lifted, seeing reconnection as central to their ongoing advocacy and recovery efforts.

In response to growing concerns about mental health within the ACT's Deaf community, DeafACT sought to mobilise access to Auslan-fluent counsellors as part of its broader advocacy efforts. JC explained that whilst the organisation had reached out to Auslan fluent counsellors, none were locally based in Canberra. For a time, the Deaf community had access to a counsellor from Wollongong who travelled to the region to provide face to face sessions in collaboration with the ACT government, an arrangement that unfortunately ceased due to resource limitations. JC described the organisation's ongoing struggle to secure consistent, in person counselling support, noting that many community members preferred face to face sessions over online or interpreted options. The efforts to find counsellors who could communicate directly in Auslan remained an advocacy priority for DeafACT, reflecting their commitment to culturally and linguistically appropriate mental health services for the community.

During the COVID-19 pandemic, DeafACT mobilised swiftly to address growing communication inequities that deepened the isolation already experienced by the ACT's Deaf community. JC and LI explained that whilst DeafACT maintained a constructive relationship with the ACT Government, they often had to remind officials about the importance of Auslan interpreters in public health updates. Advocacy with the NSW Government was more challenging, particularly when interpreters were excluded from COVID-19 briefings under the then-new Premier. DeafACT asserted that access to information in Auslan was a human right—essential for those who are educationally or linguistically deprived. The persistence of deaf allies eventually led to the interpreters being reinstated, though both leaders cautioned that awareness of Auslan must be sustained beyond crises.

DeafACT's advocacy extended to addressing mask-related communication barriers and challenging inconsistent accessibility practices amongst frontline workers. Recognising that information access went beyond television, JC and LI urged authorities to use multiple channels, especially Facebook, which many deaf people relied on. When Facebook temporarily banned Australian news in 2021, DeafACT supported Deaf Australia in advocating for the platform's reinstatement as a critical information source during

emergencies. They also highlighted ongoing accessibility issues in evacuation centres, where deaf people often received little to information updates.

Building on these experiences, DeafACT began developing a centralised website to provide emergency information and updates (I23, Appendix J). The initiative aimed to fill a significant gap in disaster communication systems by ensuring that deaf people could access vital information without intermediaries (I23, Appendix J). Complementing this, DeafACT launched an e-petition that garnered 536 signatures (at the time of the interview) and provided 25 recommendations for improving Auslan access across government services.³⁵ Key proposals included: embedding Auslan in all emergency communications, establishing an Auslan Taskforce to co-design a territory-wide strategy, and securing ongoing funding to sustain Deaf advocacy. JC and LI viewed the e-petition as both a tool for government accountability and a model for other Deaf organisations nationwide.

Both JC and LI sought systemic change through their advocacy efforts: ensuring that Auslan access is embedded across all ACT Government service delivery in compliance with the UNCRPD, and that Deaf people can participate equitably in emergency and community life. At the time of the interview, DeafACT was strengthening partnerships with the then-Deaf Society of NSW, had working relationships with interpreting agencies, and were keen to work with Aged Care, the NDIS, and the Deafness Resource Centre to enhance visibility and recognition of DeafACT's advocacy role. They also expressed interest in collaborating with local emergency services to co-develop preparedness training tailored for the ACT's Deaf community—an idea that emerged through this interview.

5.8.3 The role of Social Media & Facebook groups: Auslan Media Access

Insights on community advocacy can also be gleaned from the work of Facebook groups in disasters. In October 2019, NSW began experiencing what would become known as the Black Summer (<https://www.naturalhazards.com.au/black-summer>). During this tumultuous summer, Deaf community advocate Shirley Liu (SL) (I40, Appendix J), recognised two critical communication gaps: (1) the provision of Auslan interpreters in televised emergency broadcasts was nullified by the interpreters being frequently cut from view; and (2) a lack of advocacy resources and tools for deaf people to seek advocacy efforts. Despite repeated attempts to contact broadcasters directly, SL realised that individual advocacy was insufficient

³⁵ DeafACT's e-petition is a process that requests the House of Representatives to take action on the 2022 ACT parliamentary inquiry into access to services and information in Auslan. Available from: https://www.parliament.act.gov.au/_data/assets/pdf_file/0010/2174950/Report-Inquiry-into-access-to-services-and-information-in-Auslan.pdf. Accessed [14 October 2025].

and that national representation was lacking. In January 2020, as fires worsened, she mobilised collective action by creating the Auslan Media Access (AMA) Facebook group—a public social media platform calling for consistent Auslan interpreter visibility during live emergency coverage. Within a single day, over 1000 people joined the group, reflecting the need for the group and a widespread frustration amongst deaf people and community members. SL’s advocacy marked a shift from isolated complaints to coordinated mobilisation. Drawing on her international travel experiences, she compared media accessibility practices and noted that whilst Australia had made progress, systemic inconsistencies remained. The visibility of AMA soon inspired Deaf communities overseas to adopt similar advocacy efforts in their own sign languages, turning a local movement into a model for international mobilisation.

Operating without funding, AMA is led by SL and eight volunteer Deaf community advocates across Australia. Initially envisioned as a small, informal network, the group rapidly evolved into a national advocacy platform amplifying collective demands for accessibility. Members used social media strategically—sharing screenshots and videos as visual evidence—to document interpreter exclusion and lobby government agencies and broadcasters for reform.

As part of the lobbying efforts, SL encouraged the sharing of visual images and screenshots on the Facebook page to collect evidence for advocating with the government to improve the inclusion and access of Auslan interpreters in TV emergency broadcasts, as shown in Figure 5.1. This effort was successful; deaf people across Australia posted screenshots and videos of TV emergency broadcasts that included or excluded Auslan interpreters (evidenced in Figures 5.2-5.4). These posts were utilised to provide constructive feedback, helping deaf people understand what is acceptable and what is not.

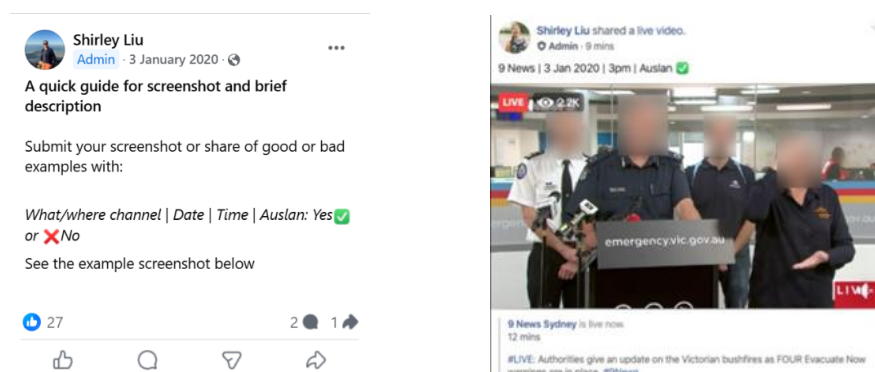


Figure 5.1: Facebook Post by Liu



Figure 5.2: Community members post on AMA Facebook page:



Figure 5.3: Community members post on AMA Facebook page:

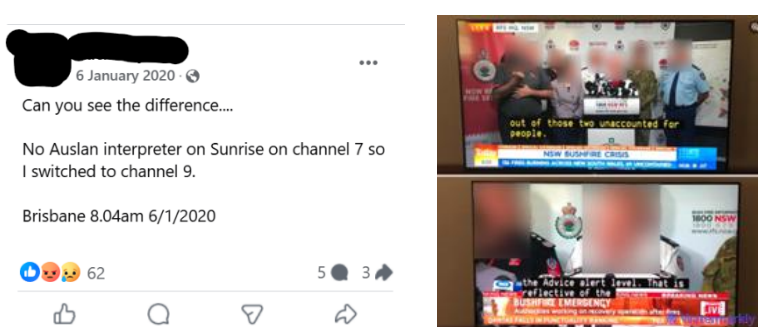


Figure 5.4: Community members post on AMA Facebook page:

SL's advocacy soon drew mainstream media attention, leading to an interview with Australian Broadcasting Corporation (ABC)³⁶ News about the importance of including Auslan interpreters in emergency broadcasts. However, her efforts were not universally supported as some hearing people argued that captioning alone was sufficient. Whilst SL acknowledged the value of captioning, she emphasised its limitations in accuracy and reliability during crises and stressed that captions did not meet the needs of all. Interpreters provide a more immediate human form of communication, which is preferred by many Auslan users. SL also challenged

³⁶ Australian Broadcasting Corporation (ABC): The ABC is Australia's principal public service broadcaster. Available: <https://www.abc.net.au/>. Accessed: 03 November 2025

claims about limited funding for interpreters, pointing out the ongoing investment in captioning technology and proposed innovative solutions such as remote interpreting when local interpreters are unavailable. Through her media engagement, SL gained insight into navigating complex systems and addressing both behavioural and legal challenges.

Liu emphasised that AMA's independence from established organisations gave it agility and authenticity, particularly when some national advocacy bodies were perceived as opaque or slow to act. By harnessing digital networks and lived experience, AMA transformed grassroots frustration into structured activism. SL argues that Australia's DDA is outdated and lacks clarity on emergency accessibility, particularly for digital platforms. She also highlighted the absence of clear guidelines for Auslan inclusion in national press conferences beyond emergency contexts. Whilst aware of the UNCRPD, she felt its provisions were insufficiently applied in Australia. At the time of the interview (2020), as the NSW government was reviewing its *Discrimination Act 2014*, SL urged for stronger recognition of access issues on digital platforms, suggesting that state-level reform could catalyse broader national change. The group continues to grow, now with more than 3,400 members (as of 14 October 2025), <https://www.facebook.com/groups/auslanmediaaccess>, underscoring the power of Deaf-led mobilisation in demanding systemic accessibility in emergency communication.

Despite AMA's growing visibility nationally and internationally, SL identified multiple challenges in sustaining Deaf community participation. First, there is a shortage of deaf advocates with leadership and communication skills due to English being a secondary language for many Auslan users. Some advocate passionately but without the evidence necessary to support their arguments. To address this, AMA shared advocacy templates in both English and Auslan, enabling deaf people to write directly to MPs, Senators, and media outlets. This initiative aimed to empower community members to advocate independently and confidently

Second, emergency-related advocacy should be deaf-led. However, hearing people working for Deaf service providers in Australia are increasingly taking on this role due to limited capacity within the national Deaf organisation. Whilst acknowledging their contributions, she is concerned about insufficient consultation with Deaf communities and over-reliance on hearing staff. An AMA survey of 503 respondents revealed that 83.9% identified as deaf, 8% as hard of hearing, and 8.9% as hearing or 'rather not say'. Of all respondents, 73.6% reported are Auslan users, and 87.7% valued AMA as a deaf-led platform for information

sharing ([AMA Survey Results](#)). Notably, 67.6% were not members of existing national Deaf or hearing organisations, underscoring AMA's unique role in community engagement.

Lessons learnt from the establishment of AMA reveal that Auslan users are deeply concerned about their lack of access to information and their safety during emergencies, highlighting the value of networking through social media. SL noted that whilst Facebook was effective for gathering community inputs, X (formerly Twitter) now plays a crucial role in targeting politicians and high-level government officials for lobbying efforts through established allies.

5.9 Chapter Summary

This chapter examined the mobilisation strategies of Deaf support organisations and emergency services in Australia, evaluating their effectiveness in increasing deaf people's participation in DRR. Whilst initiatives reflected community needs, the majority of mobilisation was influenced by financial incentives and their impact on community relationships. A key finding across these case studies was the influence of the NDIS, which reshaped Deaf service provision from a community-oriented model to a business-driven model. Mobilisation emerged as both necessary and constrained, shaped by structural reforms, fragmented systems, and uneven recognition of the lived experiences and community needs. These factors either supported or hindered the efforts of Deaf support organisations and individuals.

The introduction of the NDIS fundamentally reshaped Australia's advocacy and community service landscape, dismantling collective support structures previously provided by Deaf Societies. Although intended to strengthen choice and control, the NDIS created ripple effects for Deaf service providers, advocacy organisations, community members and advocates, and Auslan interpreters, which became especially visible during disasters and the COVID-19 pandemic. Emergency and health services often assumed that all people with disabilities were covered by the NDIS, overlooking those who were ineligible or unable to access timely funding. This left many deaf people without essential supports during lockdowns, as highlighted in the experiences of AW (I7, Appendix J) (see *Section 5.7*). The NDIS also intensified competition amongst service providers, driven by financial incentives to secure agreements for media interpreting, creating monopolisation and exclusive access to interpreting opportunities and training (see *Section 5.5*).

The case studies also revealed persistent assumptions about what makes information accessible, not only within emergency and health organisations but also amongst Deaf service providers. Health and emergency services often see accessibility equated with a single technical fix—such as captioning or the presence of an Auslan interpreter, without recognising the infrastructure, labour, and linguistic expertise required for effective communication and language access (see *Section 5.3*). By failing to account for the diverse needs across the deaf spectrum, these approaches often appeared tokenistic and providing access on media broadcast does not ensure equitable access to disaster information before and after disasters. LJ (I24, Appendix J) noted that some providers focussed more on investing in Auslan media interpreters, as aligned with BP from Expression Australia at the time (I8, Appendix J), than providing disaster preparedness workshops—a key goal of the Get Ready NSW Deaf Community project (see *Section 5.2*).

Significant gaps also emerged in mobilisation strategies from Deaf service providers, raising questions about their overall effectiveness. Translated information and videos—in Auslan or in simplified English (see *Sections 5.6.1* and *5.6.2*), may have not reached deaf people who are educationally or linguistically deprived, leaving uncertainty about whether key messages were actually received and comprehended. Similarly, online resources developed by funded projects, health and emergency services lacked mechanism to evaluate access, usability, or effectiveness in supporting decision-making during crises. Reliance on deaf native Auslan users to unpack signs for COVID-19 public health messaging highlighted structural limitations: although high quality interpreting was provided, the modes of language delivery may not reflect that approximately 90% of Auslan users are non-native signers (I1, I13, I34, Appendix J) (see *Section 5.5*), raising concerns about information uptake and mobilisation. Advocacy platforms, such as the AMA Facebook page (see *Section 5.8.3*), was impactful and provided a space that was lacking in the advocacy sphere. However, questions are emerging about accounting for the linguistic and cultural diversity amongst deaf people who may use Auslan or could benefit from it, including deafblind signers, migrants, refugees, and new signers, limiting their ability to support inclusive mobilisation.

Collectively, these findings illustrate the need for mobilisation strategies that centre linguistic diversity, community validation and representation, and sustained mechanisms to evaluate effectiveness. They also underscore the complex interplay between structural reforms, service provider incentives, and emergency management decisions that both enable and constrain

deaf people's participation. These insights provide the foundation for the comparative analysis presented in Chapter 6.

Chapter 6:

Discussion—Crossing Borders in Access, Participation, Representation

6.1 Introduction

Drawing on the evidence from my nine case study countries—Aotearoa New Zealand, Australia, Indonesia, Italy, Japan, Nepal, Haiti, the Philippines, and the USA - this chapter critically examines how Deaf support organisations navigate questions of access, participation, and representation in disaster contexts. It presents a cross-case comparative analysis to identify key lessons and implications for fostering more inclusive disaster governance, focussing on both the connections and contrasts amongst these contexts. In doing so, it not only asks ‘*how*’ access is provided but considers ‘*who*’ decides what counts as access, and whose knowledge is excluded from systems meant to keep all people safe. This, in turn, sheds light on who participates in the decision-making processes and reflects the current dynamics of representation—who represents and for whom. This chapter demonstrates how access, participation, and representation intertwine, revealing the nuances that shape Deaf support organisations’ approaches to DRR and community resilience. Taken together, the analysis presented here provides empirical evidence needed to address the central purpose of this thesis, demonstrating how Deaf organisations’ mobilisation strategies and resilience shape the conditions of access, participation, and representation in DRR.

6.2 Who defines access—and for whom?

Disasters do not discriminate, they happen when they happen. (I35, Appendix J)

Disasters expose the fault lines within societies, and for deaf people and community members around the world, those cracks often appear first in the form of inaccessible information. Whilst the COVID-19 pandemic was a global crisis, it is apparent from my case studies that its impacts were not experienced equally, along with many other past disasters worldwide (Gaillard and Fordham, 2018). In some countries, sign language interpreters and captions are often regarded as markers of inclusive communication (De Meulder and Haualand, 2021; Haualand, Meulder and Napier, 2022). Yet, my findings reveal that what remains less visible in emergency broadcasts are the everyday struggles deaf people and community members face in accessing and understanding emergency preparedness information before disasters, as well as the support available to them afterwards. Equally overlooked were the critical roles Deaf support organisations played in bridging these accessibility gaps, particularly around language and communication. These findings resonate with other studies from around the world. They demonstrate that deaf people and community members not only face barriers that

block their ability to understand what is happening during disasters, but are also excluded from opportunities to influence how systems are designed (Nguyễn Trần Thủy, Cooper and Craig, 2022; Engelman, Booze and Izquierdo, 2024). These broad global patterns, and the trends evident within my results, draw attention to how accessibility is both conceptualised and operationalised. The question of who defines "access" and how it is applied in both Australian and international contexts warrants critical attention.

The findings in Chapter 5 show that Australia has made efforts to address accessibility gaps in emergency preparedness and media interpreting through initiatives led by Deaf support organisations. Whilst these initiatives have been welcomed, they are often reactive—emerging in response to previous disasters that were either inaccessible or exposed critical gaps. As Miller *et al.* (2010) note, such responses tend to reflect a ‘snapshot’ at a specific point in time following a disaster, with less attention given to examining both pre-existing and post-disaster conditions. This is evident in the continued marginalisation of Deaf support organisations, which remain largely on the periphery of formal disaster planning and decision-making structures—reflecting an issue of equity and power that Matin, Forrester and Ensor (2018) argue influences resilience. In turn, this suggests the reproduction of pre-existing inequalities, as identified by Frerks, Warner and Weijs (2011). This situation, however, is far from unique. Similar challenges exist elsewhere—from neighbouring Aotearoa New Zealand (*Section 4.4.1*) to Japan (*Section 4.2.1*) and Nepal (*Section 4.3.1*), from the USA (*Sections 4.2.3 and 4.4.2*) to the Philippines (*Sections 4.2.4 and 4.3.2*), and from Indonesia (*Section 4.3.3*) to Italy (*Section 4.2.2*)—where differing levels of access, institutional recognition, and structural support shape how Deaf support organisations can participate in DRR. These differences influence not only the nature of participation, but also ‘who’ within Deaf support organisations is formally represented in DRR conversations, as well as what forms of resilience are promoted and for whom (Uekusa, 2018; Lambert, 2022).

The tensions described in my preceding chapters reveal that access is not neutral. It is shaped by policy, power, and assumptions—often determined by institutions that rarely consult those they claim to serve. Deaf support organisations, many of them under-resourced, have stepped in to fill critical gaps: translating content into sign languages, advocating for accessible formats, and supporting deaf people and community members left behind by mainstream services. This trend, as noted by Meltzer, Barnes and Wehbe (2024), is also evident amongst other organisations working within the information accessibility sector. Their work has not only been about communication—it has been about asserting the right to be included in decisions that affect survival.

Whilst the definition of “access” is often contested, so too is the concept of ‘participation’. Access and participation are deeply intertwined—one cannot exist without the other—yet both are frequently shaped by those in positions of institutional power whose interpretations may not align with the lived experiences of those intended to benefit from it. Whether participation occurs often hinges on *recognition*, a point echoed by disaster and social justice scholars such as Matin, Forrester and Ensor (2018), Gaillard and Fordham (2018), Shrestha *et al.* (2019), Baldwin (2020), Fraser (2020), and Lukasiewicz (2020). Recognition determines whether access to information, services, and resources is equitable—or whether barriers are reinforced (see *Section 2.2.3*). Moreover, from the interviews it became clear that the quality and impact of access create a domino effect; shaping not only if participation is possible, but how meaningful that participation is—and ultimately, whether representation becomes embedded or remains symbolic. These factors cannot be treated in isolation. Access—particularly to communication, information, and language—is foundational, but insufficient on its own. Without meaningful access, participation is often limited or tokenistic, and representation rarely extends beyond formal gestures.

6.2.1 Determining Access in Australia: Who Decides Who Is Eligible?

Our goal was to ensure access for all—Deaf, hard of hearing, late-deafened, and Deafblind—to make sure they have access to everything and are not ignored or neglected.

(BL, Appendix J)

In disaster contexts, accessibility is often reduced to a checklist: captions, sign language interpreters, translated materials in sign language. Public institutions frequently equate these features with “communication access” for deaf people and community members, but this narrow framing has been critiqued by scholars like De Meulder and Haualand (2021), who argue that such measures, whilst important, fall short when imposed as one-size-fits-all solutions. For Deaf support organisations, “communication access” is inseparable from “language access”, a broader concept rooted in deaf people’s diverse communication preferences, language identities, and access needs. Many view language access not only as a legal right but also as a community responsibility. Having the dual role of advocate and service provider, these organisations actively challenge institutional assumptions about what accessibility looks like and who defines it. This is especially significant given the consistent misalignment between public services and Deaf support organisations regarding how access is understood, delivered, and measured. At its core, this tension raises a deeper question: who gets to decide what counts as “accessible”, and for whom? For deaf people and community

members, language access is not merely technical, but fundamental to recognition, agency, and survival.

The Australian approach to emergency preparedness has increasingly emphasised individual and community responsibility and represents a shift that has shaped how public services, particularly health and emergency services, communicate risk (see *Sections 5.3 and 5.7*). Whilst deaf people and community members are expected to engage proactively with DRR, Deaf support organisations argue that many public services still lack a nuanced understanding of what accessible communication involves (see *Sections 5.5, 5.6, and 5.8*). As one Deaf service provider pointed out:

Our role needs to be very clear, we need to provide information, it's not just about providing access to interpreters, access doesn't equal providing Auslan version. True access means extra training, extra information, it's not just about making something in Auslan and assuming that's equal access. Deaf people need that additional education, there are gaps in education and other areas. I feel like that's our role to help people understand that there's additional information that may be required to ensure deaf people are able to catch up and there's equality. (I38, Appendix J)

In terms of enacting regulatory commitments, Australia presents a mixed picture. The country was an early signatory to the UNCRPD and passed the *Disability Discrimination Act (Cth) (DDA)* in 1992—both important milestones. However, the DDA's reliance on individual complaints mechanisms means that systemic change is slow and often reactive (*Section 5.8.1*). Compounding this, most human rights bodies in Australia do not accept complaints lodged by organisations, which limits the advocacy power of Deaf-led bodies. One lesser known, yet symbolically important policy, cited by some Auslan interpreters was the 1987 formal recognition of Auslan as a “community language other than English” (Deaf Australia, 2022). Several Australian Deaf support organisations noted that, in practice, the UNCRPD holds more persuasive power than national legislation—yet awareness of all these obligations remains patchy across sectors. Both health and emergency services, often demonstrate limited understanding of their responsibilities under the DDA, the UNCRPD, or community language policies. These gaps reveal a deeper tension: whilst Auslan may be formally acknowledged, the systems meant to uphold linguistic rights often fall short—especially when crisis communication is treated as a one-size-fits-all model.

Publicly funded services such as the NDIS that aim to improve accessibility and support for people with disabilities inadvertently create accessibility and eligibility challenges. As detailed in *Section 5.2*, the NDIS framework has reshaped how Deaf service providers operate and support their communities. Yet, the public sector's reliance on the NDIS to fund access support raised concern amongst Deaf service providers due to assumptions that all people with disabilities are eligible. This oversight creates structural exclusions based on age (e.g. over 65) and visa status (e.g. temporary residents). The question of '*who decides*' eligibility within the NDIS framework is deeply problematic. These eligibility assumptions had grave consequences during the pandemic when NDIS access processes frequently failed to support those who urgently needed assistance. AW (I7, see Appendix J), shared her experiences:

The NDIS should be soundly condemned for failing to communicate in accessible-to-the-individual ways to all participants in the scheme consistently, regularly and accurately. My own contact was all self-initiated as a result of failures.....I ran into difficulties when my partner had to isolate for two weeks as he was working as a frontline health worker. This meant getting supports to come and stay to provide care and keep safe which took a huge chunk out of my funds. This would happen repeatedly in the first year. However, my [NDIS] planner did not feel that planning additional support for these times – when there was no one in the home with me for two weeks at a time – was at all necessary.

These gaps were compounded during the lockdowns as public services deflected responsibility to NDIS providers, expecting them to deliver accessible services without adequate planning or resources. When Deaf organisations stepped in to support community members, they encountered significant systemic and financial barriers. KD (I20, see Appendix J) noted that the NDIS funding lacked emergency contingencies for crisis support, which became apparent during the COVID-19 lockdowns. As a result, many were ineligible for immediate support and she volunteered substantial time to ensure deaf people received the assistance they needed (I20, see Appendix J). Taken together, these experiences reveal how deaf people and service providers in Australia have had to navigate a fragmented system where access is narrowly defined by institutional assumptions and often overlooks the diversity of accessibility needs. The reliance on schemes like the NDIS during a crisis exposed deeper structural gaps: not only in *who qualifies* for support, but also in *how responsive* and *inclusive* that support is.

Despite the recognition of Auslan as a community language and Australia's commitments under the DDA and UNCRPD, the question of who defines and delivers "access" remains

contested. In practice, decisions about what constitutes accessible communication and for whom, are often made by institutions rather than by deaf people and community members. This top-down framing has resulted in inconsistent, and at times, exclusionary outcomes, particularly during emergencies when timely, culturally appropriate and accessible communication is critical for survival (Deaf Australia, 2020; Deaf Australia, 2023; Hodge *et al.*, 2024). The Australian case thus illustrates how accessibility, when determined by those outside of the group or community, can fail to deliver equity or inclusion, as evidenced by Deaf scholars such as Burke (2017), De Meulder and Haualand (2021), and Haualand, Meulder and Napier (2022). Yet this dilemma is not unique to Australia, other countries have faced similar tensions between policy intent and lived experience, albeit with different outcomes.

6.2.2 Eligibility and Access in International Contexts: Who Gets Included?

As discussed in *Section 2.5*, both academics and practitioners have highlighted how accessibility barriers often compel Deaf-led organisations and service providers to step in and fill the gaps left by formal systems (see Jacq, 2015; Takayama, 2017; Rotondi, Zuddas and Rosati, 2018; Cooper *et al.*, 2021; Nguyễn Trần Thủy, Cooper and Craig, 2022; Engelman, Booze and Izquierdo, 2024). Across different contexts, these efforts emerged not from policy mandates, but from the lived realities of exclusion that exposed a deeper question: who holds the authority to decide who is entitled to receive it? As Takayama *et al.* (2022) observed, international and national disability policies often frame accessibility as a matter of “*protection*” rather than “*participation*”, leaving deaf people and organisations to negotiate their own inclusion in disaster planning and response. This underscores how formal systems may claim to enable access whilst retaining control over its boundaries. Below, I provide an overview of the legal and policy frameworks shaping accessibility across the remaining seven countries examined in this study, with particular attention to how DiDRR has evolved—especially in countries situated outside dominant policy discourses.

Whilst all nine international case study countries have either signed and/or supported the UNCRPD, the legal recognition of national sign languages, and by extension, communication and language access varies significantly. According to the WFD’s documentation on the legal recognition of sign languages internationally ([WFD, 2025](#)), Nepal’s national sign language was officially recognised in its Constitution and in general disability legislation, embedding sign language within a disability rights frameworks ([UN OHCHR, 2018](#)). In contrast, the USA does not formally recognise ASL (American Sign Language) at the federal level, although its robust disability laws--the ADA, includes specific provisions for communication

access—such as references to “qualified sign language interpreters” and captioning ([ADA](#), 2025). Similarly, Indonesia recognises sign language in their national disability law (2016)³⁷, however it is unclear whether this recognises the national Indonesian Sign Language known as BISINDO. Haiti’s disability legislation, meanwhile, makes no explicit mention of sign language ([UN OHCHR](#), 2018). By comparison, countries such as Aotearoa New Zealand (2006)³⁸, the Philippines (2018)³⁹, Italy (2021)⁴⁰, and most recently, Japan (2025)⁴¹, have taken more definitive steps, enacting legislation that formally recognises their national sign languages as distinct languages in their own right.

Despite these varying legal and policy frameworks, Deaf support organisations across these countries reported similar experiences of exclusion from public services before, during, and after disasters (*Section 2.5*). This reflects what Ivey *et al.* (2014) described as a widespread absence of explicit inclusion of deaf people in disaster planning—a silence that reveals how institutional definitions of “eligibility” often fail to account for the realities of deaf people and community members. From my findings, what distinguishes several of these international cases from the Australian experience is the strength of the community-driven responses that emerged when formal systems fell short. Across multiple contexts, Deaf-led organisations mobilised their own definitions of access—grounded in shared accountability, trust, and community networks—to deliver essential communication and language access when institutional systems could not. One notable example is Japan’s Nakama Support project (*Section 4.2.1*), a collaboration between JASWDHH, JFD, Deaf medical professionals, community members, and JSL interpreters. Together, they formed five specialist teams to deliver direct communication and language access services during the response phase. These efforts also prioritised staff wellbeing, with KT (I22, Appendix J) emphasising the importance of supporting deaf and hearing social workers fluent in JSL who were at risk of vicarious trauma—an often-overlooked element of sustaining access in times of crisis:

³⁷ The recognition of the Indonesian Sign Language through the Act of the Republic of Indonesia Number 8. Available at: <https://docs.un.org/en/CRPD/C/IDN/1>. Accessed on: [16 October 2025].

³⁸ New Zealand Sign Language Act 2006. Available at: <https://www.legislation.govt.nz/act/public/2006/0018/latest/whole.html>. Accessed on: [16 October 2025].

³⁹ Filipino Sign Language Act 2018. Available at: https://legacy.senate.gov.ph/republic_acts/ra%2011106.pdf. Accessed on: [16 October 2025].

⁴⁰ Italian Sign Language (LIS) and Italian Tactile Sign Language (LIST) (2021). Available at: <https://www.camera.it/temiap/2022/04/07/OCD177-5446.pdf>. Accessed on: [16 October 2025].

⁴¹ The Enactment of the Act on Promotion of Measures Concerning Sign Language (2025) that recognises Japanese Sign Language (JSL). Available at: <https://www.jfd.or.jp/en/2025/08/11/pid2277>. Accessed on: [16 October 2025].

...we forbade the social workers that we sent to stay more than a week because we thought that they would have experienced too much vicarious trauma ... because we are responsible for taking care of them too. I care for the community, but I also care for my social workers.... You know, there are a lot of hearing people who are mental health professionals-- plenty of them, but we only have a handful of Deaf people and if they get traumatised, we might lose them.

These community-led initiatives demonstrate that when deaf people define accessibility on their own terms, it becomes a process of relational responsibility rather than institutional compliance. As Deaf scholars such as White (2006), Takayama (2017), and Cooper *et al.* (2021) argue, genuine access arises not from policies that *grant* eligibility, but from communities that *create* it—through lived experience, cultural knowledge, and mutual care.

A core priority for these overseas teams, like many Deaf support organisations, was ensuring language-concordant access. De Meulder and Haualand (2021) describe this as direct communication between two parties using the same language. This approach is particularly vital for deaf people who are language-deprived, isolated, or have additional disabilities. In Japan (I22, Appendix J), the USA (I43, Appendix J), and Haiti (I15, Appendix J), Deaf support organisations physically searched evacuation centres and recovery sites to locate deaf people and provide centralised access to information and support. These efforts were critical: in Japan, one deaf person could only describe their medication as “white tablets,” (I22); in the US, deafblind consumers lost all communication access during power outages (I43, Appendix J); and in Haiti—where no Deaf support organisation existed before the 2010 earthquake—establishing accessible communication became a matter of survival (I15, Appendix J). Additionally, a deaf emergency service responder from the USA described stepping into a CDI role during a humanitarian response in a Spanish-speaking region, quickly learning local signs to meet urgent needs (I36, Appendix J). They later helped fund a bilingual Deaf community member to complete CDI training, who now delivers televised disaster updates alongside officials (I36, Appendix J).

In each of these examples, access was defined not by institutional rules or eligibility criteria, but by deaf people themselves through adaptive, community-based responses. At the same time, rather than reflecting notions of ‘bouncing back’ or ‘bouncing forward’ (Manyena *et al.*, 2011), these cases expose the limitations of dominant resilience frameworks in capturing the realities of deaf people’s experiences in disasters. The need for Deaf-led organisations to independently locate individuals, establish communication systems, and fill systemic gaps

points to a failure of formal DRR structures to support equitable and inclusive forms of resilience (Matin, Forrester and Ensor, 2018). These examples therefore highlight not the presence of resilience as commonly defined, but the conditions under which resilience is constrained, uneven, or contingent on community-led intervention. In this way, Deaf-led strategies reveal a critical disconnect between how resilience is conceptualised in policy and how it is enacted in practice, underscoring the distinction between access granted and access claimed, particularly when applying DiDRR frameworks in countries such as Indonesia and the Philippines.

In Indonesia and the Philippines, DiDRR has become an increasingly visible part of government disaster planning (*Sections 4.3.2 and 4.3.3*). Yet its inclusivity remains contested, particularly by Deaf support organisations. Whilst De Meulder (2014) and the WFD (2018) recognise that deaf people straddle both disability and linguistic-cultural spheres (*Section 1.4*), most deaf co-researchers in this study identified more strongly with the latter. Many argued that DiDRR frameworks, though well intentioned, tend to overlook the linguistic and cultural dimensions of deaf people and community members (Takayama *et al.*, 2022; Nguyễn Trần Thủy, Cooper and Craig, 2022). Participation in DiDRR initiatives was also constrained by limited capacity, lack of sustainable funding, and a shortage of interpreters experienced in disaster contexts. These barriers limited opportunities for deaf people to fully engage and for DiDRR actors to learn from Deaf-led expertise. As I31 explained:

.... the [country] DiDRR Network and [country's government DRR organisation] have talked about supporting people with disabilities and developing activities for us, but I haven't heard anything or been invited to take part in any of it. When the [country] DiDRR Network does have an event or activity, they always contact me at the last minute...and because of that, I can't always join due to time and interpreter availability. They should have contacted me in advance to make sure I am available to join.

