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An analysis of disaster risk reduction efforts and initiatives in relation to informal settlements and the urban poor in India

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Abstract

As some of the most vulnerable communities in the world, urban informal settlements face the fury of natural hazards as a result of precarious living conditions, which exacerbate their risk to disasters. A large population of the worlds informal settlements exist in India, a country with an exponentially growing population over the last few decades, along with rapid and unregulated urbanisation. The presence of disaster risk reduction (DRR) efforts in India exists through various policies such as housing initiatives and poverty reduction, however, these policies often adopt top-down approaches, leaving the risks of the urban poor unaddressed. This thesis explores the effectiveness of DRR initiatives in urban informal settlements in India, focusing on the communities of Krishna Nagar, Idgah, and Phagli in Shimla, Himachal Pradesh. Drawing on a theoretical framework influenced by the concept of governmentality, this study examines the state of existing DRR efforts, the unique vulnerabilities faced by residents, and the effectiveness of the current initiatives. Through a combination of qualitative methods, including thematic analysis, key findings emerge regarding the disconnect between top-down governance approaches and community needs, the role of NGOs in filling gaps left by governmental interventions, and the perpetuation of stereotypes and marginalisation faced by informal settlement residents. This research also adopts a case study approach of the August 2023 landslide disaster in Himachal Pradesh, to present the data findings in the context of a disaster presently experienced by the participants. This study highlights the urgent need for nuanced and integrated approaches in DRR initiatives, emphasising community empowerment, holistic interventions, and advocacy for policy reform. The proposed interventions aim to address the identified gaps and challenges by prioritising community participation, integrating local knowledge, and fostering inclusivity.

Key Words: disaster risk reduction, informal settlements, governmentality, power, marginalisation.

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List of Abbreviations

DRR: Disaster Risk Reduction

DMA: Disaster Management Act

SDMA: State Disaster Management Authority

NDRF: National Disaster Response Fund

SDRF: State Disaster Response Fund

CHAPTER 1

INTRODUCTION

Chapter 1: Introduction

In an era marked by rapid urbanisation and the increasing frequency of disasters, the intersection of informal settlements and disaster risk reduction (DRR) has emerged as a critical focal point for researchers and policymakers alike. This chapter serves as a comprehensive entry point into the discourse surrounding this pressing issue. It starts off by giving an overview of the complex landscape of informal settlements and DRR, it then elucidates the challenges inherent in this domain while underscoring the urgent need for effective interventions. Next, the chapter outlines an exploration of the study's significance, objectives, and overarching aim, and lays the groundwork for a detailed investigation into the dynamics that shape vulnerability and resilience in informal settlements. Finally, this chapter sets out the structure for the subsequent chapters, offering a glimpse into the flow of this thesis.

1.1 Overview and Research Rationale

The rapid pace of urbanisation in India has led to the proliferation of informal settlements within urban areas, representing a significant proportion of the country's urban population (Agarwal et al., 2007; Bose, 1993; Kundu, 2011). As urbanisation continues to accelerate and climate change amplifies the frequency and severity of some natural hazards, addressing the vulnerabilities of residents in informal settlements has become increasingly crucial in sustainable urban development and DRR.

India, being prone to various natural hazards such as floods, cyclones, earthquakes, and landslides, has implemented a range of DRR initiatives over the years (Chakrabarti, 2010; Kafle, 2017; Singh et al., 2000). However, the extent to which DRR initiatives effectively mitigate the risks faced by residents of informal settlements remains a topic of investigation. The need to assess the suitability of existing DRR efforts to address the specific hazards and vulnerabilities in urban informal settlements forms the foundation for this research.

Urban informal settlements, often referred to as slums, bastis, or squatter settlements, are characterised by a myriad of vulnerabilities that exacerbate their susceptibility to disasters (Fraser, 2014; Kasperson et al., 2005; Parker et al., 1995). Factors such as inadequate housing, limited access to clean water and sanitation facilities, poor waste management, and substandard infrastructure contribute to the heightened risk exposure of residents in these settlements (Corburn & Sverdlik, 2019; McMichael, 2000). Additionally, social and economic factors, including poverty, unemployment, and social exclusion, further compound the challenges faced by inhabitants in preparing for, responding to, and recovering from disasters (Cannon, 1994).

Despite the implementation of various DRR initiatives in India, there remains a paucity of research examining the adequacy of these efforts in addressing the specific risks faced by residents of informal settlements (Chatterjee, 2010; Chauhan, 2018; Surjan & Shaw, 2009; Pramanik, 2018). These gaps can be attributed to several factors. Historically, research priorities may have focused more on broader aspects of disaster management, such as response and recovery, rather than on evaluating the effectiveness of DRR initiatives, tailored to informal settlements. Additionally, the complexity of informal settlements presents challenges in data collection, access, and engagement with residents, making it difficult to capture the nuances of these environments and their associated risks. Resource constraints further hinder comprehensive research endeavours, as studies assessing DRR initiatives in informal settlements require significant funding, expertise, and time (Schipper & Pelling, 2006). Furthermore, even when research exists, there may be a divide between research findings and their translation into policy and practice, limiting the impact of this research on DRR strategies. Addressing these challenges and gaps in research is essential for developing more effective and contextually appropriate DRR initiatives for informal settlements in India. Prioritising research in this area and fostering collaboration between researchers, practitioners, and policymakers can enhance the resilience of vulnerable urban communities and mitigate the impacts of

disasters. This research seeks to bridge this gap by critically evaluating the suitability of existing DRR initiatives in mitigating the vulnerabilities and hazards encountered by inhabitants of urban informal settlements. By shedding light on this underexplored aspect of disaster, this study aims to inform policy and practice aimed at enhancing the resilience of urban communities across India.

1.1.1 The Importance of Researching DRR in the Context of Informal Settlements

In the realm of DRR research, a critical area of focus lies in understanding the vulnerabilities and risks faced by people living in informal settlement (Fraser, 2014; Ramalho, 2019). Informal settlements house an estimated 1.1 billion people (23%) of urban populations worldwide (United Nations, 2024). These marginalised communities face heightened risks from natural hazards due to their precarious socio-economic circumstances and often reside in hazard-prone areas. By investigating the dynamics of DRR within informal settlements, this research aims to uncover the unique challenges faced by these populations and identify tailored strategies to enhance their resilience in the face of disasters. Understanding the intricacies of DRR initiatives specific to informal settlements is paramount for mitigating the disproportionate impacts of disasters on vulnerable urban dwellers and fostering more inclusive and equitable approaches to DRR.

This research focuses on examining DRR within informal settlements in India. This holds particular significance as India, one of the world's most populous countries, grapples with extensive urbanisation and the proliferation of slums (Roy, 2009). These settlements are emblematic of the complexities inherent in rapid urban growth, characterised by overcrowding, inadequate infrastructure, and socio-economic disparities (Beall & Fox, 2009; Gouverneur, 2014; Pieterse, 2008). In India, informal settlements are home to 49% of the country's population as of 2020 (The World Bank, 2020), these individuals often reside in hazard-prone

areas, amplifying their vulnerability to various disasters (Gaisie et al., 2021; Nsorfon, 2015). Understanding the interplay between DRR initiatives and informal settlements in the Indian context is essential for devising targeted interventions that address the specific needs and challenges faced by these communities. By delving into the intricacies of DRR within Indian informal settlements, this research seeks to contribute to the development of more robust and inclusive strategies aimed at enhancing the resilience of vulnerable urban populations in the face of evolving disaster risks.

Researching DRR policies in informal settlements is crucial for several reasons. First and foremost, these marginalised communities are disproportionately affected by disasters due to their precarious living conditions (Andharia, 2020; Rumbach, 2011). Informal settlements often situated in hazard-prone areas such as floodplains, steep slopes, or coastal regions, where residents have limited access to essential services and are vulnerable to various natural hazards like floods, landslides, and storms (De Sherbinin et al., 2007; Green, 2008; Kabisch et al., 2015). Understanding how DRR policies are formulated, implemented, and enforced in these contexts is vital for mitigating the impacts of disasters and improving the resilience of these communities. Additionally, dense populations living in overcrowded and poorly constructed housing exacerbate disaster risks in informal settlements (Abunyewah et al., 2018; Scovronick et al., 2015). By incorporating DRR initiatives tailored to these settlements, gaps in current strategies can be identified, advocating for more inclusive and effective approaches addressing unique population needs.

Moreover, studying DRR policies in informal settlements contributes to broader discussions on social justice and equity within the realm of disaster management. Marginalised communities often face systemic barriers that hinder their ability to access resources, participate in decision-making processes, and receive adequate support during and after

disasters (Eriksen et al., 2012; Pomeroy et al., 2006; Tompkins et al., 2004). Analysing how DRR intersects with issues of poverty, inequality, and discrimination sheds light on the underlying root causes that perpetuate vulnerability. Investigating DRR in informal settlements is essential for protecting the lives and livelihoods of some of the world's most vulnerable populations. By understanding the unique challenges faced by these communities and advocating for inclusive and equitable policy measures, research can contribute to building more resilient societies and reducing the disproportionate impacts of disasters on marginalised groups.

1.2 Research Aim, Objectives, and Thesis Structure

Given the issues outlined in section 1.1, this research examines: ***Are India's existing disaster risk reduction initiatives suited to the risks faced by residents of informal settlements in an urban Indian setting?*** To achieve this, the following objectives need to be answered:

Objective 1:

Identify the state of existing DRR efforts and initiatives in urban Indian informal settlements.

- Understanding what initiatives are currently in place will provide insight into the existing framework for DRR.

Objective 2:

Understand the unique vulnerabilities and hazards faced by residents of informal settlements, which is crucial for tailoring effective DRR strategies.

- This will be done by evaluating the alignment between existing DRR initiatives and the risks faced by residents of informal settlements.

Objective 3:

Analyse the effectiveness of current initiatives in addressing the identified risks, especially the root causes of vulnerability of informal settlement residents.

- This assessment will highlight any gaps or mismatches between existing initiatives and the actual concerns of the population, informing recommendations for improvement.

Objective 4:

Propose targeted interventions or adjustments to existing DRR initiatives based on the identified gaps.

- The proposed interventions will aim to bridge the identified gaps and ensure that DRR efforts are more effectively tailored to the needs of vulnerable populations in urban India.

These objectives cover a range of aspects, from understanding the current landscape to proposing actionable steps for improvement.

1.2.1 Thesis Structure

This thesis is structured in seven chapters. Chapter 1: Introduction – presents the background of the study, outlining the issues addressed in this research. This chapter also presents the research rationale and objectives. Chapter 2: Literature Review – outlines the concept of "governmentality" and incorporates the presence of power, stereotyping, and knowledge with the framework of governmentality. These components are then brought together under a theoretical lens used to address the objectives of this study. This section also introduces informal settlements which are the setting for this research. Chapter 3: The Research in Its Context – presents the context in which the outlined objectives are investigated. Chapter 4: Methods and Methodology – presents the methodological approach and study design as well as the adoption of a case study and the site selection process. This chapter also discusses the

data collection and analysis process and outlines the ethical considerations that were taken into account. Chapter 5: Research Findings – presents the main findings from the qualitative dataset through the lens of the theoretical framework discussed in the Chapter 2. Chapter 6: Discussion and Implications – elucidates the results from the analysis and discusses the key themes from the analysis while comparing the results to other relevant studies and literature. Chapter 7: Conclusion – summarises the key findings of the study and examines these findings under the outlined objectives to address the research aim. It also discusses the limitation of this study and provides recommendations for future research.

CHAPTER 2

LITERATURE REVIEW

Chapter 2: Literature Review

2.1 Introduction

In this chapter, I connect and analyse the concepts of governmentality, DRR, and informal settlements. The chapter commences by delving into the theoretical underpinnings of governmentality, as elucidated by Michel Foucault, to scrutinise the intricate mechanisms through which power is exercised and societal control is established. Building upon Foucault's framework, the discussion extends to the governmentality of disasters, exploring how power structures influence DRR policies and practices within the context of informal settlements. I then delve into Gaillard's (2021) examination of the governmentality of disaster which provides a lens to dissect the influence of Western ideologies on DRR approaches, particularly in shaping international standards and policies.

Following this, I set out a theoretical framework for this research, through navigating the intersectionality of power relations, stereotyping, and local knowledge within the governmentality framework, highlighting their implications for DRR initiatives in informal settlements. Drawing from Foucauldian notions of power relations and governmentality, this framework examines how government actions shape power dynamics, influence societal perceptions, and impact the utilisation of local knowledge in DRR initiatives. The interplay between power relations, stereotyping, and the representation of knowledge underscores the complexity of policymaking in informal settlements, emphasising the need for inclusive and contextually sensitive approaches to DRR.

Additionally, a pivotal aspect of this chapter is the exploration of informal settlements as critical arenas for DRR research. With a significant portion of the world's population residing in informal settlements, understanding the vulnerabilities and resilience strategies of these

communities is imperative for mitigating the disproportionate impacts of disasters. Focusing particularly on informal settlements in India, this research aims to uncover the unique challenges faced by marginalised urban dwellers and identify tailored strategies to enhance their resilience. By examining the intricacies of DRR policies and efforts within informal settlements, this chapter contributes to the development of more robust and inclusive approaches to DRR, ultimately fostering more resilient urban communities.

2.2 Governmentality

Governmentality, a concept pioneered by Michel Foucault, supports a theoretical framework that scrutinises the diverse ways societies organise and exercise power over individuals. It represents a shift from traditional views of power to a broader perspective encompassing societal practices, structures, and strategies. At its core, governmentality delves into the "how" of governance, going beyond the state's commanding authority to explore the intricate mechanisms and techniques involved in societal control. Foucault emphasises that governance is an intricate art, extending beyond conventional political institutions to encompass the nuanced strategies employed by diverse entities within a society.

Foucault tracks the evolution of political knowledge, particularly the shift from a "territorial state" to a "population state," highlighting the historical development of the concept of "government" (Foucault et al., 2008). In his works he explores pastoral power, originating in the East and introduced to the West by Christianity, this highlights the role of pastoral power in individualisation and salvation. Foucault’s examination extends to the late sixteenth and early seventeenth centuries, where the concept of "governmentality" emerged alongside the decline of imperialism, focusing on state survival amongst global competition.

Biopower and biopolitics form integral components of the governmentality framework. Biopower, as articulated by Foucault et al. (2008), involves the regulation of populations,

addressing issues related to health, reproduction, and overall well-being. Concurrently, biopolitics explores the intersection of political power and biological processes, extending governance into the biological and social realms of individuals. This shift introduces a comprehensive approach to governance that goes beyond mere political structures. Within this broader context, normalisation and disciplinary power emerge as central strategies in Foucault's governmentality. These mechanisms work in tandem, shaping societal norms, standards, and expectations while steering behaviour towards conforming to established patterns. As previously explored by Foucault, disciplinary power becomes an inherent part of governmentality, influencing individuals to align with societal norms through various mechanisms.

In summary, governmentality offers a profound lens through which to analyse the intricate techniques, strategies, and practices involved in societal governance. It moves beyond simplistic views of power, encompassing a holistic understanding of how control is exercised at both state and institutional levels, shaping individuals and populations in multifaceted ways.

2.2.1 Governmentality and Power

Foucault analyses how power is used in governing. He starts by looking at the early meanings of the term "to govern" and delves into how it affects people's lives. He focuses on how power works in society, looking beyond the usual focus on acts of authority. He examines places like law courts and confessionals where power dynamics are crucial. Foucault sees power as an ongoing process that shapes people's lives in different ways and introduces the idea of discursive practice, challenging the notion that what's said and what it refers to are separate (Foucault, 2007). He also delves into the ethical side of power, exploring how individuals can govern themselves without external rules.

Foucault changes the way we look at politics. Instead of just studying how rules are made or what they mean, he looks at how power works between people. According to him, important social issues involve people being controlled and the fights over identity (McHoul & Grace, 2015). These issues are connected to basic philosophical questions about ‘being’ and ‘subjectivity’. Foucault investigates how power is connected to the creation of 'truth' and what it means for people in today's societies. He questions the idea that only science creates 'truth' and stresses the need to understand the conditions that make truths in different knowledge systems. Foucault suggests that there are areas of knowledge that are not as steady and easy to control, like economics, medicine, and the 'human sciences.' These fields are closely tied to how people relate to each other. He discusses how these areas of knowledge have changed over time, revealing that their ideas are not as strong or fixed in society (McHoul & Grace, 2015).

Foucault believes power is everywhere, coming from different places, without a clear division between rulers and the ruled (McHoul & Grace, 2015). The complex network of force relationships in things like production, families, and institutions is what causes widespread effects in society. He proposes a rethinking of power, knowledge, and discourse, challenging traditional disciplines such as Marxism and Imperialism. This challenges the way we organise knowledge in social hierarchy and shows that power plays a role in deciding what is considered "true," especially in subjects like sexuality and health. In Foucault's concept of governmentality, the intricate relationship between power and knowledge is paramount. According to Foucault, power is not just a hierarchical structure but is dispersed throughout society, operating in various forms, and emerging from different sources (Foucault, 2007). Knowledge, in this framework, is not neutral but deeply intertwined with power dynamics. Foucault's exploration of governmentality emphasises that power operates through the management and regulation of populations, involving the deployment of knowledge. Foucault talks about how knowledge isn't just information; it's like a tool used on purpose by those who

hold power. He says that people in power, like governments, use different types of knowledge, such as science or administration, to control how individuals and groups behave (Foucault, 2007). The way knowledge is deployed involves experts who categorise, classify, and understand society, not just state facts. Foucault argues that this knowledge isn't neutral, instead it's tied to those who have power. When those in authority use knowledge, they create rules, standards, and categories that shape how people act. This helps establish a way of governing that goes beyond traditional systems. This intentional use of knowledge becomes a way for those in power to control society. This perspective challenges conventional views of power and highlights the intricate connections between knowledge, authority, and the regulation of populations within the framework of governmentality. Foucault challenges conventional views of power and knowledge by highlighting their interconnectedness. Power produces and relies on specific forms of knowledge, while knowledge acts as a tool for the exercise of power. This connection shows how institutions and discourses shape what we think is true, what is right or wrong, and how society should behave, all within the bigger framework of governmentality. In summary, Foucault's way of looking at power is extremely detailed and bottom-up; he redefines how we see power relations, giving us a unique view of how power shapes society and individuals.

2.2.2 The Governmentality of Disasters

Gaillard (2021) discusses a lecture by Foucault in 1978, where he addressed risks and disasters. Foucault used these topics as a basis to develop his concept of governmentality, which he defined as the ensemble of institutions, procedures, analyses, and tactics used to exercise a specific and complex form of power targeting the population. Governmentality involves affirming sovereignty, disciplinary control, and governmental management of the population, informed by scientific evidence and a knowledge of the population through surveys and statistics. This concept has significantly influenced contemporary DRR, particularly in Western

countries, shaping international standards through colonial forms of government and international agreements. While acknowledging the Eurocentric nature of Foucault's approach, Gaillard argues that it remains relevant because contemporary DRR policies are informed by Western discourses and principles. The intention is to deconstruct the approach to DRR from within, despite its Eurocentric tendencies. Gaillard explores the durability of the governmentality of DRR since the eighteenth century, attributing its stability to the hegemonic nature of Western knowledge and the broader project of modernity. His work acknowledges changes in the global political and economic landscape, particularly the rise of neoliberalism in the 1980s, which prompted a shift in focus from nature/hazard to culture/vulnerability in DRR policies. Despite these shifts, he argues that three key dimensions have persisted in DRR policies. First, the downscaling of focus from the population to local "communities" is criticised as tokenistic, often treating communities as homogeneous entities. Second, planning remains central to policies, reflecting the rationalisation inherent in the Western project of modernity. Third, evidence-based planning, preferably quantitative and statistical, continues to guide DRR efforts. Gaillard also talks about power and knowledge in DRR. He suggests that the global approach to managing disasters is influenced by Western ideas. The way we see the relationship between disasters and human vulnerability is similar to how we think about freedom and control in governance. Strategies used for DRR, on different levels and in various aspects, are inherently based on specific ideologies, mainly aligning with liberalism and neoliberalism. This influence shapes international agreements and how individual countries approach disasters based on Western ideas. The main goal of this influence is to integrate risk management into development to prevent the impact of disasters from growing.

In Western thinking, disasters are seen as obstacles to people's well-being and freedom. This perspective leads to interventions by Western governments and organisations, aiming to use their knowledge and strategies to help vulnerable populations. Gaillard argues that this

approach is part of the broader Western project of modernity. He suggests that the Western heritage strongly influences the rules and regulations in national DRR efforts. The justification for these strategies comes from Western science and they involve state and other actors supporting vulnerable populations through methods like risk assessment, education, drills, and planning.