This late-stage or symbolic engagement undermines the very purpose of inclusive disaster planning. As Takayama *et al.* (2022) argue, international disaster policies often prioritise *protection over participation*—a pattern echoed in findings by Cooper *et al.* (2021) and Nguyễn Trần Thủy, Cooper and Craig (2022) in Viet Nam. The mere presence of deaf participants or interpreters—regardless of the interpreters' experience and expertise in DRR—does not automatically translate into meaningful inclusion. For some Deaf support organisations, these limitations point to a deeper issue: DiDRR remains largely defined through a disability-centric framework lens, one that fails to recognise deaf people as a

linguistic and cultural minority. Where government engagement is limited or inconsistent, DiDRR may still offer a potential entry point, but only when underpinned by commitments to linguistic rights, cultural competence, and Deaf-led participation.

Other Deaf support organisations, such as the Association in Italy and IDE in Haiti, have also played vital roles in disaster response although their models differ from fully Deaf-led initiatives like Japan's Nakama Support project or the USA's DRT. Operating as voluntary advisory and advocacy bodies, both organisations have demonstrated strong commitments to accessibility. The Association has focussed on partnerships and tech-driven solutions to improve access to emergency communication, whilst IDE secured funding to establish a post-earthquake humanitarian tent centred on deaf people's needs, with sign language communication at its core. Despite limited resources, both maintained strong engagement with funders and decision-makers whilst prioritising direct, language-concordant communication. These examples underscore a key theme in this section: that access, particularly language access, is not neutral. It is continuously defined, negotiated, and redefined by those who control resources and by those who resist exclusion through Deaf-led action.

At the same time, Deaf-led organisations working in places like Haiti, Indonesia, Nepal and the Philippines (*Section 4.3*) continue to navigate persistent structural barriers that shape how access and participation are defined in practice. My findings suggest that limited capacity, volunteer burnout, and leadership gaps constrain long-term advocacy and community mobilisation. Co-researchers emphasised the urgency of building leadership pipelines, especially in rural areas where access is most restricted. Without succession planning, efforts risk stalling, further marginalising deaf people in disaster contexts. These gaps reflect missed opportunities to build the cultural capital needed for sustained advocacy (Cue *et al.*, 2019), and are compounded by a shortage of qualified interpreters for high-level engagement, limiting their ability to hold institutions accountable (De Meulder, 2014; De Meulder and Haualand, 2021).

Across the nine country case studies, it has become clear that how access is defined—legally, politically, and culturally—is never neutral; it reflects underlying power relations that shape how Deaf support organisations, deaf people, and community members are positioned within disaster systems. This tension between deaf people being positioned as a disability group versus a linguistic minority is not just descriptive, it also reflects competing frameworks that shape how access is defined and prioritised in disaster contexts. In practice, these categories

are produced through institutional priorities, determining whose needs are recognised and how resources are allocated. In contexts where accessibility is determined primarily through compliance with disability legislation, access becomes a matter of administrative eligibility rather than social justice, positioning deaf people as *recipients* of support rather than *contributors* to system design. By contrast, community-driven efforts reveal a more relational and political model of access, one grounded in Deaf-led communication, mutual accountability, and shared agency. Whilst the presence of interpreters or translated materials may signal inclusion, these surface-level measures rarely challenge the deeper structures of power that determine who defines accessibility, whose knowledge is legitimised, and whose needs are overlooked. Moving beyond access as an endpoint toward a more critical interrogation of participation requires asking not only whether deaf people are present, but *how* they are engaged, heard/seen, and recognised within the political processes that decide whose voices/perceptions count in shaping disaster governance.

6.3 What Counts as Participation?

How can deaf people and people with disabilities in provinces advance themselves if there are barriers to accessing education, information and services? (I12, Appendix J)

In DRR, participation is often reduced to presence: were deaf people in the room? Did a Deaf organisation attend? Yet, as many Deaf support organisations stressed, attendance alone does not equal participation. Across diverse contexts, organisations described being invited to consultations only to encounter barriers such as inaccessible or overly technical information, absent or unqualified sign language interpreters, or decisions already made (see Chapters 4 and 5). Some were included for visibility rather than input, whilst others had to decline due to last minute invitations that left no time to arrange communication or language access support. Reiterating Baldwin's (2020) arguments on social and participatory processes (see *Sections 2.2.1 and 2.2.4*), true participation means having influence: shaping agendas, informing decisions, and holding institutions accountable especially in how communication and language access are defined and delivered *by* and *for* deaf people and community members. Without such influence, participation risks reinforcing what Verchick (2012) terms "disaster injustice" (*Section 2.3*) and what Matin, Forrester and Ensor (2018) describes as "inequitable resilience" (*Section 2.2.3*). These issues echo Fraser's (2020) principles of recognition and redistribution (*Section 2.3.1*), highlighting that inclusion must go beyond just the provision of information and resources. Similarly, Gaillard and Fordham (2018) stress that recognition requires inclusion in decision-making processes, whilst Hore *et al.* (2020) argue that such engagement fosters ownership and more equitable outcomes (see Chapter 2, *Section 2.3.1*),

paralleling Arnstein's (1969) classic "Ladder" on participation (*Sections 2.3.1 and Section 7.4*). Yet, examples of this depth of participation remains rare in practice.

6.3.1 Mapping Participatory Processes: The Australian Context

In Australia, significant investment has gone into securing Auslan interpreters for media interpreting—most notably through initiatives like the National Auslan Communications for Emergencies (*Section 5.4*). Whilst the visibility was beneficial, especially for interpreter employment and public awareness, it also overlooked two critical points. First, it failed to account for the participation of Auslan interpreters themselves—those delivering critical lifesaving information on the front lines—who were largely excluded from the decision making and contracting processes between public services and Deaf service providers. As one interpreter reflected:

...I find if I try and alert them to something... they [Deaf support organisation] tend to ignore me. They negotiated a contract with [national governments], but whoever did it should be sacked—it was terrible for us on the frontline. I'm the one doing the work, not them. They should have asked what we needed—pay rates, prep time, travel, meals. Instead, they just sat there booking things. It became ridiculous. Interpreters need more power to negotiate our own conditions—we're not under an Award, like we are under some welfare workers Award⁴²I think, so we don't really have any power of negotiation, to negotiate our own working conditions. (I27, Appendix J)

Although Auslan media interpreters play a critical role in making crisis information accessible for deaf people, the exclusion of these interpreters from negotiation processes highlighted a deeper structural issue. Frontline roles do not guarantee a voice in shaping the systems they uphold.

Second, the focus on media interpreting has sometimes overshadowed broader, community-based preparedness. The late Leonie Jackson, former CEO of The Deaf Society (prior to its merger with Deaf Connect), warned against overemphasising media visibility at the expense of community readiness:

⁴² Award: In Australia, the National Employment Standards (NES) outline the minimum employment entitlements for all employees. An award, employment contract, or enterprise agreement may provide additional benefits, but never less than those set by the NES. Available: <https://www.fairwork.gov.au/employment-conditions/awards/list-of-awards>. Accessed on 06 November 2025.

...other states have told me, 'Oh, there's preparations for Auslan interpreters on TV news.' I feel that some of them do not understand that the focus should be on preparing deaf people, because it is their lives that are at risk—rather than just relying on interpreters on TV... So I don't know if other Deaf Societies feel that way too... I don't feel that they do. I felt that I needed to bring the lived experiences to the discussion—especially to hearing CEOs, where they put their focus more on Auslan interpreters on TV broadcasts... That's all they seem to worry about...

The overreliance on Auslan interpreters in emergency media broadcasts was so prevalent that two Deaf support organisations admitted they had not considered organising emergency preparedness workshops for local deaf people and community members when asked whether that could be an alternative. This was a gap the former Deaf Society sought to address through their *Get Ready Deaf Community NSW* project, which shifted the focus toward grassroots preparedness and direct community engagement. This initiative aimed to train deaf people as DLOs⁴³, equipping them to deliver emergency preparedness information in Auslan using a language-concordant approach (*Section 5.2*). Whilst promising in theory, the training delivery was constrained by shortcomings in language accessibility, training design, Auslan interpreters' contextual knowledge of emergency preparedness, and the absence of training and evaluation mechanisms within emergency services. These constituted critical challenges that ultimately undermined its long-term sustainability.

First, the training was not fully accessible or culturally responsive. DLOs were required to complete preparatory training before facilitating workshops, but some found the material overly complex and delivered in a lecture-style format misaligned with deaf learners' visual and experiential preferences. Despite the presence of Auslan interpreters, this was not enough. One DLO described their experience:

I went to [city] for a [training] weekend where an [emergency services representative] was explaining, playing games, talking about their history and roles, and testing us on what we remembered... I left—I didn't come back for the rest. It was too much. I felt I didn't learn much about being a DLO. Everything went in and out of my 'ears.' I think it's because they used the hearing way—English, with long words I didn't understand. They just gave me a paper to read, but that was impossible. I prefer to get the information in Auslan. (I32, Appendix J)

⁴³ Deaf Liaison Officers

Second, at the core of the DLO training challenges was a fundamental design flaw: the program had been developed by and for hearing audiences. Although the project lead was hearing and could sign and Auslan interpreters were present, the DLOs and Deaf organisations such as the Deaf Society or Deaf Australia were not adequately consulted in the training's design. This oversight failed to incorporate the "Deaf way"—a culturally appropriate approach that values visual, experiential learning, and allows more time to unpack and process new information (*Section 2.6.3*). As a result, some DLOs struggled to fully grasp key concepts.

Third, compounding this was the underutilisation of Auslan interpreters to support participatory learning. Whilst interpreters play a vital role in bridging communication, their effectiveness in this context depended on more than just fluency (O'Brien and Emery, 2014)—it required preparation, background knowledge of disaster content, and an understanding of how to adjust delivery to meet the diverse educational and language backgrounds of DLOs. This real-time adjustment process, known as calibration, as highlighted in Hodge and Goswell (2021)'s work, was not always prioritised or understood. Questions emerged about whether interpreters received adequate preparation and whether their delivery was sufficiently calibrated to enable full comprehension and genuine engagement.

Lastly, these training gaps were further reinforced by limitations on the part of emergency services organisations themselves. Whilst agencies often claimed their preparedness workshops were tailored to community needs, there was no formal training or accountability process to ensure this was the case. Few responders were equipped to meaningfully engage with deaf people and community members, adapt content to different communication needs, or assess whether key messages were understood. This was particularly concerning given that most workshops were one-off events rather than part of an ongoing, trust-based engagement process. As one emergency services responder acknowledged:

...so there can be a predominance of 'here's our half hour or one hour presentation or talk and we're going to deliver it' and not really reflecting the audience at the time or the different needs of the audience.....that our members will have a standard presentation that they think they, think is good, for a start...they think that makes a difference, which is another issue and they get invited to a classroom and they just do it, haven't asked the [community] what the [community members] are actually doing, or what does the [community] want [us] to do to

contribute to the [community's] learning. How do we skill up our volunteers to be able to do that and what sort of materials or aids or their own development do we give them to actually be able to achieve that? (I44, Appendix J)

Effective participation depends not just on access to information, but also on long-term trust building and culturally designed responses—both elements are difficult to achieve under short-term, project-based funding models. Without these foundations, deaf people risk being left behind, even in programs explicitly designed to include them.

Similar challenges were seen with the NSW SES DLOs (*Section 5.2*). Some community members criticised them for not translating emergency information, unaware that formal protocols and training were required before DLOs could distribute messages on behalf of the organisation. This echoes lessons from NSW SES Multicultural Liaison Unit's collaboration with SCARF, a refugee support group, where, as Lakhina et al. (2019) noted, local multicultural volunteers helped adapt disaster messages—a model NSW SES aimed to replicate with DLOs. Both groups saw the need to simplify messaging, but faced different barriers: DLOs, still developing, needed foundational training to build confidence and accuracy; meanwhile trained multicultural officers encountered internal delays due to lengthy approval processes. In response, some shared simplified messages informally. This proved effective community members began contacting emergency services and engagement increased, a shift not seen prior to the pilot. As one former emergency service responder explained:

...they [emergency responders from multicultural backgrounds] broke down the message into something that would make sense for their communities. They translated it and then I read it out on video and that worked really well...and the unit commander and myself learnt a lot about, ok this is how, we learnt a lot about the messaging, how to make it clear and simple and meaningful for the target communities...and that worked really well because then they had their communities contacting them saying, 'oh hey a tree's fallen down on the streets it's blocking the road, blah blah blah. What do I do? (I41, Appendix J)

Their success underscores the importance of not only providing simplified messages in English and other languages but also ensuring they are delivered by trusted messengers from within the community. This model, rooted in language-concordant communication and community trust (De Meulder and Haualand, 2021), may have worked equally well for the

DLOs had they been supported with training approaches better suited to deaf learners and communicators (Friedner, 2016; Hodge and Goswell, 2021).

The Australian case highlights how structural barriers, limited co-design, and ad hoc engagements have undermined meaningful participation. This limitation was often marked by symbolic inclusion, inaccessible processes and limited influence over decisions that directly affect deaf people. Yet, some contexts also reveal innovative practices, workarounds and Deaf-led strategies that challenge top-down models of participation. These challenges are also evident in my international case studies. The following section explores how participation is experienced, negotiated and, at times, redefined in a range of international settings.

6.3.2 Mapping Participatory Processes: Lessons from International Contexts

Whilst some Deaf support organisations reported having little to no access to official disaster preparedness or response information, several took the initiative to create online video resources in their respective sign languages to explain disaster contexts (*Sections 4.2.4 and 4.3.1*). These videos, although lacking formal mechanisms for evaluating their effectiveness, were widely seen as a valuable first step in introducing disaster-related concepts to deaf people and community members who rely on sign language to participate in preparedness conversations. What set these efforts apart from standard translation practices—often driven by top-down requests from public institutions to convert complex, high-level text—was their community-driven, culturally grounded approach. Often described as translating “the deaf way” (Hodge and Goswell, 2021; Moriarty and Kusters, 2021; Moriarty *et al.*, 2024), this method moved beyond literal word-for-word interpretation. Instead, it used visual storytelling, role-play, and contextual examples tailored to the community’s level of understanding. As I4 explained:

...there is the part where we need to make sure the community also understands the videos too. It involved a lot of examples through role-playing, like an action movie, on how to prepare or respond to fit the community’s level of understanding. It seems that worked for the community and seems to have some understanding of the context shared.

This approach reflects findings by Hodge and Goswell (2021), who stress the importance of unpacking and contextualising information when introducing new concepts in sign languages. Rather than adhering to public service definitions of access, Deaf-led organisations developed communication and participation strategies rooted in lived experience by prioritising what works for, and by, deaf people and community members. However, this modality was not

without limitations. Digital access was uneven, excluding those without internet or devices. Regional sign variations also raised concerns about linguistic dominance—who decides which dialect is used in translation? Although the videos were praised for improving accessibility, co-researchers agreed that they were insufficient on their own, echoing Hodge’s (2024a) observation that institutional priorities often emphasised resource development over substantive education (see Chapter 2, *Section 2.8.2*).

In-person training, when designed well, has typically used a language-concordant approach. The Philippine Red Cross training delivered through DDAT-DRR was a significant milestone—the first of its kind—but was critiqued for being hearing-centric and lacking Deaf-led input. In contrast, CD (12, Appendix J)—then President of PFD—described a much more effective experience during a Deaf-led training supported by the UN and WFD (*Section 4.3.2*):

In the UN disability training I was part of, deaf people really struggled to keep up. Later, I facilitated a separate group under WFD with deaf participants from countries like South Africa, Jordan, and Nepal—this was the first time there was a pilot group just for deaf people. Many felt satisfied being with others who were also same “deaf” identity...I mean I understand it worked better for them because the focus matched their learning needs, compared to the disability group which was very hearing-based—full of difficult vocabulary, language issues, and translations that were hard to follow.

CD’s experience stands in stark contrast to the DDAT-DRR experience with a DiDRR Network training (*Section 4.2.4*), which relied on a single sign language interpreter:

So I missed out a lot when DiDRR Network covered UN policies and Philippine laws—who said or established them...I have no idea. It was also really hard with only one interpreter and no second to team with, so it was hard for the interpreter to keep up. They needed a break every 30 minutes and I missed information during that time. I tell people I know and understand the Sendai Framework, but how do you plan to include us if we don’t have enough interpreters or budget to pay them? The information shared was lacking. No choice—I have to accept limited interpreter access and information. I feel more training is needed so I can confidently pass it on to the Deaf Community. (I31, Appendix J)

These examples reinforce a key point: the presence of an interpreter alone does not guarantee access and hearing-led training often fails to meet the learning needs of deaf participants. In

response, many Deaf support organisations have developed their own training initiatives using direct, language-concordant approaches tailored to support deaf people and their participatory processes. These include:

- JASWDHH’s professional development and transition training for local deaf peer counsellors on mental health, trauma, and psychological first aid based on community needs,
- Community-based first aid training in LIS delivered by the Emergenza Sordi Association in Italy, designed to support deaf people in preparing for emergencies, and
- Organisational and leadership capacity building for Haiti’s emerging Deaf organisation, coordinated by IDE.

These Deaf-led participatory approaches to training and preparedness highlight more than just practical strategies—they signal a deeper assertion of agency and identity. When deaf people and community members are given the tools to lead, train, and inform their own communities, it transforms participation into representation (Senghas, 1995; Cue *et al.*, 2019). Rather than being passive recipients of information, Gaillard and Fordham (2018) advocate that they become knowledge holders, facilitators, and advocates in their own right, a point also echoed by Hore *et al.* (2020), Uekusa (2020), and Calgaro *et al.* (2021). This leads us to the third and last theme: ‘Representation’—how deaf people and Deaf support organisations assert recognition, leadership, and influence in shaping DRR narratives, policies, and systems, both within their communities and in broader governance structures.

6.4 “Who Gets a Seat at the Table?” – Representation and Agency

*You need accessibility support to be able to provide feedback: questions, queries and complaints and if this is not available in person or in accessible ways...
then you are effectively silenced. (I7, Appendix J)*

Representation goes beyond having a seat at the table—it is about who sets the agenda, who tells the story, and whose knowledge is valued (Uekusa and Matthewman, 2017; Gaillard and Fordham, 2018; Gaillard, 2021). For many Deaf support organisations, representation is a political act as much as it is a practical one. It involves challenging deficit-based narratives that frame deaf people as vulnerable or dependent and instead, positioning them as active contributors to DRR. Yet, as the case studies show, opportunities for meaningful representation remain uneven. Deaf leaders are often excluded from decision-making spaces or included in tokenistic ways that do not reflect their lived experiences, cultural knowledge,

or expertise. In some countries, deaf representation has been shaped by external agenda usually from hearing-led disability or emergency organisations, whilst in others, strong community leadership has carved space for Deaf-led influence from the ground up. Across these diverse contexts, one question persists: who gets to represent and, ultimately, advocate for the community and under what terms?

6.4.1 Invited or Involved? Deaf Support Organisations and Representation

In Australia, the issue of representation has been complicated on three fronts. First is the dual positioning of deaf people as both disability and language minority groups (*Section 1.4*). Whilst Auslan is recognised as a community language, public institutions often default to the disability framework when addressing access for deaf people. This created tensions for DA, which has struggled to gain recognition—not only within government but also across disability peak organisations. The barriers they faced went beyond high staff turnover or attitudinal issues within public services (*Section 5.8*). As KM (I21, Appendix J) explained, the shift toward funding cross-disability organisations diluted the voices of specific groups like deaf people:

... the government decided that cross disability organisations better represented all people with disabilities. They had funded about 13 different organisations, but each gave different advice. So they thought it would be better to fund cross disability organisations—\$300,000 each—to consult with the rest of us [organisational members from disability specific peak organisations] on policies or advice. But they actually don't.

This approach added a second layer of exclusion within disability advocacy itself where DA's input was often overlooked or mediated through larger bodies (Hodge, 2024b). Community frustrations grew, with some criticising DA for not doing enough to represent concerns on their behalf. Yet, these critiques were complicated by ongoing confusion within public services over the roles of DA as an advocacy body and as a Deaf service provider that focussed on service delivery. This left many agencies unsure about who to approach for advice, representation, and advocacy. De Meulder and Haualand (2021) observed similar patterns in education and healthcare contexts, where limited professional awareness about interpreters, their roles, responsibilities, and the quality of their work, ultimately shaped the experiences of those most affected—deaf pupils and deaf consumers. The blurring of these roles, particularly when service providers also engaged in advocacy, raised concerns around conflicts of interests. In contrast, Deaf service providers largely affirmed DA's advocacy

efforts, whilst positioning themselves as focussed on delivering services. However, external advocates such as AMA (*Section 5.8.3*) questioned the effectiveness of this arrangement, citing limited community consultation and engagement. Critically, there was a perception that DA lacked the capacity to advocate effectively, opening space for Deaf service providers to step in. In doing so, some advocacy responsibilities were taken up by hearing staff, raising concerns about the marginalisation of deaf voices within Deaf-led spaces. However, KM (I21, Appendix J) acknowledged these challenges, pointing to the structural realities of advocacy: legal complexities, chronic underfunding, and the slow pace of systemic change, all of which make it difficult to represent and advocate for the 16,242 deaf people and community members who use Auslan (Deaf Australia, 2023). Tensions between Deaf Australia and Deaf service providers began to ease with the introduction of the NDIS, marking a shift in sector dynamics and leading to the next issue.

The introduction of NDIS triggered a shift from community-based models to business-oriented service delivery and transformed accessibility into what Meltzer, Barnes and Wehbe (2024) describe as a transactional, market-driven process. This shift was echoed by I34 who observed:

At the end of the day, in this space, it's a marketplace under the NDIS and people are competing and competing for money and there is a lot of reliance on the money. I think that's happening in every disability space. That's what we see every day....many faults start because there is profit involved, there's competition and it's become about the market, it's not about the person anymore and what they need, funding specifically for them. It's about organisational growth...that's what we're operating with under the NDIS...they've got to be savvy businesses to survive and grow.

As Meltzer, Barnes and Wehbe (2024) note, this marketisation can undermine consistent, coordinated accessibility approaches, an issue that became especially apparent during the COVID-19 pandemic (*Sections 5.5 and 5.6*). Whilst many Deaf support organisations claim to serve deaf, hard of hearing, and deafblind people, questions remain about who is being reached and represented. I38 reflected on the limits of current outreach strategies, urging Deaf organisations to move beyond representing a narrow subset of the community, with one Deaf support organisation admitting little knowledge of or engagement with deafblind people, those living in country areas and/or are from Indigenous communities:

[we] haven't really explored the potential of this...There are already gaps in services [in regional and Indigenous communities], and then it's double when you look at Indigenous-specific services...I think there is still a big gap in services for deafblind people...Able Australia is best placed to do that, they're the experts...

This response underscores the disconnect between stated missions and actual service delivery. Even if a Deaf support organisation is not equipped to provide direct services to various subgroups, strategic partnerships with those supporting deafblind people, Indigenous communities, or multicultural groups could help build more inclusive representation. These concerns also extend to initiatives branded as “Deaf-led”, such as the *Get Ready Deaf Community NSW* project, the *National Auslan Communications for Emergencies*, and the AMA initiative. Whilst each positioned itself as Deaf-led, it remains unclear to what extent they engaged deaf people from diverse backgrounds, such as Indigenous peoples, culturally and linguistically diverse (CaLD) groups, those living in the country, seniors, and new signers. Representation from these groups was reportedly limited and collaborations with Deaf organisations embedded in those communities were often absent. This raises broader questions: Who within the Deaf community is being engaged by these initiatives? How inclusive and accessible are the processes for participation, advocacy, and service access? And to what extent are the structures and partnerships in place to ensure that Deaf support organisations reflect the diversity they claim to serve?

This brings me to the third issue: the danger of relying on one person, organisation, and/or language to represent all. This risks the exclusion of those on the margins and raises important questions about who is advocating and on whose behalf. Concerns emerged around individuals appointed to represent their communities or organisations, who at times shared personal opinions rather than reflecting collective perspectives. As KM (I21, Appendix J) explained:

What's more, many times these organisations will ask individuals to represent their group, when an individual can only ever offer their own perspective....and tend to let their personal opinions influence the decision-making process and not the collective perspective of the group...Which is a very big risk. So, I told them [public institutions]...not individuals, ask peak representative organisations, because they represent all of that group, all the Deaf community, or of that group, as opposed to just asking an individual, but it's very hard.

Such dependency can lead to decisions that do not reflect broader community needs. It can also exclude other Deaf support organisations, especially those without formal recognition or access to public services, despite their lived experience, as discussed in Engelman (2012b)'s work on deaf people and crises. The risk was also evident within the Deaf community itself. An overreliance on one person's existing networks led to gaps in outreach and missed opportunities for inclusion. As one emergency responder recalled:

...what I did find at the time, it was limited to the reach that that one person had in that one area... if they didn't get on with the other people or weren't connected, then people didn't hear about that workshop. So, people missed out... To rely on one person in one area is not sustainable and it's not effective... It should be a system and it should be an organisation... not a responsibility of a person to be the person for emergencies in an area... we need to have it more not about people, but about systems. (I28, Appendix J)

These risks increase further when deaf people with intersecting identities are marginalised, particularly those whose identities fall outside the conventional categories of disability or language minority categories. As AW (I7, see Appendix J) cautioned:

...organisations need to actively engage to broaden their representation and reach and provide non-discriminatory services themselves... Deaf organisations MUST provide better support for their deafblind memberships in non-discriminatory ways. They should not be regarded as holders of all the knowledge.

This observation is critical. The absence of recognition often equates to the absence of a seat at the table and without that seat, meaningful participation becomes impossible (Gaillard and Fordham, 2018). Whilst many Deaf support organisations advocate for greater engagement with representative bodies that reflect the diversity of deaf people's communication and language needs, this also exposes representational challenges within Deaf support organisations themselves.

Finally, representational issues also extend to the language used in media interpreting and translation. Representatives from Deaf service providers and Auslan interpreters highlighted the difficulties of ensuring that the interpreted language is understood across a community with diverse language backgrounds, from native Auslan users to those with limited exposure to sign language. As one Auslan interpreter explained:

I know from an interpreting point of view, I really needed to adjust for the audience. It wasn't easy. Bilingual deaf people, they would understand. I wasn't worried about that. My concern wasn't about them, they could cope. My concern was maybe 80% of the community who cannot understand the signed English, the fingerspelling. You know I had to really adjust my signing for the grassroots Deaf community and that was what was in my head all the time. (I42, Appendix J)

Furthermore, the development of new signs for terms not yet established in Auslan raises a critical question: who do interpreters and translators rely on for guidance? Responses vary and some Auslan interpreters consult native signers, who are often seen as the natural leaders in shaping how English terms are signed. One Auslan interpreter questioned the prevailing reliance on highly educated deaf people:

I am referring to those that may struggle, grassroots deaf people—ask them—is that successful for you, is it helpful, do you like it, do you not like it? Because we never know if the signs established are successful or not if we don't ask the people who it actually impacts. And I think at the moment that many interpreters are asking very well educated deaf people what they think—but are we missing out on other groups in the deaf community? (I13, Appendix J)

Amongst those “well-educated deaf people” includes native signers. As Woll and Ladd (2011) argue, linguistic membership is commonly rooted in intergenerational deaf families, which privileges those with access to social, linguistic, and cultural capital (Ladd, 2003; Cue *et al.*, 2019). However, it is important to acknowledge that this framing is largely derived from Western contexts and may not fully capture experiences in other cultural settings, where stigma, poverty, and discriminatory practices can contribute to the marginalisation of deafness within families (Jacq, 2015; Calgaro, Craig and Johnson, 2017). Whilst intergenerational deaf families can offer advantages in terms of early language exposure and cultural affiliation, it can also reinforce hegemonic views of who is considered “deaf enough” (Pudans-Smith *et al.*, 2019). In disaster contexts, this becomes a life or death question: who needs this access most—those who fit the dominant Deaf identity or those on the margins? Another Auslan interpreter shared their experience developing signs for COVID-19 messaging:

...we did a little bit of research about signing preference... we asked some of the deaf community... not just the ones that were loudest on Facebook. Just normal people living their everyday lives. We made some signing decisions based on what we learnt. And sometimes there was criticism from the loudest deaf people saying it was not the deaf way. Actually,

there's a huge percentage out there so you come and ask them because they told us. (I34, Appendix J)

The NSW model of rotating interpreters with different signing styles has been viewed as more representative (*Section 5.5*). This approach not only reduces interpreter fatigue but also exposes the audiences to a variety of signing styles. Nonetheless, this approach could be strengthened by establishing a reference group of deaf people from diverse backgrounds to guide language choices in interpreting and translation ensuring these decisions truly reflects the community they aim to serve.

6.4.2 Deaf Support Organisations: Shared Struggles at Different Tables

Whilst Australia's public services often rely on a single person, organisation, or language to represent deaf people and community members, this risks decisions that are shaped by limited perspectives or worse, vested interests. Similar representational challenges exist in the international case studies, though they take different forms. In my case studies, deaf people are often subsumed under the broader disability umbrella, with little recognition of their distinct communication and language needs. Even in countries that have formally recognised their national sign languages, public services often continue to treat access for deaf people primarily through a disability lens and frequently excluding them in practice. Herbert Klein, a respected retired deaf mental health counsellor and international development worker from the UK, emphasised that sign language legislation must explicitly define “communication access”; without this, the law risks perpetuating the deprivation of this fundamental right (Klein, personal communication, 26 November 2025). As De Meulder (2014) cautioned, this disability focus can shift attention away from their language rights. For instance, Takayama notes that although Japan legally recognises JSL and mandates disability inclusion in disaster preparedness committees, the legislation lacks clarity on the diversity and number of disability representatives required. As a result, representation often defaults to those who are blind or use wheelchairs, whilst deaf people are left out due to persistent language inaccessibility. In Italy, despite the ratification of the UNCRPD and recognition of LIS, public services still harbour biases, perceiving deaf people as uneducated or incapable—an attitude *Emergenza Sordi* has actively worked to challenge. Prior to the Philippines' recognition of FSL in 2018, both I31 and CD (from her time with PFD) (see Appendix J) reported that the government promoted disability inclusion through DiDRR initiatives. However, these efforts were often limited in scope and exclusionary in practice—what CD describes as inclusion deprivation, or the condition of being denied meaningful inclusion.

In many of these global contexts, Deaf support organisations have expressed strong interest in participating in DRR policymaking but are constrained by systemic barriers. These include: limited access to qualified interpreters, low leadership capacity, and language deprivation stemming from inadequate access to formal education—barriers recognised by De Meulder (2014) and further supported by De Meulder and Haualand (2021) in their analyses of structural challenges and advocacy efforts. As one Deaf support organisation representative explained:

Another problem....is university education. I have some friends who do not have university degrees, which makes it harder because we need to know and be educated in understanding policies in order to advocate to the government. We need to know how to use appropriate language when advocating... how to use formal language for important high-level discussions presented to hearing people and governments. That is an area we must learn in order to make changes. (I2, Appendix J)

In addition to external representational challenges, Deaf support organisations also face internal issues around leadership and inclusion. Unlike Australia, where representation in disaster contexts tends to reflect a broader diversity of deaf people and varying levels of language use, the way representation is defined and practiced by Deaf support organisations in my international case study locations can differ significantly. Some organisations acknowledge existing gaps in leadership, particularly in terms of generational diversity. Whilst many struggle with leadership shortages, a recurring concern cited by Deaf support organisation representatives was the persistence of internal power dynamics between older and younger leaders. Several organisations reportedly ‘cycle’ the same individuals through board positions, leading to stagnation in advocacy efforts and ways of doing—a pattern commonly raised by some co-researchers from voluntary-led Deaf support organisations.

These internal dynamics were further compounded by external practices of tokenistic engagement, particularly by hearing-led organisations. Co-researchers described how the same people were repeatedly invited to meetings, often because they were perceived as compliant, unlikely to challenge dominant agendas, or viewed as sufficiently “smart” and representative of the wider Deaf community. This tokenistic approach sometimes included deaf people with specific communication modalities (using spoken or signed language) who were assumed to represent the broader deaf population or representatives from umbrella DPOs speaking or representing on behalf of deaf people and community members without

direct knowledge of local needs. Such practices not only reinforced narrow forms of representation but also limited opportunities for broader participation, leadership development, and the inclusion of diverse deaf perspectives. This is especially problematic when experienced senior leaders continue to be relied upon, restricting pathways for emerging leaders to engage meaningfully, receive mentorship, and contribute to more inclusive and dynamic forms of advocacy. As a result, organisations risk overlooking the needs and perspectives of younger deaf people. As one Deaf support organisation co-researcher explained:

... the people running the organisation are good, but it would be great to see them pass on the future of the organisation to youths. Give youths the opportunities, experiences, and work. I want to see the experienced take the time to teach and train youths in the knowledge and skills they need for the future. (I2, Appendix J)

Additionally, representational issues also affect deaf people and community members living in rural and provincial areas, particularly in the case study contexts of Indonesia, Nepal, and the Philippines. Most people involved in Deaf support organisations are based in metropolitan centres, where access to information, services, and networks is significantly greater than in more remote regions. This disparity is critical. Sivunen (2019)'s work with deaf refugees highlights how limited awareness of existing Deaf organisations and national sign languages often mirrors the experiences of deaf people in rural contexts, many of whom face barriers to education and may experience language deprivation. Such isolation often leads to limited access to social, linguistic, and cultural capital, which can significantly hinder learning and engagement (Cue *et al.*, 2019). Moreover, many Deaf support organisations primarily focus on serving sign language users, which may unintentionally exclude others across the deaf spectrum, such as hard of hearing individuals, late-deafened adults, or deaf people with additional disabilities. This raises critical questions: How are these groups being represented within Deaf organisations? And who is advocating on their behalf?

These concerns are echoed across several country contexts. In the Philippines, for instance, gender disparities and intersecting barriers, particularly for deaf women who are language-deprived, limit their access to representation and support (I12, see Appendix J). In Japan, hard of hearing and late-deafened individuals reportedly missed out on critical disaster information and services, leading some to seek assistance from the JFD (I22, see Appendix J). Italy presents the opposite dynamic: the Emergenza Sordi Association, a smaller Deaf-led initiative, attempted to collaborate with the national Deaf association but encountered

resistance, raising ongoing questions about who holds the right to represent whom (125, see Appendix J). Reiterating Bauman and Murray (2014)'s framing of "deaf" and "Deaf" identities as lived and self-defined, these representational tensions highlight the risks of what Cue *et al.* (2019) caution are hegemonic practices that privilege culturally *Deaf* people who use sign language. With only an estimated 1-2% of deaf people worldwide having access to education through sign language (WFD, 2019), this raises another crucial question: where does that leave those without access to education, language, or community alignment? The educational deprivation that WFD (2019) attributes to systemic barriers that are compounded by gender, socioeconomic status, and other intersectional factors, further marginalises many deaf people from participation and representation. As Cue *et al.* (2019) argue, the exclusion of these groups contributes to the absence of critical perspectives that could deepen understanding of the barriers deaf people outside hegemonic Deaf spaces, including disaster contexts. Taken together, these examples underscore broader concerns about whose voices are heard, whose needs are prioritised, and how inclusive representation truly is, within both Deaf support organisations and the wider systems they engage with.

6.5 Synthesising Access, Participation, and Representation in DRR

Across the findings, access, participation, and representation do not operate as discrete dimensions of inclusion but as interrelated processes shaped by power, resources, and recognition. Taken together, they reveal how disaster governance systems are structured not only by formal policies and technical provisions, but by the uneven distribution of authority over communication and language, decision-making, and representation. From a Bourdieusian perspective (Bourdieu, 1986), these dynamics can be understood as the outcome of unequal access to and recognition of different forms of capital. Institutional actors continue to privilege technical, bureaucratic, and hegemonic forms of knowledge and practice, whilst the linguistic, cultural, and experiential capital of deaf people and Deaf support organisations is frequently undervalued or misrecognised. This shapes how access is defined (as service provision that meets legal requirements rather than relational communication, language, and understanding), how participation is structured (as consultation rather than influence), and how representation is legitimised (often favouring those with institutional or professional capital). As a result, the capacity to shape DRR policy and practice remains unevenly distributed across actors within the field.

Viewed through Arnstein's (1969) Ladder of Participation, these patterns reveal a persistent tendency for inclusion to be operationalised at lower levels of engagement. Across the case studies, deaf people and Deaf support organisations are frequently positioned within roles

centred on informing, consultation, or symbolic inclusion, rather than being afforded decision-making power. Whilst initiatives such as media interpreting, consultation forums, and targeted training signal progress, they often do not fundamentally redistribute authority over how access is conceptualised or delivered. However, Deaf-led initiatives and community-driven approaches demonstrate that higher levels of participation grounded in partnership, delegated power, and community control are both possible and effective when supported by appropriate resources, trust, and recognition.

Insights from Deaf Geographies (Gulliver and Fekete, 2017) and Deaf Mobility Studies (Kusters *et al.*, 2024) further extend this analysis by highlighting the spatial and relational dimensions of inclusion. These perspectives draw attention to how access, participation, and representation are actively produced through movement across social, institutional, and communicative spaces, as demonstrated through the case studies covered in Chapters 4 and 5. The ability of deaf people and Deaf support organisations to navigate these spaces, whether through accessing information, engaging in decision-making, or advocating for their communities, is shaped by language access, social networks, and cultural competence—aligning with humanitarian work documented by White (2006), Jacq (2015), Takayama (2017), Rotondi, Zuddas and Rosati (2018), and Engelman, Booze and Izquierdo (2024). Where these conditions are constrained, individuals and organisations may remain effectively excluded, even in contexts where formal inclusion mechanisms exist (White, 2006; Nguyễn Trần Thủy, Cooper and Craig, 2022)—such as DiDRR (see *Sections 6.2.2 and 6.3.2*). Conversely, Deaf-led practices demonstrate how these spaces can be reshaped through language-concordant communication, community networks, and culturally grounded approaches that expand pathways for engagement and influence, as demonstrated through Japan’s Nakama Support project (see *Section 4.2.1*), Italy’s Emergenza Sordi Association (see *Section 4.2.2*), USA’s DRT (see *Section 4.2.3*), and the Philippines’ DDAT-DRR (see *Section 4.2.4*).

Bringing these perspectives together, the findings suggest that the central challenge in DRR is not just improving access, participation, or representation in isolation, but addressing how they are collectively structured within systems of power. Efforts that focus solely on technical access or procedural inclusion risk reinforcing existing inequalities if they do not also redistribute decision-making authority and recognise diverse forms of knowledge and expertise. In contrast, approaches that centre Deaf-led practices, relational engagement, and inclusive representation begin to shift these dynamics by repositioning deaf people and community members as active agents in shaping disaster governance. This highlights the need

for a more integrated approach to inclusion—one that moves beyond compliance-based frameworks toward models that embed equity, shared authority, and recognition at the core of DRR systems.

6.6 Chapter Summary

My findings across access, participation, and representation reveal that inclusion is far more complex than the mere presence of interpreters, translated materials, or policy references to disability or language. Who defines access often determines how, and for whom, it is delivered, with critical implications for those on the margins of Deaf communities, such as deafblind people, those living in rural/provincial areas, and those with limited formal education. Participation is not always equitable, whilst some deaf people are engaged in DRR efforts, many are left out due to structural barriers, tokenistic consultation, or assumptions about who is “capable” of contributing. Representation is similarly fraught, raising questions about who represents on behalf of whom and whose experiences are prioritised or silenced in decision-making. Across contexts, one recurring theme remains: access, participation, and representation are neither neutral nor evenly recognised or distributed but they are shaped by power, resources, language hierarchies, and cultural capital. These tensions point to deeper systemic issues that must be addressed to move toward more just and effective DRR.

Taken together, these cross-country findings fulfil the thesis aim of investigating how Deaf organisations’ mobilisation strategies influence the accessibility of disaster information and services and the inclusive participation of diverse deaf people in DRR. The chapter identifies the strategies used across Australia and overseas, evaluates how effectively they supported access and meaningful participation, and compares the different contexts to highlight the inclusive and exclusive practices that enabled or constrained fair and equitable engagement in disaster planning and response. In doing so, it demonstrates the central role of Deaf-led mobilisation, communication access, and the lived-experience expertise in shaping resilience outcomes for deaf people. The next chapter builds on these insights by examining how intersections of access, participation, and representation shape the conditions necessary for more inclusive and transformative DRR practice. This sets the stage for exploring a theoretical framework informed by Bourdieu’s concepts of capital, Arnstein (1969)’s Ladder of Citizen Participation, and Swapan (2016)’s perspectives on community participation that were presented in Chapter 2.

Chapter 7:

Theories Driving Inclusive and Transformative Participation

7.1 Introduction

The cross-case analysis presented in Chapters 4, 5, and 6 illustrates that access is fundamentally the foundation for how deaf people and community members experience the barriers and opportunities that arise in disaster contexts. The empirical findings highlight the varying types and levels of access that influence participation and, consequently, representation in DRR processes and practices. These processes underscore how inclusion is both conceptualised and operationalised, drawing attention to how access is defined, by whom, and the consequences in Australian and international contexts. Revealed tensions suggest that access is neither neutral nor universally understood, rather it is often shaped by those in positions of institutional power, whose interpretations may not align with the lived experiences of those intended to benefit. Moreover, the quality and impact of access create a domino effect, directly influencing the extent to which participation and representation are possible. These elements cannot be considered in isolation. Access, particularly to communications, information, and language, is foundational, yet insufficient on its own. Without meaningful access, participation is often limited or tokenistic, and representation remains symbolic rather than structural. This raises a fundamental question of power: who defines access—the institutions that fund and/or deliver it, or the people and communities for whom it is essential?

Drawing on empirical insights from Chapter 6, this chapter first examines how structural inequalities and the uneven distribution of power, resources, and cultural recognition shape access, participation and representation in DRR. It then returns to the theoretical ideas introduced in Chapter 2 to identify the concepts that best explain and deepen our understanding of what an inclusive, transformative practice could look like in the disaster context. A new theoretical framework is proposed that integrates Bourdieu's (1986) concepts of field, capital, and habitus with Arnstein's (1969) 'Ladder of Citizen Participation', bringing together the structural, cultural, and participatory dimensions that underpin inclusion. This framework offers a way to understand how different forms of capital—linguistic, cultural, social, and symbolic— affect participation and representation. It provides a conceptual lens for identifying gaps, understanding barriers to meaningful involvement, and conceptualising the conditions necessary for more inclusive and transformative practices. In doing so, it lays the foundation for strategies that both recognise the diversity of deaf experiences and

empower historically marginalised people to participate more fully in shaping DRR governance and initiatives.

7.2 Access in Practice: Stakeholder Experiences and Perspectives

Seen through the lens of disability and language policy frameworks, “access” for deaf people in DRR institutions and public services is frequently reduced to a compliance task focused narrowly on communication. “Accessible” information, platforms, or services are typically assessed against legal or policy requirements, such as captioned videos, sign language interpreters, online information, language translations, or other reasonable adjustments that comply with relevant legislation. However, this framing overlooks the specific ways in which deaf people and community members engage with access in particular contexts. As Burke (2017) notes in her work on choosing accommodations, access is shaped by factors such as location, timing, and situational needs. Access, in this sense, is embedded in lived realities that require more than the mere provision of services, institutional convenience, or the act of ticking an accessibility box. Without meaningful engagement with the intended users, such approaches risk having limited or no real impact. This concern is echoed by De Meulder and Haualand (2021), who critique the tendency of public institutions to treat sign language interpreters and captioning, as well as online information, as “one-size-fits-all” access solutions. This disjuncture raises critical questions about why public institutions continue to rely on standardised models of access, rather than recognising the multiple, context-specific ways access can, and should, be defined by deaf people and community members.

These assumptions, being that sign language interpreters, captioning, and online platforms alone constitute adequate accessibility, stand in contrast to the perspectives of Deaf support organisations, which emphasise that accessibility involves much more than just the service provision itself. The information accessibility sector, defined by Meltzer (2024) as comprising “specialist accessibility businesses and others as disability advocacy organisations”, highlights efforts to deliver crisis information in accessible formats during the COVID-19 pandemic and weather-related disasters (Meltzer, Barnes and Wehbe, 2024). However, a notable gap remains in how the accessibility sector addresses the underlying principles of equality, equity, and inclusion, particularly in terms of whether and how information is delivered in formats that people can access, understand, and use to make informed decisions. Failing to consider the processes required to make crisis information accessible not only undermines people’s resilience during crises, but also reinforces the inequities that, as Matin, Forrester and Ensor (2018) note, shape fairness, access, and social justice in resilience (see *Section 2.2.3*).

For Deaf support organisations and deaf people, this gap reveals how accessibility is deeply tied to equity and equitable resilience, as resilience cannot be achieved when accessibility mechanisms themselves reproduce linguistic or structural exclusions—a point that Uekusa (2019) notes is critical to the resilience process (see *Section 2.2.3*). This challenge is more layered for deaf people, as they must also contend with the challenges of language access, specifically the quality, appropriateness, and linguistic level of interpreting and translation services required to cater to a diverse range of deaf people and community members within accessibility processes. In examining the complexities of implementing accessibility, Meltzer, Barnes and Wehbe (2024) also document the structural challenges associated with its provision, including the high level of language used in translation services, the lack of partnerships with public services to deliver information in a timely manner, and the extensive time required to learn and translate crisis information outside their areas of expertise whilst operating with limited funding and resources. These concerns are strongly echoed by Deaf support organisations, who have called for more recognition of, and adequately resourcing for, this sector in disaster responses. Matin, Forrester and Ensor (2018) stress that equitable resilience depends not only on the recognition and existence of accessibility services, but also on how those services are designed, governed, and delivered in ways that uphold equity as a disaster justice practice rather than just an outcome—a point also emphasised by Lukasiewicz (2020) (see *Section 2.3*).

These perceptions raise the question of whether it is fair to expect deaf people and community members to “make do” with whatever access is available, even when it is neither equitable nor effective for all. Whilst Lukasiewicz (2020) notes the varying disaster injustices faced across the disaster spectrum, one factor contributing to these inequalities is the lack of cultural knowledge and understanding of people’s needs (see *Section 2.3*). This gap is evidenced in my findings, noting as Burke (2017) observes, that “access” is rarely defined by those who require it or shaped around their preferences, particularly when modes of delivery reflect how hearing, sighted, and people without disabilities typically receive and process information (see *Section 2.8.2*). This is particularly concerning when institutional definitions and perceptions of access lack nuanced understanding of language level, linguistic competence, or appropriate modes of access required for diverse users (O’Brien and Emery, 2014) (see *Section 2.8.2*)—a shortcoming that can be a matter of life and death during disasters (Uekusa, 2019). The way accessibility is perceived and practiced for deaf people is concerning, as it raises questions of accountability—specifically, who is responsible for ensuring appropriate access and advocating for it. This necessitates greater attention to the perspectives of deaf people as the

end users of services (Haualand, Meulder and Napier, 2022) (see *Section 2.8.2*), whom Gaillard and Fordham (2018) describe as knowledge holders and whose involvement could, as Hore *et al.* (2020) note, provide important opportunities to participate in decisions and solutions affecting them (see *Section 2.3.1*).

Burke (2017) also raises concerns about implicit biases embedded in institutional access provision, such as the prioritisation of convenience, time efficiency, and cost for hearing people, often at the expense of user-centred access for deaf users. This highlights a continued paucity of evidence regarding how disaster information is understood, acted upon, and how equitable these access provisions are. Questions remain about who is able to access information, who is excluded, and as Haualand, Meulder and Napier (2022) critically note, whether such access has had any meaningful impact on people's understanding of (for this context) disasters. In this light, these inequities in access reflect more than just technical gaps—they point to the fairness and justice dimensions of disaster governance. When accessibility systems reproduce inequitable power relations or privilege institutional convenience over user needs, they risk perpetuating what Lukasiewicz (2020) terms the absence of “disaster justice”: the equitable distribution of resources, information, and voice in times of crisis. These questions therefore reveal a deeper tension between institutional and consumer perspectives, challenging whose access is prioritised and for whom it is designed for.

The dual category status of deaf people (see *Section 1.4*) as both part of the disability group and a cultural and linguistic minority creates significant challenges in how communication and language access intersect at the policy level. A key question arises: is this difficulty shaped by prevailing disability-based framings of deaf people—ones that focus on hearing loss or a “hearing deficit” and therefore treat communication access (e.g. interpreters or captioning) as sufficient? This, once again, ties back to how public institutional definitions determine what kind of access is provided and for whom. Kusters, De Meulder and O’Brien (2017) argue this fails to consider the diversity of deaf people and the broader communication access spectrum (see *Section 2.5*). De Meulder and Murray (2017) adds that this framing reinforces a reductive understanding of access, privileging functional accommodation over linguistic and cultural rights. This critique aligns with De Meulder (2014)’s analysis of the legal recognition of sign languages, which highlights how institutions often overlook language rights when defining accessibility for deaf people. Whilst some cultural and linguistic minority communities in various countries are increasingly provided with language-concordant services, similar approaches are rarely extended to deaf people and community

members. When interpreting services are used without broader linguistic inclusion, sign language risks being reduced to a tool for information transfer rather than recognising it as a full, complex language.

In contrast, all the Deaf support organisations I interviewed perceive their obligations primarily from a language lens, not a disability lens. A key difference emerging from the case studies concerns the variation in structural models amongst Deaf support organisations. In the NDIS era, those in Australia increasingly operate within a fee-for-service model shaped by individual funding arrangements, whereas those in other countries tend to adopt community-based models that prioritise peer-led support, collective responsibility, and solidarity-based networks. Despite this, both models aim to provide direct language-concordant services that reflect the diverse communication and language needs of deaf people and community members, aligning with the concept of the “deaf way” (see Friedner (2016) and Hodge and Goswell (2021) in *Section 2.6.3*). However, Deaf support organisations with Deaf-led leadership found that institutional support—particularly support gained through collaboration with other Deaf support organisations—was most evident within community-based models where relationships were strengthened through shared experience and communal trust. This foundation enabled more culturally and linguistically responsive approaches. This point is echoed in the disaster response work of White (2006), Takayama (2017), Cooper *et al.* (2021), and Nguyễn Trần Thủy, Cooper and Craig (2022) in their respective national contexts of the USA, Japan, and Viet Nam.

This emphasis on place-based, relational and community embedded approaches also contributes to the growing field of Deaf Geographies and Deaf Mobility studies, which examine how deaf people navigate, experience, and reshape space through language, communication practices, and social networks (see *Sections 2.7.1 and 2.7.2*) (Gulliver, 2007; Kusters, 2017). Rather than viewing mobility solely in physical terms, this body of scholarship highlights how access to movement, information, and participation is mediated through linguistic accessibility, community connection, and institutional recognition. In this sense, Deaf-led disaster responses illustrate how spatial and communicative inequalities intersect, shaping who is able to move through systems of disaster preparedness and response and under what conditions such movement is possible. These perspectives reinforce the importance of understanding Deaf support organisations not only as service providers, but also as spatial actors that actively reconfigure how access and participation are enacted across different geographic and cultural contexts.

7.3 Participation and Representation: Who Gets to Be Recognised?

The case studies revealed significant variation in the types of access provided, the level of accessibility required to engage with that access, and the language in which information is delivered—all of which shape who is able to participate. Whilst Deaf support organisations reported an intent to represent and serve deaf people and community members, this raises critical questions about who is able to access their services and networks. Access to social capital and advocacy support is often contingent on one's proximity to Deaf networks, linguistic proficiency, and education, meaning that those who are not already connected or do not know how to access these services may be excluded. This reflects the broader risk of exclusion from social capital, as discussed by Cue *et al.* (2019) (refer to *Section 2.6.1*), and reinforces concerns about exclusivity based on language proficiency highlighted in Senghas (1995)'s work with deaf people in Nicaragua. Although Deaf support organisations are perceived as gateways to social capital (Sivunen, 2019; Emery and Iyer, 2024), this does not always translate into participatory and representational practice, which Woll and Ladd (2011) cites relates to linguistic membership (see *Section 2.6.1*). Across the case studies in this research, Deaf support organisations rarely referenced the active involvement of deaf people from marginalised groups—whether they communicate orally or use sign language—who have limited linguistic and cultural capital in advocacy or service delivery. Their participation was usually only sought when specifically requested or when structural gaps were explicitly acknowledged, with anecdotal reports indicating that organisations often did not act on or heed feedback when it was offered.

Viewed through the lens of Deaf Mobility Studies (see *Section 2.7.2*), these dynamics highlight that mobility is not only physical but also social and institutional, shaped by access to language, networks, and knowledge. In this sense, the ability of deaf people to move into and through spaces of advocacy, service provision, and decision-making varies, reflecting broader inequalities in access to linguistic and cultural capital. Emery (2020) argues that those without established connections or recognised forms of capital may remain effectively immobile within these systems, despite the formal availability of services as evident in the works of Senghas (1995), Sivunen (2019), and Emery and Iyer (2024) (see *Section 2.6.2*). These constraints are particularly pronounced for deaf people and community members experiencing language deprivation, where limited access to language and education further restricts their engagement in disaster contexts (Takayama, 2017; Rotondi, Zuddas and Rosati, 2018; Nguyễn Trần Thủy, Cooper and Craig, 2022; Engelman, Booze and Izquierdo, 2024) (see *Section 2.8.1*).

The dynamics in which marginalisation occurs are also central to the question of representation. When deaf people are not meaningfully represented in the advocacy, design, or delivery of access mechanisms, their perspectives risk being excluded entirely or filtered through a hearing, able-bodied lens or even a hegemonic Deaf lens. Representation, then, becomes not just about presence but about voice, power, and recognition—key tenets that inform the presence or absence of disaster justice (see *Section 2.3.1*). This aligns with Verchick’s (2012) framing of disaster justice, which emphasises both procedural and distributive dimensions. This is critical because social structures largely determine the level of capital and habitus one possesses (Uekusa, Matthewman and Lorenz, 2022). Participation in decision making and networking processes requires certain forms of capital to engage effectively (Uekusa, Matthewman and Lorenz, 2022). Uekusa (2020) argues that to understand inclusion and exclusion, it is important to look at why people are able—or unable—to build social networks, as these networks shape who gains the social capital needed to participate and be represented, and who is left out. Participation in decision-making requires access, and gaining access requires recognition. Gaillard and Fordham (2018) argue that this is essential for the inclusion of marginalised groups. These intertwined factors reinforce Baldwin’s (2020) argument that social and participatory processes are essential to understand how Fraser’s (2020) concepts of recognition and redistribution help explain the persistence of these inequalities, including those related to representation (see *Section 2.3.1*).

The empirical evidence shows that Deaf support organisations and community advocates play instrumental roles in advocating for improved access to disaster information and in mobilising Deaf-led strategies designed to benefit all deaf people. However, as Lukasiewicz (2020) cautions, decisions made during these advocacy processes shape how resources are distributed and when such efforts are driven by those with strong social capital, critical questions arise about whose voices are (or are not) being heard/seen and recognised. From the perspective of Deaf Mobility Studies, these dynamics also reflect how the ability to move through networks of advocacy, resource allocation, and decision-making varies, shaped by access to language, relationships, and institutional knowledge. When advocacy and service provision are shaped primarily by those with established capital, there is a risk that the perspectives and needs of those who are educationally, linguistically, and culturally marginalised may be overlooked (Uekusa, 2020; Uekusa, Matthewman and Lorenz, 2022). Whilst many Deaf support organisations promote Deaf-led approaches that aim to address community needs, questions remain about who participates in leading these efforts and how inclusive the process is. This issue is critical for *genuine* inclusion (Hore *et al.*, 2020). At the same time, Deaf Mobility Studies has its limitations: whilst it foregrounds movement and access across social and

institutional spaces, it may not fully account for the internal power dynamics, representational tensions, and structural constraints that shape who is able to mobilise and convert resources into influence. As Uekusa (2020) further notes, the networking process that underpin disaster response can reproduce existing inequalities, influencing how people and organisations mobilise capital during and after disasters.

The issue becomes particularly concerning when a single person, organisation, or language is positioned as representing all deaf people, a point that Uekusa (2024) argues must be examined not in terms of who is represented, but rather who is not. Many Deaf support organisations have expressed concerns about those who are language deprived or from marginalised groups, however it remains unclear whether these people have had equitable access to the same opportunities that their services offer. Whilst participation is often framed as a ‘right’, how inclusive and equitable are the actual decision-making processes? This raises critical questions for Deaf Studies itself. If Deaf-led advocacy and mobilisation are widely positioned as inherently inclusive, what happens when these efforts fail to reflect the cultural, linguistic, or access needs of those without social capital? To what extent does the Deaf-led advocacy or mobilisation efforts fail to reflect the cultural or access needs of those without social capital? And who then, is representing people who lack such capital?

Across the case studies, it becomes clear that access, participation, and representation are deeply interconnected with each shaping and reinforcing the other. Access is not just about providing information, it is about who that information reaches, in what form, and whether it enables real engagement. Participation is not guaranteed by presence alone but depends on recognition, trust, and equitable involvement in decision-making. Representation, in turn, is shaped by power—by who is recognised as legitimate, whose perspectives are privileged, and whose are excluded (Uekusa, 2018; Uekusa, Matthewman and Lorenz, 2022; Karki, Matthewman and Grayman, 2023). These dynamics reveal that disaster inclusion goes far beyond technical fixes. It requires confronting whose knowledge and experiences shape the systems in place. The next section explores how these themes intersect and identifies the concepts found in Chapter 2 that best explain and deepen our understanding of what an inclusive, transformative practice could look like in the disaster context.

7.4 From Social Fields to Participatory Ladders: Building a Framework for Inclusion

As I bring together the threads of access, participation, and representation, a pattern begins to emerge that reveals just how uneven and complex the terrain can be for Deaf support organisations and deaf people and community members navigating disaster contexts. It often

starts with something as simple, yet powerful, as access. Access is not just about the availability of information or services; it is shaped *by the types of capital*—linguistic, cultural, social, and symbolic—that individuals and organisations possess or are denied.

When reflecting back on the different theoretical concepts presented in Chapter 2, Bourdieu's (1986) concepts of field, capital, and habitus and Arnstein (1969)'s classical '*Ladder of Citizen Participation*' (see *Section 2.3.1* that links justice, power, and inclusion) provide the most comprehensive theoretical foundation for understanding the true nature of accessibility and what an inclusive, transformative practice could look like. Together, they capture both the structural conditions that shape unequal access (through field, capital, and habitus) and the depth and quality of participation and representation (as conceptualised through the ladder). They offer an integrated way to understand why inclusion remains uneven and how it might be transformed.

Drawing on Bourdieu's (1986) concepts on field, capital, and habitus, access can be understood as both a form and a function of capital. For deaf people, linguistic and cultural capital are critical for participation and mobilisation; without those forms of capital, access remains conditional and unequal. The WFD (2016) notes that the majority of deaf people worldwide lack access to education, leading to widespread language deprivation—a structural barrier that directly influences their ability to mobilise and participate equally. Yet another, often overlooked barrier lies in accessing the very forms of capital needed to overcome such deprivation, what Murray (2020) describes as *access deprivation* (*Section 2.8.1*). This imbalance also extends to Deaf support organisations, where the ability to mobilise depends on the social and symbolic capital they hold—networks, recognition, and influence, which in turn, shapes both the level of participation achieved and the extent of representation realised.

Uekusa, Matthewman and Lorenz (2022) conceptualised disaster *communitas*—the solidarity of mutual sharing and support that emerges during disasters—as a form of '*disaster social capital*': temporary, resource-dependent, and context specific. This process-oriented view is what Uekusa, Matthewman and Lorenz (2022) refers to as *everyday social capital*, which differs from *disaster social capital*. This distinction is critical for understanding Deaf support organisations, which are often perceived as durable social networks that some deaf people and community members rely on to compensate for other forms of capital they lack, even though these networks are not always be pre-planned or developed specifically for disaster contexts (Uekusa, Matthewman and Lorenz, 2022). However, disasters tend to disintegrate social structures and disrupt the field and habitus, reconfiguring the “rules of the game” (Uekusa,

Matthewman and Lorenz, 2022; Karki, Matthewman and Grayman, 2023). This means that access to and capacity for mobilising one's social capital becomes essential for generating *disaster social capital* (Uekusa, Matthewman and Lorenz, 2022)—a gap that is evident amongst some Deaf support organisations, deaf people, and community members.

Too often, decisions about access are made *for* deaf people rather than *with* them. This sets off a chain reaction: limited access restricts participation, and which in turn constrains representation, and these inequities are often reconfigured and intensified during disaster events. Bourdieu's concept of capital identifies the social, cultural, and symbolic resources that enables people or groups to act and exert influence. Arnstein's (1969) 'Citizen Participation Ladder' provides a means of gauging how effectively that mobilisation translates into participatory power. In other words, capital determines the capacity to mobilise, whilst Arnstein's 'Ladder' illustrates the extent to which that mobilisation can influence decision-making. Bourdieu's notion of field adds a structural dimension. The value of any form of capital depends on the rules of the field in which participation occurs. For example, within the DRR field (although this can apply to many other fields too), technical and bureaucratic capital (policy literacy, access to high level networks) may be valued more highly than lived experience or community-based knowledge (see Chapter 2, *Section 2.3*) (Uekusa and Matthewman, 2017; Gaillard and Fordham, 2018; Gaillard, 2021). This hierarchy shapes who can mobilise upwards on Arnstein's Ladder and whose participation remains tokenistic and static on the ladder.

Arnstein (1969)'s 'Ladder' offers a useful framework for interpreting these dynamics. As discussed in *Section 2.3.1*, the ladder outlines different levels of involvement in decision-making, from tokenism to full citizen control. However, whilst helpful, it has limitations: it reflects the social and political context of the 1960s and focusses primarily on the extent of participation, rather than the conditions that make participation possible in the first place. In practice, participation is often assumed to be accessible, particularly by public institutions or Deaf service providers simply because sign language interpreters are provided or online forms are available. Yet access is not one-size-fits-all. These differences are not always recognised. Instead, dominant groups, whether public institutions or even well-meaning Deaf organisations, often control how participation is framed and delivered.

Swapan (2016) offers an important challenge to Arnstein's concept of non-participation. Drawing from a Global South context, he shifts the focus away from exclusion and instead raises the question of *choice*—that sometimes, people may choose *not* to participate (see

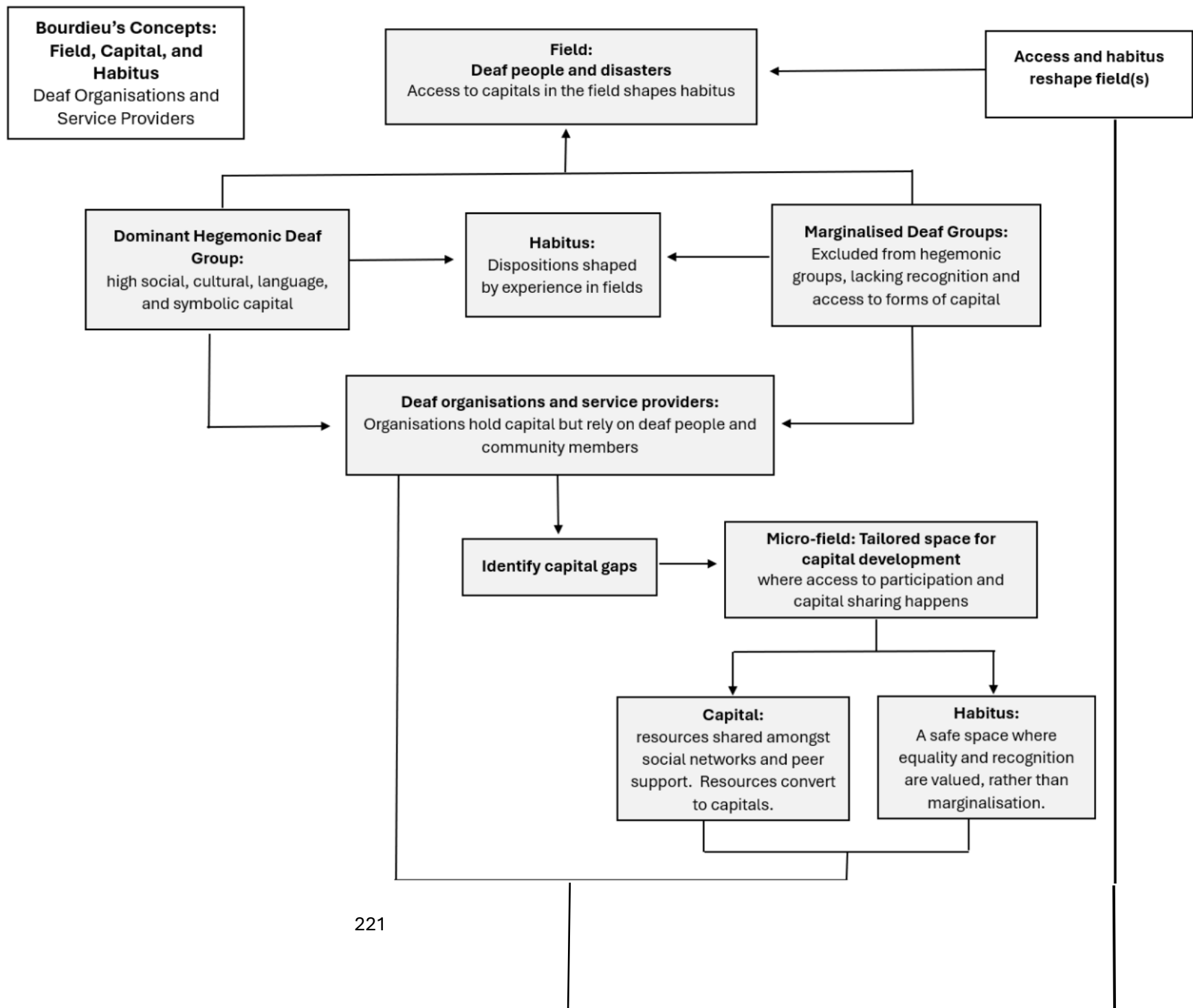
Section 2.3.1). My study seeks to push this idea further by asking: why was the decision not to participate made in the first place? Was it a voluntary choice for deaf people and Deaf support organisations to opt out of DRR conversations? Perhaps. But it is equally possible that they wanted to participate but were never *given a chance*. This is a potential underlying gap that can be identified through Bourdieu's concept of capital: people and organisations may lack the necessary capitals or will to mobilise their participation. Participation is not a simple matter of showing up, it is a relational and reciprocal process. For people to engage equitably, they must be able to access information in ways they understand, trust, and feel comfortable with. If someone does not participate, we must ask: was the information accessible? Was the support adequate? Were the communication channels inclusive? Or were there underlying barriers such as inaccessible meetings, unsafe consultation spaces, or a lack of cultural and linguistic representation that hindered participation to happen? When a person is unable to understand, be understood, or see themselves reflected in the process, what may appear as a refusal to participate is, in reality, a form of exclusion.