2.3 Theoretical Framework

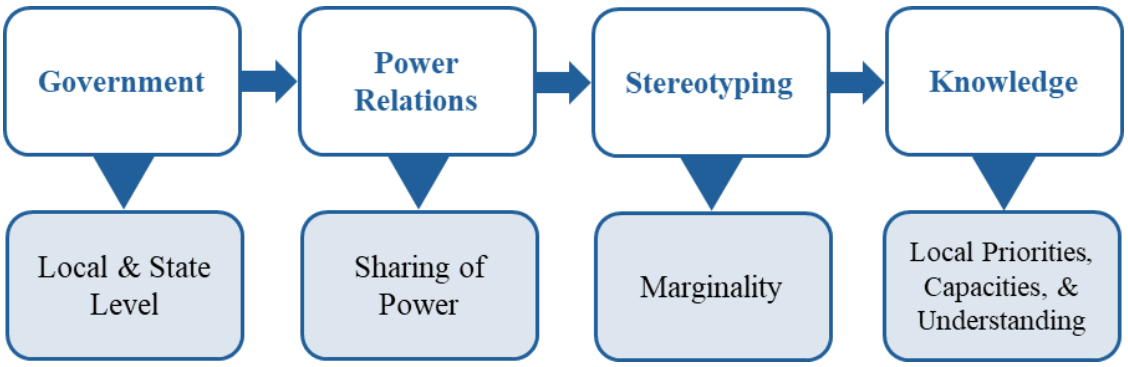

Figure 1: Theoretical Framework

Understanding the intricacies of DRR within informal settlements necessitates a theoretical framework that dissects key components of the issue. This framework (see figure 1), tailored to the Indian context, navigates the complexities through the lenses of government structures and systems at different levels of power. The framework extends to encompass three theoretical concepts: power relations, stereotyping, and local knowledge, within the umbrella of governmentality. Governmentality is analysed at both local and state levels, dissecting top-down directives and their impact on the vulnerability and resilience of informal settlements. The idea here is to understand governance in terms of DRR, and the process of disaster policy design. This element of the research lens is influenced by Gaillard's (2021) concept of "The Governmentality of Disaster", which suggests that governmentality can be seen as a "modern

art of government" which exists to foster the freedom of people while providing safety in hazardous environments.

In constructing the theoretical framework for this research, the incorporation of key concepts such as Governmentality, Power Relations, Stereotyping, and Knowledge is paramount for a comprehensive understanding of societal dynamics. Governmentality, as elucidated by Foucault, offers a nuanced lens through which to analyse the intricate ways societies organise and exert power, extending beyond traditional views to encompass broader societal practices. Foucault's exploration of power relations reveals the complex network of force relationships in various societal contexts. This includes the intersection of political power and biological processes, known as biopower and biopolitics, highlighting the linkage between power and knowledge. When applied to DRR, as discussed by Gaillard, the governmentality framework sheds light on the influence of Western ideas on global DRR approaches. Gaillard's work critically examines the imposition of Western ideologies in international agreements and national DRR efforts, challenging stereotypical views and raising questions about the compatibility of Western approaches with diverse cultural heritages. This integrated theoretical framework provides a robust foundation for analysing societal control mechanisms, power dynamics, knowledge production, and the influence of specific ideologies, particularly in the context of DRR.

The interplay between these components is crucial, illustrating the multifaceted nature of DRR in informal settlements. Government actions influence power dynamics, shaping societal perceptions and impacting the utilisation of local knowledge. This relationship underlines the complexity of the policy landscape, providing a comprehensive understanding of the contextual dynamics.

2.3.1 Government and Power Relations

To understand the characteristics and dynamics of governmentality, the framework incorporates power relations and delves into the power dynamics between government, NGOs, and informal communities, exploring how political structures influence policy formulation and implementation. Scott's (1990) framework on power relations suggests that subordinate communities create "hidden transcripts" that critique those who hold power and the decisions they make. This concept aims to uncover the "contradictions, tensions, and immanent possibilities" between subordinate groups and power groups. The government, operating at both local and state levels, assumes a pivotal role in shaping DRR policies within informal settlements. This influence is manifested through top-down directives that impact the vulnerability and resilience of these communities. The power held by government bodies plays a crucial role in policy implementation, directly affecting the overall effectiveness of DRR measures (Hilhorst et al., 2020). Additionally, the government's actions set the stage for power dynamics within the community, influencing how policies are formulated and implemented.

The sharing of power extends to various dimensions - political, administrative, and social - significantly shaping policy formulation and implementation processes. Political structures, influenced by government actions, dictate the distribution of resources and attention, thereby impacting the resilience of informal settlements (Olajide, 2015). The interplay between government actions and power dynamics underscores the intricate relationship that exists and emphasises the need to comprehend how these dynamics influence the overall effectiveness of DRR policies. Simultaneously, stereotyping within disaster policies addresses societal perceptions and biases associated with informal settlers. Rooted in marginalisation, these stereotypes influence the inclusion or exclusion of the urban poor from policy discussions and resource allocation (Siddiqui et al., 2021). The government's stance, driven by its approach to DRR and intertwined with power dynamics, plays a crucial role in either perpetuating or

dismantling these stereotypes. This, in turn, has a profound impact on the implementation of policies and the overall well-being of communities during disasters.

Furthermore, the power relations within the community play a significant role in determining whether the government values and integrates local perspectives or opts for top-down solutions. This intersection between government actions, power dynamics, and the incorporation of local insights highlights the complexity of the policy landscape within informal settlements, highlighting the importance of understanding these relationships for a comprehensive and effective DRR approach.

2.3.2 Power Relations and Stereotyping in Governmentality

In this research, stereotyping in DRR will investigate societal perceptions and their implications for the urban poor. Influenced by Perlman's (1975) discourses on marginality, this research will look at how the urban poor and their ways of living are perceived in politics and wider society.

The influence of dominant groups in marginalised societies with power imbalances, is a key factor in shaping social narratives and perpetuating stereotypes about these marginalised groups. Dominant groups which hold more influence and control, often shape perceptions and attitudes through various influential channels such as media and education (Stack et al., 2006). In the context of informal settlements, this dynamic reinforces certain stereotypes about specific social groups. Such stereotypes are then used in media representation and are significantly influenced by power dynamics, playing a pivotal role in shaping public perceptions. When certain groups hold more power within the media industry, they contribute to the perpetuation of stereotypes. Media representations tend to reflect the perspectives of those in power, resulting in biased portrayals of marginalised communities, including those

residing in informal settlements. The stereotypes portrayed in the media can become deeply ingrained in societal perceptions (Ittefaq et al., 2023).

The power dynamics within policy formulation and implementation processes also contribute to stereotyping. Policymakers and government officials, influenced by their positions of power, can shape policies that either challenge or reinforce stereotypes. Biased views or a lack of understanding of the diverse experiences within informal settlements may inadvertently lead to policies that perpetuate stereotypes instead of addressing the nuanced realities of the communities (Mashika, 2019). Social hierarchies, often a product of power dynamics, play a role in the development of stereotypes. Certain groups are positioned as superior or inferior within these hierarchies, leading to the formation of stereotypes. Those with more power may use stereotypes as a tool to maintain control, reinforce existing social structures, and justify unequal treatment (Fiske, 1993). The selective representation of marginalised communities, showcasing only a few individuals, reinforces stereotypes by presenting a narrow and distorted view. This limited representation hinders a comprehensive understanding of the diversity within informal settlements. Hence, addressing power imbalances becomes crucial for challenging stereotypes and fostering a more accurate and inclusive understanding of diverse communities.

2.3.3 The Representation of Knowledge in Governmentality

Local knowledge in policymaking is a crucial element to understanding unique local capacities and priorities, by incorporating local and ground level insights in DRR. Cuaton and Su's (2020) works on integrating local knowledge into DRR suggests that even though indigenous, low-income, and informal communities have neglected and marginalised conditions, these people have proven themselves resilient against climate related disasters over the years, through unique survival strategies that can be attributed to local knowledge of their environment and communities.

Government actions play a pivotal role in influencing the knowledge component of DRR within informal settlements, particularly concerning local capacities, understanding, and priorities. In terms of local capacities, supportive government policies at local and state levels can significantly enhance the abilities of communities to respond effectively to disasters. Conversely, inadequate, or neglectful policies may impede the development of local capacities, leaving informal communities more vulnerable to the impacts of disasters.

Government engagement also shapes local understanding of DRR within communities. Policies that encourage community involvement and education contribute to a more robust local understanding of potential risks and appropriate responses. However, top-down directives that overlook local contexts may result in a lack of understanding, hindering effective disaster preparedness and response. Furthermore, government priorities play a crucial role in determining the emphasis placed on specific aspects of DRR. Policies that align with local priorities and address the specific needs of informal settlements contribute to more effective risk reduction. If government priorities do not align with the realities of these communities, there may be a mismatch between policy objectives and local needs, potentially compromising the efficacy of DRR efforts (Pezzica et al., 2021).

Power relations within a community also exert a significant influence on the knowledge component of DRR. In terms of local capacities, power dynamics can impact the distribution of resources and opportunities. Situations where power is concentrated in certain groups may lead to uneven development of local capacities. Empowering marginalised groups within informal settlements is crucial to ensure equitable distribution of local capacities (Wekesa et al., 2011). Regarding local understanding, power dynamics influence whose perspectives and knowledge are valued within a community. Inclusive power relations promote a diversity of viewpoints, contributing to a more comprehensive local understanding and inclusion of a broad range of priorities in DRR. Conversely, power imbalances may lead to the exclusion of certain

voices, limiting the range of knowledge available for community planning (Parthasarathy, 2018). If power is concentrated in a few hands, the priorities set may not align with the diverse needs of the community, potentially resulting in less effective policies.

Stereotyping also intersects with the knowledge component of DRR in informal settlements. Stereotypes can contribute to biases about the capabilities of communities, impacting local capacities. Overcoming stereotypes is crucial to recognising and leveraging the full range of local capacities, ensuring effective disaster response (Roy et al., 2018). In terms of local understanding, stereotyping influences societal perceptions about the intellectual and cultural capacities of informal settlers. Challenging stereotypes is essential for fostering a more accurate local understanding of disaster risks and DRR. Misguided perceptions hinder the development of tailored strategies that consider the unique strengths of these communities (Roy et al., 2018). Stereotyping may lead to the marginalisation of certain groups within informal settlements, impacting the consideration of their priorities in policymaking. Policies that challenge stereotypes and promote inclusivity are more likely to address a broader range of local priorities effectively.

2.4 Connecting the Framework to Policymaking

The scrutiny of government actions at local and state levels emphasises the need for informed policymaking. Understanding the impact of top-down directives on vulnerability and resilience enables policymakers to tailor strategies that address the unique challenges faced by the urban poor, especially those residing in informal settlements. Engaging with local and state level authorities becomes crucial to ensure that policies are not only effective but also consider the specific needs and contexts of informal settlements (IGC, 2019).

Recognising the role of power relations in policy formulation allows for the empowerment of informal communities. Policymakers can work towards more inclusive decision-making

processes, ensuring that the voices of the urban poor are heard and considered. By addressing power imbalances and fostering collaboration, DRR policies can better reflect the diverse perspectives within informal settlements, leading to more effective DRR measures (Parthasarathy, 2018). The acknowledgment of stereotypes and marginalisation within disaster policies highlights the importance of combating these negative perceptions. Policymakers should aim to create inclusive policies that challenge stereotypes and promote the equitable treatment of informal settlers. By actively addressing societal biases, DRR efforts can be more effective in reaching and benefiting the entire community, reducing vulnerability and enhancing resilience. Recognising the significance of local knowledge emphasises the need for policies that embrace and incorporate community insights. Policymakers can enhance the effectiveness of DRR strategies by valuing and leveraging the local capacities, understanding, and priorities within slums. This approach ensures that interventions are contextually relevant, sustainable, and reflective of the unique challenges faced by the urban poor (Jones, 2017; Ndinda & Ndhlovu, 2016).