Critically, we must not assume that non-participation automatically signals disinterest especially not before addressing the structural barriers that often stand in the way. The silence of some Deaf support organisations and community members does not always occur by choice. Often it is the product of systemic exclusion. These barriers take many forms including: leadership shortages, limited organisational capacity, lack of interpreter access, and linguistic inequities. All of these concerns were identified repeatedly across my research, spanning multiple countries and Deaf support organisations. And yet, there is another layer: the risk of placing too much responsibility on a single person, organisation, or language to represent or complement the needs of all deaf people. Whilst Deaf support organisations often advocate with the best intentions, acting as representatives or gatekeepers can inadvertently filter participation through hegemonical Deaf lens. Not all voices within the Deaf community are the same. When Deaf support organisations are placed or put themselves forward to represent on behalf of others, especially those who rely on them, there is a risk that those with less social capital will remain overlooked or underrepresented. This creates an internal imbalance: when representation exists without genuine access to participation, deprivation is already embedded within the system.

To address this, I have developed a theoretical framework (see Figure 7.1) that takes inspiration from and integrates Bourdieu's (1986) concepts of field, capital, and habitus with Arnstein's (1969) 'Ladder of Citizen Participation' is used to illustrate how marginalised deaf people and Deaf organisations can mobilise toward more meaningful participation in DRR.

Within this framework, safe spaces are conceptualised as micro-fields: protected environments that reduce structural and communicative barriers, enabling deaf people to participate meaningfully and to develop, exchange, and mobilise valued forms of capital and habitus. Here, safety does not imply freedom from critique or the absence of differing views, rather it refers to environments in which linguistic access, cultural norms, and power relations are sufficiently addressed to allow participation on equitable terms. For deaf people who experience exclusion from hegemonic Deaf communities or the broader DRR field—whether due to language deprivation, late identification, additional disabilities, social isolation, or belonging to Indigenous or culturally diverse communities—these spaces act as incubators and support platforms for empowerment and long-term inclusion, offering opportunities to build capital and resist the effects of access deprivation. Through social connections, peer learning, and culturally affirming engagement, individuals can gradually accumulate social capital, cultural capital, and symbolic capital.

As these forms of capital accumulate, participants develop an empowered habitus, a set of dispositions that foster agency, confidence, and readiness to engage with institutional structures. Within these safe spaces where linguistic access is assured, participation norms are culturally grounded and power asymmetries are actively mitigated—individuals may move through the lower rungs of Arnstein’s ladder, from informing toward co-design and leadership. This movement is not linear or permanent, gains in participation can stall or regress when access, resources, or supportive structures are disrupted. This internal mobilisation provides the foundation for broader engagement beyond the safe space, allowing deaf people to bridge into the wider Deaf and DRR fields with enhanced capacity and legitimacy. In doing so, they not only move upward on the participation ladder themselves but also contribute to reshaping the field, challenging what counts as valuable knowledge and redefining inclusion in DRR governance. Ultimately, this framework demonstrates that participation is not a static position but a developmental process, dependent on the interaction between personal resources, social environments, and structural recognition. By linking Bourdieu’s and Arnstein’s theories, the model reframes participation for marginalised deaf people as a dynamic cycle of capital-building, habitus transformation, and field reconfiguration.



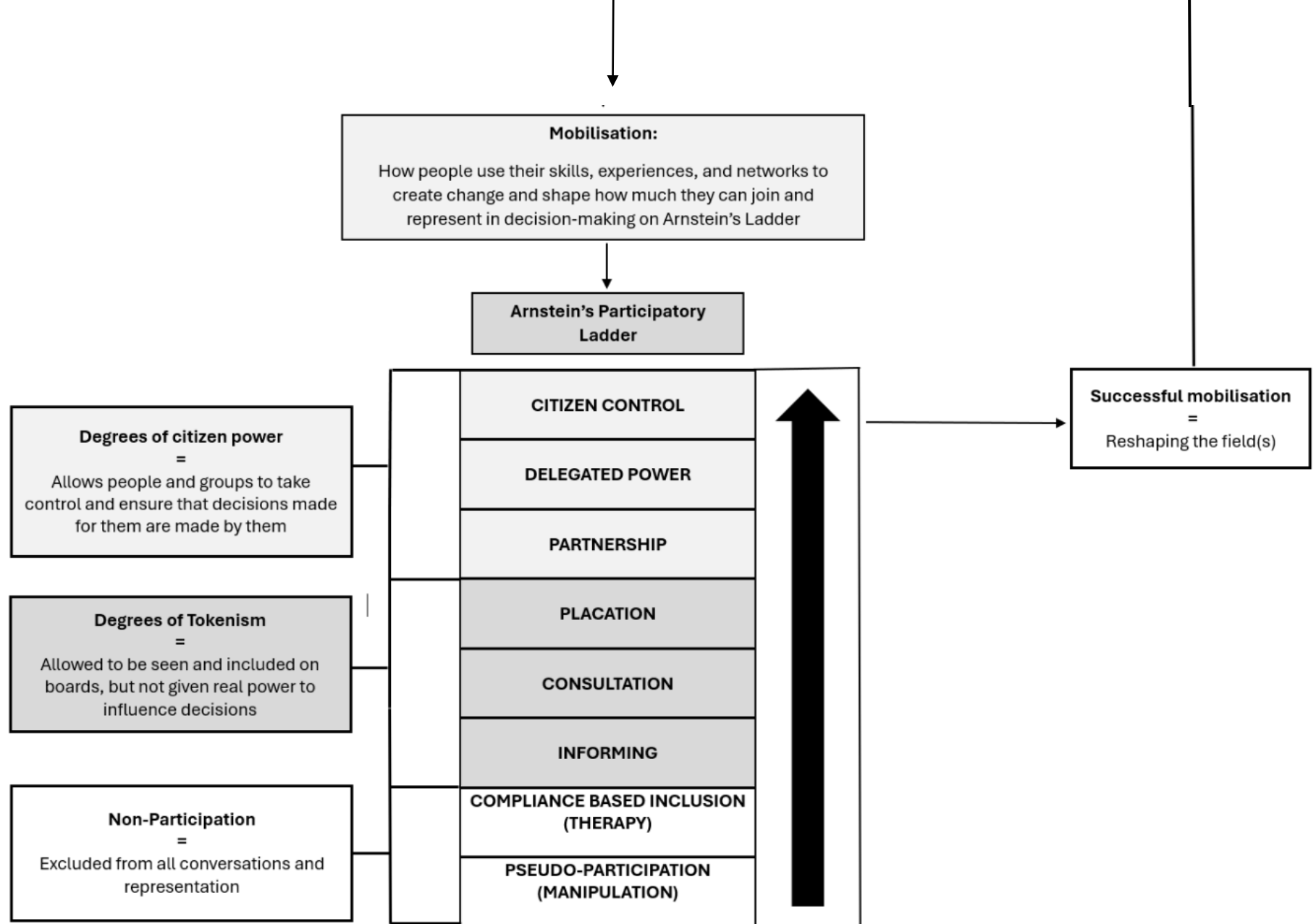


Figure 7.1: Interpretation and application of Bourdieu's concepts of capital and Arnstein's Ladder of Citizen Participation in relation to the case studies.

Reflecting on the case studies discussed in Chapter 4 and 5, deaf participation in DRR processes varied along Arnstein's Ladder, largely depending on the forms of capitals they possessed and how their habitus was shaped within the DRR field. Deaf support organisations that adopted Deaf-led leadership approaches demonstrated higher capital capacities (social, cultural, and symbolic), which enabled them to mobilise more effectively during disaster response and recovery. These organisations, particularly Japan's Nakama Support project (see *Section 4.2.1*) and the United States' DRT (see *Section 4.2.3*) occupied the higher rungs of Arnstein's Ladder, where participation was strengthened through shared partnership and power. By contrast, other organisations that contributed to initiatives providing limited capital development for deaf people, such as the Philippines' DDAT-DRR's DRR training and first aid courses (see *Section 4.2.4*), or that served primarily in advisory roles such as Italy's Emergenza Sordi Association on accessibility-related initiatives (see *Section 4.2.2*), exercised only partial influence over decision-making. Their participation was often constrained by institutional frameworks, placing them on the middle rungs of Arnstein's Ladder, where tokenism persists. Here, inclusion tends to satisfy institutional or legal obligations around accessibility rather than enabling genuine power-sharing (De Meulder and Haualand, 2021; Haualand, Meulder and Napier, 2022). At the lower end of the ladder were organisations and individuals facing entrenched structural barriers to mobilisation—cultural stigma, a shortage of qualified interpreters and limited access to them, constrained leadership capacity, and a lack of recognition from public institutions. This is illustrated in *Section 4.3*, which presents case study vignettes of Deaf-led disaster responses in resource-constrained settings, including Nepal, the Philippines, Indonesia, and Haiti. These barriers reflected deeper capital capacity gaps and reinforced patterns of exclusion within the DRR field.

Whilst some deaf people and Deaf support organisations were involved in project based or public service initiatives, such as Australia's *Get Ready Deaf Community NSW* project (see *Section 5.2*) and the *National Auslan Communications for Emergencies and the NEMP program* (see *Section 5.4*), their involvement was often symbolic, limited, or controlled by dominant institutions (tokenism in the middle of Arnstein's Ladder). In Australia, initiatives were compounded by funding and grant structures, which were typically hearing-led: organisations seeking first time or early funding often faced pressures to adopt national-first approaches, top-down project designs, and comply with federal-state/territory tensions, all of which constrained meaningful co-design and local-level decision-making. In several countries and contexts, such as the Philippines (*Section 4.2.4*), Nepal (*Section 4.3.1*), and

Haiti (Section 4.3.4), participation resembled manipulation (lower rungs of Arnstein's Ladder), where information was delivered passively and seldom in accessible formats that met deaf people's linguistic and cultural needs, placing them in the lower rungs of Arnstein's Ladder. Some countries like Italy's Emergenza Sordi Association (Section 4.2.2), the Philippines (Section 4.2.4), Nepal (Section 4.3.1), Indonesia (Section 4.3.3.2), and Australia's *National Auslan Communications for Emergencies and the NEMP program* (see Section 5.4) implemented informing strategies, such as videos in local sign languages, interpreters on emergency broadcasts, or captions, but these approaches remained largely one-way and accessible only to those with sufficient social capital and language fluency. In a few cases, such as Italy's Emergenza Sordi Association (Section 4.2.2) and the Philippines (Section 4.2.4), when participation reached the level of consultation or placation, Deaf support organisations were invited to advisory groups or meetings. Yet, their contributions often had minimal influence on outcomes, as inclusion was conditional and shaped by institutional expectations of feasibility rather than by rights-based or Deaf-led principles. Although these organisations might have shared concerns or offered feedback, they were often outnumbered by hearing stakeholders and were rarely resourced or empowered with capital required to co-design policies, develop materials, or lead accessibility initiatives designed *by* and *for* deaf people.

This positioning between manipulation and placation reveals a broader pattern of tokenistic inclusion: one that maintains control whilst (falsely) appearing consultative. It also exposes how accessibility is mistaken for agency. Providing an interpreter or translated materials does not in itself enable participation, particularly when these supports fail to align with participants' language preferences, cultural norms, or lived experiences. As a result, whilst deaf people and Deaf-led organisations may appear present within DRR efforts, their ability to shape agendas, challenge assumptions, or drive systemic change remains constrained. This reflects a form of shallow performative inclusion, where participation is visible, but influence is limited and where agency is acknowledged but not enacted. To move beyond symbolic participation, participation models must evolve toward partnership and power-sharing, those higher rungs of Arnstein's Ladder that embody delegated power and citizen control. Without this shift, deaf participation risks remaining confined to the lower rungs: recognised but restricted, included yet disempowered.

It is also critical to consider representation amongst deaf people and community members themselves. Whilst the diagram illustrates the positioning of Deaf support organisations and initiatives within the broader DRR field, participation and leadership *within* these groups are not always inclusive. In many contexts, representation and decision-making reflect only certain groups—such as hegemonic deaf groups with cultural and linguistic capital—whilst marginalised subgroups, including deaf with additional disabilities, those who experience language deprivation, and people who come from Indigenous or culturally and linguistically diverse communities, remain largely excluded. Even organisations occupying higher rungs of Arnstein’s Ladder may therefore not fully represent the diversity of deaf people and community members. These gaps highlight that skewed representation can reproduce inequities in DRR planning, limiting whose voices and perspectives shape agendas, whose needs are prioritised, and how DRR strategies are implemented.

Together, Bourdieu’s (1986) concepts of capital and Arnstein’s (1969) classical ‘Ladder of Citizen Participation’ offer a clear framework for understanding these dynamics. Arnstein’s model, where inclusion is symbolic rather than influential. Although Swapan (2016) suggests that non-participation may be a choice, my earlier findings show that it more often reflects inaccessible systems and unequal access to capital. This integrated lens shifts attention from whether participation occurs to how it is enabled, constrained, and made meaningful. For deaf people, participation depends on access to linguistic, cultural, social, and symbolic capital, which Friedner (2016) and Green (2024) identifies as essential for understanding, being understood, and exercising influence. Without these foundations, participation remains symbolic and performative and the absence of involvement risks being misinterpreted as apathy rather than exclusion. As this chapter has demonstrated, meaningful participation cannot exist without structural change and access cannot be assumed simply because participation is invited.

7.5 Chapter summary

In closing, this chapter has examined the complex interplay between access, participation, and representation in disaster contexts through the lens of deaf experiences. By applying Bourdieu’s concepts of field, capital, and habitus alongside Arnstein’s Ladder of Citizen Participation, and engaging with critiques from scholars such as Swapan, it becomes evident that deaf people’s involvement in DRR processes remains too often symbolic rather than substantive. Access is frequently mediated through dominant institutional systems that

overlook the diversity of deaf people's cultural, communicative, and linguistic realities. Participation is not just a matter of individual choice; it is also shaped by the unequal distribution of capital and the structural conditions that determine who can mobilise and how. Representation too remains uneven, often filtered through institutional gatekeepers rather than reflecting the full spectrum of deaf perspectives and experiences. Together, these dynamics illustrate how capital, habitus, and field interact to either enable or constrain participation across the rungs of Arnstein's Ladder. Without equitable access to social, cultural, and symbolic capital, many deaf people and organisations remain confined to the lower and middle levels of participation—where engagement is visible but influence limited.

A key contribution of this chapter has been to demonstrate why Bourdieu's (1986) and Arnstein's (1969) frameworks, when brought together, offer the most comprehensive and coherent theoretical foundation for understanding these dynamics. Used in isolation, Arnstein's classic Participatory Ladder (1969) reveals the *degree* of participation but cannot explain *why* individuals or groups become stuck on lower rungs, nor how they might move upward. Conversely, Bourdieu's (1986) concepts of capital, habitus, and field illuminate the *structural and relational forces* that shape people's capacities to participate, yet provide limited clarity on what meaningful participation in governance actually *looks like*. By integrating these approaches, the framework developed in this chapter makes explicit how uneven distributions of capital, habitus, and field intersect with the depth and quality of participation. It reveals that participation is not just a matter of institutional design or goodwill; it is conditioned by the extent to which deaf people possess, accumulate, or are denied the linguistic, cultural, social, and symbolic capital required to engage on more influential rungs of the ladder. This framework also highlights the role of 'safe spaces'—micro-fields within organisations or communities, where marginalised deaf people can build and practice these forms of capital free from the pressures and power asymmetries of dominant hearing and deaf-led fields. These spaces demonstrate that participation is dynamic rather than fixed, enabling individuals to move along the ladder as they gain confidence, legitimacy, and recognition.

Importantly, this combined framework also makes visible the mechanisms of exclusion, showing how institutional norms, deficit-based perceptions of deaf people and the privilege embedded in dominant fields constrain mobility on the ladder. At the same time, it identifies the conditions that enable upward movement, including culturally and accessibly aligned

capacity-building, deaf-led leadership pathways (particularly for those marginalised amongst deaf people and community members), and partnerships that redistribute power rather than simply consult. In doing so, the framework offers a powerful analytic tool for diagnosing disparities in DRR participation and for imagining more equitable modes of engagement that centre marginalised deaf people knowledge, agency, and leadership. True inclusion in DRR therefore requires more than invitations to participate, it demands the redistribution of power, resources, and recognition. Moving forward, deaf participation in disaster governance must be grounded in shared decision-making, accountability and structural transformation, supported by settings that enable deaf people not only to access DRR systems but to influence and reshape them. In doing so, deaf people are not only recognised and represented, but are empowered to lead, mobilise, and reshape the field itself—breaking the cycles of access deprivation.

Chapter 8: Conclusion

8.1 Key Findings

As I draw this research to a close, what becomes most evident is that inclusion for deaf people in disaster contexts is far from straightforward. To support deaf people, Deaf support organisations and advocates continue to play a vital role in times of crisis, often stepping in where systems fall short. Their efforts to translate, adapt, and relay information frequently fill the gaps left by public institutions that have yet to fully understand what accessibility truly means in practice. Although access and participation are mutually dependent, they are often conceptualised and implemented by public institutions through a top-down approach. The findings reveal that many of these institutions lack a deeper understanding of the *accessibility processes required* to make disaster information, services, and DRR planning inclusive and participatory—echoing Lukasiewicz’s (2020) argument on the importance of cultural knowledge and understanding of people’s needs (*Section 2.3*). Meltzer, Barnes and Wehbe (2024) similarly note that such gaps continue to impact the accessibility sector. In several countries, accessibility was framed primarily in terms of compliance with disability and/or language legislation, leading public services to treat it as an endpoint rather than an ongoing relational process. As Burke (2017) cautions, this risks defining accessibility in ways that reflect bureaucratic priorities rather than, as Haualand, Meulder and Napier (2022) argue, drawing from the lived experiences and needs of those most affected (*Section 7.2*). True accessibility requires recognising that the process extends beyond the availability of information—it depends on whether disaster information and services are also understood, trusted, and acted upon confidently by Deaf support organisations, sign language interpreters, deaf people and community members.

On an internal front, Deaf support organisations have made considerable efforts to mobilise deaf people and community members affected by disasters. These efforts include providing sign language interpreters for media briefings and disaster training workshops, developing language-concordant information from deaf people working or volunteering in emergency services, and producing sign language translation services and resources for disaster information, advocacy, and services (see Chapters 4 and 5). Yet, the data indicate that these efforts largely reflect the experiences and perspectives of those possessing higher levels of linguistic and cultural capital—both within Deaf support organisations and amongst emergency service personnel familiar with Deaf communities. The advocacy for sign language interpreters, productions of resources, provision of sign language interpreters, and

community workshops were led by the hegemonic group—deaf people with native or dominant sign language fluency, formal education, leadership roles, and strong social networks—who hold disproportionate linguistic and cultural capital within the community. The findings also reveal that less is known about how inclusive, comprehensible, or actionable these efforts are for those with limited language or cultural capital. For example, deaf non-signers may struggle to follow information delivered in sign languages, deaf people who have experienced educational deprivation may find navigating for disaster support difficult, and deafblind people may face challenges in accessing information that is technically “accessible” but not fully actionable. Herein lies a key contradiction when considering the WFD’s (2019) observation that the majority of deaf people worldwide lack access to education, leading to widespread language deprivation. Significant imbalances between Deaf support organisations that hold greater linguistic and cultural capital and those who depend on them for support continue to shape how access is defined, delivered, and for whom. This suggests that the issue is not only the persistent language deprivation faced by many deaf people, but also the barriers to accessing the very forms of capital needed to survive—what Murray (2020) describes as *access deprivation* (Section 2.8.1).

This distinction highlights the importance of recognition—specifically, who is able to access, participate, and be represented and who is not. In several contexts, even where inclusionary efforts exist, recognition of access and participation tend to extend primarily to those who are most conveniently acknowledged, typically individuals and organisations aligned with dominant or hegemonic practices. Uekusa (2018) observes that those with stronger networks or greater forms of capital—social, cultural, or symbolic, are more likely to be seen, heard, and supported, whilst Gaillard and Fordham (2018) note that others without such capital remain silenced at the margins. Uekusa (2020) further argues that recognition processes need to shift their focus to critically examine those who lack these resources. This perspective is particularly relevant for deaf people worldwide who experience language deprivation—a condition that, as Edwards (2025) emphasises, continues to shape their ability to participate in everyday life (Section 2.5.1), including DRR conversations. As a result, access to decision-making, activities, and discussions about deaf people and DRR often remain confined to those with greater access to capital, leaving others’ experiences underrepresented, unseen and access deprived. This imbalance, as Kusters, De Meulder and O’Brien (2017) note, is a critical concern within Deaf scholarship, where questions of who can represent and whose experiences are acknowledged, remain deeply tied to power, access, and recognition. This reiterates the critical questions highlighted in Chapter 6: who defines accessibility and for whom, and whose knowledge counts when access to information becomes a matter of

survival? Whilst there is existing literature on language deprivation amongst deaf people, far less attention has been given to access deprivation in disaster contexts, which warrants further research.

Genuine inclusion in DRR cannot be achieved through access alone. Access and participation are interdependent, a relationship that Baldwin (2020) notes is critical for participatory processes that move beyond just accessing information and resources. However, as Gaillard and Fordham (2018) question, in the name of “inclusion”, who amongst deaf people actually has access to participate and to represent within DRR spaces? The findings reveal that participation, as experienced by many Deaf support organisations, was uneven and often contingent upon who was involved and the extent to which the participatory process was accessible, understood, and influential. Despite the efforts of Deaf support organisations to enhance participation, many continued to face structural barriers and tokenistic consultation processes. Crucially, participation often centred on Deaf community members with greater cultural and linguistic capital, whilst those without—particularly those with the lived experiences of surviving disasters, were excluded. This suggests that the “linguistic membership” described by Woll and Ladd (2011) (*Section 2.6.1*) carries more weight than the voices and experiences of those who do not share it. Such imbalance, as Uekusa (2020) warns, limits the diversity of expertise and the recognition of the lived experience within participatory processes—a pattern also reflected in past findings by Kelman *et al.* (2016) and Gaillard (2019). The absence of those with limited language or cultural capital leaves significant gaps in understanding their participation and self-advocacy in disasters—an issue that Uekusa (2024) stresses need to be addressed and warrants further research.

The lack of recognition of deaf people and community members situated on the margins, with limited linguistic and cultural capital, raises further questions about *who represents whom* in DRR conversations and decision-making. Whilst Chapter 6 highlighted the risks of public services relying on a single individual or organisation to represent a group, the onus also falls on Deaf support organisations to acknowledge these representational dynamics. As noted in Chapter 2, worldwide education levels for deaf people are low and communication and language supports are grossly inadequate. This begs the questions of why this gap persists and how it might be addressed. Deaf support organisations, by virtue of their language and cultural capital as part of the “linguistic membership” noted by Woll and Ladd (2011), also reproduce hegemonic hierarchies that Cue *et al.* (2019) describe as privileging certain forms of language and communication. This in turn, gives rise to what Pudans-Smith *et al.* (2019) identify as hegemonic practices that deaf people must navigate in order to gain access to the

capitals they need. This creates a paradox: whilst Deaf support organisations rely on the very people who lack linguistic, cultural, and social capital, for their existence, a persistent gap remains—one that Deaf scholars such as Kusters, De Meulder and O’Brien (2017) recognise—the diversity of languages and experiences amongst deaf people and the need to address the capital deficits that constrain many from mobilising on equal terms. Left unaddressed, this imbalance continues to be a breeding ground for access deprivation. Reiterating insights from Chapter 6, the three themes of access, participation, and representation demonstrate that these processes are neither neutral nor evenly recognised or distributed; rather they are shaped by power, resources, language hierarchies, and cultural capital.

8.2 Theoretical and Conceptual Contributions: Towards an Inclusive DRR Framework

My thesis advances understandings of inclusion in DRR for marginalised deaf people and community members through a distinctive and theoretically innovative synthesis of Deaf Geographies and Mobility Studies with Bourdieu’s (1986) concepts on capital, field, and habitus, and Arnstein’s (1969) classic participatory framework. The theoretical framework developed in this research builds on and extends key strands of work within Deaf Geographies, starting with Deaf Space. Gulliver (2009) and Kusters (2009) show how deaf people produce and transmit space and language to meet their social and cultural needs, with the temporal nature of Deaf Space marking an early convergence between Deaf Studies and Geography. This historical dimension is central to the present study, as both the literature and findings reveal how Deaf support organisations engaged in humanitarian response mobilised evacuation and recovery spaces (*Section 2.8.2*), which contrasted sharply with the practices of formal relief organisations. As Deaf Geographies gained traction, Gulliver and Fekete (2017) highlighted the role of human agency in Deaf Space production, forming a conceptual bridge to the additional strands informing this study.

Two further strands strengthen this foundation. First, O’Brien’s (2021) work on embodied experiences, drawing on Lefebvre and Bourdieu, foregrounds the individual and micro level processes of navigating space, rather than the collective and macro perspectives emphasised in previous Deaf Space studies. Second, Kusters *et al.*’s (2024) work on Deaf Mobility Studies highlights the movements of capital that enable or restrict deaf peoples’ ability to mobilise. Given pervasive language and access deprivation, deaf people with limited cultural or linguistic capital remain at heightened risk of isolation and exclusion during disasters. These insights underscore how individuals navigate environments that are often not culturally, linguistically, or structurally accessible, shaping their habitus and capacity to mobilise for

resilience. By emphasising the relational dynamics of power and recognition, the framework shifts the analytical focus from who already possess various forms of capital to those who do not, revealing the structural and symbolic barriers that prevent some deaf people from being acknowledged or recognised for their experiences. Extending this critique into the research process, it is important to recognise that researchers' perspectives are often partial, as the most marginalised—those most difficult to access and engage, remain the least represented in existing research.

This study integrates these insights with Bourdieu's (1986) concepts of field, capital, and habitus, as previously noted in Chapter 7, *Section 7.4* (for examples, see the work of O'Brien and Emery, 2014; Emery, 2020; O'Brien, 2021; Byatt, Duncan and Dally, 2024; Duggan, 2023) and with Arnstein's Ladder of Citizen Participation (1969), generating a novel conceptual lens for theorising inclusion in DRR. Access to social, cultural, and symbolic capital is mediated through dominant institutional systems in which language hierarchies and hegemonic practices persist (Ladd, 2003; Woll and Ladd, 2011). Deaf people's habitus, and their ability to draw on Deaf support organisations for language, cultural, and social capital, is shaped by their level of language access (Emery, 2020). These dynamics influence who can participate across the rungs of Arnstein's ladder and highlight how participation is simultaneously socially structured and politically negotiated. Twinning Bourdieu's relational sociology with Arnstein's ladder transforms the latter from a static heuristic into a dynamic relational field where participation is contingent on the distribution, convertibility, and embodiment of various forms of capital. This reconceptualisation challenges key debates about the nature of participation, demonstrating that non-participation can result from systemic *access deprivation* (Murray, 2020) rather than a matter of choice or deliberate exclusion (Swapan, 2016).

By framing DRR as a social arena in which actors operate according to competing priorities, values, and resources, the framework illuminates how power and recognition are negotiated in practice. Organisations and individuals with greater social and symbolic capital exert more influence in decision-making processes, whilst those lacking access remain marginalised—a pattern reflected across disaster scholarship globally (Gaillard and Fordham, 2018; Hore *et al.*, 2020; Uekusa, Matthewman and Lorenz, 2022). Bourdieu's (1986) concept of habitus further reveals how past experiences of exclusion generate dispositions of hesitancy, adaptation, or resistance amongst deaf people and organisations, shaping their engagement in DRR. Within this context, Deaf support organisations leverage their language and cultural capital to identify gaps, activate micro fields of participation, and create spaces where

marginalised deaf people can acquire capital and progressively engage in mainstream participatory processes. This provides a more nuanced explanation of *why* participation remains uneven and *how* forms of capital—social, cultural, linguistic, and symbolic, affect the capacity of deaf people and Deaf support organisations to engage in and be recognised within the DRR field. This approach not only theorises inclusion but also provides a practical mechanism for addressing structural barriers and redistributing power.

Conceptually, this framework reconceptualises Arnstein’s ladder as an embodied, negotiated, and context-dependent process rather than a fixed hierarchy. Participation becomes relational: stakeholders continually negotiate influence and resources, determining who can contribute, be recognised, and shape outcomes. This aligns with perspectives that view participation as a *process* rather than an outcome (Baldwin, 2020). By tracing these dynamics, the framework identifies critical points where inclusion or exclusion occurs, enabling proactive strategies to prevent access deprivation and inequity. Importantly, it positions inclusion not as a linear or procedural endpoint but as an ongoing iterative process shaped by social, cultural, linguistic, and symbolic capital.

Beyond DRR and Deaf Studies, the framework offers broader conceptual insights for disciplines concerned with inclusion and participation. By emphasising relational power dynamics, it shifts analytical focus from those already possessing capital to those who are systematically excluded, revealing structural and symbolic barriers that constrain recognition and engagement. In doing so, it extends debates in disaster justice, participatory governance, and equitable resilience, offering both theoretical and practical tools for designing inclusive, context-sensitive, and empowering participatory processes adaptable to diverse marginalised groups.

Finally, the framework demonstrates how relational sociology, grounded in Bourdieu’s (1986) work, as applied by others (see O’Brien and Emery, 2014; Uekusa, 2018; Emery, 2020; O’Brien, 2021; Uekusa, 2024), can be used to analyse real-world inclusion and participation. By foregrounding the co-existence of inclusion and the persistence of exclusion, it provides a versatile model for examining who participates, whose experiences are recognised, and who remains at the margins across different social fields. In doing so, it offers both theoretical and practical insights for fostering equity, visibility, and inclusion across multiple domains.

8.3 Practical and Policy Implications

In the name of inclusion, the literature and findings reveal that inclusive *practice* in DRR has yet to be achieved. This is despite national and international disability and language legislation mandating accessibility across DRR processes (*Section 6.2.2*). My research also shows that most interactions with public policy remain largely tokenistic, shaped by how much public services can afford (Burke, 2017) and by compliance with disability and/or language legislation (De Meulder and Haualand, 2021; Haualand, Meulder and Napier, 2022). Examples include providing sign language interpreters and captioning in media broadcasts or online disaster information—often under the privileged assumption that all deaf people can access and navigate these platforms. In reality, different forms of capital are required to effectively access information and support services, leaving those without them at risk of access deprivation. This research demonstrates that inclusion cannot be achieved through access alone, but through the redistribution of power, recognition, and resources in ways that prevent access deprivation and enable deaf people and Deaf support organisations to convert these into capitals for participation on equal terms. The theoretical framework developed here provides a pathway to move beyond tokenistic approaches to inclusion towards a more relational, context sensitive and equitable model of participation in DRR—one that draws on insights from co-researchers to help practitioners and policymakers identify the structural and relational dynamics shaping who participates, whose knowledge is valued, and how decisions are made.

In practical terms, this research consistently highlights the need to recognise and address systemic barriers that exclude marginalised deaf people who exist outside the hegemonic groups from DRR processes (see examples of Gaillard and Fordham, 2018; Uekusa, 2020; Lambert, 2022). Reiterating what Lukasiewicz (2020) noted (in *Section 2.3*), cultural knowledge and understanding of diverse groups and their lived experiences play a critical role in DRR. Yet, as Kelman *et al.* (2016) and Gaillard (2019) observed, history has shown that the knowledge of marginalised groups is often overlooked or excluded. The framework developed in this research can serve as a diagnostic tool for mapping how power and resources circulate between marginalised groups or communities (such as Deaf support organisations), government bodies, and emergency services. By identifying these processes and the gaps within them, targeted solutions can be designed to strengthen the social and symbolic capital of marginalised groups, such as deaf people and community members. The identified shortcomings of existing approaches to inclusion in DRR expose practices that perpetuate access deprivation, highlighting the urgent need to invest in co-designed capital-building spaces that foster the acquisition of skills and knowledge required to climb the

participatory ladder. Equally important is the implementation of ongoing feedback mechanisms that better reflect the lived experiences and cultural expertise.

Lastly, from a policy standpoint, this framework also offers a more robust means of evaluating inclusion by providing criteria that move beyond numerical representation or the presence of some form of accessibility—an assumption challenged by Burke (2017), De Meulder and Haualand (2021), and Haualand, Meulder and Napier (2022). I shift the focus towards outcome measures that assess how participation redistributes power, increases agency, and strengthens collective capacity across diverse communities. By operationalising these insights, policymakers and practitioners can move inclusion from policy rhetoric to tangible practice—one that recognises marginalised groups—such as deaf people, not as what Gaillard and Fordham (2018) describe as recipients of information, but as equal partners, knowledge holders, and leaders in DRR.

8.4 Limitations and Future Research

Reiterating some of the limitations identified in Chapter 3 (*Section 3.6.2*), one acknowledged constraint of this study was that the co-researchers were predominately drawn from hegemonical groups within Deaf communities, who possessed higher levels of cultural and linguistic capital. Despite efforts to engage Deaf support organisations serving marginalised groups, no responses were received. This highlights a key limitation: the experiences of deaf people across diverse cultural and contextual settings who were not directly represented in this study, including people with lower levels of capital, those who are educationally or linguistically deprived, and those who do not engage with Deaf support organisations, such as non-signers. Whilst these gaps have been considered within the theoretical framework, particularly when examining inclusionary and representative practices, they remain a limitation of the empirical data.

Several other limitations were encountered throughout the research. First, the study relied primarily on organisational perspectives rather than directly on individual community members, which may overrepresent the experiences and strategies of organisational representatives whilst underrepresenting those of marginalised groups and community members who use the services. Second, co-researchers who opted to participate may not represent all perspectives equally, potentially privileging the experiences of organisational staff or community members who are more confident or active in DRR. Third, language and communication barriers during interviews may have limited the depth of some responses, particularly from participants with limited literacy or unfamiliarity with research processes.

Fourth, the findings reflect the circumstances at the time of data collection and DRR practices, organisational capacity, and policy frameworks may have evolved since then. Finally, whilst the study acknowledges intersectional and marginalised experiences amongst deaf people and community members, these were not fully captured empirically, and the sample's locational coverage limits the generalisability of findings across Australia and seven participating countries.

These limitations point to two key areas for future research. First, there is a need for more research to focus on the experiences of deaf people from diverse and marginalised backgrounds who are directly impacted by disasters, particularly those with limited forms of capital and varying access to support. Existing literature primarily reflects the perspectives of humanitarian practitioners or researchers rather than survivors themselves (see the works of White, 2006; Jacq, 2015; Engelman, Booze and Izquierdo, 2024; Takayama, 2025). Capturing more marginalised voices/experiences would provide a more complete understanding of inequities in disaster planning and processes—particularly in terms of how participation, self-advocacy, and access function within disaster contexts. Second, further research is needed on Deaf support organisations operating across diverse country and cultural settings. Expanding the sample to include a broader, more diverse set of organisations and communities would strengthen the applicability of findings and allow for considerable cross-cultural comparisons.

Recognising these limitations provides important opportunities for future research to extend both empirical and theoretical contributions of this study. Future research can continue to illuminate who is excluded or marginalised, why these exclusions persist, and how more equitable participation can be fostered across diverse contexts.

8.5 Closing Reflection

Reflecting on my positionality throughout this research has taught me that the journey is not simply an endpoint of achieving my research goals, but rather it is an ongoing process of learning, one that continues to shape how I understand and approach change within the systems we work and live in. Drawing on Bourdieu's (1986) concepts of field, capital, and habitus, my lived experiences as a deaf person within a minority group have shaped my habitus across the fields I have entered and influenced the forms of capital I have been able to acquire in order to participate. These lived experiences have also piqued a lifelong interest in how minority groups navigate across fields that are not always accessible to them, shaping their habitus and their capacity to participate. The habitus I grew up with, shaped by

witnessing and experiencing injustices, created an internal desire to pursue further study to understand why barriers and marginalisation exist. Whilst I recognise the privileges I have had in accessing some forms of capital, many of the fields I have interacted with did not always enable me to access the specific capital, support, or confidence I needed to pursue this quest when I was younger.

The “field” that reignited my curiosity and commitment to understanding exclusion and marginalisation was DRR. It is well known within Deaf communities how widespread language deprivation is amongst deaf people worldwide. Through my work in DRR within Australia and the Philippines, I was often haunted by the stories shared by deaf people who are educationally and linguistically deprived and by the barriers they faced in accessing information and support during disasters. With disasters continuing to increase in frequency and intensity, I found myself returning once again to the same central question: why do barriers and marginalisation persist?

Pursuing this question meant returning to university, initially as a Master of Research student. However, given the scope of this study, it became clear that the project was too large for a master’s thesis and my university supervisors encouraged me to upgrade to a doctoral level. This decision brought back memories of earlier “fields” I had encountered, where some deaf people from a hegemonic Deaf community—who possessed strong language and cultural capital—advised that such questions were not worth pursuing, given the small size of deaf people and community members as a minority group. Nonetheless, I believed that understanding exclusion and marginalisation, regardless of the size of a community or group, remained crucial to changing how we approach people who exist outside hegemonic or dominant groups.

The journey as a doctoral student has been a steep curve—both personally and professionally—enriching yet often isolating too. One of the first challenges was transitioning from being a practitioner to a doctoral researcher. I had to recalibrate how I used language and how I learnt, shifting from community-based practice to academic scholarship. Although I had participated in research projects before, the forms of capitals I held at the time were insufficient to equip me for doctoral-level work. I struggled significantly to grasp the research process, which I now recognise is not always accessible for people with diverse learning and access needs. Achieving progress required extra time for unpacking, visualising, and scaffolding information—from learning how to develop a literature review and design research and interview questions to navigating and analysing data through NVivo and

structuring my thesis. Building these skills took years of investment, support from my university supervisors, attendance at workshops for doctoral students, and engagement with peers.

However, this journey was not without accessibility challenges. Meeting my access needs often required what a Deaf mentor once cited “*invisible labour*” on my part to organise and coordinate support beyond the university’s disability services. With a limited number of Auslan interpreters experienced in academic settings, scheduling was frequently complex—particularly when delays occurred between the university’s disability office and the interpreting agencies. These delays often affected my ability to participate fully in academic meetings, workshops, and events. In the earlier years of my academic journey, there were occasions when I had to negotiate accepting interpreters who were less experienced in academic contexts, which could impact my level of participation, or forgo the event altogether. Over time, those experiences led me to develop my own network of Auslan interpreters who I could contact directly to confirm availability and then liaise with the university’s disability support services to arrange those specific interpreters through contracted interpreting agencies.

Secondly, the research process also reshaped the way I think about research itself. Whilst I discussed my positionality in Chapter 3, the analytical process left me reflecting on power and representation, particularly how researchers portray the people and their stories they draw upon. The experiences shared by the people interviewed were valuable to this study and to refer to them as people “researched on” does not honour their contributions. As an academic, it is critical for me to acknowledge the privilege and power that comes with my positionality and to actively address these imbalances. Without the individuals who generously shared their insights, this thesis would not exist. This awareness compelled me to recognise them not just as participants but as equal co-researchers in the truest sense.

Lastly, as the only Deaf doctoral student at the University of Sydney, I found this an isolating experience. This had led me to seek connections externally, where those I’ve met were either deaf DRR practitioners or academics with practical community experiences in the disaster context. However, the number of deaf academics worldwide remains relatively small and within those spaces, access to different forms of capital that enable networking and belonging is uneven. Whilst there are academic spaces for Deaf scholars to convene, they can sometimes feel exclusive to those aligned with hegemonic Deaf norms—spaces where I have not always felt I fit or was welcomed. Yet, I remain grateful to the Deaf scholars I connected

with during the later stages of my PhD journey, whose encouragement, along with the guidance and support of my supervisors, helped me persevere through this process.

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APPENDICES

APPENDIX A: Human Ethics approval letter for Protocol Number 2019/540



Research Integrity & Ethics Administration
HUMAN RESEARCH ETHICS COMMITTEE

Thursday, 18 July 2019

Prof Dale Dominey-Howes
Geosciences; Faculty of Science
Email: dale.dominey-howes@sydney.edu.au

Dear Dale,

The University of Sydney Human Research Ethics Committee (HREC) has considered your application. I am pleased to inform you that after consideration of your response, your project has been approved.

Details of the approval are as follows:

Project No.: 2019/540
Project Title: Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards
Authorised Personnel: Dominey-Howes Dale; Craig Leyla;
Approval Period: 18/07/2019 to 18/07/2023
First Annual Report Due: 18/07/2020

Documents Approved:

Date Uploaded	Version Number	Document Name
16/06/2019	Version 1	HREC Table 1: Recruitment of Potential Participants
16/06/2019	Version 1	HREC Table 2: Participants Characteristics
16/06/2019	Version 1	Gantt Chart on Research Plan Timeline
16/06/2019	Version 1	Participant Consent Form in General English
16/06/2019	Version 1	Participant Consent Form in Basic English
16/06/2019	Version 1	Participant Information Statement in Basic English
24/06/2019	Version 1	Safety Protocol_v1.0
11/07/2019	Version 2	Revised copy of Participant Information Statement-General
11/07/2019	Version 2	Interview Participant Invitation Letter
11/07/2019	Version 2	Revised Interview Questions for Deaf Organisations
11/07/2019	Version 2	Revised Interview Questions for Emergency Services
11/07/2019	Version 2	Revised copy of Interview Questions for Key Informants

Condition/s of Approval

- Research must be conducted according to the approved proposal.
- An annual progress report must be submitted to the Ethics Office on or before the anniversary of approval and on completion of the project.
- You must report as soon as practicable anything that might warrant review of ethical approval of the project including:
 - Serious or unexpected adverse events (which should be reported within 72 hours).
 - Unforeseen events that might affect continued ethical acceptability of the project.
- Any changes to the proposal must be approved prior to their implementation (except where an amendment is undertaken to eliminate *immediate* risk to participants).

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- Personnel working on this project must be sufficiently qualified by education, training and experience for their role, or adequately supervised. Changes to personnel must be reported and approved.
- Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, as relevant to this project.
- Data and primary materials must be retained and stored in accordance with the relevant legislation and University guidelines.
- Ethics approval is dependent upon ongoing compliance of the research with the *National Statement on Ethical Conduct in Human Research*, the *Australian Code for the Responsible Conduct of Research*, applicable legal requirements, and with University policies, procedures and governance requirements.
- The Ethics Office may conduct audits on approved projects.
- The Chief Investigator has ultimate responsibility for the conduct of the research and is responsible for ensuring all others involved will conduct the research in accordance with the above.

This letter constitutes ethical approval only.

Please contact the Ethics Office should you require further information or clarification.

Sincerely,



Dr Helen Mitchell
Chair
Human Research Ethics Committee (HREC 1)

The University of Sydney of Sydney HRECs are constituted and operate in accordance with the National Health and Medical Research Council's (NHMRC) [National Statement on Ethical Conduct in Human Research \(2007\)](#) and the NHMRC's [Australian Code for the Responsible Conduct of Research \(2007\)](#).

APPENDIX B:

Chapter 3 Methods List of Tables

TABLE B1: Desktop review on disaster information and services provided by Deaf support organisations

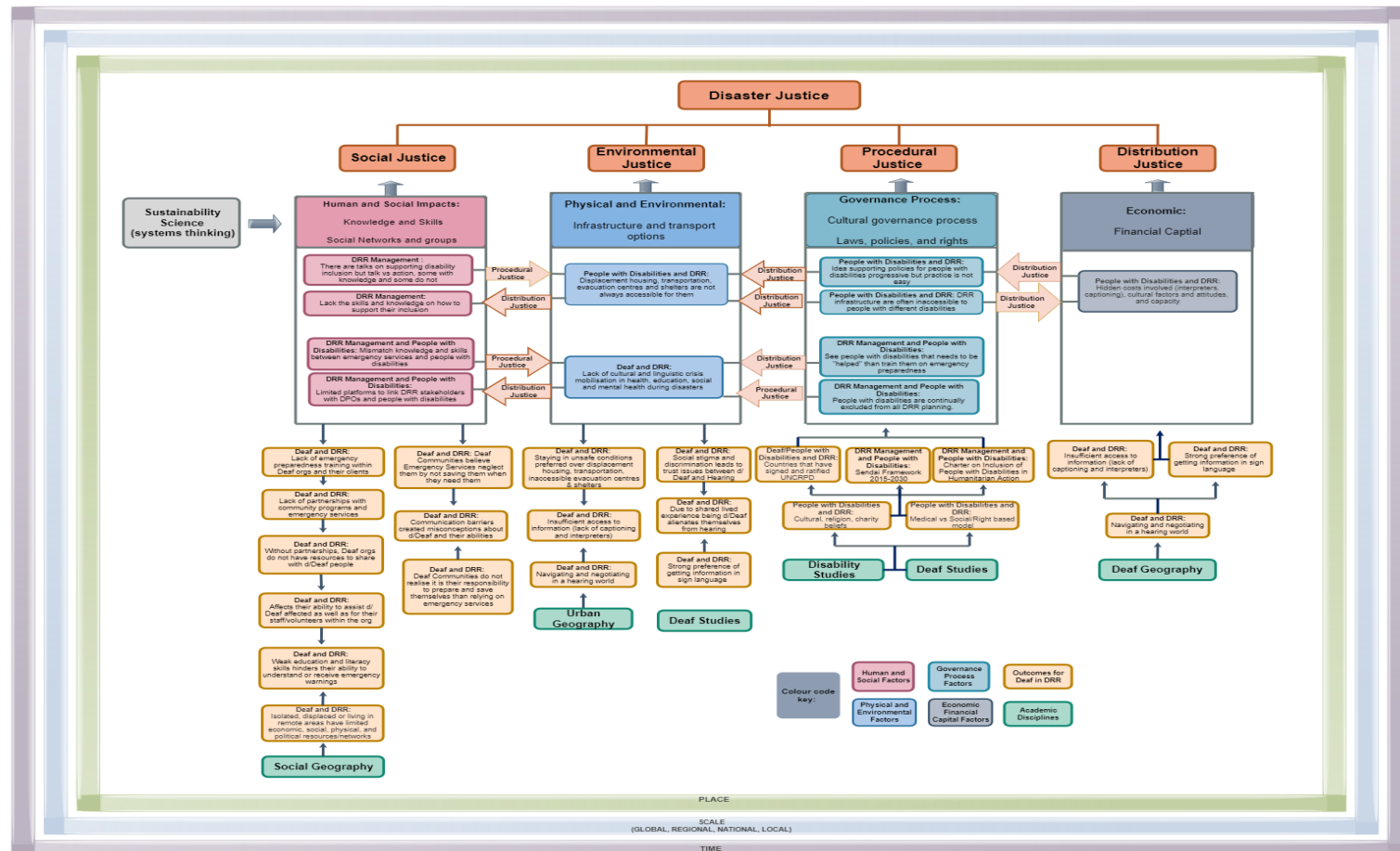
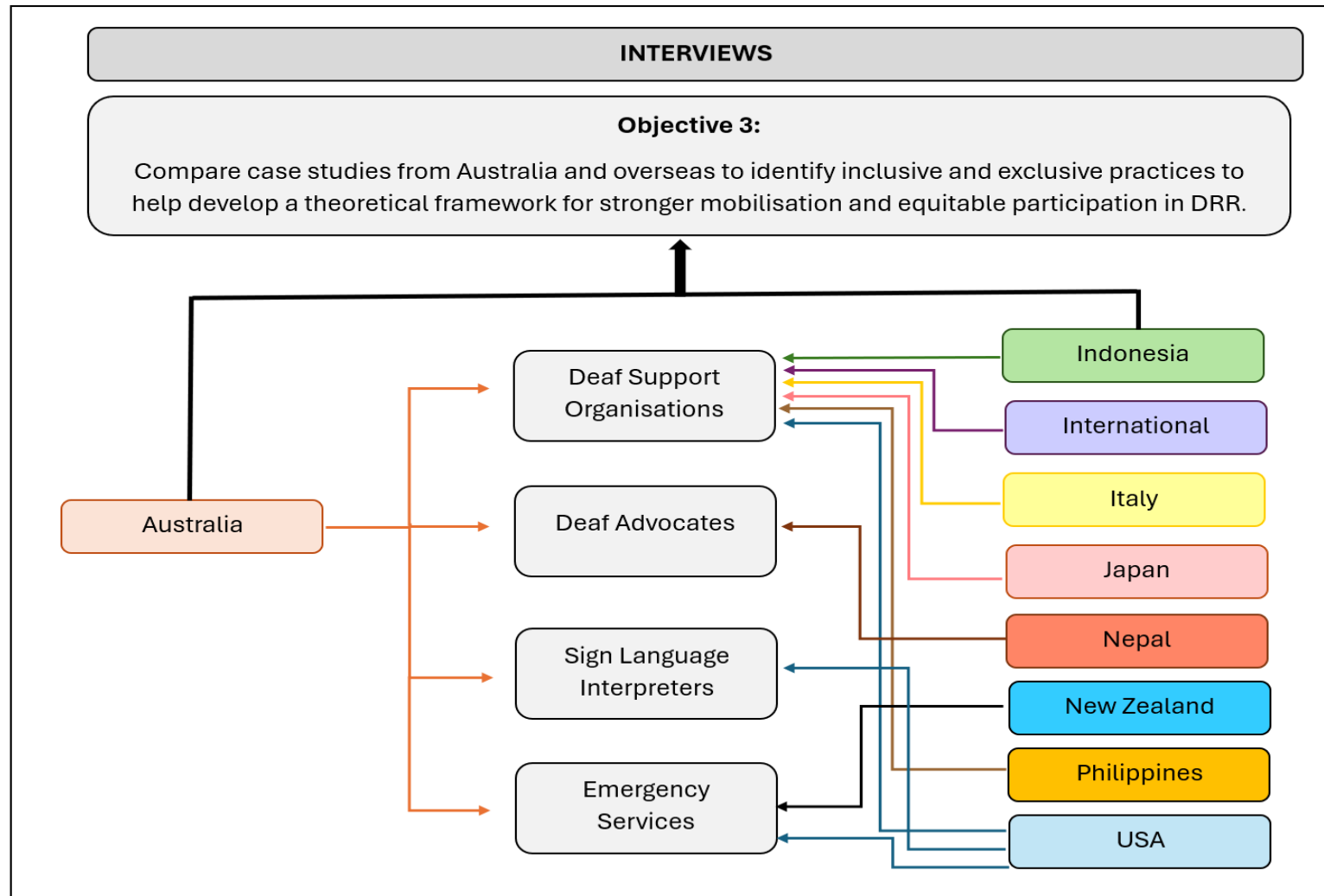


TABLE B2: Interviews with 44 co-researchers across nine countries for case study comparisons.



APPENDIX C:
Phases 1 and 2 Recruitment and Participation Processes

TABLE C1: Phase 1 Co-researchers' characteristics

Country	Sex	Age range	Inclusion criteria	Exclusion criteria
International	Male, Female, or X	18+	- Deaf, hard of hearing, or deafblind. - Work for or represent Deaf organisations/service providers. - Work for or represent emergency services.	- People who do not work for or with Deaf organisations or service providers. - People who have not been involved with deaf people and emergencies. - Government officials who are not involved in emergency services.

TABLE C2: Phase 1 Recruitment Process

Country	Selection Strategy	Activity	Methods for obtaining contact	How was initial contact made?	Sample size
International	Snowball sampling: Recruited on experiences of assisting deaf people in a disaster	Interviews with Co-researchers	In person networking at WFD international conference	Co-researchers were contacted via in person, email and/or online social networking sites with a formal letter and introduction.	7-10 Co-researchers

TABLE C3: Phase 1 Co-Researchers participated

Country	Recruited	Interviewed	Interview Date	Disaster project/Experiences	Co-Researchers	Interview Method
The Philippines	1	1	27 July 2019	Disability and Disasters Project: Empowering people and building resilience to risk in Southeast Asia	I31	In person
Nepal	1	1	19 October 2019	2015 Earthquake	I4	Video call
USA	1	1	25 January 2020	Emergency Services Representative	I36	Video call

TABLE C4: Phase 2 Co-researchers' characteristics

Country	Sex	Age range	Inclusion criteria	Exclusion criteria
			Deaf, hard of hearing, or deafblind.	

International	Male, Female, or X	18+	• Work for or represent Deaf organisations/service providers.	• People who do not work for or with Deaf organisations or service providers. • People who have not been involved with Deaf communities and emergencies.

TABLE C5: Phase 2 Recruitment Process

Country	Sample Size	Selection Strategy	Activity	Methods for obtaining contact	How was initial contact made?
Australia	3-6 Co-researchers	Recruited representatives from Deaf support organisations involved in past projects for deaf people and DRR	Interviews with co-researchers who represented Deaf support organisations	Email	Co-researchers were contacted via email with a formal letter and introduction.
International	5-10 Co-researchers				

TABLE C6: Phase 2 Co-Researchers participated

Country	Projects	Interviewed	Interview Date	Co-researchers	Interview Method

Australia	Increasing the resilience of Deaf Community in NSW to natural hazards	1	16 January 2020	I18	In person
	Get Ready Deaf Community NSW	6	12 October 2019	I3 (Andrew Niklaus)	In person
			06 February 2020	I14 (Donna White)	Video call
			28 February 2020	I17 (Haley Martin)	Video call
			28 February 2020	I24 (Leonie Jackson)	In person
			29 February 2020	I26	Video call
			10 February 2020	I32 (Nadine Carey)	In person
	National Auslan Communications for Emergencies	1	02 September 2020	I10 (Brent Phillips)	Online Survey

Indonesia	ASB Indonesia on DiDRR	1	27 July 2020	I29	Online Survey
Italy	A Facebook Page used during the Amatrice Earthquake	2	07 February 2020	I25 (Luca Rotondi)	Video call
				I30 (Marta Zuddas)	
Japan	Project Nakama	1	13 September 2019	I22 (Dr Kota Takayama)	Video call
USA	Disaster Response Team (DRT)	4	20 December 2019	I5 (Amber Tansey)	Video call
				I9 (Byung Gyu Lim)	In person
				I33 (Nathan Johnston)	In person
				I43 (Ted Horton-Billard)	In person

International/Haiti	International Deaf Emergency (IDE)	1	27 February 2020	I15 (Emmanuel Jacq)	Online Survey

APPENDIX D:
Invitation Interview Letter for Phases 1 and 2



Leyla Craig
School of Geosciences

Date

Name
Role
Organisation

Dear [Name],

My name is Leyla Craig and I am a Master of Philosophy research student based at the School of Geosciences at The University of Sydney.

I am undertaking interviews as part of my research case study called: *Exploring Deaf organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards.*

The aims of this study are to:

- Better understand Deaf Organisations' suitability and capacities for supporting Deaf Communities' needs during disasters triggered by natural hazards;
- Identify what sustainability challenges are faced in providing support during disasters; and
- Explore solutions for increasing the sustainability of partnerships on Disaster Risk Reduction (DRR)-related services and engagements for Deaf Communities through Deaf organisations and emergency services.

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As a representative from a Deaf organisation, you are invited to be part of this interview because your organisation has been involved in a prior project or activity that focuses on DRR/emergency for Deaf Communities.

This interview will take about 1-2 hours and will have the option for you to participate in: (1) person via face to face meeting, (2) video call, or (3) online. It is my goal for this interview to identify what best practices are being used for Deaf Organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters and how to ensure its sustainability. Your responses to the questions will be kept confidential. Unless you wish to be identified in this research, each interview will be assigned a number code to help ensure the confidentiality of your identity during the analysis, writing and potential publication processes.

There is no compensation for participating in this study. However, your participation will make a valuable contribution to this research.

If you are willing to participate, please let me know a date and time as well as which interview format you would prefer (in person, video call, or online). I can be contacted through this email address: lcra6723@uni.sydney.edu.au. If you have any questions, please do not hesitate to ask.

Thank you very much and I look forward to your response.

Yours sincerely,

Leyla Craig
MPhil student
School of Geosciences
University of Sydney

APPENDIX E:

Participant Consent Form and Participant Information Statement for Phases 1 and 2



ABN 15 211 513 464

Dale Dominey-Howes
Professor

**Discipline of Human Geography
School of Geosciences
Faculty of Science**

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Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards

PARTICIPANT CONSENT FORM

I, ... [PRINT NAME], agree to take part in this research study.

In giving my consent I state that:

- I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.
- I have read the Participant Information Statement and have been able to discuss my involvement in the study with the researchers if I wished to do so.
- The researchers have answered any questions that I had about the study and I am happy with the answers.
- I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researchers or anyone else at the University of Sydney or any of the organisations I am affiliated with now or in the future.
- I understand that I can withdraw from the study at any time.
- *Interview participants:* I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study. I also understand that I may refuse to answer any questions I don't wish to answer.
- I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.
- I understand that the results of this study may be published, but these publications will not contain my name or any identifiable information about me unless I consent to being identified using the 'Yes' checkbox below.

☐

Yes, I am happy to be identified.

☐

No, I don't want to be identified. Please keep my identity anonymous.

I consent to:

- **Video-recording**

YES

☐

NO

☐

- **Being contacted about future studies**

YES

☐

NO

☐

I would like to receive feedback about the overall results of this study YES ☐

NO

☐

If you answered **YES**, please indicate your preferred form of feedback and address:

☐

Postal: _____

☐

Email: _____

.....
Signature

.....
PRINT name

.....
Date

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Web: <http://www.sydney.edu.au/>***Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards*****PARTICIPANT INFORMATION STATEMENT****(1) What is this study about?**

You are invited to take part in a research study about Deaf organisations' capacities and its sustainability in supporting d/Deaf people affected by natural hazards and disasters. This study aims to:

- 1) Explore Deaf Organisations' suitability and capacities in supporting Deaf Communities' needs in responding effectively to emergencies and disasters triggered by natural hazards;
- 2) Identify sustainability challenges they may face in providing enduring support during disaster events and potential solutions in overcoming these; and
- 3) Explore solutions that will increase the sustainability of DRR-related services and engagement for Deaf Communities in partnership with Deaf organisations and service providers and emergency services.

You have been invited to participate in this study because your organisation has been involved in a project that focuses on emergency/disaster risk reduction for Deaf Communities. It is hoped that this discussion will identify examples of best practices for Deaf organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters as well as areas that may require improvement or greater resources.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary. By giving your consent to take part in this study you are telling us that you:

Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards

V.1 12/06/2019

Page 1 of 6

- ✓ Understand what you have read.
- ✓ Agree to take part in the research study as outlined below.
- ✓ Agree to the use of your personal information as described.

You will be given a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the researcher:

- Leyla Craig, MPhil student at University of Sydney

STUDENT DECLARATION:

Leyla Craig is conducting this study as the basis for the degree of Master of Philosophy at The University of Sydney. This will take place under the supervision of Dr Emma Calgaro, Research Fellow and Professor Dale Dominey-Howes, Professor of Hazard and Disaster Risk Sciences.

(3) What will the study involve for me?

As a potential participant for this study, I will ask you to participate in an interview where the aims is to gather information one or more of the following:

- a) What roles have you seen Deaf and emergency service organisations, if any, that have assisted Deaf Communities in hazard situations;
- b) The types of challenges and opportunities that were faced in partnering Deaf and emergency service organisations together on providing assistance to d/Deaf people during disasters,
- c) Any new and existing solutions and practices that worked/did not work, and
- d) Future directions on sustaining engagement and practice between Deaf and emergency service organisations.

(4) How much of my time will the study take?

Interviews will take between 1-2 hours.

(5) Who can take part in the study?

Participants for this study will be selected based on relevant experiences and involvement with a prior project or activity focusing on Deaf Communities and emergencies/disasters. Specifications are shown below:

Country	Sex	Age range	Inclusion criteria	Exclusion criteria
Australia	Male, Female, or X	18+	-d/Deaf -d/Deaf-blind -Deaf organisations/service providers -Government officials in emergency services	• Those that do not work for or with Deaf organisations/service providers • Those that have not been involved in

				anything related to Deaf Communities and emergencies • Government officials that are not involved in the emergency services capacity
Philippines	Male, Female, or X	18+	-d/Deaf -d/Deaf-blind -Deaf organisations -Government officials in emergency services	• Those that do not work for or with Deaf organisations/service providers • Those that have not been involved in anything related to Deaf Communities and emergencies • Government officials that are not involved in the emergency services capacity
International	Male, Female, or X	18+	-d/Deaf -d/Deaf-blind -Deaf organisations	• Those that do not work for or with Deaf organisations/service providers • Those that have not been involved in anything related to Deaf Communities and emergencies

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney or any of the organisations involved.

If you decide to take part in the study and then change your mind later, you are free to withdraw at any time up to June 2020. You can do this by emailing me at lcra6723@uni.sydney.edu.au and there are no penalties involved for you to withdraw from the study.

For Interviews:

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study

results. You may also refuse to answer any questions that you do not wish to answer during the interview.

If you decide to take part in the interview and then change your mind later, you are free to withdraw up until June 2020 when the analysis and publication of findings take place. You can reach me at lcra6723@uni.sydney.edu.au.

(7) Are there any risks or costs associated with being in the study?

Aside from giving up your time, I do not expect that there will be any costs associated with taking part in this study. We also do not expect you to incur any costs (financial or non-financial) as a result of your participation. However, there may be some risk that discussions about previous disasters with those who have experienced them may cause some distress. If this is the case, the following steps will be taken.

Interviews:

If at any point during the interview, you feel distressed or uncomfortable, the interview will be stopped to give you an opportunity to have a break and recover before continuing. If you feel that you cannot continue due to distress, the interview will be stopped and you will be referred to local counselling or community support services for assistance. As a researcher, I will also check on you several days after the interview to ensure that you have received the support you need.

(8) Are there any benefits associated with being in the study?

We cannot guarantee that you will receive any direct benefits from being in the study.

(9) What will happen to information about me that is collected during the study?

The information collected from you for this study will be used to:

- a) Understand what existing (if any) roles Deaf and emergency service organisations had in providing assistance to d/Deaf people in hazard and disaster situations in your country;
- b) What measures are needed to ensure that the provision of Deaf-oriented DRR support services by Deaf and emergency services are being sustained;
- c) Explore and identify sustainable solutions on engagement efforts between Deaf and emergency services; and
- d) Develop guidelines of best practices for Deaf and emergency service organisations on how to work together and support d/Deaf people in the future.

To collect and document the information provided will be conducted through one on one interviews. As a Deaf researcher, participants will have the option to have the interview done through:

- Film/video recording: interviews conducted in person or Skype/FaceTime/Facebook video call will be recorded to ensure that all information from participants are captured, particularly with d/Deaf participants who use sign language or hearing participants with sign language interpreters.
- Electronically: interview questions can be conducted electronically through REDCap, a web-based secured data platform where participants can access and answer.

As this research is part of a student thesis, the information will be published in numerous formats for Deaf organisations and service providers and emergency services the evidence needed on the following:

- a) To improve on sustaining the support provided for d/Deaf Community members in DRR and disaster response; and
- b) Highlight actions to increase Deaf organisations and service providers' capacity levels where they are lacking.

These formats include:

- Organisation policies
- Vulnerability assessment reports
- Academic journal articles

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise.

Your information will be stored electronically for up to 5 years through a secured data platform at the University of Sydney before being permanently deleted. Your identity/information will only be disclosed with your permission, except as required by law. Study findings may be published, but you will not be identified in these publications unless you agree to this using the tick box on the consent form.

(10) Can I tell other people about the study?

Yes, you are welcome to tell other people about the study.

(11) What if I would like further information about the study?

When you have read this information, I, Leyla Craig, will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact me at lcra6723@uni.sydney.edu.au.

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by ticking the relevant box on the consent form. This feedback will be in the form of a short written summary. If you require feedback in another form, please discuss with me and I will do my best to accommodate your needs. You will receive this feedback after the study is finished.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [*INSERT protocol number once approval is obtained*]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical*

Conduct in Human Research (2007). This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** human.ethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

APPENDIX F:
Participant Consent Form and Participant Information
Statement in Plain English for Phases 1 and 2



ABN 15 211 513 464

Dale Dominey-Howes
Professor

**Discipline of Human Geography School
of Geosciences
Faculty of Science**

Room 448
Madsen Building (F09)
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 9351 664
Email: dale.domineyhowes@sydney.edu.au
Web: <http://www.sydney.edu.au/>

***Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during
disasters triggered by natural hazards***

Consent Form

If you are happy to be in the study, please

- **write** your **name** in the space below
- **sign** your **name** at the bottom of the next page
- put the **date** at the bottom of the next page.

You should only say 'yes' to being in the study if you know what it is about and you want to be in it. If you don't want to be in the study, don't sign the form.

I, ...[PRINT NAME], am happy to be in this research study.

In saying yes to being in the study, I am saying that:

- I know what the study is about.
- I know what I will be asked to do.
- Someone has talked to me about the study.
- My questions have been answered.
- I know that I don't have to be in the study if I don't want to.
- I know that I can pull out of the study at any time if I don't want to do it anymore.

**Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters
triggered by natural hazards**
V.1. 12/06/2019

Page 1 of 2

- I know that I don't have to answer any questions that I don't want to answer.
- I know that the researchers won't tell anyone what I say when we talk to each other, unless I talk about being hurt by someone or hurting myself or someone else.

Now we are going to ask you if you are happy to do a few other things in the study. Please tick (✓) 'Yes' or 'No' to tell us what you would like.

Do you want us to use your name in the study?	Yes ☐	No ☐
Are you happy for us to take photos of you?	Yes ☐	No ☐
Are you happy for us to make videos of you?	Yes ☐	No ☐
Are you happy for us to tape record your voice?	Yes ☐	No ☐
Do you want us to tell you what we learnt in the study?	Yes ☐	No ☐

.....
Signature

.....
Date

ABN 15 211 513 464

Dale Dominey-Howes
ProfessorRoom 448
Madsen Building (F09)
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 9351 664
Email: dale.domineyhowes@sydney.edu.au
Web: <http://www.sydney.edu.au/>**Study Information Sheet:*****Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards***

Hello. My name is

- Leyla Craig

I am doing a research study to find out more about *examples of how Deaf organisations and emergency services can work together to improve helping d/Deaf people during natural hazards and disasters.*

We are asking you to be in our study because *you have been involved in a project that focuses on emergency and DRR for Deaf Communities.*

You can decide if you want to take part in the study or not. You don't have to - it's up to you.

This sheet tells you what we will ask you to do if you decide to take part in the study. Please read it carefully so that you can make up your mind about whether you want to take part.

If you decide you want to be in the study and then you change your mind later, that's ok. All you need to do is tell us that you don't want to be in the study anymore.

If you have any questions, you can ask me. If you want to, you can email any time at: lcra6723@uni.sydney.edu.au.

What will happen if I say that I want to be in the study?

Exploring Deaf Organisations' capacities in supporting Deaf Communities during disasters triggered by natural hazards

V.1. 12/06/2019

Page 1 of 4

You will be in an interview about the project you were involved with on emergency and DRR for Deaf Communities.

- *The interview will be with me.*
- *I will ask you questions about your work on Deaf Communities and emergencies/DRR.*
- *The interview will be in person or through Skype/FaceTime/Facebook videochat.*
- *This interview will be about 1-2 hours.*

If you decide that you want to be in this study, I will ask you questions about:

- *The project that you or your organisation was involved with.*
- *Your role in the organisation or project you were involved with.*
- *Who you worked with in the project.*
- *What kind of challenges did you or your organisation face during the project.*
- *What achievements did the project make?*
- *Future plans for Deaf Communities and emergency services.*

When we ask you questions, you can choose which ones you want to answer. If you don't want to talk about something, that's ok. You can stop talking to us at any time if you don't want to talk to us anymore.

The interview will be done through video recordings to help write the responses from Deaf participants who use sign language.

If you say it's ok, we will make a video of you with a video recorder.

Will anyone else know what I say in the study?