2.5 Applying the Framework to this Research

The interconnectedness of the theoretical framework components is evident in their mutual influence. Government actions shape power dynamics, which, in turn, affect societal perceptions and stereotypes. Simultaneously, the incorporation of local knowledge is influenced by both government policies and the power relations within the community. This intricate web of relationships highlights the complexity of disaster policies in informal settlements, emphasising the need for a comprehensive understanding that considers the multifaceted nature of these interactions.

The theoretical framework, aligned with the overarching goal of assessing the adequacy of India's DRR efforts for informal settlers, enables a systematic exploration of the outlined

objectives (see section 1.2). It guides the research through a process that scrutinises current policies, evaluates the inclusion of urban poor voices, and investigates the reasons behind their participation or exclusion. This framework provides a structured approach, offering a comprehensive lens to unravel the nuances of policy efficacy within informal settlements. Central to this structured approach is the recognition that government actions have a profound impact on power dynamics, shaping societal perceptions and influencing the utilisation of local knowledge. By examining the intricate relationships between these components, the framework contributes to a nuanced understanding of the contextual dynamics within informal settlements. This holistic perspective not only facilitates the analysis and evaluation of existing DRR policies but also guides the refinement of these policies to foster inclusivity and resilience. Through the application of this theoretical framework, the research aims to move beyond mere analysis, offering valuable insights and suggestions for addressing the priorities and concerns of the urban poor within India's political agenda. The framework acts as a tool for navigating the complexities of DRR policies, ultimately contributing to the development of more effective, contextually sensitive, and inclusive approaches that prioritise the well-being of informal settlers.

2.6 Informal Settlements

Informal settlements are a global phenomenon characterised by inadequate housing, poor infrastructure, and limited access to basic services (Aboulnaga et al., 2021; Jones, 2017). These settlements are home to a significant portion of the urban population worldwide, particularly in developing countries. In India, rapid urbanisation has led to the proliferation of informal settlements presenting complex challenges for policymakers and urban planners and developers (Roy, 2009). Globally, informal settlements are prevalent in both urban and peri-urban areas, representing a diverse range of socio-economic and environmental conditions (Adeyeye et al., 2020; Baye et al., 2020). Studies have documented the socio-economic

characteristics of slum populations, including high levels of poverty, unemployment, and informal employment (Bagheri, 2012; Singh, 2016; Wekesa et al., 2011). Additionally, inadequate access to essential services such as water, sanitation, healthcare, and education remains a significant challenge in many informal settlements worldwide (Corburn et al., 2020; Dos Santos et al., 2017).

Informal settlements face a multitude of challenges, including exposure to natural hazards, environmental degradation, and social exclusion (Williams et al., 2019). Residents of slums are particularly vulnerable to the impacts of disasters, with limited access to early warning systems, emergency services, and evacuation routes. Furthermore, the lack of secure land tenure and legal recognition often leaves residents at risk of forced eviction and displacement, exacerbating their vulnerability (Few et al., 2021; Fuchsová, 2020; Reale & Handmer, 2011).

Rapid urbanisation has contributed to the growth of informal settlements, as rural migrants seek opportunities in urban areas. In many cities, the pace of urban growth has outstripped the capacity of governments to provide adequate housing and infrastructure, leading to the proliferation of these communities on the urban periphery (Harvard University, 2013). The spatial concentration of poverty and informal settlements within cities poses significant challenges for urban governance and planning. Governments and international organisations have implemented various policy responses and interventions to address these challenges. These include slum upgrading programmes, land regularisation initiatives, and efforts to improve access to basic services. A global example of this being the United Nations Sustainable Development Goals initiative (United Nations, n.d.), with goals 1, 10 and 11 having particular focus on informal settlements.

In India, informal settlements (or slums) are a pervasive feature of the urban landscape, housing millions of people in cities across the country. Rapid urbanisation, population growth, and

rural-urban migration have fuelled the expansion of these communities, presenting significant social, economic, and environmental challenges (Sadashivam & Tabassu, 2016; Tacoli et al., 2015). Studies have documented the socio-economic characteristics of informal settlers in India, including high levels of poverty, informal employment, and inadequate access to basic services (Roy et al., 2018; Singh, 2016). The Government of India has implemented various initiatives and programmes to address this, including the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the Pradhan Mantri Awas Yojana (PMAY), and the Swachh Bharat Mission. These programmes aim to improve housing conditions, provide basic services, and promote sustainable urban development. However, the effectiveness of these initiatives has been limited by bureaucratic hurdles, funding constraints, and inadequate community participation (Dhar et al., 2006; Khan, 2019; Kundu, 2014; Jain et al., 2020; Sharma et al., 2022; von Puttkamer, 2016).

In summary, informal settlements represent a complex and multifaceted challenge for urban development worldwide, with significant implications for poverty alleviation, social inclusion, and environmental sustainability. In India, the proliferation of these settlements underscores the urgent need for innovative policy solutions and community-driven interventions to address the root causes of urban poverty and inequality.

2.6.1 Caste Dynamics in Informal Settlements

Caste dynamics form a complex and deeply ingrained social structure in India, influencing various aspects of life, including access to resources, opportunities, and social interactions (Ambedkar, 1917; Krishnamurthy, 2022). At its core, the caste system is a hierarchical division of society into distinct social groups, traditionally based on occupation and hereditary status. While officially outlawed in the Indian Constitution, caste-based discrimination and stratification persist, particularly in rural areas and urban informal settlements (Hoff, 2016). Within informal settlements, caste dynamics often manifest in subtle yet pervasive ways,

shaping patterns of residence, employment, and social relations (Deshpande, 2010). Residents of these settlements frequently belong to lower castes or historically marginalised communities, facing systemic barriers to socio-economic mobility and inclusion. Discrimination based on caste can affect access to housing, education, healthcare, and employment opportunities, perpetuating cycles of poverty and inequality (Berreman,1979; Sharma, 1993).

In informal communities, caste identities intersect with other forms of marginalisation, such as poverty, gender, and ethnicity, exacerbating vulnerabilities and exclusion. Residents belonging to lower castes may encounter prejudice and stigmatisation, both within their own communities and in interactions with dominant caste groups. This can manifest in limited access to community resources, exclusion from decision-making processes, and unequal treatment in social institutions (Rao, 1990). Furthermore, caste dynamics influence power dynamics within informal settlements, often reinforcing existing hierarchies and disparities. Dominant caste groups may wield disproportionate influence in local governance structures, exacerbating inequalities in decision-making. Moreover, caste-based networks and affiliations can shape social capital and access to support systems, affecting resilience and coping strategies in the face of challenges such as disasters or economic shocks.

Efforts to address caste-based discrimination and inequality in informal settlements require multifaceted approaches that acknowledge the intersecting nature of social identities and inequalities. This entails promoting inclusive policies and interventions that prioritise the voices and needs of marginalised communities, while also challenging entrenched attitudes and beliefs that perpetuate caste-based prejudice and exclusion. By fostering greater awareness, dialogue, and solidarity across caste lines, it is possible to cultivate more equitable and inclusive communities where all residents can thrive irrespective of their caste background.

CHAPTER 3

THE RESEARCH IN ITS CONTEXT: A STUDY SITUATED IN HIMACHAL PRADESH, INDIA

Chapter 3: The Research in its Context: A Study Situated in Himachal Pradesh, India

3.1 The Case Study

The case study presented in this thesis delves into the intricate dynamics of DRR within the state of Himachal Pradesh, situated in northern India (see figure 2). Specifically, the research concentrates on three distinct informal settlements nestled within Shimla City: Krishna Nagar, Idgah, and Phagli (see figure 3). Himachal Pradesh, renowned for its breathtaking landscapes and cultural richness, is characterised by a diverse terrain encompassing soaring Himalayan ranges, verdant valleys, and swift-flowing rivers. Despite its natural splendour, the state is notably vulnerable to a spectrum of natural hazards, including landslides, flash floods, and earthquakes.

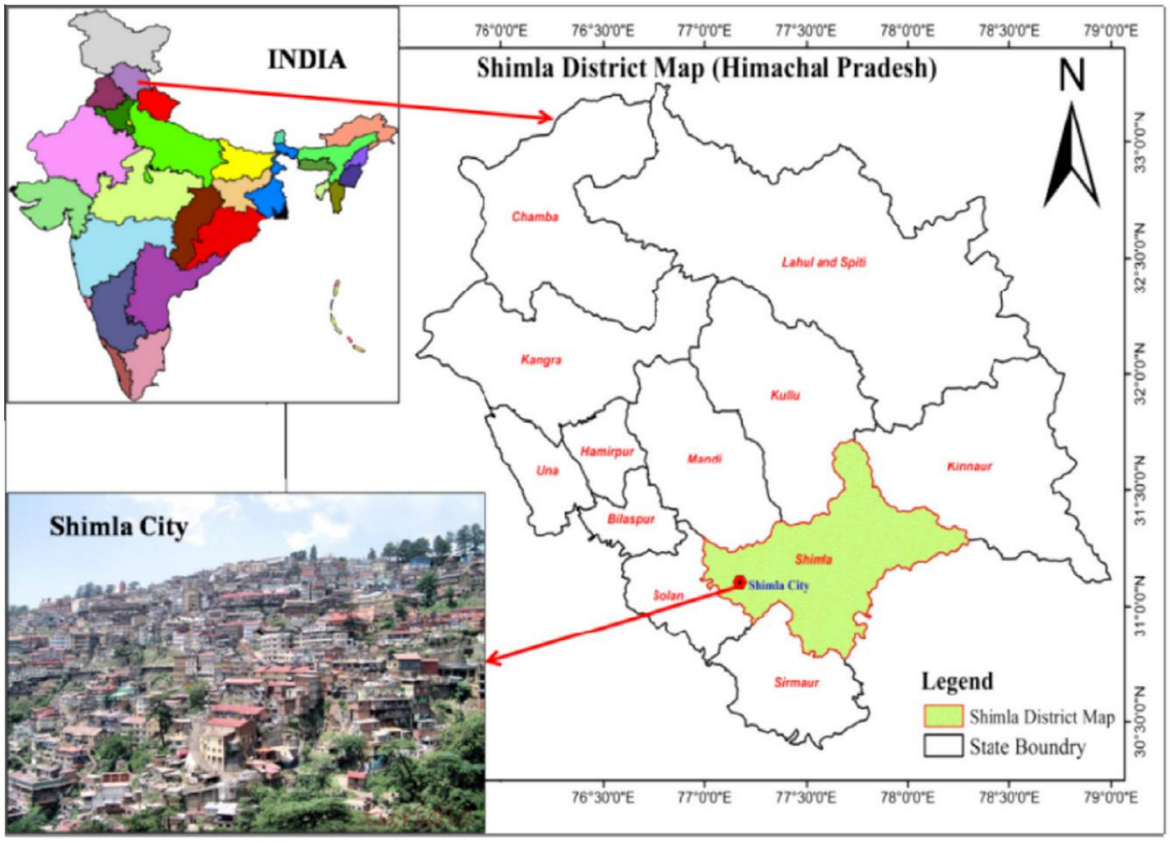

Figure 2: Himachal Pradesh and Shimla City Map (Source: Sharma et al., 2015).

The focal point of this investigation is the catastrophic landslides that ravaged Himachal Pradesh in August 2023. This calamitous event serves as poignant real-life case study, providing invaluable insights into the resilience, coping mechanisms, and vulnerabilities of the people residing in the aforementioned communities. By contextualising the study within the aftermath of such a recent and impactful disaster, participants were afforded a tangible frame of reference, facilitating more nuanced and introspective responses regarding DRR practices and challenges within their respective communities.

Shimla City, the capital of Himachal Pradesh, encompasses a diverse demographic mosaic, including a significant slum population grappling with socio-economic disparities and environmental risks. Krishna Nagar, Idgah, and Phagli stand as microcosms of this larger urban landscape, characterised by densely populated settlements, inadequate infrastructure, and precarious living conditions. Against this backdrop, the imperative for effective DRR measures becomes all the more pressing, underscoring the urgency of this study's findings and implications for policy and practice, aimed at mitigating disaster risks and enhancing community resilience in vulnerable urban contexts.

3.1.1 Geography of the Study Area

Located within Shimla City, the three chosen informal settlements (see figure 3) make up the study area for this research. As of 2011, Shimla City houses a population of 169, 578 people, with an estimated 11,500 of those living in informal settlements (Census of India, 2011). The Krishna Nagar community, located in the heart of Shimla City, sits on a hillside (see figure 9) just below the main commercial and administrative area of the city. This community houses an estimated 5000 people, living in 1213 households, consisting of approximately 40% of Shimla’s slum population (Jain et al., 2016). Established almost 100 years ago, Krishna Nagar spans approximately 4 square kilometres, situated within an area deemed 'non-developable'

according to the city's Master Plan (Jain et al., 2016). The dwellings within this community are structurally unsound due to subpar construction quality and are compounded by the steep terrain prone to sliding (Sarkar, 2023). Despite its central location within the city, the landholdings here possess minimal value due to the heightened risk of landslides. Nevertheless, residents from various states across the country have chosen to settle in this area, primarily finding employment as construction labourers within the city (Chand & Choudhary, 2014). Unlike Krishna Nagar, there is little to no information or research done on the settlements of Idgah and Phagli. Although Phagli boasts a larger land area than Krishna Nagar, satellite imagery shows the colony is somewhat isolated from the city centre and hosts less buildings from which we can assume a smaller population. Similarly, Idgah is pre-dominantly a muslin colony which is even further away from the centre, isolated to the other side of the main hill and is the smallest in terms of land area. Phgali and Idgah's populations are hard to estimate due to no official record published by any organisation.

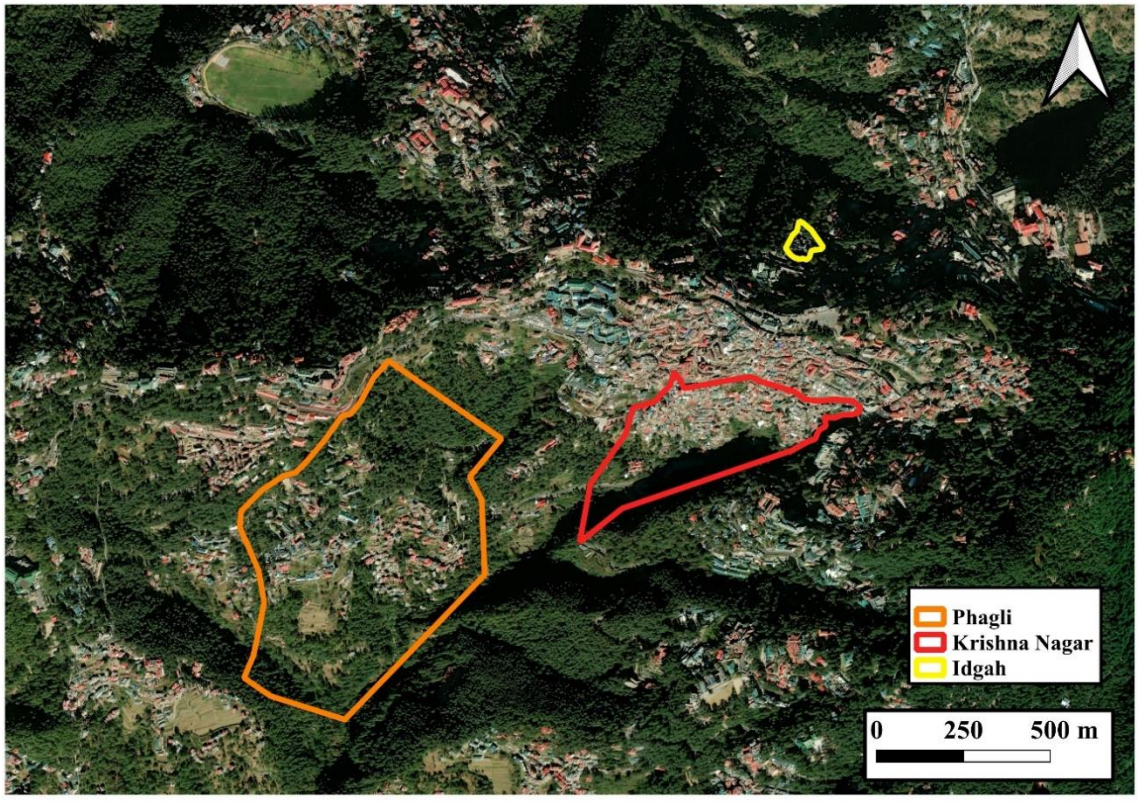

Figure 3: The Study Area: the three informal settlements (Author's own, 2024).

3.1.2 The August 2023 Landslide Disaster

The August 2023 landslides in Himachal Pradesh stand as a poignant case study illuminating the multifaceted challenges of disaster risk within the region, particularly for those residing in informal settlements. The event unfolded amidst the monsoon season, a period notorious for triggering floods and landslides in the Himalayan state. Heavy rainfall saturated the already fragile soil, exacerbating the instability of the mountainous terrain. In the affected areas, including Shimla City and its surrounding regions, the combination of steep slopes and inadequate infrastructure rendered settlements particularly susceptible to landslides (HCL Foundation, 2023).

The landslides, triggered by the incessant rainfall and geological fragility of the region, wreaked havoc on the landscape, unleashing torrents of debris that engulfed homes, roads, and farmland (Chhabra, 2023). The informal settlements of Krishna Nagar, Idgah, and Phagli bore the brunt of the disaster in Shimla, with their precarious locations amplifying the devastation. In these densely populated areas, characterised by substandard housing and limited access to basic services, the impact of the landslides was acutely felt. (Hindustan Times, 2023). For the residents of these informal settlements, the aftermath of the landslides brought about profound upheaval. Lives were lost, homes were destroyed, and livelihoods were shattered. The already marginalised communities grappled with displacement, economic hardship, and heightened vulnerability to subsequent hazards (LOCAL, 2023). Moreover, the landslides laid bare the systemic issues of urban planning, governance, and socio-economic inequality that perpetuate the cycle of risk for the urban poor.

In the broader context, the August 2023 landslides serve as a stark reminder of the urgent need for comprehensive DRR tailored to the unique vulnerabilities of informal settlements. This disaster underscores the imperative of proactive measures such as improved infrastructure, land-use planning, early warning systems, and community-based resilience-building

initiatives. By interrogating the complexities of the landslides and their ramifications for vulnerable communities, this case study offers valuable insights into the interconnected challenges for informal settlements, such as urban resilience and sustainable development, in hazard-prone regions like Himachal Pradesh.

CHAPTER 4

METHODS AND METHODOLOGY

Chapter 4: Methods and Methodology

4.1 Introduction

In this chapter, I describe the methodological approach and methods used to address the research aim and objectives. This chapter begins by discussing the methodological approach and justifies the use of qualitative methodology. I also justify the use of a case study approach and describe the site selection process with the support of a local NGO. Next, I detail the data collection methods by discussing the use of semi-structured interviews. I also describe the recording and transcribing process of the interviews, touching on the language challenges and the use of digital transcripts. Further, I explain the use of an inductive thematic analysis as a data analysis technique. Finally, I explain the ethical aspects taken into consideration for this study.

4.2 Methodological Approach

This study employs a qualitative research approach, drawing heavily from the methodologies outlined by Braun and Clarke. It utilises qualitative data and analysis techniques to underpin the findings and subsequent discussions.

Qualitative research involves the utilisation of written and spoken language to comprehend and interpret meaning and the process of meaning-making (Braun & Clarke, 2013). The decision to adopt a qualitative approach over a quantitative one was driven by the necessity of the research topic to gather rich data consisting of detailed and intricate narratives from diverse participants. This study also employs a non-positivist paradigm as the nature of the outlined theoretical framework (see section 2.3) requires a multifaceted lens to interpret the subjective experience of the participants and understand the social constructs within informal settlements (Aliyu et al., 2014; Ashworth, 1997). The outlined approach is well suited to this research as

the data collected encompasses various perspectives of existing DRR efforts and policies in informal settlements, it also outlines the experiences of local participants in relation to a real-life disaster event. Moreover, individuals in the chosen communities have close relationships with each other so adopting a qualitative approach explores these dynamics in greater detail and allows me to interpret them within the context of the theoretical framework.

4.2.1 Case Study Approach

The nature of this research required a specific case study to support the data collection process. A case study can be defined as a research approach focused on in-depth empirical investigation of one or a few phenomena, aiming to understand the unique configuration of each case and uncover features common to a broader class of similar phenomena (Baskarada, 2014; Bennett & Elman, 2006). This approach involves developing and evaluating theoretical explanations based on the findings (Porta and Keating, 2008; Starman, 2013). Investigating the day-to-day processes within real-life contexts or examining the intricate relationships present in real-world situations is essential for gaining insights into the pathways through which a phenomenon unfolds (Chowdhury et al., 2021; Mohajan, 2018). The decision to employ the use of a case study was based on the criteria outlined by Porta and Keating (2008) which state the following points:

1. The case serves not only as a unit of analysis or observation but also as a theoretical category.
2. The case is not inherently defined by spatial boundaries, this depends on the theoretical framework chosen by researchers.
3. The phenomenon examined in a case study is not restricted to contemporary occurrences; it can also encompass historical events.