Privacy: We won't tell anyone else what you say to us, except if you talk about someone hurting you or about you hurting yourself or someone else. Then we might need to tell someone to keep you and other people safe.

All of the information that we have about you from the

Exploring Deaf Organisations' capacities in supporting Deaf Communities during disasters triggered by natural hazards

V.1. 12/06/2019

Page 2 of 4

study will be stored in a safe place and we will look after it very carefully. We will write a report about the study and show it to other people but we won't say your name in the report and no one will know that you were in the study, unless you tell us that it's ok for us to say your name.



How long will the study take?

The interview will take 1 to 2 hours for each participant.

Are there any good things about being in the study?



You won't get anything for being in the study, but you will be helping us do our research.

Are there any bad things about being in the study?



This study will take up some of your time, but we don't think it will be bad for you or cost you anything.

Will you tell me what you learnt in the study at the end?

Yes, we will if you want us to. There is a question on the next page that asks you if you want us to tell you what we learnt in the study. If you circle Yes, when we finish the study we will tell you what we learnt.

What if I am not happy with the study or the people doing the study?



If you are not happy with how we are doing the study or how we treat you, then you or the person who looks after you can:

- **Call** the university on +61 2 8627 8176 or
- Write an **email** to human.ethics@sydney.edu.au

This sheet is for you to keep.

The pictures we used in this sheet are from Microsoft Clip Art and from the people at Inspired Services Publishing (www.inspiredservices.org.uk). They said it's ok for us to use them.

APPENDIX G:

Human Ethics approval letter for Protocol Number 2021/447



Research Integrity & Ethics Administration
HUMAN RESEARCH ETHICS COMMITTEE

Thursday, 2 September 2021

Prof Dale Dominey-Howes
Geosciences; Faculty of Science
Email: dale.dominey-howes@sydney.edu.au

Dear Dale,

The University of Sydney Human Research Ethics Committee (HREC) has considered your application.
I am pleased to inform you that after consideration of your response, your project has been approved.

Details of the approval are as follows:

Project No.: 2021/447
Project Title: A Case Study on Australian Deaf Populations and COVID-19 Pandemic
Authorised Personnel: Dominey-Howes Dale; Calgaro Emma; Craig Leyla;
Approval Period: 02/09/2021 to 02/09/2025
First Annual Report Due: 02/09/2022

Documents Approved:

Date Uploaded	Version Number	Document Name
29/08/2021	Version 3	Recruitment Flyer
24/08/2021	Version 2	Participant Information Statement in General English
24/08/2021	Version 2	Participant Information Statement in Basic English
06/07/2021	Version 1	Invitation Letter for Health Practitioners
06/07/2021	Version 1	Invitation Letter for Deaf Organisations
11/05/2021	Version 1	COVID Interview Questions for Deaf Organisations
11/05/2021	Version 1	COVID Interview Questions for Health Service Practiti
11/05/2021	Version 1	COVID Interview Questions for Auslan Interpreters
11/05/2021	Version 1	COVID Interview Questions for Deaf Community Members
10/05/2021	Version 1	COVID19 Mind Map
10/05/2021	Version 1	Participant Consent Form in General English
10/05/2021	Version 1	Participant Consent Form in Basic English

Condition/s of Approval

- Research must be conducted according to the approved proposal.
- An annual progress report must be submitted to the Ethics Office on or before the anniversary of approval and on completion of the project.
- You must report as soon as practicable anything that might warrant review of ethical approval of the project including:
 - Serious or unexpected adverse events (which should be reported within 72 hours).
 - Unforeseen events that might affect continued ethical acceptability of the project.

Research Integrity & Ethics Administration
Research Portfolio
Level 3, F23 Administration Building
The University of Sydney
NSW 2006 Australia

T +61 2 9036 9161
E human.ethics@sydney.edu.au
W sydney.edu.au/ethics

ABN 15 211 513 464
CRICOS 00026A

- Any changes to the proposal must be approved prior to their implementation (except where an amendment is undertaken to eliminate *immediate* risk to participants).
- Personnel working on this project must be sufficiently qualified by education, training and experience for their role, or adequately supervised. Changes to personnel must be reported and approved.
- Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, as relevant to this project.
- Data and primary materials must be retained and stored in accordance with the relevant legislation and University guidelines.
- Ethics approval is dependent upon ongoing compliance of the research with the *National Statement on Ethical Conduct in Human Research*, the *Australian Code for the Responsible Conduct of Research*, applicable legal requirements, and with University policies, procedures and governance requirements.
- The Ethics Office may conduct audits on approved projects.
- The Chief Investigator has ultimate responsibility for the conduct of the research and is responsible for ensuring all others involved will conduct the research in accordance with the above.

This letter constitutes ethical approval only.

Please contact the Ethics Office should you require further information or clarification.

Sincerely,



Associate Professor Mark Arnold
Chair, Human Research Ethics Committee (HREC 2)

The University of Sydney of Sydney HRECs are constituted and operate in accordance with the National Health and Medical Research Council's (NHMRC) [National Statement on Ethical Conduct in Human Research \(2018\)](#) and the NHMRC's [Australian Code for the Responsible Conduct of Research \(2018\)](#)

APPENDIX H:
Phases 3 and 4 Recruitment and Participation Processes

Table H1: Phase 3 Co-researchers' Characteristics

Country	Sex	Age range	Inclusion criteria	Exclusion criteria
International	Male, Female, or X	18+	- Deaf, hard of hearing, deafblind, or hearing. - Work for or represent Deaf organisations/service providers or individual advocates.	- People who do not work for or with Deaf organisations or service providers. - People who have not been involved with Deaf communities and emergencies.

Table H2: Phase 3 Recruitment Process

Country	Sample Size	Selection Strategy	Activity	Methods for obtaining contact	How was initial contact made?
Australia	10-12 Co-researchers	Recruited representatives from Deaf support organisations and individual advocates from areas impacted by disasters and COVID-19	Interviews with co-researchers who represented Deaf support organisations or are individual advocates	Email	Co-researchers were contacted via email with a formal letter and introduction.

Table H3: Phase 3 Co-Researchers participated

Country	Recruited	Organisation/Advocate/ Interpreters	Interviewed	Interview Date	Co-Researchers	Interview Method
Australia	17	Deaf support organisation	6	06 January 2022	I8 (Andrew Wiltshire)	Video call
				15 December 2021	I37	Video call
				04 October 2021	I38 (Sarah Dempsey)	Video call
				29 October 2021	I23 (Louise Irvine)	Video call
				29 October 2021	I19 (Jacob Clarke)	Video call
				29 January 2020	I21 (Kyle Miers)	Video call
		Community Advocate	1	04 February 2020	I40 (Shirley Liu)	In person

		Interpreter	6	15 January 2022	I1	Video call
				30 December 2021	I6 (Alana Wiekart)	Video call
				04 August 2020	I13	Video call
				06 January 2020	I27	Video call
				21 December 2021	I34	In person
				04 August 2020	I42	Video call
		Mental Health Services	2	18 October 2021	I11 (Rebecca Reedman)	Video call
				09 February 2022	I20 (Karli Dettman)	Video call
		Public Health Researcher	1	14 October 2021	I7 (Dr Annmaree Watharow)	Online Survey
Indonesia	1	Deaf support organisation	1	09 August 2020	I2	Video call

The Philippines	1	Deaf support organisation	1	16 July 2021	I12 (Carolyn Dagani)	Video call

Table H4: Phase 4 Co-researchers' Characteristics

Country	Sex	Age range	Inclusion criteria	Exclusion criteria
International	Male, Female, or X	18+	- Deaf, hard of hearing, deafblind, or hearing. - Work for or represent an emergency service organisation.	- People who do not work for or with emergency service organisations. - People who have not been involved with Deaf communities and emergencies.

Table H5: Phase 4 Recruitment Process

Country	Sample Size	Selection Strategy	Activity	Methods for obtaining contact	How was initial contact made?

International	10-12 Co-researchers	Recruited representatives from Deaf support organisations and individual advocates from government and emergency services	Interviews with co-researchers who represented government or emergency services	Email	Co-researchers were contacted via email with a formal letter and introduction.

Table H6: Phase 4 Co-Researchers participated

Country	Organisations Recruited	Projects/Policies	Interviewed	Interview Date	Co-Researchers	Interview Method
		Get Ready Deaf Community NSW	3	27 March 2020	I28 (Elizabeth (Mim) Gardiner)	Video call
				27 March 2020	I41	Video call

Australia	3			17 June 2021	I44	Video call
		Leave No One Behind Project	1	02 June 2021	I16 (Gillian Eshman)	Video call
		Disability Policies	1	10 January 2022	I39 (former Commissioner Shane Fitzsimmons)	Video call
Aotearoa New Zealand	1	Disability Expert	1	24 September 2021	I35 (Nick Linton)	Video call

APPENDIX I:
Tables on Coding Processes

TABLE I1: Preliminary set of codes of 16 themes through the deductive approach

Sixteen Themes:	
Access	Culture and practices
Accountability	Disconnects
Attitudes	Human Capital
Barriers	Mental Health
Capacity	Perceptions
Commitment	Policies
Communication	Power
Community	Representation

TABLE I2: Sub-themes within “Access” and “Community” via the deductive approach

Access	Community
Sign Language Interpreters	Engagement
Choices	Network
Community Participation	Perceptions
Emergency Information	Social Media
Human Rights	Support
Services	Trust
Social Media	Voices

TABLE I3: Searching for themes that expanded from five to seven.

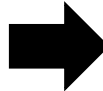
Themes:	
Access	
Accountability	
Human Capital	
Governance	
Policies	



Additional New Themes:	
Mobility	
Shared Responsibility	

TABLE I4: Reviewing themes that reduced seven to six

Themes:		
Access		
Accountability		
Human Capital		
Governance		
Policies		
Shared Responsibility		
Mobility		



Themes:	
Access	
Accountability	
Human Capital	
Governance	
Shared Responsibility	
Mobility	

TABLE I5: Three thematic dimensions

Themes:
Access
Participation
Representation

APPENDIX J:
Full List of Co-Researchers

TABLE J1: List of co-researchers

Country	Organisation Type	Project/Disaster	Number of Co-Researchers	Name/ Identification Number
Australia	Deaf Service Provider/Interpreting Services	Increasing the Resilience of Deaf Community of NSW	1	I18
		Get Ready Deaf Community NSW	6	I3 (Andrew Niklaus)
				I14 (Donna White)
				I17 (Haley Martin)
				I24 (Leonie Jackson)

				I26
				I32 (Nadine Carey)
		National Auslan Communications for Emergencies	1	I10 (Brent Phillips)
		COVID-19 and DRR	5	I8 (Andrew Wiltshire)
	I37			
	I38 (Sarah Dempsey)			
	State/Territory Deaf Organisation	COVID-19 and DRR	2	I19 (Jacob Clarke)
				I23 (Louise Irvine)

	National Peak Organisation	Policy on Auslan Interpreters in TV	1	I21 (Kyle Miers)
	Community Advocate	COVID-19	1	(I40) (Shirley Liu)
	Public Health Researcher	COVID-19	1	I7 (Dr Annmaree Watharow)
	Community Interpreters	COVID-19 and DRR	4	I1
				I6 (Alana Wickart)
				I13
				I27
				I34
				I43
				I16

	Emergency Services	DRR	5	(Gillian Eshman)
				I28 (Elizabeth (Mim) Gardiner)
				I39 (Shane Fitzsimmons)
				I41
				I44
	Mental Health Services	COVID-19	2	I11 (Rebecca Reedman)
				I20 (Karli Dettman)
Indonesia	National Peak Organisation	COVID-19 and DRR	1	I2
	DiDRR NGO	DRR	1	I29
Haiti/	NGO	DRR	1	I15

International				(Emmanuel Jacq)
Italy	NGO	DRR	2	I25 (Luca Rotondi)
				I30 (Marta Zuddas)
Japan	National Peak Organisation	DRR	1	I22 (Dr Kota Takayama)
Nepal	Community Advocate	DRR	1	I4
Aotearoa New Zealand	Emergency Services	DRR	1	I35 (Nick Linton)
The Philippines	National Peak Organisation	COVID-19 and DRR	1	I12 (Carolyn Dagani)
	NGO	DRR	1	I31
	Deaf Service Provider	DRR	4	I5 (Amber Tansey)

USA				I9 (Byung Gyu Lim)
				I33 (Nathan Johnston)
				I43 (Ted Horton-Billard)
	Emergency Services	DRR	1	I36

TABLE J2: Australian-based Deaf support organisations who contributed in this research

Organisational representative	Number participated	Deaf/hearing/deafblind	DRR/COVID-19
Deaf Service Providers	8	deaf	DRR
	4	deaf	DRR and COVID-19
	2	hearing	DRR and COVID-19
Deaf advocacy organisation	1	deaf	DRR
Community Advocates	1	deaf	COVID-19
	1	deafblind	COVID-19
Auslan interpreters	6	hearing	DRR and COVID-19
Public institutions	5	hearing	DRR
	1	hearing	COVID-19

TABLE J3: Types of Australian-based Deaf support organisations contacted with no responses

Organisation Type	Number participated	DRR/COVID-19
Deaf Service Providers	2	DRR and COVID-19
Deafblind Service Providers	1	DRR and COVID-19
Deaf First Nations Organisation	1	DRR and COVID-19
Deafblind advocacy Organisation	1	DRR and COVID-19
Deaf advocacy Organisation	1	COVID-19

	1	DRR and COVID-19
Deaf community based organisation	1	DRR and COVID-19
Faith based Deaf organisations	3	DRR and COVID-19
Auslan Interpreter Advocacy Organisation	1	DRR and COVID-19

TABLE J4: International countries that contributed to this research

Organisation type	Global North/Global South	Number participated	deaf/hearing/deafblind	DRR/COVID-19
Deaf advocacy organisation	Global South	3	deaf	DRR and COVID-19

	Global North	1	deaf	DRR
International NGO	Global South	1	deaf	DRR
		1	hearing	
Deaf volunteer organisation	Global North	2	deaf	DRR
Community advocate	Global South	1	deaf	DRR
Emergency Services	Global North	2	deaf	DRR
Deaf service provider	Global North	4	deaf	DRR

APPENDIX K: Participant Consent Form and Participant Information Statement for Phases 3 and 4



ABN 15 211 513 464

Dale Dominey-Howes
Professor

Discipline of Human Geography
School of Geosciences
Faculty of Science

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Web: www.sydney.edu.au

*Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters
triggered by natural hazards and pandemics*

PARTICIPANT CONSENT FORM

I, ... [PRINT NAME], agree to take part in this research study.

In giving my consent I state that:

- I understand the purpose of the study, what I will be asked to do, and any risks/benefits involved.
- I have read the Participant Information Statement and have been able to discuss my involvement in the study with the researchers if I wished to do so.
- The researchers have answered any questions that I had about the study and I am happy with the answers.
- I understand that being in this study is completely voluntary and I do not have to take part. My decision whether to be in the study will not affect my relationship with the researchers or anyone else at the University of Sydney or any of the organisations I am affiliated with now or in the future.
- I understand that I can withdraw from the study at any time.
- *Interview participants:* I understand that I may stop the interview at any time if I do not wish to continue, and that unless I indicate otherwise any recordings will then be erased and the information provided will not be included in the study. I also understand that I may refuse to answer any questions I don't wish to answer.
- I understand that personal information about me that is collected over the course of this project will be stored securely and will only be used for purposes that I have agreed to. I understand that information about me will only be told to others with my permission, except as required by law.
- I understand that the results of this study may be published, but these publications will not contain my name or any identifiable information about me unless I consent to being identified using the 'Yes' checkbox below.

☐ Yes, I am happy to be identified.

☐ No, I don't want to be identified. Please keep my identity anonymous.

I consent to:

- Video-recording

YES

☐

NO

☐

- Being contacted about future studies

YES

☐

NO

☐

I would like to receive feedback about the overall results of this study YES ☐ NO ☐

If you answered YES, please indicate your preferred form of feedback and address:

☐ Postal: _____

☐ Email: _____

.....
Signature

.....
PRINT name

.....
Date

ABN 15 211 513 464

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Web: www.sydney.edu.au

***Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters
triggered by natural hazards and pandemics***

PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You are invited to take part in research focussing on Deaf organisations' capacities in supporting d/Deaf people affected by natural hazards and disasters and the sustainability of this support. This study aims to:

- 1) Explore Deaf Organisations' suitability and capacities in supporting Deaf Communities' needs in responding effectively to emergencies and disasters triggered by natural hazards and pandemics;
- 2) Identify sustainability challenges they may face in providing enduring support during disaster events and potential solutions in overcoming these; and
- 3) Explore solutions that will increase the sustainability of disaster-related services and engagement for Deaf Communities in partnership with Deaf organisations and service providers, emergency service agencies, and the state Department of Health.

Previous research documenting Deaf Populations' experiences with disasters triggered by hazards, as revealed that people who are d/Deaf, hard of hearing, and d/Deaf blind face common barriers and experiences when preparing for, responding to, and recovering from disasters. However, very little to no research has been explored on Deaf Populations' experiences with pandemics. You have been invited to participate in this study because your organisation or department has been involved in providing support in response to Deaf Communities' needs during the COVID-19 pandemic. It is hoped that this discussion will identify examples of best practices for Deaf organisations and health services in responding to Deaf Communities' needs during pandemics as well as areas that may require improvement or greater resources.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the research. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about.

Participation in this research study is voluntary. By giving your consent to take part in this study you are telling us that you:

- ✓ Understand what you have read.
- ✓ Agree to take part in the research study as outlined below.
- ✓ Agree to the use of your personal information as described.

You will be given a copy of this Participant Information Statement to keep.

(2) Who is running the study?

The study is being carried out by the researcher:

- Leyla Craig, Doctor of Philosophy student at University of Sydney

STUDENT DECLARATION:

Leyla Craig is conducting this study as the basis for the degree of Doctor of Philosophy at The University of Sydney. This will take place under the supervision of Dr Emma Calgare, Research Fellow and Professor Dale Dominey-Howes, Professor of Hazard and Disaster Risk Sciences.

(3) What will the study involve for me?

As a potential participant for this study, I will ask you to participate in an interview where the aims is to gather information one or more of the following:

- a) What roles have you seen Deaf and state Departments of Health, if any, that have assisted Deaf Communities in pandemic situations;
- b) The types of challenges and opportunities that were faced in partnering Deaf organisations and Departments of Health together on providing assistance to d/Deaf people during disasters,
- c) Any new and existing solutions and practices that worked/did not work, and
- d) Future directions on sustaining engagement and practice between Deaf and Departments of Health.

(4) How much of my time will the study take?

Interviews will take between 1-2 hours.

(5) Who can take part in the study?

Participants from Deaf organisations and Departments of Health for this study will be selected based on relevant experiences and involvement in responding to Deaf Communities during the COVID-19 pandemic.

(6) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University of Sydney or any of the organisations involved.

For Interviews:

You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview. **If you decide to take part in the interview and then change your mind later, you are free to withdraw up until December 2021 when the analysis and publication of findings take place. You can reach me at <mailto:lcra6723@uni.sydney.edu.au>.**

(7) Are there any risks or costs associated with being in the study?

Aside from giving up your time, I do not expect that there will be any costs associated with taking part in this study. We also do not expect you to incur any costs (financial or non-financial) as a result of your participation. However, there may be some risk that discussions about previous disasters with those who have experienced them may cause some distress. If this is the case, the following steps will be taken.

Interviews:

If at any point during the interview, you feel distressed or uncomfortable, the interview will be stopped to give you an opportunity to have a break and recover before continuing. If you feel that you cannot continue due to distress, the interview will be stopped and you will be referred to local counselling or community support services for assistance. As a researcher, I will also check on you several days after the interview to ensure that you have received the support you need.

(8) Are there any benefits associated with being in the study?

We cannot guarantee that you will receive any direct benefits from being in the study.

(9) What will happen to information about me that is collected during the study?

Your information will help identify examples of best practices for Deaf organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters as well as areas that may require improvement or greater resources. The researcher will be providing one-on-one interviews with each participant. Each participant will be given an option to be interviewed and recorded through in person, Skype/Facetime/Facebook video calls, or electronically through REDCap, a web-based secured data platform.

As this research is part of a student thesis, the information will be published in numerous formats that will include but not limited to organisation policies, vulnerability assessment reports, and academic journal articles.

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise. Whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of the study and/or the results.

(10) Can I tell other people about the study?

Yes, you are welcome to tell other people about the study.

(11) What if I would like further information about the study?

When you have read this information, I, Leyla Craig, will be available to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact me at lcra6723@uni.sydney.edu.au.

(12) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by ticking the relevant box on the consent form. This feedback will be in the form of a short written summary. If you require feedback in another form, please discuss with me and I will do my best to accommodate your needs. You will receive this feedback after the study is finished.

(13) What if I have a complaint or any concerns about the study?

Research involving humans in Australia is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this study have been approved by the HREC of the University of Sydney [2021/447]. As part of this process, we have agreed to carry out the study according to the *National Statement on Ethical Conduct in Human Research (2007)*. This statement has been developed to protect people who agree to take part in research studies.

If you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact the university using the details outlined below. Please quote the study title and protocol number.

The Manager, Ethics Administration, University of Sydney:

- **Telephone:** +61 2 8627 8176
- **Email:** human.ethics@sydney.edu.au
- **Fax:** +61 2 8627 8177 (Facsimile)

This information sheet is for you to keep

APPENDIX L: Participant Information Statements in English and Plain English for Phases 3 and 4



ABN 15 211 513 464

Dale Dominey-Howes
Professor

Discipline of Human Geography
School of Geosciences
Faculty of Science

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*Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during
disasters triggered by natural hazards and pandemics*

Consent Form

If you are happy to be in the study, please

- write your **name** in the space below
- sign your **name** at the bottom of the next page
- put the **date** at the bottom of the next page.

You should only say 'yes' to being in the study if you know what it is about, and you want to be in it. If you don't want to be in the study, don't sign the form.

I, ...[PRINT NAME], am happy to be in this research study.

In saying yes to being in the study, I am saying that:

- I know what the study is about.
- I know what I will be asked to do.
- Someone has talked to me about the study.
- My questions have been answered.
- I know that I don't have to be in the study if I don't want to.
- I know that I can pull out of the study at any time if I don't want to do it anymore.

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- I know that I don't have to answer any questions that I don't want to answer.
- I know that the researchers won't tell anyone what I say when we talk to each other, unless I talk about being hurt by someone or hurting myself or someone else.

Now we are going to ask you if you are happy to do a few other things in the study. Please tick (✓) 'Yes' or 'No' to tell us what you would like.

Do you want us to use your name in the study?	Yes ☐	No ☐
Are you happy for us to take photos of you?	Yes ☐	No ☐
Are you happy for us to make videos of you?	Yes ☐	No ☐
Are you happy for us to tape record your voice?	Yes ☐	No ☐
Do you want us to tell you what we learnt in the study?	Yes ☐	No ☐

.....
Signature

.....
Date

ABN 15 211 513 464

Dale Dominey-Howes
ProfessorRoom 448
Madsen Building (F09)
The University of Sydney
NSW 2006 AUSTRALIA
Telephone: +61 2 9351 664
Email: dale.domineyhowes@sydney.edu.au
Web: <http://www.sydney.edu.au/>**Study Information Sheet:***Exploring Deaf Organisations' capacities in supporting Deaf Communities' needs during disasters triggered by natural hazards and pandemics*

Hello. My name is

- Leyla Craig



I am doing a research study to find out more about *examples of how Deaf organisations and emergency services can work together to improve helping d/Deaf people during natural hazards and disasters.*

I am asking you to be in my study because *you have been involved in a project that focuses on emergency and DRR for Deaf Communities.*

You can decide if you want to take part in the study or not. You don't have to - it's up to you.

This sheet tells you what I will ask you to do if you decide to take part in the study. Please read it carefully so that you can make up your mind about whether you want to take part.

If you decide you want to be in the study and then you change your mind later, that's ok. All you need to do is tell me that you don't want to be in the study anymore.

If you have any questions, you can ask me. If you want to, you can email any time at: lcra6723@uni.sydney.edu.au.

What will happen if I say that I want to be in the study?

You will be in an interview about your experiences during COVID-19 pandemic.

- *The interview will be with me.*
- *I will ask you questions about your experiences accessing to information and support during COVID-19.*
- *The interview will be in person or through Zoom/Facebook videochat.*
- *This interview will be about 1-2 hours.*

If you decide that you want to be in this study, I will ask you questions about:

- *What kind of challenges did you face during COVID-19?*
- *What support did you get during COVID-19?*
- *What barriers did you experience in getting information and support during COVID-19?*
- *Future plans for Deaf Communities and Departments of Health.*

When we ask you questions, you can choose which ones you want to answer. If you don't want to talk about something, that's ok. You can stop talking to us at any time if you don't want to talk to us anymore.

The interview will be done through video recordings to help write the responses from Deaf participants who use sign language.

If you say it's ok, we will make a video of you with a video recorder.

Will anyone else know what I say in the study?



Privacy: We won't tell anyone else what you say to us, except if you talk about someone hurting you or about you hurting yourself or someone else. Then we might need to tell someone to keep you and other people safe.

All of the information that we have about you from the study will be stored in a safe place and we will look after it very carefully. We will write a report about the study and show it to other people but we won't say your name in the report and no one will know that you were in the study, unless you tell us that it's ok for us to say your name.



How long will the study take?

The interview will take 1 to 2 hours for each participant.

Are there any good things about being in the study?



You won't get anything for being in the study, but you will be helping us do our research.

Are there any bad things about being in the study?



This study will take up some of your time, but we don't think it will be bad for you or cost you anything.

Will you tell me what you learnt in the study at the end?

Yes, we will if you want us to. There is a question on the next page that asks you if you want us to tell you what we learnt in the study. If you circle Yes, when we finish the study we will tell you what we learnt.

What if I am not happy with the study or the people doing the study?



If you are not happy with how we are doing the study or how we treat you, then you or the person who looks after you can:

- Call the university on +61 2 8627 8176 or
- Write an email to human.ethics@sydney.edu.au

This sheet is for you to keep.

The pictures we used in this sheet are from Microsoft Clip Art and from the people at Inspired Services Publishing (www.inspiredservices.org.uk). They said it's ok for us to use them.

APPENDIX M:

Interview Questions for Deaf Organisations in Phases 1 and 2

Interview Questions for Deaf Organisations

Background and overview: Research focussing on Deaf populations' experiences with hazards and disasters reveal that people who are d/Deaf, hard of hearing, and d/Deaf blind face multiple social, cultural, economic and physical barriers when preparing for, responding to, and recovering from natural hazards. However, with the exception of two studies conducted by Engelman et al (2013) and Takayama (2017), little attention has been paid to the specific role Deaf organisations can play in supporting Deaf Community members in disaster risk reduction, response and recovery and their capacity to assist.

There have been cases of successful interventions that have been culturally sensitive and designed to increase Deaf Communities' resilience to natural disasters and hazards around the world (White, 2006; Engelman et al, 2013, Calgaro and Dominey-Howes, 2013, Cripps, PhD, Cooper, PhD and Austin, PhD, MA, RN, CEN, 2016, Takayama, 2017, Calgaro et al, 2017, Roberts, 2018). However, many initiatives are difficult to sustain, which has negative consequences on DRR-related service provisions and community trust and engagement (Engelman et al., 2013; White, 2006). Whilst interventions may not be automatic or immediate, there are times when initiatives either cease or become dormant for a period of time (Hailey et al, 2005). My research will focus on why this is the case and what can be done to improve the sustainability of successful preparedness and response initiatives that support the Deaf community.

You have been selected to be part of this interview because your organisation has been involved in a project that focuses on emergency/disaster risk reduction for Deaf Communities. It is hoped that this discussion will identify examples of best practices for Deaf organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

START OF INTERVIEW

Data Information

A. GENERAL INFORMATION	
A1. Consent Form to Participate in interview signed?	1. Yes () 2. No ()
A2. Time start	
A3. Time finish	
A4. Date of interview	

1. Basic information about the participant

B. INFORMATION ABOUT THE PARTICIPANT	
B1. Name	
B2. Age	
B3. Gender	Male () Female () Other ()
B4. Name of Deaf Organisation	
B5. Role/Position in Organisation	
B6. Address location (village/town/city) Country	

2. Organisation Information

- 2.1 Reading through your organisation's mission statements and aims, can you please tell me about your organisation—how was it established and for what purposes?
- 2.2 What kind of individual and community support does your organisation provide for d/Deaf people?
- 2.3 How is your organisation funded?
- 2.4 How many d/Deaf and hearing people work or volunteer for your organisation?
- 2.5 Does your organisation prioritise the hiring of d/Deaf people to work or volunteer for the organisation? (Y/N) If so,
 - a. Is it easy to recruit d/Deaf people to **work** for the organisation? If not, why not?
 - b. Is it easy to recruit d/Deaf people to **volunteer** for the organisation? If not, why not?

- 2.6 Has the organisation been active in participating in any general local or public community events, workshops, and/or trainings (ie relevant to health, education, social welfare, sports, etc)?**
- 2.7 Does the organisation have any established partnerships with other d/Deaf, hearing, and/or government organisations and programs? (Y/N)**
- If so, please tell me which ones and the nature of these working relationships (e.g. what you each get out of it and how it helps your organisation meet its mission statement/stated obligations?).
 - If not, please explain why.
- 3. Accountability (policy-related)**
- 3.1 Does your country have disability laws?**
- If you answered yes to question 3.1, do you know if the disability laws cover emergencies for persons with disabilities?
 - If you answered yes in 3a, which ones and what do they say?
- 3.2 Do you know if your country signed or supported UNCRPD?**
- 3.3 Does your organisation know about UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies?**
- If you answered yes in Q3.3, does your organisation play any role in monitoring progress or advocating in applying Article 11?
- 3.4 Does your organisation know about Sendai Framework 2015-2030? (Y/N)**
- Does your organisation know about Sendai Framework 2015-2030 Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?
 - If so, does your organisation play any role in monitoring or advocating for Goal 7 to be applied in your country?
- 3.5 Do you and your organisation know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?**
- 4. Organisation's history with natural hazard events and disasters**
- 4.1 To your knowledge, what natural hazard and disasters have Deaf people in your country experienced in the last ten years?**

- 4.2 Have your Deaf organisation received any emergency service organisation or other government agency messages about any of the natural hazards from question 4.1 such as alerts, warnings or evacuation orders?**
- a. If yes, who was the emergency messages from?
 - b. How did your Deaf organisation receive the emergency messages?
- 4.3 Before any of those natural hazard events from Q4.1 occurred, did your organisation receive any help/advice/guidance on how to prepare or support your Deaf Community clients/stakeholders (local or state-wide)? If so:**
- a. Who from and what was the nature of that help?
 - b. Was the help useful to your clients/those you serve?
 - c. What could be done to improve the messaging (e.g. in terms of form, timing, detail etc)?
- 4.4 Did your Deaf organisation receive requests to help d/Deaf people affected from any of the natural hazards from Q4.1? If so:**
- a. Who did the requests come from (e.g. directly from d/Deaf people or their support networks, other support agencies, emergency services)?
 - b. Was your organisation able to help? Yes/No? Please explain.
 - c. Were there any barriers that hindered your organisation from providing the type of support that was asked for or that you would like to have provided?
 - d. In your opinion, are there any actions/changes in policy/additional resources that could improve the level or quality of assistance your organisation was asked to provide?
- 4.5 Has your Deaf organisation ever participated in any disaster risk reduction/disaster preparedness or response-related activities? (if 'NO', do you know why not?)**
- a. If you answered yes, please explain what disaster risk reduction/disaster preparedness activities your organisation has participated in and when they took place.
 - i. What was your organisation able to learn from this?

- ii. Was the activity (or series of activities) beneficial for the organisation? Please explain why or why not.
 - b. If not, would your organisation be interested in participating in future disaster preparedness and response activities?
- 5. More detailed questions on specific DRR projects :**
- 5.1 Can you please explain why and how this project was established?**
 - 5.2 Who were the partners involved in this project, if any?**
 - 5.3 Where did the funding for this project come from?**
 - a. What did the funding cover?
 - b. How much of the funding was used to implement the actual activities?
 - 5.4 If your organisation answered yes in Q4.5, how was this project different to the past disaster risk reduction/disaster preparedness activities?**
 - 5.5 What benefits did this project provide for both your organisation and the Deaf Community?**
 - 5.6 What kind of challenges did your organisation face during the project and how were they resolved?**
 - 5.7 What achievements have been made from this project?**
 - 5.8 Do you consider this project to have been a success in terms of what it has achieved and how it was conducted?**
 - a. If so, how was it successful and how would you measure that success (e.g. it met its aims and objectives, helped XX people in the target population, garnered wider interest from the community or emergency services, won prizes, etc)?
 - b. Would you deem this project as an example of best practice? If so, please explain?
 - c. If not, why not and what (if anything) could have been done to improve the outcomes?
 - 5.9 Was there scope or desire on your organisation's part to continue the work of this project (e.g. to upscale it, implement recommendations, build upon the work to address new or pre-existing gaps in action or scope)? If so:**

- a. What steps have been taken to continue the work?
- b. Has your organisation faced any barriers in being able to continue the work? If so, please explain.
- c. If you have faced barriers in continuing the work:
 - i. In your opinion, what impact (if any) does this inability to sustain successful and popular projects have on the Deaf community and their engagement levels in DRR?
 - ii. What solutions/resources, in your opinion, are needed to overcome these sustainability barriers and their consequences?
- d. If not, why not?

6. Future engagement in DRR

6.1 Do you feel that Deaf organisations have any role in an emergency/disaster/humanitarian situation? Please explain why or why not.

- a. What kinds of support or service would your organisation like to provide in assisting d/Deaf people prepare for and respond to natural hazards and disasters?
- b. Are there barriers to your organisation being able to provide this type of support? If so, please explain.