4. Data collection methods in a case study can encompass quantitative, qualitative, or a combination of both approaches.

As mentioned, this study interprets the findings through the lens of theoretical framework. Point 2 of Porta and Keating's criteria stood out as a reason to adopt a case study. This allowed me to construct a framework to understand the complexities of the data by breaking down intricate systems into smaller components (Ravitch & Carl, 2019). The limitations of a case study approach, as outlined by Allan (2003), include the prioritisation of local perspectives which potentially overlook broader socio-political drivers and power dynamics. However the author suggests that this can be integrated into the study using a suitable analytical framework, which is reflected in the theoretical lens for this study.

4.2.2 Fieldwork Navigation and Site Selection

For the fieldwork component of this research, I collaborated closely with a local NGO based in Shimla, known as "Doers." Doers is a well-established organisation dedicated to addressing various disaster-related, social, and developmental challenges in the state of Himachal Pradesh. They are actively involved in community empowerment, education, healthcare, and livelihood initiatives (Doers, n.d.). With a deep understanding of the local context and strong connections within the community, Doers plays a pivotal role in facilitating grassroots-level interventions and initiatives.

Employing a local level organisation like Doers was paramount for the success of my data collection. Their intimate knowledge of the area, including its social dynamics, cultural nuances, and geographical intricacies, provided invaluable insights and logistical support. Moreover, their established relationships and credibility within the community helped foster trust and cooperation among residents and government informants, which was essential for gaining access and conducting interviews. In collaboration with Doers, the study sites were

strategically selected for data collection based on several criteria. The sites, namely Idgah, Krishna Nagar, and Phagli, were chosen for their status as informal settlements and their location in vulnerable areas such as hillsides, isolated regions, as well as poor infrastructure and dense living conditions. These criteria were essential for ensuring that this study captured the unique challenges and vulnerabilities faced by residents living in precarious conditions. The selection process primarily depended on the expertise of Doers and their network of contacts within the chosen communities. By leveraging their local knowledge and connections, we were able to identify sites where residents were willing to participate and engage in the research process. This approach not only facilitated smoother data collection but also enhanced the validity and reliability of our findings by ensuring a diverse and representative sample of participants.

Overall, the collaboration with Doers proved instrumental in guiding this fieldwork and site selection process. Their on-the-ground expertise, community engagement, and logistical support were essential components of my research methodology, enabling me to gain meaningful insights into the lived experiences of residents in informal settlements, in Shimla.

4.3 Data collection and Analysis

4.3.1 Semi structured interviews

During the data collection phase, I conducted thirteen interviews (see table 1) in October 2023. The interviews for participants 1-3 were held either in their offices or in a public setting. The local community interviews were all conducted in Krishna Nagar, Phagli, or Idgah, either just outside or inside the participants' homes.

Participant Code	Role	Organisation	Occupation	Location
Participant 1	State Government Informant	Revenue Department, Government of Himachal Pradesh (HP)	Special Secretary of the Revenue Department of HP and Director of Disaster Management HP	New Shimla
Participant 2	Local Government Informant	Shimla Municipal Corporation, Himachal Pradesh	Former Deputy Mayor of Shimla	Sanjauli, Shimla
Participant 3	NGO Informant	Doers NGO	Programme Director and Founder	Kasumpti, Shimla
Participant 4	Local Community Member		Shop Owner	Idgah, Shimla
Participant 5			Housewife	
Participant 6			Fruit Vendor	
Participant 7			Nominate Councillor	Krishna Nagar, Shimla
Participant 8			Admin Staff at Local Hospital	
Participant 9			Unemployed	
Participant 10			Farmer	
Participant 11			Housewife	Phagli, Shimla
Participant 12			Student	
Participant 13			Barber	

Table 1: Participant list and information.

- The HP Revenue Department is the administrative services department of the Government of Himachal. The department deals with a wide range of issues from tax collection to disaster-related projects.
- The Municipal Council of Shimla is the local level governing body in the City of Shimla. It is primarily entrusted with community development and basic civic amenities services.

Qualitative data collection through structured or semi-structured interviews has been a prevalent method in the social sciences (Adams, 2015; Braun & Clarke, 2013; Campbell et al., 2013; Schmidt, 2004). The semi-structured interview format was chosen due to its suitability for exploring experiences and perceptions, providing a framework that allows for rich insights into personal narratives. Its inherent flexibility allows conversations to evolve naturally, enabling participants to steer discussions towards relevant topics and unexpected areas of interest as they emerge (Adams, 2010). The semi-structured approach provided the necessary flexibility to accommodate new questions and ideas, fostering open and unrestricted dialogue among participants, unlike the confines of a structured questionnaire (Brinkmann, 2014; Karatsareas, 2022). To guide the discussions with participants, an interview guide was prepared for each participant group depending on their occupation or role within the community (see appendix 1). This ensured that the interviews were focussed yet flexible.

4.3.2 Recording and transcribing

With the participants' consent, all interviews were recorded using a mobile device, allowing for an uninterrupted focus on the conversation without the need for notetaking. Braun and Clarke (2013) emphasise the necessity of maintaining precise records of interviews to capture participants' responses accurately, along with the language and concepts they employ to describe their experiences and perspectives. This was especially useful in this study as some interviews were done in the local language. Audio recording the interviews also allowed me to focus on the participants' expressions and body language (Irani, 2019). In some cases, once the audio recording had been turned off, the conversation continued. In these instances, I took notes to ensure that no important information was lost. Following the interviews, the recordings were transcribed manually. I listened to the recordings back and forth to ensure I was accurately capturing what was said. The interviews for participants 1-3 were conducted in English, however participants 4-13's interviews were conducted in Hindi. In presenting the findings

(chapter 5), any quotes taken from these transcripts were translated into English by myself and then reviewed by a translator proficient in both languages.

4.3.3 Thematic analysis

The qualitative data collected through the semi-structured interviews was analysed by an inductive thematic analysis. An inductive approach meant that the data alone determined the themes presented in the findings chapter. Thematic analysis was selected as the primary method for interpreting the data, allowing for the identification of patterns, as well as the exploration of differences and nuances within the dataset (Braun & Clarke, 2013). As a widely utilised approach in qualitative research, thematic analysis facilitates the discovery of recurring themes and layers of significance pertinent to the research objectives (Braun & Clarke, 2013). The initial phase of thematic analysis involved familiarising oneself with the data, which entailed multiple readings, highlighting key words, and making preliminary notes on noteworthy answers. The next stage of thematic analysis consisted of coding the data, a process involving the identification of segments relevant to the research question and objectives. I tackled this by using Braun and Clarke's (2013) complete coding method. I systematically worked through the transcripts of each participant, highlighting anything that related to my research objectives and topic. Every highlighted element was then given a code based on the key points in the text. These codes were then grouped together based on recurrence and similarities, themes were then created and assigned to these codes, along with the relevant quotes and keywords. Braun and Clarke (2006) suggest that the recurrence of words or ideas throughout the data indicate something of importance or significance in answering the research question(s). When finalising the themes, I separated the data into three groups: Government Informants, NGO Informant, and Local Community Members. Initially, my analysis led me to creating 5-10 themes per group. I grouped these further, based on similarities until I was left with 3-5 themes per group. Throughout this process, it was important to keep returning to my transcripts to ensure

consistency in the analysis and to help me identify bigger patterns in the dataset. As this analysis was done manually, I aimed to be consistent in the process, allowing me to present an honest, accurate, and thorough interpretation of the participants' perceptions, experiences, and understandings.

4.4 Ethical Considerations

As this study collected data from human participants, there were several ethical concerns to consider. Following the rules and guidelines set out by The University of Auckland Human Participants Ethics Committee, Participant Information Sheets (PISs) and Consent Forms (CFs) (see appendix 2) were given to Doers NGO upon first contact, for the recruitment of the government informants. The PIS provided details on the purpose and design of the study, clearly stating what would be required of the participant if they should choose to participate. Details included in the PIS were, the time required from the participant, their rights during the study, and transparency on how the data will be used, who it would be used by, and how it will be stored. After answering any outstanding questions, the participant was asked to sign the CF and send it back via email. As Doers NGO became my main resource in the field, the local community participants were recruited through the NGOs contacts from previous projects and collaborations. While the local and state government informants were sent the PIS and CFs via the NGO, the local community participants were approached either in person or via phone. The local participants were read out important information from the PIS, in the local language and verbal consent was taken, before commencing the interviews. Local community participants were selected at random, based on who was willing to participate.

All participants were assured that they would be de-identified in this research. De-identifying the participants was important to allow the discussion of sensitive topics. Participants' names are protected by assigning codes, for example, Participant 1, Participant 2, etc. The only

personal information revealed about the participants is their occupation, to provide context of their position within their communities. The de-identifying of participants was a deliberate decision to show that this study is not to exploit or take advantage of, but to present the reality of informal settlers in relation to DRR, further providing an opportunity for decision makers to alleviate them from the severe impacts of disasters. Additionally, all participants were made aware that their contribution was on a voluntary basis and that there would be no reward or compensation for their involvement.

While undertaking this research, it was important to consider my position as a researcher. I acknowledge that my Indian heritage has influenced this research and this topic to a large extent. As I have not lived in India very long, my experience of the culture and Indian lifestyle is very different to what one would experience living there. Although these differences in life experience may cause some disconnect between myself and the participants of this study, I believe that my fluency in the local language helped to bridge this gap by allowing me to understand their perspectives better. As the researcher, I acknowledge that I bring my own subjectivity to this study, which is influenced by my own perspectives, experiences, and understanding of this field of study.

One major consideration for this study was the translation element of the data. As the interviews with the local community members were conducted in Hindi, there was concern of inequality of language. To make sure the essence of the data was not lost in translation, I have presented the quotes in Hindi and provided English translations, to the best of my ability. As mentioned, I also collaborated with a translator fluent in both languages to oversee these translations, ensuring that they were accurate and precise to preserve the authenticity of the original content.

CHAPTER 5

RESULTS AND FINDINGS

Chapter 5: Results and Findings

5.1 Introduction

This chapter presents the findings from an inductive thematic analysis of the 13 semi-structured interviews, of which I present in accordance with the previously outlined theoretical framework (see figure 1). As outlined in the objectives, I aim to highlight the current landscape of DRR initiatives in India, with a particular focus on their relevance to the urban poor, living in informal settlements. The dataset analyses these efforts at the national, state, and local levels, deciphering their intricacies and evaluating their efficacy in addressing the unique challenges faced by informal settlers, this notion delves into the first objective of this study. The second objective provides insight to the design behind these policies, revealing the layers to determine whether the urban poor have a voice in shaping this critical discourse. This objective takes us beyond the analysis of DRR policies, diving into the extent of inclusivity within decision-making processes. The third objective asks why the current processes are the way they are. To answer this, I analyse the factors that influence the role of the urban poor in shaping DRR, shedding light on the nuanced dynamics that either empower or marginalise their involvement. Finally, the dataset focuses our attention to the fourth objective which leads us to ponder the transformative potential of the current policies and agendas. The analysis highlights the actionable suggestions that can be derived from the data to elevate the priorities and concerns of the urban poor within the broader canvas of India's political agenda. This chapter not only illuminates the current state of affairs but also strives to chart a course towards more inclusive, effective, and equitable DRR strategies for the urban poor. As per the nature of the dataset, this chapter will cover the findings in three main sections, these are The Government Stakeholders; The NGO Approach; and Local Informal Communities. I dissect the dataset through these 3

actors to pursue a holistic understanding of the data and to gain 3 different perspectives to answer the outlined objectives.

5.2 The Government Stakeholders

To fully understand the scope of disaster related policies and agendas in India, it was important to gain a government perspective of what measures are in place and how these are implemented into informal settlements. I explore the role of government stakeholders at a local and state level (see table 1) to understand the design, implementation, and further potential of the current agendas. A thematic analysis resulted in three main themes from participants 1 and 2's interviews, these are 1) Policy Framework and Implementation, 2) Collaboration and Coordination 3) Focus on Informal Settlements. Polices and implementation explores the practical aspects of government policies, particularly focusing on the ground level implementation and the roles of various actors. The analysis delves into the application of policies in informal settlements, revealing insights into implementation challenges, policy design gaps, and inclusivity issues. Collaboration and coordination highlight the importance of effective cooperation among various stakeholders in DRR. The analysis explores this across different levels of governance and interactions with NGOs. A particular focus on informal settlements describes the challenges and considerations surrounding policies aimed at addressing the vulnerabilities of informal settlements. The interviews with the government informants maintain a particular emphasis on inclusivity in decision-making and explore the integration of vulnerabilities at the policy level. These themes are analysed and discussed through the lens of the theoretical framework.

5.2.1 Government

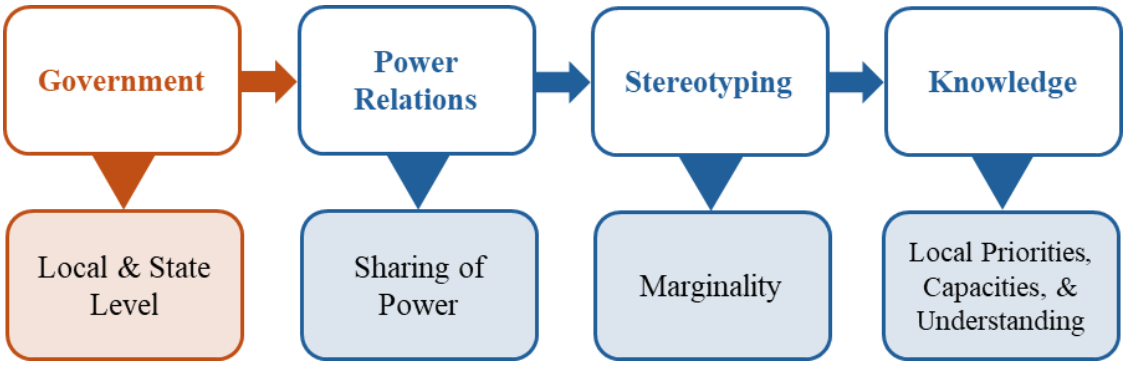

Figure 4: Levels of government involved in DRR in relation to informal settlements in India.

There is an obvious lack of concrete measures for informal settlements within the existing legislative framework. At a governance level it is important to note that each state in India has its own State Disaster Management Authority (SDMA), which works largely based on the framework outlined in the national Disaster Management Act (DMA) (2005). While the DMA provides a foundation for state policies, each state alters it to fit the landscape, economics, and population dynamics of itself. On one hand this highlights the influence of a broad legislative framework on informal settlements, indicating a potential power imbalance. On the other hand, the alterations to the DMA to fit specific contexts at the state level suggests a decentralised approach. In terms of land tenure in informal settlements, the land that is occupied is often property of the central or state government. As this is illegal occupation, informal settlers are often disadvantaged when it comes to post-disaster compensation under the national housing policy. This compensation primarily comes through an allocation of funds towards disasters; however, these funds often go towards response rather than prevention or recovery. This can be seen through the National Disaster Response Fund (NDRF) and State Disaster Response Funds (SDRF) which are largely responsible for relief and aid. This reflects a form of stereotyping as the housing policies generalise and penalise informal settlers for their living

situation, potentially perpetuating stereotypes about these communities. While the emphasis on response suggests a gap in knowledge and understanding the importance of proactive prevention measures for informal settlements. In terms of compensation and relief, the state government informant said the following:

> "We don't have any such policy as far as informal settlements are concerned, we have general policy guidelines for disaster management…we provide relief to the affected people as per the norms…if somebody has constructed some dwelling unit on government land, then he's not entitled (for compensation) for the house or any part of the structure he has made."
>
> [Participant 1]

Participant 1 described the "general policy guidelines" as being "fairly implemented" throughout the state through schemes such as relocation. Relocation in India is largely used as a public housing initiative, usually taking place within the state. This initiative is set up for those who have lost their homes in the aftermath of a disaster. These houses are constructed away from vulnerable land and are ideally located on the outskirts of urban areas, ensuring longevity of the homes and decongestion in urban spaces.

These major gaps in policy can be attributed to the limited support for DRR in informal settlements and in general throughout Indian communities. Participant 2 touched on the presence of international assistance in Himachal Pradesh, expressing that support from the United Nations is given in the form of climate experts, however the participant was sceptical of the direct contribution these pupils have to climate related DRR, in or out of informal settlements.

> "I don't think there's any international assistance with DRR, except some, that UN support was there as a climate expert person…but they don't work in informal settlements in the state."

[Participant 2]

The scepticism about the effectiveness of international assistance in informal settlements implies a lack of understanding or acknowledgment of local knowledge and needs in DRR efforts. The same participant touched on local level legislative gaps. From the analysis, I have observed a limited role of the local government (Shimla City Municipal Corporation) in disaster-related decision-making. Participant 2 suggested the extension of the DMA at a city level with emphasis on adjustments to accommodate city-specific organisations such as the City Disaster Management Authority (CDMA). However, the participant expressed frustration around the non-ratification of the CDMA in Shimla City during their time in office, leaving policy implementation to work largely at the state level in Himachal Pradesh.

> "…when there is a disaster, the call is not taken by the mayor of the town. The call is taken by the Deputy Commissioner of the State. So, I think that those nuances have to be in built in the structural positioning of not just assessing the vulnerabilities, but also when it comes to mitigating and, post disaster as well."

[Participant 2]

The frustration expressed by Participant 2 regarding the non-ratification of the CDMA suggests a form of power imbalances. The emphasis on structural positioning and decision-making being at the state level creates a view that centralises authority and takes decision-making away from local bodies. The participant further proposed the establishment of an environmental services officer as part of the Municipal Corporation for local level policy implementation and engagement with informal communities. The premise of this role being, to implement concrete

agendas under the DMA or the SDMA, for the urban poor. The proposal for an environmental services officer indicates a recognition of the importance of local level engagement and implementation, aligning with the theoretical framework's emphasis on integrating local knowledge into DRR.

Collaboration and coordination between actors are a crucial component of actively managing and mitigating disasters in any community. The findings describe collaboration at different levels of governance and engagement with NGOs. The analysis found that collaboration is mostly present between state and central agencies and often occurs in the form of financial assistance. The obvious challenge with funding is the level of adequacy to effectively implement plans, thus reducing the impact of collaboration.

> "सेंट्रल सरकार ने हिमाचल सरकार को २५० करोड़ (रुपये INR) दिया लेकिन इस आपदा के नुकसान पर १०,००० करोड़ खर्च किए गए हैं, तो यह उपयुक्त नहीं था। इसलिए अब स्टेट सरकार और कर्ज में आ गई है."
>
> [*The central government gave 250 crore Indian Rupees to the Himachal Pradesh government, but the expenses incurred due to this disaster amounted to 10,000 crores. This was not appropriate. So, the state government has now incurred more debt.*]
>
> [Participant 4]

Participant 4 spoke about this in relation to the August 2023 landslide disaster. The funding given to assist with the impacts of the disaster was not adequate in comparison to the severity of damages it caused, leading the state to spend more in relief and aid, thus accumulating more debt. The findings also present hindrance in collaborative efforts at a local level due to the strong presence of a state-led development model which challenges local efforts. Participant 2 spoke of this in relation to engagement and collaboration with NGOs.

> "…there are hardly any NGOs, neither does the city approach them…you should understand the development model. The model of development in Himachal Pradesh is all state-led development, where state plays a pivotal role. So civil society groups, actually are very few, even if they are existent…I think there's a far better, wider role that the civil society groups have to play, but that engagement is very little."
>
> [Participant 2]

From my own time spent with Doers NGO, I found that there is a lack of engagement with NGOs at a local level, rather they are used as resources at a state level. NGOs are often seen as entities with specialised skills, resources, and expertise. At the state level, where there are larger and more complex challenges, the government views NGOs as valuable resources to address broader issues, drawing upon their knowledge and capabilities. I participated in such activities myself, where I was sent with the programme director of Doers to two different districts (Chamba and Lahaul) as resources persons, to give DRR and climate change adaptation trainings to government officers from various departments such as forestry, agriculture, and the state public works department. My experience coincides with participant 2's evaluation of NGO engagement, where they emphasise the need for increased collaboration between local municipalities and NGOs. From a theoretical framework perspective there is an obvious lack of power sharing between state and local government. Further discussion with participant 2 on interagency collaboration revealed the Municipal Corporation's initiative to establish a Social Justice Committee which is mandated by the 75th constitutional amendment. Participant 2 describes the efforts to operationalise this committee with intent to spark engagement between the Municipal Corporation and local NGOs, as well as engagement with vulnerable groups of the community.

> "…the act that's part of the 75th constitutional amendment, in that there is a proposal that we ought to have a social justice committee. It's a standing committee of Council and the chairperson is the deputy mayor of the city…so never did that official meeting take place to appoint a committee, but we still met regularly. And we used to invite people, most of them from informal settlements. People would come to place their grievances, and then the address would take place. In that we engaged with some of the NGO groups, asked them to bring informal dwellers to the meeting. So, there was one from the Dalit community from Krishna Nagar, who was part of that Social Justice Committee. So that is how the engagement was done through the social system…so that structure already exists, we just need to enhance it or empower it for our communities."
>
> [Participant 2]

Apart from legislative efforts the Shimla Municipal Corporation also undertook physical risk assessments of informal settlements using the Hazard-Vulnerability Risk Assessment (HVRA) tool. The HVRA was used to understand vulnerabilities in informal settlements by identifying extreme vulnerabilities and quantifying the number of dwellings that come under this category. However, a successful outcome would only be achieved with acceptance that retrofitting is not viable for these extremely vulnerable houses and that rehabilitation for these houses would cause social and political problems as well as not achieving any level of prevention.