6.2 Have you had experiences working with emergency services prior to this project? If so:

- a. Can you explain your experiences i.e. joint projects, any other forms of collaboration?
 - i. What worked and what didn't and why?
 - ii. How could collaboration be improved to help meet the needs of d/Deaf people in a sustained way?
 - iii. What resources would be needed to support strong collaborative relationships and projects in the future?
- b. If not, please explain why.

6.2 Are there any other long-term goals that your organisation hopes to achieve with regard to DRR?

- a. If there are, what barriers or opportunities exist for you to fulfil these long-term goals?

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in natural hazard and disaster preparedness, response and recovery?

Thank you for your time. This is the end of the interview.

APPENDIX N:

RedCap Online Interview Questions for Deaf Organisations in Phases 1 and 2

Confidential

Page 1

Interview for Deaf Organisations

Please complete the survey below.

Thank you!

Background and overview

Research focussing on Deaf populations' experiences with hazards and disasters reveal that people who are d/Deaf, hard of hearing, and d/Deaf blind face multiple social, cultural, economic, and physical barriers when preparing for, responding to, and recovering from natural disasters. However, with the exception of two studies conducted by Engelman et al (2013) and Takayama (2017), little attention has been paid to the specific role Deaf organisations can play in supporting Deaf Community members in disaster risk reduction, response and recovery and their capacity to assist.

There have been cases of successful interventions that have been culturally sensitive and designed to increase Deaf Communities' resilience to natural disasters and hazards around the world (White, 2006; Engelman et al, 2013, Calgaro and Dominey-Howes, 2013, Cripps, PhD, Cooper, PhD and Austin, PhD, MA, RN, CEN, 2016, Takayama, 2017, Calgaro et al, 2017, Roberts, 2018). However, many initiatives are difficult to sustain, which has negative consequences on DRR-related service provisions and community trust and engagement (Engelman et al., 2013; White, 2006). Whilst interventions may not be automatic or immediate, there are times when initiatives either cease or become dormant for a period of time (Hailey et al, 2005). My research will focus on why this is the case and what can be done to improve the sustainability of successful preparedness and response initiatives that support the Deaf community.

You have been selected to be part of this interview because your organisation has been involved in a project that focuses on emergency/disaster risk reduction for Deaf Communities. It is hoped that this discussion will identify examples of best practices for Deaf organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

Date of Interview

1. Basic Information about you

Name

Age

Gender

- ☐ Male
☐ Female
☐ Other

Name of Deaf Organisation

Address
location (village/town/city)
Country

Role/Position in Organisation

2. Organisation Information

- 2.1 Reading through your organisation's mission statements and aims, can you please tell me about your organisation-how was it established and for what purposes?

- 2.2 What kind of individual and community support does your organisation provide for d/Deaf people?

- 2.3 How is your organisation funded?

- 2.4 How many d/Deaf and hearing people work or volunteer for your organisation?

- 2.5 Does your organisation prioritise the hiring of d/Deaf people to work or volunteer for the organisation?

- ☐ Yes
☐ No
☐ Don't know

- a. Is it easy to recruit d/Deaf people to work for the organisation? If not, why not?

- b. Is it easy to recruit d/Deaf people to volunteer for the organisation? If not, why not?

- 2.6 Has the organisation been active in participating in any general local or public community events, workshops, and/or trainings (ie relevant to health, education, social welfare, sports, etc)?

- 2.7 Does the organisation have any established partnerships with other d/Deaf, hearing, and/or government organisations and programs?

- ☐ Yes
☐ No
☐ Don't know

-
- a. If so, please tell me which ones and the nature of these working relationships (e.g. what you each get out of it and how it helps your organisation meet its mission statement/stated obligations?).

-
- a. If not, please explain why.

3. Accountability (policy-related)

3.1 Does your country have disability laws?

- ☐ Yes
☐ No
☐ Don't know

a. If you answered yes, do you know if the disability laws cover emergencies for people with disabilities?

- ☐ Yes
☐ No
☐ Don't know

b. If so, which ones and what do they say?

3.2 Do you know if your country signed or supported UNCRPD?

- ☐ Yes
☐ No
☐ Don't know

3.3 Does your organisation know about UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies?

- ☐ Yes
☐ No
☐ Don't know

a. Does your organisation play any role in monitoring progress or advocating in applying Article 11?

3.4 Does your organisation know about Sendai Framework 2015-2030?

- ☐ Yes
☐ No
☐ Don't know

a. Does your organisation know about Sendai Framework 2015-2030 Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?

- ☐ Yes
☐ No
☐ Don't know

b. If so, does your organisation play any role in monitoring or advocating for Goal 7 to be applied in your country?

3.5 Do you and your organisation know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?

- ☐ Yes
- ☐ No
- ☐ Don't know

4. Organisation's history with natural hazard events and disasters

- 4.1 To your knowledge, what natural hazard and disasters have d/Deaf people in your country experienced in the last ten years?

- 4.2 Have your Deaf organisation received any emergency service organisation or other government agency messages about any of the natural hazards from what your country have experienced in the past ten years such as alerts, warnings or evacuation orders?

☐ Yes
☐ No
☐ Don't know

- a. If yes, who was the emergency messages from?

- b. How did your Deaf organisation receive the emergency messages?

- 4.3 Before any of those natural hazard events you mentioned occurred in the last ten years, did your organisation receive any help/advice/guidance on how to prepare or support your Deaf Community clients/stakeholders (local or state-wide)?

☐ Yes
☐ No
☐ Don't know

- a. If so, from who and what was the nature of that help?

- b. Was the help useful to your clients/those you serve?

- c. What could be done to improve the messaging (e.g. in terms of form, timing, detail, etc)?

4.4 Did your Deaf organisation receive requests to help d/Deaf people affected from any of the natural hazards experienced in the last ten years?

- ☐ Yes
☐ No
☐ Don't know

a. If so, who did the requests come from (e.g. directly from d/Deaf people or their support networks, other support agencies, emergency services)?

b. Was your organisation able to help? Please explain.

c. Were there any barriers that hindered your organisation from providing the type of support that was asked for or that you would like to have provided?

d. In your opinion, are there any actions/changes in policy/additional resources that could improve the level or quality of assistance your organisation was asked to provide?

4.5 Has your Deaf organisation ever participated in any disaster risk reduction/disaster preparedness or response-related activities?

- ☐ Yes
☐ No

a. If you answered yes, please explain what disaster risk reduction/disaster preparedness activities your organisation has participated in and when they took place.

b. What was your organisation able to learn from this?

c. Was the activity (or series of activities) beneficial for the organisation? Please explain why or why not.

-
- a. If not, please explain why not and if your organisation would be interested in participating in future disaster preparedness and response activities.

5. More detailed questions on specific DRR projects:

5.1 Can you please explain why and how this project was established?

5.2 Who were the partners involved in this project, if any?

5.3 Where did the funding for this project come from?

a. What did the funding cover?

b. How much of the funding was used to implement the actual activities?

5.4 If your organisation have participated in previous activities related to disaster risk reduction/disaster preparedness, how was this project different to the ones in the past?

5.5 What benefits did this project provide for both your organisation and the Deaf Community?

5.6 What kind of challenges did your organisation face during the project and how were they resolved?

5.7 What achievements have been made from this project?

5.8 Do you consider this project to have been a success in terms of what it has achieved and how it was conducted?

- ☐ Yes
☐ No
☐ Don't know

a. If so, how was it successful and how would you measure that success (e.g. it met its aims and objectives, helped XX people in the target population, garnered wider interest from the community or emergency services, won prizes, etc.)?

b. Would you deem this project as an example of best practice? If so, please explain.

a. If not, why not and what (if anything) could have been done to improve the outcomes?

5.9 Was there scope or desire on your organisation's part to continue the work of this project (e.g. to upscale it, implement recommendations, build upon the work to address new or pre-existing gaps in action or scope)?

- ☐ Yes
☐ No
☐ Don't know

a. If so, what steps have been taken to continue the work?

b. Has your organisation faced any barriers in being able to continue the work?

- ☐ Yes
☐ No
☐ Don't know

c. If you have faced the barriers in continuing the work, please explain.

d. In your opinion, what impact (if any) does this inability to sustain successful and popular projects have on the Deaf Community and their engagement levels in DRR?

e. What solutions/resources, in your opinion, are needed to overcome these sustainability barriers and their consequences?

-
- a. If not, why not?

6. Future engagement in DRR

6.1 Do you feel that Deaf organisations have any role in an emergency/disaster/humanitarian situation?

- ☐ Yes
☐ No
☐ Don't know

a. If yes, please explain.

b. What kind of support or service would your organisation like to provide in assisting d/Deaf people prepare for and respond to natural hazards and disasters?

c. Are there barriers to your organisation being able to provide this type of support? If so, please explain.

a. If not, please explain.

6.2 Have you had experiences working with emergency services prior to this project?

- ☐ Yes
☐ No

a. If so, can you explain your experiences, i.e. joint projects, any other forms of collaboration?

b. What worked and what didn't and why?

c. How could collaboration be improved to help meet the needs of d/Deaf people in a sustained way?

d. What resources would be needed to support strong collaborative relationships and projects in the future?

a. If not, please explain why.

6.2 Are there any long-term goals that your organisation hopes to achieve with regard to DRR?

- ☐ Yes
☐ No
☐ Don't know

a. If there are, what barriers or opportunities exist for you to fulfil these long-term goals?

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in natural hazard and disaster preparedness, response and recovery?

Thank you for your time. This is the end of the interview.

Consent Form

Please select an answer below before moving on to the survey.

Thank you!

General Information

81) Consent Form to Participate in interview signed?

- ☐ Yes
- ☐ No

APPENDIX O:
RedCap Online Interview Questions for Emergency Services in Phases 1 and 2

Confidential

Page 1

Interview for Emergency Services

Background and overview

Research focusing on Deaf populations' experiences with natural hazards and disasters reveals that people who are d/Deaf, hard of hearing, and d/Deaf blind face multiple social, cultural, economic, and physical barriers when preparing for, responding to, and recovering from natural disasters. However, little attention has been paid to the specific role played by Deaf organisations and emergency service organisations on supporting Deaf Community members in disaster risk reduction, response and recovery and their capacity to assist.

There have been cases of successful interventions that have been culturally sensitive and designed to increase Deaf Communities' resilience to natural disasters and hazards around the world (White, 2006; Engelman et al, 2013, Calgaro and Dominey-Howes, 2013, Cripps, PhD, Cooper, PhD and Austin, PhD, MA, RN, CEN, 2016, Takayama, 2017, Calgaro et al, 2017, Roberts, 2018). However, many initiatives are difficult to sustain, which has negative consequences on DRR-related service provisions and community trust and engagement. Whilst interventions may not be automatic or immediate, there are times when initiatives either cease or become dormant for a period of time (Hailey et al, 2005). My research will focus on why this is the case and what can be done to improve the sustainability of successful preparedness and response initiatives that support the Deaf community.

You have been selected to be part of this interview because your emergency service agency/organisation has been involved in a project that focuses on emergency/disaster risk reduction for Deaf Communities. It is hoped that this discussion will identify examples of best practices for Deaf organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

Date of Interview

1. Basic Information about you

Name

Age

Gender

- ☐ Male
☐ Female
☐ Other

Name of Emergency Service Organisation

Role/Position in Organisation

Address

Location (village/town/city)

Country

2. Emergency Service Organisation Information

2.1 Can you please tell me about the organisation-what services/support do you provide and where?

2.2 How is the organisation funded?

2.3 Are there any existing policies within your organisation that commits to the inclusion of and supporting people with disabilities?

2.4 Has your organisation worked with or assisted d/Deaf people before? If so, please explain.

2.5 Has your organisation provided any local or public community events, workshops, and/or trainings on emergency preparedness targeted for people with disabilities? If so, can you provide me a list or details of these (eg., where, when, which activities did they involved, etc.)?

2.6 Has your organisation established partnerships with disability organisations and programs on emergency preparedness and/or DRR? If so, with who and what is the nature of these partnerships?

3. Knowledge on local and international laws/policies on Persons with Disabilities and emergencies

3.1 Does your country have disability laws?

- ☐ Yes
☐ No
☐ Don't know

a. Do you know if the disability laws cover emergencies for people with disabilities?

- ☐ Yes
☐ No
☐ Don't know

b. If yes, which ones and what do they say?

3.2 Do you know if your country signed or supported UNCPRD?

- ☐ Yes
☐ No
☐ Don't know

3.3 Is the organisation familiar with UNCPRD Article 11: Situations of Risk and Humanitarian Emergencies?

- ☐ Yes
☐ No
☐ Don't know

a. Does your organisation play any role in monitoring progress or advocating in applying Article 11?

3.4 Is the organisation familiar with Sendai Framework 2015-2030?

- ☐ Yes
☐ No
☐ Don't know

a. If so, are they familiar with Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?

- ☐ Yes
☐ No
☐ Don't know

b. Does your organisation play any role in monitoring or advocating for Goal 7 to be applied in your country?

3.5 Do you and your organisation know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?

- ☐ Yes
- ☐ No
- ☐ Don't know

4. Emergency Service Organisations' history on assisting d/Deaf people

4.1 Has the organisation provided workshops or trainings specifically for d/Deaf people?

- ☐ Yes
☐ No
☐ Don't know

a. If so, please explain when and what kind of training or activities were provided.

b. To your knowledge, were the activities beneficial for the d/Deaf participants?

- ☐ Yes
☐ No
☐ Don't know

c. If so, what were the benefits?

d. How do you or your organisation gauge or measure these benefits (eg. against the aims and objectives of the activities, how many people participated, follow-up exercises, survey of participants, etc)?

a. If you do not think it was beneficial, why do you think this was the case?

4.2 In your opinion, is there anything that could be done to improve the outcomes for d/Deaf people (e.g. complete change in activities, more or different resources, more engagement with Deaf organisations/Deaf people in the planning and execution phases, etc)?

4.3 Has the organisation ever received or participated in any Disability Awareness training?

- ☐ Yes
☐ No
☐ Don't know

a. If so, please explain when they took place and the nature of the Disability Awareness Training activities (e.g. who ran them and what the purpose was, etc).

b. What was your organisation able to learn from this?

c. Was the training beneficial for the organisation? Please explain why or why not.

d. Do you have any recommendations or suggestions on how this type of training could be improved to meet your needs? If so, please elaborate.

4.4 Has the organisation received or participated in any training on how to work with and assist d/Deaf people in emergencies and/or disaster actions?

- ☐ Yes
☐ No
☐ Don't know
-

a. If so, please explain when and what kind of training activities your organisation has participated in.

b. What was your organisation able to learn from this?

c. Was this training beneficial for the organisation? Please explain why or why not.

d. Do you have any recommendations or suggestions on how this type of training could be improved to meet your needs? If so, please elaborate.

4.5 Has the organisation developed an emergency preparedness and response plan for people with disabilities during disasters?

- ☐ Yes
☐ No
☐ Don't know
-

a. If so, what formats have these taken?

b. How were they distributed/communicated to the target populations?

4.6 Prior to and during an emergency or disaster event, has the organisation delivered emergency messages on natural hazard related emergencies such as alerts, warnings or evacuation orders?

- ☐ Yes
☐ No
☐ Don't know
-

a. What formats have these taken?

b. How were they distributed/communicated to the target populations?

4.7 In evacuation centres, were there efforts to ensure that access was being provided for all persons with disabilities, including d/Deaf people?

- ☐ Yes
☐ No
☐ Don't know
-

a. If so, please explain.

b. Were there any issues or challenges in meeting the needs of persons with different disabilities?

4.8 During and post disasters, has your organisation received requests to help d/Deaf people affected from natural hazard events?

- ☐ Yes
☐ No
☐ Don't know
-

a. If so, how did they contact you?

b. What type of help was requested and how did you meet these needs?

c. Were there any challenges for you in meeting these requests? Please explain.

4.9 In your view, have these preparedness and emergency response strategies targeting people with disabilities (and particularly those focussing on d/Deaf people) been successful in reaching their target populations?

- ☐ Yes
☐ No
☐ Don't know

a. If so, how do you or your organisation gauge or measure these successes?

a. If you do not think they were successful, why do you think this is the case?

5. Involvement on specific DRR projects targeting Deaf Community

5.1 Can you please explain why and how this project was established?

5.2 Who were the partners involved in this project, if any?

5.3 Where did the funding for this project come from?

a. What did the funding cover?

b. How much of the funding was used to implement the actual activities?

5.4 If you answered yes in Q4.3, how was this project different to the past disaster risk reduction/disaster preparedness activities?

5.5 What benefits did this project provide for both your organisation and the Deaf Community?

5.6 What kind of challenges did your organisation face during the project and how were they resolved?

5.7 What achievements have been made from this project?

5.8 Do you consider this project to have been a success in terms of what it has achieved and how it was conducted?

- ☐ Yes
☐ No
☐ Don't know

a. If so, how was it successful and how would you measure that success (e.g., it met its aims and objectives, helped "x" number of people in the target population, garnered wider interest from the community or emergency services, won prizes, etc)?

b. Would you deem this project as an example of best practice? If so, please explain.

a. If not, why not and what (if anything) could have been done to improve the outcomes?

5.9 Was there scope or desire on your organisation's part to continue the work of this project (e.g. to upscale it, implement recommendations, build upon the work to address new or pre-existing gaps in action or scope)?

- ☐ Yes
☐ No
☐ Don't know

a. If so, what steps have been taken to continue the work?

b. Has your organisation faced any barriers in being able to continue the work? If so, please explain.

- ☐ Yes
☐ No
☐ Don't know

i. In your opinion, what impact (if any) does this inability to sustain successful and popular projects have on the Deaf Community and their engagement levels in DRR?

ii. What solutions/resources, in your opinion, are needed to overcome these sustainability barriers and their consequences?

-
- a. If there were no scope or desire on your organisation's part to continue the work of this project, please explain why not.

5.10 Has the experiences of this project changed the way your organisation support and work with d/Deaf people compared to before? Please explain why or why not.

6. Challenges and opportunities for improvement of services, sustainability and collaboration

- 6.1 What kind of support or service do you think your organisation is best positioned to provide in working with and assisting Deaf organisations and d/Deaf people prepare for and respond to hazards and disasters?
-
- 6.2 More generally, are there challenges that hinder or lessen your success in delivering sustained and targeted support to people with different disabilities and other sub-groups with special needs?
- ☐ Yes
☐ No
☐ Don't know
-
- a. If so, are these challenges the same for different special needs groups or are they different? Please explain.
-
- b. Are these challenges the same for each phase of the disaster cycle (ie in preparedness phase vs. response phase vs. recovery phase)?
-
- 6.3 How would your organisation like to improve or strengthen its capacity in working with and responding to d/Deaf people and their needs during disasters?
-
- 6.4 In your opinion, is there anything that could be done to improve the support d/Deaf people receive from your organisation (e.g. complete change in activities, more or different resources, more engagement with Deaf organisations/Deaf people in the planning and execution phases etc)?
- ☐ Yes
☐ No
☐ Don't know
-
- a. If yes, please explain.
-
- a. If not, please explain.
-
- 6.5 What kind of opportunities exist for increasing support or improving the services your organisation currently provides?

6.6 Are there any specific actions/resources that are needed to improve the sustainability of your support in the future?

6.7 Do you feel that Deaf organisations can have an important role in an emergency or humanitarian situation?

- ☐ Yes
☐ No

a. If so, what type of role would be most useful?

b. How would this relationship between your organisation and Deaf organisation(s) ideally look like (eg how would it ideally function, be funded, etc)?

c. What resources would be needed to support strong collaborative relationships and projects in the future?

a. If you answered no, please explain why.

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in hazard and disaster preparedness, response and recovery?

Thank you for your time. This is the end of the interview.

Consent Form

General Information

Consent Form to Participate in interview signed?

- ☐ Yes
☐ No

APPENDIX P: RedCap Online Interview Questions for Key Informants in Phases 1 and 2

Confidential

Page 1

Interview for Key Informants

Please complete the interview below.

Thank you!

Background and overview:

Research focussing on Deaf populations' experiences with natural hazards and disasters reveal that people who are d/Deaf, hard of hearing, and d/Deaf blind face multiple social, cultural, economic, and physical barriers when preparing for, responding to, and recovering from natural disasters. However, with the exception of two researches conducted by Engelman et al (2013) and Takayama (2017), little attention has been paid to the specific role Deaf organisations and emergency service organisations can play in supporting Deaf Community members in disaster risk reduction, response and recovery and their capacity to assist.

There have been cases of successful interventions that have been culturally sensitive and designed to increase Deaf Communities' resilience to natural disasters and hazards around the world (White, 2006; Engelman et al, 2013, Calgaro and Dominey-Howes, 2013, Cripps, PhD, Cooper, PhD and Austin, PhD, MA, RN, CEN, 2016, Takayama, 2017, Calgaro et al, 2017, Roberts, 2018). However, many initiatives are difficult to sustain, which has negative consequences on DRR-related service provisions and community trust and engagement (Engelman et al., 2013; White, 2006). Whilst interventions may not be automatic or immediate, there are times when initiatives either cease or become dormant for a period of time (Hailey et al, 2005). My research will focus on why this is the case and what can be done to improve the sustainability of successful preparedness and response initiatives that support the Deaf community.

You have been selected to be part of this interview because you have been involved in a project that focuses on emergency/disaster risk reduction for Deaf Communities. It is hoped that this discussion will identify examples of best practices for Deaf organisations and emergency services in responding to Deaf Communities' needs during natural hazards and disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

Date of Interview

1. Basic Information about you

Name

Age

Gender

- ☐ Male
☐ Female
☐ Other

Name of the Project Involved:

Role/Position in the Project:

Address

Location (village/town/city)

Country

2. Project Information

2.1 Can you please tell me about the project you were involved with (how was it established and for what purpose)?

2.2 How many people were involved in this project?

a. How many were d/Deaf and how many were hearing?

2.3 Who took the lead of this project?

2.4 Were there other partners involved in the project too?

- ☐ Yes
☐ No
☐ Don't know

a. Can you please name the partners involved?

b. What were their roles in this project?

c. Were any of these partners d/Deaf?

2.5 How was this project funded?

3. Your History with Emergency Services Prior to This Project

3.1 Have you experienced any natural hazards and disasters in the past?

- ☐ Yes
☐ No

a. What were they and when?

b. Was there any access to emergency information available at the time of the natural hazard or disaster(s)?

c. Was there any support available at the time for d/Deaf people affected by natural disasters?

- ☐ Yes
☐ No
☐ Don't know

i. If so, from who and what as the nature of that support?

ii. Was the support helpful for you and/or other d/Deaf people affected?

3.2 Have you been involved with working or volunteering with emergency services or any other organisation involved in emergencies (e.g. a church organisation, the Red Cross, etc.) before?

- ☐ Yes
☐ No

a. If so, what role(s) did you have and where?

b. When did you work or volunteer with emergency services or other emergency related organisation(s)?

3.3 Have you attended or participated in any emergency training or workshops provided by emergency services in the past? If so, can you provide me a list or details of these?

-
- 3.4 Have you attended or participated in any emergency training or workshops by Deaf organisations and/or service providers ? If so, can you provide me a list or details of these?

4. Knowledge on Local and International Laws/Policies on Persons with Disabilities and Emergencies

4.1 Does your country have disability laws?

- ☐ Yes
☐ No
☐ Don't know

a. Do you know if the disability laws cover emergencies for persons with disabilities?

b. If so, which ones and what do they say?

4.2 Do you know if your country signed or supported UNCRPD?

- ☐ Yes
☐ No
☐ Don't know

4.3 Are you and/or your organisation you are part of familiar with UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies?

- ☐ Yes
☐ No
☐ Don't know

a. Does your organisation play any role in monitoring progress or advocating in applying Article 11?

4.4 Is the organisation familiar with Sendai Framework 2015-2030?

- ☐ Yes
☐ No
☐ Don't know

a. If so, are they familiar with Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?

- ☐ Yes
☐ No
☐ Don't know

b. Does your organisation play any role in monitoring or advocating for Goal 7 to be applied in your country?

4.5 Do you and your organisation know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?

- ☐ Yes
- ☐ No
- ☐ Don't know

5. Your Role and Perspectives

5.1 What was your role in this project?

5.2 What made you decide to apply for this role?

5.3 Was the role you applied for what you expected? Please explain.

5.4 Through this project, have you received any requests to help d/Deaf people affected from natural hazards or disasters?

- ☐ Yes
☐ No

a. If so, whom did the requests come from (e.g. directly from d/Deaf people or their support networks, other support agencies, emergency services)?

b. With your role, were you able to help? Please explain why or why not.

5.5 If you answered yes in Q3.2-3.4, how was this project different to the ones in the past?

5.6 What did you learn the most through your role in this project?

5.7 Were there any challenges you faced during the project and how were they resolved?

5.8 What achievements do you feel has been made from this project?

5.9 Do you consider this project successful? Please explain why or why not.

5.10 Do you feel this project provides an example of best practices? Please explain why or why not.

6. Future engagements in DRR

- 6.1 From your experience with this project, do you feel that Deaf organisations could have an important role in an emergency/disaster/humanitarian situation?

☐ Yes
☐ No
☐ Don't know

- a. If not, please explain why not.

- a. If yes, please explain.

- b. What kind of support or service do you think could help assist d/Deaf people prepare for and respond to natural hazards and disasters?

- c. What kind of barriers do you think exists to provide this type of support? Please explain.

- d. In your opinion, what do you feel is needed to improve the level of assistance that Deaf organisations can provide in regards to disaster preparedness and response?

- 6.2 Would you be keen to continue your involvement with Deaf Community and emergency services? Please explain why or why not.

- 6.3 Are there any future goals that you would like to see achieved after the project you were involved with?

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for d/Deaf people like yourself to provide support to d/Deaf people/communities in hazard and disaster preparedness, response, and recovery?

Thank you for your time. This is the end of the interview.

Consent Form

General Information

Consent Form to Participate in interview signed?

- ☐ Yes
☐ No

APPENDIX Q:

Interview Questions for Auslan Interpreters in Phases 3 and 4

Interview Questions for Auslan Interpreters

Background and overview: Increasingly frequent and compounding disasters associated with a variety of natural hazards challenge communities and organisations around the world in relation to their ability to respond and recover from these events. The original scope of my PhD research focused on Australian Deaf Communities and organisations and what capacities they have and are needed to support the Australian Deaf Population (d/Deaf, hard of hearing, and d/Deaf-Blind people) to prepare for, respond to, and recover from disasters triggered by natural hazards. The occurrence of the COVID-19 global pandemic provides a unique and timely opportunity to extend my case study research beyond traditional natural hazards and disasters to a global pandemic and to explore the specific roles that Deaf people, Deaf support organisations, emergency and health services and disaster risk reduction (DRR) processes can play in providing the support needed to maintain social function amid multiple waves of infection as the pandemic continues to evolve.

This is critical given preliminary research of mine already undertaken that demonstrates existing disconnects between these stakeholders, and the high level of misunderstanding that exists on all sides. Recent international disasters have highlighted the need for further research, and the identification of solutions and best practices needed to support Deaf Communities prepare for and respond to disasters. Whilst there are limitations and barriers that many Deaf organisations and service providers face in terms of working in the disaster space, there has been some positive developments in relation to increasing access to emergency public information in Australia and overseas since the beginning of the COVID-19 pandemic. Given that pandemics are classified as 'disasters', the current pandemic provides a timely and useful opportunity to expand the scope of my research in order to test the hypothesis that similar and different barriers and challenges exist in relation to Deaf Community and Deaf organisation capacity to prepare and respond to pandemics as exists in relation to other natural hazard disaster types.

You have been selected to be part of this interview because your organisation has been involved in providing access to COVID-19 information for Deaf Communities in Queensland, New South Wales, and/or Victoria. It is hoped that this discussion will identify examples of best practices for Deaf organisations, health services and emergency service agencies in responding to Deaf Communities' needs during hazard and pandemic disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

START INTERVIEW

Data Information

A. GENERAL INFORMATION	
A1. Consent Form to Participate in interview signed?	1. Yes () 2. No ()
A2. Time start	
A3. Time finish	
A4. Date of interview	

1. Basic information about the participant

B. INFORMATION ON THE PARTICIPANT	
B1. Name	
B2. Age	
B3. Gender	Male () Female () Other ()
B4. Name of Organisation	
B5. Role/Position in the Organisation	
B6. Address location (town/city)	

2. Australian Sign Language (Auslan) Interpreter's (YOUR) History with Emergency and Health Services Prior to the COVID-19 Pandemic

- 2.1 Have you experienced any natural hazards, pandemics, or disasters in the past? If so, please explain.**
- 2.2 Have you been involved with working or volunteering with emergency/health services or any other organisation involved in emergencies (e.g. a church organisation, the Red Cross etc etc) before?**
- a. If so, what role(s) did you have and where?
- b. When did you work or volunteer with emergency/health services or the other emergency related organisation?
- 2.3 Have you attended or participated in any emergency training or workshops provided by emergency services or Department of Health in the past? If so, can you tell me more about these or provide a list?**

2.4 Have you attended or participated in any emergency training or workshops by Deaf organisations and/or service providers? If so, can you provide me a list or details of these?

3. Knowledge on local and international laws/policies on Persons with Disabilities and emergencies

3.1 Are you familiar with Australian's Disability Laws? If so:

- a. If yes, do you know if the disability laws cover emergencies for persons with disabilities?
- b. If yes, which ones and what do they say?

3.2 Do you know anything about the state legislation on emergencies? If so, please explain.

3.3 Do you know if Australia signed or supported UNCRPD?

3.4 Are you familiar with UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies?

- a. If you answered yes in Q3.4, do you know of organisations or government agencies that play any role in monitoring progress or advocating in applying Article 11?

3.5 Are you also familiar with Sendai Framework 2015-2030?

- a. If so, are you familiar with Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?
- b. If so, do you know of any organisation or government agency that play any role in monitoring or advocating for Goal 7 to be applied in Australia?

3.6 Do you know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?

4. Auslan Interpreter's perspectives

4.1 Can you explain your experiences of interpreting during the pandemic--both on TV and/or interpreting remotely?

- 4.2 What kind of challenges and impacts did you face as an Auslan interpreter during the pandemic?
- 4.3 Was there any training provided for interpreting on TV and/or remotely? Please explain.
- 4.4 If you have interpreted on TV, were any of the training and/or mentoring received (if any) beneficial for you?
- 4.5 Through the COVID-19 pandemic, have you received any requests to help d/Deaf people affected by COVID-19 and/or the lockdowns?
 - a. If so, from whom did the requests come from (e.g. directly from d/Deaf people or their support networks, other support agencies, emergency services)?
 - b. With your role as an Auslan interpreter, were you able to help? Please explain why or why not.
- 4.6 Is there a space that allows Auslan interpreters to provide and receive feedback on their interpreting services?
- 4.7 Based on the services and support provided for Deaf Community members, do you feel that this is in line with your knowledge of the Disability Discrimination Act (DDA)?
- 4.8 What did you learn from your experiences as an Auslan interpreter working through this pandemic (and what was the most important lesson if there are multiple)?
 - a. What positives and/or negatives came out for you as an Auslan interpreter from this pandemic?
- 4.9 What best practices do you feel would work best for interpreters in future pandemics?

5 Future engagements in DRR

- 5.1 From your experience with COVID-19, do you feel that Deaf organisations could have an important role in an emergency/disaster/humanitarian situation? Please explain why or why not.
 - a. What kind of support or service do you think could help assist d/Deaf people prepare for and respond to natural hazards and disasters?
 - b. What kind of barriers do you think exists to provide this type of

support? Please explain.

- c. In your opinion, what do you feel is needed to improve the level of assistance that Deaf organisations can provide in regards to disaster preparedness and response?

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for d/Deaf people like yourself to provide support to d/Deaf people/communities in hazard, health emergencies, and disaster preparedness, response, and recovery?

Thank you for your time. This is the end of the interview.

APPENDIX R:

Interview Questions for Deaf Community Members in Phases 3 and 4

Interview Questions for Deaf Community members

Background and overview: Increasingly frequent and compounding disasters associated with a variety of natural hazards challenge communities and organisations around the world in relation to their ability to respond and recover from these events. The original scope of my PhD research focused on Australian Deaf Communities and organisations and what capacities they have and are needed to support the Australian Deaf Population (d/Deaf, hard of hearing, and d/Deaf-Blind people) to prepare for, respond to, and recover from disasters triggered by natural hazards. The occurrence of the COVID-19 global pandemic provides a unique and timely opportunity to extend my case study research beyond traditional natural hazards and disasters to a global pandemic and to explore the specific roles that Deaf people, Deaf support organisations, emergency and health services and disaster risk reduction (DRR) processes can play in providing the support needed to maintain social function amid multiple waves of infection as the pandemic continues to evolve.

This is critical given preliminary research of mine already undertaken that demonstrates existing disconnects between these stakeholders, and the high level of misunderstanding that exists on all sides. Recent international disasters have highlighted the need for further research, and the identification of solutions and best practices needed to support Deaf Communities prepare for and respond to disasters. Whilst there are limitations and barriers that many Deaf organisations and service providers face in terms of working in the disaster space, there has been some positive developments in relation to increasing access to emergency public information in Australia and overseas since the beginning of the COVID-19 pandemic. Given that pandemics are classified as ‘disasters’, the current pandemic provides a timely and useful opportunity to expand the scope of my research in order to test the hypothesis that similar and different barriers and challenges exist in relation to Deaf Community and Deaf organisation capacity to prepare and respond to pandemics as exists in relation to other natural hazard disaster types.

You have been selected to be part of this interview because you have experienced the level of access to COVID-19 information for Deaf Communities in Queensland, New South Wales, and/or Victoria. It is hoped that this discussion will identify examples of best practices for Deaf organisations, health services and emergency service agencies in responding to Deaf Communities’ needs during hazard and pandemic disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

START INTERVIEW

Data Information

A. GENERAL INFORMATION	
A1. Consent Form to Participate in interview signed?	1. Yes () 2. No ()
A2. Time start	
A3. Time finish	
A4. Date of interview	

1. Basic information about the participant

B. INFORMATION ON THE PARTICIPANT	
B1. Name	
B2. Age	
B3. Gender	Male () Female () Other ()
B6. Address location (town/city)	

2. Deaf Community Member's (YOUR) History with Emergency and Health Services Prior to the COVID-19 Pandemic

2.1 Have you experienced any natural hazards, pandemics, or disasters in the past? If so,

- a. What were they and when?
- b. Was there any access to emergency information available at the time of the natural hazard, pandemic, or disaster(s)?
- c. Was there any support available at the time for d/Deaf people affected by the disasters you experienced?
 - i. If so, from who and what was the nature of that support?
 - ii. Was the support helpful for you and/or other d/Deaf people affected?

2.2 Have you been involved with working or volunteering with emergency/health services or any other organisation involved in emergencies (e.g. a church organisation, the Red Cross etc etc) before?

- a. If so, what role(s) did you have and where?
- b. When did you work or volunteer with emergency/health services or the other emergency related organisation?

- 2.3 Have you attended or participated in any emergency training or workshops provided by emergency services or NSW Health in the past? If so, can you provide me a list or details of these?
- 2.4 Have you attended or participated in any emergency training or workshops by Deaf organisations and/or service providers? If so, can you provide me a list or details of these?
3. **Knowledge on local and international laws/policies on Persons with Disabilities and emergencies**
- 3.1 **Are you aware of Australia's disability laws? If so:**
- a. Which ones are you aware of and what do they say?
 - b. Do you know if the disability laws cover emergencies for persons with disabilities?
- 3.2 **Do you know anything about the state legislation on emergencies?**
- a. If so, please explain.
 - b. If not, would you like to know this and from whom?
- 3.3 **Do you know if Australia signed or supported UNCRPD?**
- 3.4 **Are you familiar with UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies?**
- a. If you answered yes in Q3.4, do you know of organisations or government agencies that play any role in monitoring progress or advocating in applying Article 11?
- 3.5 **Are you also familiar with Sendai Framework 2015-2030?**
- a. If so, are you familiar with Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?
 - b. If so, do you know of any organisation or government agency that play any role in monitoring or advocating for Goal 7 to be applied in Australia?
- 3.6 **Do you know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?**
4. **Deaf Community member's perspectives**

- 4.1 What kind of challenges did you face as a d/Deaf person during the pandemic?**
- 4.2 What services or support (if any) did you receive and from whom?**
- 4.3 Were there any barriers in accessing to information and support needed during the pandemic? If so, please explain.**
- 4.4 For any of the services and support that were provided, did it meet your expectations as a Deaf Community member? If not, why not?**
- 4.5 Were the services and support provided sufficient to meet Deaf Communities' needs? If not, why not?**
- 4.6 Through the COVID-19 pandemic, have you received any requests to help d/Deaf people affected by COVID-19 and/or the lockdowns?**
 - a. If so, whom did the requests come from (e.g. directly from d/Deaf people or their support networks, other support agencies, emergency services)?
 - b. As a fellow Deaf Community member, were you able to help? Please explain why or why not.
- 4.7 Are you aware of any opportunities or mechanisms that allows Deaf Community members to provide feedback on any of the support or services provided?**
 - a. If so, what are these?
 - b. If not, would you like there to be and in which form would you like these to take?
- 4.8 Based on the services and support provided for Deaf Community members, do you feel that this is in line with the Disability Discrimination Act (DDA)? Please explain.**
- 4.9 What have you learnt (if anything) from your experiences with the pandemic? If so, what were the most important lessons for you?**
 - a. For example, are there any key lessons that you have learnt about?
 - i. disaster and/or emergency preparedness?
 - ii. The role of Deaf Organisations in supporting Deaf people?
 - iii. Things that Deaf Community members can do to support each other?
- 4.10 Was there anything positive that came out of this pandemic for you?**
- 4.11 Drawing from Deaf Communities' experiences, is there anything that**

can be considered best practices or would like to see improved for future emergencies and pandemics?

5 Future engagements in DRR

5.1 From your experience with COVID-19, do you feel that Deaf organisations could have an important role in an emergency/disaster/humanitarian situation? Please explain why or why not.

- a. What kind of support or service do you think could help assist d/Deaf people prepare for and respond to natural hazards and disasters?
- b. What kind of barriers do you think exists to provide this type of support? Please explain.
- c. In your opinion, what do you feel is needed to improve the level of assistance that Deaf organisations can provide in regards to disaster preparedness and response?

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for d/Deaf people like yourself to provide support to d/Deaf people/communities in hazard, health emergencies, and disaster preparedness, response, and recovery?

Thank you for your time. This is the end of the interview.

APPENDIX S:

Interview Questions for Deaf Organisations in Phases 3 and 4

Interview Questions for Deaf Organisations

Background and overview: Increasingly frequent and compounding disasters associated with a variety of natural hazards challenge communities and organisations around the world in relation to their ability to respond and recover from these events. The original scope of my PhD research focused on Australian Deaf Communities and organisations and what capacities they have and are needed to support the Australian Deaf Population (d/Deaf, hard of hearing, and d/Deaf-Blind people) to prepare for, respond to, and recover from disasters triggered by natural hazards. The occurrence of the COVID-19 global pandemic provides a unique and timely opportunity to extend my case study research beyond traditional natural hazards and disasters to a global pandemic and to explore the specific roles that Deaf people, Deaf support organisations, emergency and health services and disaster risk reduction (DRR) processes can play in providing the support needed to maintain social function amid multiple waves of infection as the pandemic continues to evolve.

This is critical given preliminary research of mine already undertaken that demonstrates existing disconnects between these stakeholders, and the high level of misunderstanding that exists on all sides. Recent international disasters have highlighted the need for further research, and the identification of solutions and best practices needed to support Deaf Communities prepare for and respond to disasters. Whilst there are limitations and barriers that many Deaf organisations and service providers face in terms of working in the disaster space, there has been some positive developments in relation to increasing access to emergency public information in Australia and overseas since the beginning of the COVID-19 pandemic. Given that pandemics are classified as 'disasters', the current pandemic provides a timely and useful opportunity to expand the scope of my research in order to test the hypothesis that similar and different barriers and challenges exist in relation to Deaf Community and Deaf organisation capacity to prepare and respond to pandemics as exists in relation to other natural hazard disaster types.

You have been selected to be part of this interview because your organisation has been involved in providing access to COVID-19 information for Deaf Communities in Queensland, New South Wales, and/or Victoria. It is hoped that this discussion will identify examples of best practices for Deaf organisations, health services and emergency service agencies in responding to Deaf Communities' needs during hazard and pandemic disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

START OF INTERVIEW

Data Information

A. GENERAL INFORMATION	
A1. Consent Form to Participate in interview signed?	1. Yes () 2. No ()
A2. Time start	
A3. Time finish	
A4. Date of interview	

1. Basic information about the participant

B. INFORMATION ABOUT THE PARTICIPANT	
B1. Name	
B2. Age	
B3. Gender	Male () Female () Other ()
B4. Name of Deaf Organisation	
B5. Role/Position in Organisation	
B6. Address location (village/town/city) Country	

2. Organisation Information

- 2.1 Can you please tell me about your organisation—when and how was it established and for what purposes?
- 2.2 What kind of individual and community support does your organisation provide for d/Deaf people?
- 2.3 How is your organisation funded?
- 2.4 How many d/Deaf and hearing people work or volunteer for your organisation?
- 2.5 Does your organisation prioritise the hiring of d/Deaf people to work or volunteer for the organisation? (Y/N) If so,
 - a. Is it easy to recruit d/Deaf people to **work** for the organisation? If not, why not?

- b. Is it easy to recruit d/Deaf people to **volunteer** for the organisation? If not, why not?
- 2.6 Has the organisation been active in participating in any general local or public community events, workshops, and/or trainings (ie relevant to health, education, social welfare, sports, etc)?**
- 2.7 Does the organisation have any established partnerships with other d/Deaf, hearing, and/or government organisations and programs? (Y/N)**
 - a. If so, please tell me which ones and the nature of these working relationships (e.g. what you each get out of it and how it helps your organisation meet its mission statement/stated obligations?).
 - b. If not, please explain why.
- 3. Accountability (policy-related)**
 - 3.1 Are you aware of Australia's disability laws? (Y/N)**
 - 3.2 If you answered yes to question 3.2, do you know if the disability laws cover emergencies for persons with disabilities?**
 - a. Do you also know if any of the state legislations covers anything for people with disabilities too?
 - b. If so, can you tell me about them?
 - 3.3 Do you know if Australia signed or supported UNCRPD?**
 - 3.4 Does your organisation know about UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies? (Y/N)**
 - a. If you answered yes in Q3.4, does your organisation play any role in monitoring progress or advocating in applying Article 11?
 - 3.5 Does your organisation know about Sendai Framework 2015-2030? (Y/N)**
 - a. Does your organisation know about Sendai Framework 2015-2030 Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?
 - b. If so, does your organisation play any role in monitoring or advocating for Goal 7 to be applied in your country?

3.6 Do you and your organisation know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?

4. Organisation's history with natural hazard events and disasters

4.1 Has your Deaf organisation received any emergency service organisation/government agency messages about the COVID-19 pandemic outbreak such as alerts, warnings or health updates?

- a. If yes, who was the emergency messages from?
- b. How did your Deaf organisation receive the emergency messages?

4.2 Before the COVID-19 pandemic outbreak, did your organisation receive any help/advice/guidance on how to prepare or support your Deaf Community clients/stakeholders (local or state-wide) when pandemics or other disasters occurred? If so:

- a. Who from and what was the nature of that help?
- b. Was the help useful to your clients/those you serve?
- c. What could be done to improve the messaging (e.g. in terms of form, timing, detail etc)?

4.3 Did your Deaf organisation receive requests to help d/Deaf people affected by the pandemic outbreak? If so:

- a. Who did the requests come from (e.g. directly from d/Deaf people or their support networks, other support agencies, emergency services)?
- b. Was your organisation able to help? Yes/No? Please explain.
- c. Were there any barriers that hindered your organisation from providing the type of support that was asked for or that you would like to have provided?
- d. In your opinion, are there any actions/changes in policy/additional resources that could improve the level or quality of assistance your organisation was asked to provide?

4.4 Has your Deaf organisation ever participated in any pandemic response-related activities? (if 'NO', do you know why not?)

- a. If you answered yes, please explain what pandemic response-related activities your organisation has participated in and when they took place.
 - i. What was your organisation able to learn from this?

- ii. Was the activity (or series of activities) beneficial for the organisation?
Please explain why or why not.
 - b. If not, would your organisation be interested in participating in future disaster preparedness and response activities?
- 5. More detailed questions on the COVID-19 pandemic:**
- 5.1 Did your organisation hold any existing with the Department of Health and its local health districts prior to the COVID-19 pandemic? If so, please explain.**
 - 5.2 What kind of challenges were faced in terms of business continuity for your organisation and how were they resolved, especially through multiple disasters and pandemics happening at the same time?**
 - 5.3 Were there any trainings provided to support staff and/or clients during the transition to deliver services online?**
 - 5.4 What positive and negative impacts has COVID-19 made on your organisation?**
 - 5.5 Has any of the impacts of COVID-19 made any permanent changes on your organisation?**
 - 5.6 What benefits has any of those permanent changes provide for both your organisation and the Deaf Community?**
 - 5.7 Is there a space/opportunity for clients and the general Deaf Community members to provide feedback on the support services delivered?**
 - 5.8 What monitoring mechanisms are in place to measure the success of the support delivered to the Deaf Community?**
 - 5.9 What lessons (if any) has your organisation learnt from the pandemic in terms of best practice in supporting Deaf Communities during emergencies and pandemics (and which lessons do you deem to be the most important)?**
 - 5.10 Was there scope or desire on your organisation's part to continue the work mechanisms used during the COVID-19 pandemic (e.g. implement recommendations, build upon the work to address new or pre-existing gaps in action or scope)? If so:**
 - a. What steps have been taken to continue the work?

- b. Has your organisation faced any barriers in being able to continue the work? If so, please explain.
- c. If you have faced barriers in continuing the work:
 - i. In your opinion, what impact (if any) does this inability to sustain successful practices have on the Deaf community and their engagement levels during health emergencies?
 - ii. What solutions/resources, in your opinion, are needed to overcome these sustainability barriers and their consequences?
- d. If not, why not?

6. Future engagement in DRR

6.1 Do you feel that Deaf organisations have any role in health emergencies? Please explain why or why not.

- a. What kinds of support or service would your organisation like to provide (if any) in assisting d/Deaf people prepare for and respond to natural hazards and disasters?
- b. Are there barriers to your organisation being able to provide this type of support? If so, please explain.

6.2 Have you had experiences working with the Department of Health prior to the COVID-19 pandemic? If so:

- a. Can you explain your experiences i.e. joint initiatives/activities or any other forms of collaboration?
 - i. What worked and what didn't and why?
 - ii. How could collaboration be improved to help meet the needs of d/Deaf people in a sustained way?
 - iii. What resources would be needed to support strong collaborative relationships and projects in the future?
- b. If not, please explain why.

6.2 Are there any other long-term goals that your organisation hopes to achieve with regard to health emergencies?

- a. If there are, what barriers or opportunities exist for you to fulfil these long-term goals?

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in responding to health emergencies?

Thank you for your time. This is the end of the interview.

APPENDIX T:

Interview Questions for Health Service Practitioners in Phases 3 and 4

Interview Questions relating to the provision of health services

Background and overview: Increasingly frequent and compounding disasters associated with a variety of natural hazards challenge communities and organisations around the world in relation to their ability to respond and recover from these events. The original scope of my PhD research focused on Australian Deaf Communities and organisations and what capacities they have and are needed to support the Australian Deaf Population (d/Deaf, hard of hearing, and d/Deaf-Blind people) to prepare for, respond to, and recover from disasters triggered by natural hazards. The occurrence of the COVID-19 global pandemic provides a unique and timely opportunity to extend my case study research beyond traditional natural hazards and disasters to a global pandemic and to explore the specific roles that Deaf people, Deaf support organisations, emergency and health services and disaster risk reduction (DRR) processes can play in providing the support needed to maintain social function amid multiple waves of infection as the pandemic continues to evolve.

This is critical given preliminary research of mine already undertaken that demonstrates existing disconnects between these stakeholders, and the high level of misunderstanding that exists on all sides. Recent international disasters have highlighted the need for further research, and the identification of solutions and best practices needed to support Deaf Communities prepare for and respond to disasters. Whilst there are limitations and barriers that many Deaf organisations and service providers face in terms of working in the disaster space, there has been some positive developments in relation to increasing access to emergency public information in Australia and overseas since the beginning of the COVID-19 pandemic. Given that pandemics are classified as 'disasters', the current pandemic provides a timely and useful opportunity to expand the scope of my research in order to test the hypothesis that similar and different barriers and challenges exist in relation to Deaf Community and Deaf organisation capacity to prepare and respond to pandemics as exists in relation to other natural hazard disaster types.

You have been selected to be part of this interview because your organisation has been involved in providing access to COVID-19 information for Deaf Communities in Queensland, New South Wales, and/or Victoria. It is hoped that this discussion will identify examples of best practices for Deaf organisations, health services and emergency service agencies in responding to Deaf Communities' needs during hazard and pandemic disasters as well as areas that may require improvement or greater resources.

Please note that whilst every effort will be made to protect your identity, there is a risk that you might be identifiable in publications due to the nature of this study and/or the results.

START INTERVIEW

Data Information

A. GENERAL INFORMATION	
A1. Consent Form to Participate in interview signed?	1. Yes () 2. No ()
A2. Time start	
A3. Time finish	
A4. Date of interview	

***Socio-Demographic and Cultural Information**

B. INFORMATION ON THE PARTICIPANT	
B1. Name	
B2. Age	
B3. Gender	Male () Female () Other ()
B4. Name of Health Service Provider	
B5. Role/Position in Organisation	
B6. Address location (village/town/city) Country	

Questions for the health department in NSW, VIC, QLD

1. **NSW Health/QLD Health/VIC Department of Health and Human Services Information on Disability Inclusion Action Plan (DIAP)**
 - 1.1 As every state health department has a DIAP, can you please tell me what services/support has your department achieved in meeting the current DIAP?
 - 1.2 How are the access for people with disabilities provided by your state health department funded?
 - 1.3 What kind of disability inclusion trainings are provided for your state health staff?
 - 1.4 Do any of the trainings cover on how to work with carers, sign language interpreters, and families of people with disabilities too?
 - 1.5 For any trainings provided for your state health staff, how are the skills and knowledge measured to determine its competency in working with people with disabilities in medical and health settings?
 - 1.6 Have your state health department provided any local or public community events, workshops, and/or trainings on health emergencies targeted for people with disabilities? If so, can you provide me a list or

details of these (e.g., where, when, which activities did they involve, etc.)?

1.7 Have your state health department established partnerships with disability organisations and programs on health emergencies? If so, who with and what is the nature of these partnerships?

2. Knowledge on local and international laws/policies on Persons with Disabilities and emergencies

2.1 Are you aware of Australia's disability laws? (Y/N)

- a. If you answered yes to question 2.1, do you know if the disability laws cover emergencies for persons with disabilities?
- b. Do you also know if any of the state legislations covers anything for people with disabilities too?
- c. If you answered yes for either 2.1a and b, which ones and what do they say?

2.2 Do you know if Australia signed or supported UNCRPD?

2.3 Is your state health department familiar with UNCRPD Article 11: Situations of Risk and Humanitarian Emergencies?

- a. If you answered yes in Q2.3, does your organisation play any role in monitoring progress or advocating in applying Article 11?

2.4 Is the organisation familiar with Sendai Framework 2015-2030?

- a. If so, are they familiar with Goal 7, which mandates stronger inclusion of persons with disabilities in disaster risk reduction (DRR)?
- b. If so, does your organisation play any role in monitoring or advocating for Goal 7 to be applied in your country?

2.5 Do you and your state health department know about the Charter on Inclusion of Persons with Disabilities in Humanitarian Action?

2.6 What are the state legislations on emergencies?

2.7 Within your state disaster plans that reflects the different roles amongst emergency service agencies, where do disability support and service providers fit?

3. State Department of Health's history on assisting d/Deaf people

3.1 In line with your state health department's DIAP, can you please explain what services has been provided for d/Deaf people?

3.2 Has any of the services you mentioned in Q3.1 involve workshops or trainings specifically for d/Deaf people?

- a. If so, please explain when and what kinds of training or activities were provided.
- b. To your knowledge, were the activities beneficial for the d/Deaf participants?
 - i. If so, what were the benefits?
 - ii. How do you or your organisation gauge or measure these benefits (e.g. against the aims and objectives of the activities, how many people participated, follow-up exercises, survey of participants etc)?
 - iii. If you do not think it was beneficial, why do you think this was the case?
 - iv. [Ask if they answered yes or no]: In your opinion, is there anything that could be done to improve the outcomes for Deaf people (e.g. complete change in activities, more or different resources, more engagement with Deaf organisations/Deaf people in the planning and execution phases etc)?

3.3 Has your state health department ever received or participated in any Disability Awareness training?

- a. If so, please explain when they took place and the nature of the Disability Awareness Training activities (e.g. who ran them and what the purpose was etc).
- b. What was your state health department able to learn from this?
- c. Was the training beneficial for your state health department? Please explain why or why not.
- d. Do you have any recommendations or suggestions on how this type of training could be improved to meet your needs? If so, please elaborate.

- 3.4 Has your state health department received or participated in any training on how to work with and assist d/Deaf people in health emergencies and/or disaster actions?**
- a. If so, please explain when and what kind of training activities your state health department has participated in.
 - b. Was this training beneficial for your state health department? Please explain why or why not.
 - i. Are you aware of any key lessons/insights that came out of these training exercises?
 - ii. If so, what were they and how were these captured?
- 3.5 Do you have any recommendations or suggestions on how these trainings could be improved to meet your needs? If so, please elaborate.**
- 3.6 If your state health department has an emergency response plan for people with disabilities during health emergencies and disasters, have they been effective?**
- 3.7 If your state health department have responded to people with disabilities during health emergencies and disasters:**
- a. What formats were used to reach out to them?
 - b. How were they distributed/communicated to the target populations?
- 3.8 In testing centres, were there efforts to ensure that access was being provided for all persons with disabilities, including d/Deaf people? Please explain how.**
- a. If so, were there any issues or challenges in meeting the needs of persons with different disabilities?
- 3.9 During and post disaster/pandemic, has your state health department received specific requests to help d/Deaf people affected from any health-related emergencies? If so:**
- a. If so, how did they contact you?
 - b. If so, what type of help was requested and how did you meet these needs?
 - c. Were there any challenges for you in meeting these requests? If so, please explain.

3.10 In your view, have any emergency response strategies targeting people with disabilities (and particularly those focussing on d/Deaf people) been successful in reaching their target populations?

- a. If so, how does your state health department gauge or measure these successes?
- b. If you do not think they were successful, why do you think this is the case?

4. Involvement in COVID-19 pandemic targeting Deaf Community

4.1 Prior to this pandemic, have your state health department had any experiences of providing Auslan interpreters on TV news in the past?

4.2 Does your state health department hold any formal partnerships or agreements with Deaf service providers/agencies?

- a. If so, who with (if they are allowed to say)?
- b. If not, why not?

4.3 Since the beginning of the COVID-19 pandemic, Auslan interpreters have been provided through briefings provided by Australian State Health Departments. Were there any challenges or protocols involved to ensure that Auslan interpreters are provided in all those briefings?

4.4 Were there any briefings between your state health department and assigned Auslan interpreters to ensure that they are familiarised with what information will be covered?

4.5 With Auslan interpreters frequently seen in each state health department's briefings, there has been some technical challenges in ensuring that the interpreters are not cut out of the TV screen. Is there anyone from your state health department that monitors the delivery of Auslan interpreters in their briefings?

4.6 Are there opportunities for Deaf Community members and organisations to provide feedback on the deliverance of Auslan interpreters in the briefings?

4.7 In your opinion, what benefits and achievements has the provision of Auslan interpreters in all COVID-19 related briefings had for both your state health department and the Deaf Community?

4.8 Overall, do you consider the provision of Auslan interpreters in all COVID-19 briefings a success in terms of what it has achieved and how it was conducted?

- a. If so, how was it successful and how would you measure that success (e.g. it met its aims and objectives, helped XX people in the target population, garnered wider interest from the community or emergency services, won prizes, etc)?
- b. Would you deem this as an example of best practice? If so, please explain?
- c. If not, why not and what (if anything) could have been done to improve the outcomes?

4.9 Is there scope or desire on your state health department's part to continue ensuring that all health-related emergency information are accessible for the Deaf population (e.g. delivering information in multiple formats such as Auslan, plain English, braille for those who are deaf-blind, etc)? If so:

- a. What steps have been taken to continue the work?
- b. Has your state health department faced any barriers in being able to continue the work? If so, please explain.
- c. If your state health department has faced barriers in continuing the work:
 - i. In your opinion, what impact (if any) does this inability to sustain successful and popular projects have on the Deaf community and their engagement levels in health-related emergencies?
 - ii. What solutions/resources, in your opinion, are needed to overcome these sustainability barriers and their consequences?
- d. If not, why not?

4.10 Have the experiences of this pandemic changed the way your state health department support and work with d/Deaf people compared to before? Please explain why or why not.

5 Challenges and opportunities for improvement of services, sustainability, and collaboration

5.3 What kind of support or service do you think your state health department is best positioned to provide in working with and assisting

Deaf organisations and d/Deaf people prepare for and respond to health-related hazards, pandemics, and disasters?

5.4 How would your state health department like to improve or strengthen its capacity in working with and responding to d/Deaf people and their needs during health-related disasters?

5.5 What kind of support or service do you think your state health department can provide in working with and assisting Deaf organisations and d/Deaf people prepare for and respond to health-related hazards, pandemics, and disasters?

- a. More generally, are there challenges that hinder or lessen your success in delivering sustained and targeted support to people with different disabilities and other sub-groups with special needs?
 - i. If so, are these challenges the same for different special needs groups or are they different? If so, please explain.
 - ii. Are these challenges the same for each phase of the disaster cycle i.e. in preparedness phase vs. response phase vs recovery phase?

5.6 In your opinion, is there anything that could be done to improve the support d/Deaf people receive from your state health department (e.g. complete change in activities, more or different resources, more engagement with Deaf organisations/Deaf people in the planning and execution phases etc)?

- a. What opportunities exist for increasing support or improving the services your currently provide?
- b. Are there any specific actions/resources that are needed to improve the sustainability of your support in the future?

5.7 Do you feel that Deaf organisations can have an important role in a health-related emergency or humanitarian situation?

- a. If you answered yes:
 - i. What type of role would be most useful?
 - ii. How would this relationship between your state health department and Deaf organisation ideally look like e.g. how would it ideally function, be funded etc?
 - iii. What resources would be needed to support strong collaborative relationships and projects in the future?
- b. If you answered no, please explain why.

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in health-related hazard and disaster preparedness, response, and recovery?

Thank you for your time. This is the end of the interview.

Questions for the health support services - Mental health board

1. Mental Health Peak Organisations Information

- 1.1 Can you please tell me about the organisation—what services/support do you provide and where?**
- 1.2 How is the organisation funded?**
- 1.3 Are there any existing policies within your organisation that commits to the inclusion of and supporting people with disabilities?**
- 1.4 Has your organisation worked with or assisted d/Deaf people before? If so, please explain.**
- 1.5 Has your organisation provided any local or public community events, workshops, and/or trainings on mental health targeted for people with disabilities? If so, can you provide me a list or details of these (e.g., where, when, which activities did they involved etc.)?**
- 1.6 Has your organisation established partnerships with disability organisations and programs on mental health? If so, who with and what is the nature of these partnerships?**

2. Knowledge on disabilities' needs in Mental Health

- 2.1 Are you aware of Australia's disability laws? (Y/N)**
 - a. If you answered yes to question 2.1, do you know if the disability laws cover mental health for persons with disabilities?
 - b. Do you also know if any of the state legislations covers anything on mental health for people with disabilities too?
 - c. If you answered yes for either 2.1a and b, which ones and what do they say?

2.2 Has your organisation ever received or participated in any Disability Awareness training?

- a. If so, please explain when they took place and the nature of the Disability Awareness Training activities (e.g. who ran them and what the purpose was etc).
- b. What was your organisation able to learn from this?
- c. Was the training beneficial for your state health department? Please explain why or why not.
- d. Do you have any recommendations or suggestions on how this type of training could be improved to meet your needs? If so, please elaborate.

2.3 Has your organisation received or participated in any training on how to work with and assist d/Deaf people affected in health emergencies and/or disaster actions?

- a. If so, please explain when and what kind of training activities your state health department has participated in.
- b. Was this training beneficial for your state health department? Please explain why or why not.
- c. Are you aware of any key lessons/insights that came out of these training exercises?
 - i. If so, what were they and how were these captured?

2.4 If your organisation has received any of the trainings mentioned above, do you have any recommendations or suggestions on how these trainings could be improved to meet your organisation's needs? If so, please elaborate.

2.5 Does your organisation have an emergency response plan for people with disabilities affected by health emergencies and disasters with other emergency service agencies and if so, have they been effective?

2.6 If your organisation has responded to people with disabilities affected by health emergencies and disasters:

- a. What formats were used to reach out to them?
- b. How were they distributed/communicated to the target populations?

2.7 In public and private mental health services, were there efforts to ensure that access was being provided for all persons with disabilities, including d/Deaf people? Please explain how.

a. If so, were there any issues or challenges in meeting the needs of persons with different disabilities?

2.8 In your view, have any mental health emergency response strategies targeting people with disabilities (and particularly those focussing on d/Deaf people) been successful in reaching their target populations?

a. If so, how does your state health department gauge or measure these successes?

b. If you do not think they were successful, why do you think this is the case?

3. COVID-19 challenges and opportunities for improvement of services, sustainability, and collaboration

3.1 What kind of challenges/barriers did your organisation face during the COVID-19 pandemic and how were they resolved?

3.2 Did any of the challenges/barriers faced involve delivering support for people with disabilities? If so, how were they also resolved?

3.3 Did your organisation come in contact with any Deaf organisations/service providers or deaf individuals seeking assistance? If so, how was the support provided?

3.4 How would your organisation like to improve or strengthen its capacity in working with and responding to d/Deaf people affected by health-related hazards, pandemics, and disasters?

3.5 What kind of support or service do you think your state health department can provide in working with and assisting Deaf organisations and d/Deaf people prepare for and respond to health-related hazards, pandemics, and disasters?

a. More generally, are there challenges that hinder or lessen your success in delivering sustained and targeted support to people with different disabilities and other sub-groups with special needs?

i. If so, are these challenges the same for different special needs groups or are they different? If so, please explain.

3.6 In your opinion, is there anything that could be done to improve the support d/Deaf people receive from your organisation (e.g. complete

change in activities, more or different resources, more engagement with Deaf organisations/Deaf people in training and delivering mental health services etc)?

- a. What opportunities exist for increasing support or improving the support and services your organisation currently provide?
- b. Are there any specific actions/resources that are needed to improve the sustainability of your support in the future?

3.7 Do you feel that Deaf organisations can have an important role in a health-related emergency or humanitarian situation?

- a. If you answered yes:
 - i. What type of role would be most useful?
 - ii. How would this relationship between your organisation and Deaf organisation ideally look like e.g. how would it ideally function, be funded etc?
 - iii. What resources would be needed to support strong collaborative relationships and projects in the future?
- c. If you answered no, please explain why.

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in health-related hazard and disaster preparedness, response, and recovery?

Thank you for your time. This is the end of the interview.

Questions for the health support services - private Mental health practitioners

- 1. **Private Mental Health Practitioners Information for Deaf Community**
 - 1.1 **Can you please tell me about your practice—what services/support do you provide for Deaf Community members and where?**
 - 1.2 **How is your practice funded?**
 - 1.3 **Has your practice provided any local or public community**

events, workshops, and/or trainings on mental health targeted for Deaf Community members? If so, can you provide me a list or details of these (e.g., where, when, which activities did they involved etc.)?

- 1.4 Has your organisation established partnerships with Deaf Organisations/service providers and government programs on mental health for d/Deaf people? If so, who with and what is the nature of these partnerships?

2. Knowledge on Mental Health in emergency and pandemic settings

- 2.1 Do you know if Australia's disability laws cover mental health for persons with disabilities?
- 2.2 Do you also know if any of the state legislations on emergencies covers anything on mental health for people with disabilities too?
- 2.3 If you answered yes for either 2.1 and 2.2, which ones and what do they say?
- 2.4 Have you and your staff in your practice received or participated in any training on how to work with and assist d/Deaf people affected in health emergencies and/or disaster actions?
- a. If so, please explain when and what kind of training activities you and your staff have participated in.
 - b. Was this training beneficial for your organisation? Please explain why or why not.
 - c. Are you aware of any key lessons/insights that came out of these training exercises?
 - d. If so, what were they and how were these captured?
- 2.5 If your organisation has received any of the trainings mentioned above, do you have any recommendations or suggestions on how those trainings could be improved to meet your organisation's needs? If so, please elaborate.
- 2.6 Does your organisation have an emergency response plan for Deaf Community members affected by health emergencies and disasters with other emergency service agencies and if so, have they been effective?
- 2.7 Has your organisation responded to d/Deaf people affected by health emergencies and disasters? If so,
- a. What formats were used to reach out to them?

b. How were they distributed/communicated to the target populations?

2.8 In public and private mental health services, do you know if there were efforts to ensure that access was being provided for d/Deaf people? Please explain.

2.9 In your view, if your organisation have any mental health emergency response strategies that targets d/Deaf people, has it been successful in reaching them?

a. If so, how does your organisation gauge or measure these successes?

b. If you do not think it was successful, why do you think this is the case?

3. COVID-19 challenges and opportunities for improvement of services, sustainability, and collaboration

3.1 What kind of challenges/barriers did your organisation face in supporting d/Deaf people during the COVID-19 pandemic and how were they resolved?

3.2 During and post disaster/pandemic, has your organisation received specific requests to help d/Deaf people affected from any health-related emergencies? If so:

a. If so, how did they contact you?

b. If so, what type of help was requested and how did you meet these needs?

c. Were there any challenges for you in meeting these requests? If so, please explain.

3.3 Did any Deaf organisations/service providers contact you seeking assistance too? If so, what kind of support was provided?

3.4 How would your organisation like to improve or strengthen your organisation's capacity in working with and responding to d/Deaf people affected by health-related hazards, pandemics, and disasters?

3.5 What kind of support or service do you think your organisation can provide in working with and assisting Deaf organisations and d/Deaf people respond to health-related hazards, pandemics, and disasters?

3.6 In your opinion, is there anything that could be done to improve the support d/Deaf people receive from your organisation (e.g. complete

change in activities, more or different resources, more engagement with Deaf organisations/Deaf people in training and delivering mental health services etc)?

- a. What opportunities exist for increasing support or improving the support and services your organisation currently provide?
- b. Are there any specific actions/resources that are needed to improve the sustainability of your support for d/Deaf people in the future?

3.7 Do you feel that Deaf organisations can have an important role in a health-related emergency or humanitarian situation?

- a. If you answered yes:
 - i. What type of role would be most useful?
 - ii. How would this relationship between your organisation and Deaf organisation/service providers ideally look like e.g. how would it ideally function, be funded etc?
 - iii. What resources would be needed to support strong collaborative relationships and projects in the future?
- b. If you answered no, please explain why.

OPEN ENDED final question:

Is there anything we have not talked about in relation to barriers to and opportunities for organisations to provide support to d/Deaf people/communities in health-related hazard and disaster preparedness, response, and recovery?

Thank you for your time. This is the end of the interview.