5.2.2 Power Relations and Stereotyping

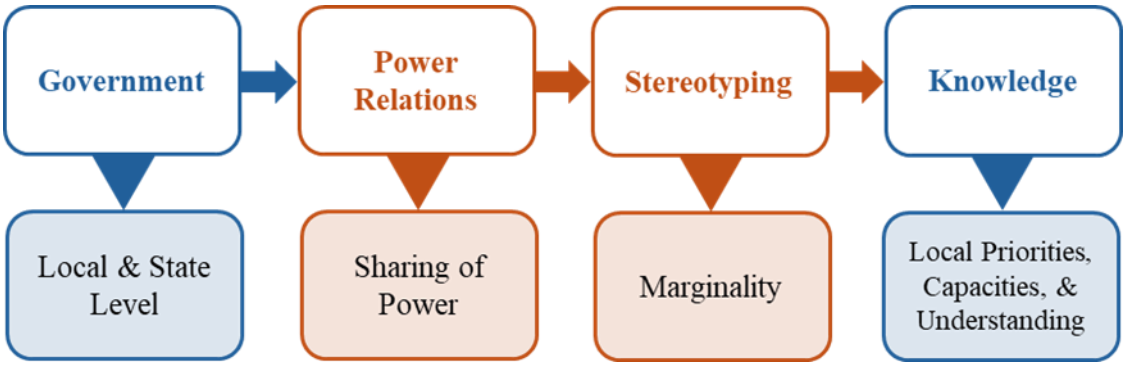

Figure 5: Power relations and the sharing of power between government, NGOs, and local communities and stereotyping of local informal communities in society and policymaking.

Discussions with the government informants explored the presence of inclusivity in decision-making as well as addressing the vulnerabilities of informal settlements, and how these vulnerabilities can be incorporated at the policy level. Notably, my analysis showed challenges in implementing such polices within informal communities due to the underlying social fabric.

At a local government level, there is a lack of participation of informal settlers in the policymaking process. My analysis indicates concerns about democratic processes facilitating community participation because of barriers such as, marginalisation, community disbelief, mistrust, and frustration with the government. From a local government perspective, inequalities are a major barrier to inclusivity and public participation.

> "I think these are the important areas that we need to address because despite the fact that we (Himachal Pradesh) are far better than other states, there is a creeping inequality. So, how are we creating the DRR documents? I think it should be very people centric."
>
> [Participant 2]

The participant speaks of a people centric approach where the vulnerabilities of marginalised communities are placed on record after ground level consultation with locals or their community leaders. The larger challenge here is public accessibility to these policy drafts and documents, let alone the ability to assimilate information due to overall poor education and literacy rates. The solution discussed with participant 2, was to give the nominated leaders of each community access to hard copies of this information, including the relevant implications it will have on local dwellers. This person could then impart the knowledge within their community, based on their own language and social dynamics. This approach aligns with the concept of power relations by acknowledging the need to bridge the power gap between government and informal communities. The involvement of community leaders might be seen as a step towards decentralising power, but it's essential to scrutinise how much decision-making authority is actually transferred. This also aligns well with the knowledge component of the theoretical framework, acknowledging the role of information in DRR, however, this approach could be more explicit in considering and integrating local indigenous knowledge. The focus seems to be more on distributing information from the government, rather than understanding and incorporating the community's existing knowledge and practices. In terms of governmentality, establishing a form of local level communication with informal communities emphasises transparency and a pathway to building trust. However, it would be crucial to explicitly address concerns about the diversity of risks faced by informal communities. The communication must be a two-way channel where feedback and information are also taken from informal communities. The overall approach may also contribute to breaking down stereotypes by facilitating direct communication. Stereotyping is implicit in how marginalised communities are perceived, and the proposed approach may challenge these preconceptions by emphasising direct interaction. In terms of policy level action, community-led policies should begin at the panchayat *(village)* level then the state level polices should be

based on those discourses and integrated with the national DMA. Participant 2 recommends a layered policy approach, form a local government perspective, which would look like this:

Panchayat
+
District
+
National (DMA)
=
State Disaster Management Policy

At the state level, the analysis showed that public participation is conducted in the form of providing feedback of policy drafts.

> "Whenever (the state) government frames some policy, the government invites comments and feedback from all sections of society not linked to any particular section. So that feedback is taken into consideration before the policy issues are finalised. The feedback occurs by sharing the draft of that policy in the public domain…the government takes a call to take them into consideration or not to take them into consideration."
>
> [Participant 1]

There is a clear difference in the current approach, as outlined by the state government informant, versus what is suggested by the local level government informant (participant 2). An obvious way to describe this would be top-down versus bottom-up. Even though the current approach has some space for public consultation, it is not necessarily set up for engagement with informal settlements. This leads us back to the issue of literacy and accessibility, which implies that the current approach requires a certain level of literacy and accessibility for informal settlers to provide feedback, which is not the case for all residents of these

communities. Issues such as language barriers, limited access to information, or challenges in understanding complex policy documents, reinforce the importance of considering the unique circumstances of these communities. This touches upon the tri-lateral power dynamics between the central government, state government, and informal settlers. The literacy challenges point to potential disparities in power relations while contributing to the stigmatisation and exclusion mentioned in Perlman's (1975) breakdown of marginality. Perlman suggests that marginality can be explored through four categories: economic, political, cultural, and social. She further suggests that the urban poor aren't actually economically and politically marginal, instead are "exploited and repressed" and not socially and culturally marginal but "stigmatised and excluded", from the rest of society. This resonates with the case of participant 8's son, who, despite growing up in a slum, demonstrated remarkable academic achievements which secured his admission to a French university on an engineering scholarship. However, despite such achievements, informal communities like Krishna Nagar are still subjected to marginalisation. Perlman's ideas on stigmatisation and exclusion finds relevance in these settings. This sheds light on the broader issue of how stereotypes and biases affect the perception of the capabilities of individuals from marginalised communities, perpetuating social and cultural marginalisation despite their evident talents and achievements.

My analysis indicates that the gaps in government-community engagement occur because of the lack of understanding and education about disasters in informal communities. The government perceives informal communities as uneducated and therefore don't consider their existing knowledge as valuable, hence feeding into the idea of marginality. This perception may stem from historical biases, stereotypes, or a limited understanding of the diverse skills and expertise within these communities. The assumption that education levels directly correlate with the ability to contribute meaningful insights oversimplifies the complex dynamics of community knowledge. Moreover, dismissing informal communities as uneducated,

perpetuates social inequalities and marginalisation. Challenging this perception is essential to fostering more inclusive decision-making processes that acknowledge and leverage the wealth of local expertise and experiences within informal communities.

The inability of the current approach outlined by participant 1, to engage with informal settlements also reflects the hidden transcripts created by subordinate communities, as discussed by Scott (1990). In Scott's work, the hidden transcript represents the offstage or veiled forms of resistance that subordinate communities employ to mitigate exploitation and challenge domination. My analysis of the challenges faced by informal settlers, including the emphasis on grassroots involvement, mirrors the strategies employed in Scott's concept. This hidden transcript involves low-profile stratagems, resistance in everyday forms, and a consciousness of rights that cannot be openly claimed. Informal settlers, often confronted with precarious living conditions, may find themselves in a complex interplay between public endorsement of government policies and subversive actions in practice. This paradox can be attributed to survival strategies, where outward support for policies serves as a protective shield against eviction or legal repercussions. Trust deficit in the government's ability to provide viable solutions further fuels this dynamic, prompting informal settlers to conform publicly while actively seeking alternative means to secure their homes and livelihoods. Limited access to resources and opportunities compels them to deviate from official guidelines as a pragmatic response to securing basic needs.

> "कुछ नहीं दिया (सरकार ने)…जब बरसात आई तो बस अपना गुजारा किया, घर में पड़े रहे… बस अपना गुजारा देखा."
>
> *[The government didn't give us anything...when the rain came, we just managed our own living, we stayed at home... just focussed on our own survival.]*
>
> [Participant 6]

> “हम ज्यादा कुछ नहीं मांगते, बस जो आवास योजना में आपने बोला है कि देंगे, वह देदो और हम खुश हो जाएंगे.”
>
> *[We don't ask for much, just give us what you promised in the housing scheme, and we will be happy.]*
>
> [Participant 13]

Drawing strength from community networks, informal settlers align their actions with locally devised strategies, even if they contradict official policies. Past experiences with ineffective government interventions contribute to shaping their behaviour, fostering a pragmatic approach that may not align with the intended outcomes of public policies. Additionally, the bureaucratic intricacies associated with government initiatives may lead informal settlers to adopt alternative, informal arrangements to meet immediate needs, further highlighting the nuanced challenges they face in navigating complex socio-political landscapes.

Just as Scott highlights the interconnectedness of knowledge, symbolism, and materials, the suggestion for a layered policy approach by participant 2 relays this by emphasising the importance of a people-centric agenda. In Scott's framework, acknowledging and addressing diverse risks can be seen as a form of hidden transcript – an implicit challenge to the dominant narrative that may oversimplify or neglect the varied experiences and vulnerabilities of different communities. Scott also implies that hidden transcripts serve as a form of empowerment for subordinate groups. Involving community leaders in information dissemination, can be seen as an empowerment strategy. It allows the community to articulate their concerns, share their knowledge, and actively participate in decision-making processes. By addressing concerns about the diversity of risks, the two-way communication channel becomes a space where the community's hidden transcripts, including their unique challenges and vulnerabilities, can be expressed and considered in the formulation of policies and actions.

The suggested layered approach emphasises inclusive policymaking by involving community leaders, addressing power gaps, and establishing a local level communication channel. This aligns with the imperative to downscale the focus to local communities and emphasising the importance of localised engagement. Moreover, advocating for community-led policies at various levels – from the panchayat to the national level – resonates with Gaillard's (2021) critique of treating communities as homogenous entities in participatory DRR. This layered approach to policy formation recognises the unique circumstances and dynamics at different administrative levels. Considering Gaillard's insight into the centrality of planning in DRR, there's a parallel drawn to the layered approach with emphasis on inclusivity and the necessity to address literacy and accessibility issues. Planning, as highlighted by Gaillard, is a vital component of the rationalisation within the Western project of modernity, emphasising the need for thoughtful and informed policymaking processes. Similarly, the suggested layered approach highlights the challenges of the current top-down approach, such as literacy barriers and the need for policies to be attuned to the unique circumstances of informal settlements. Furthermore, Gaillard's assertion that disasters provide an opportunity for states to assert power and sovereignty aligns with the observation of the tri-lateral power dynamics between central government, state government, and informal settlers.

5.2.3 Marginality and Knowledge

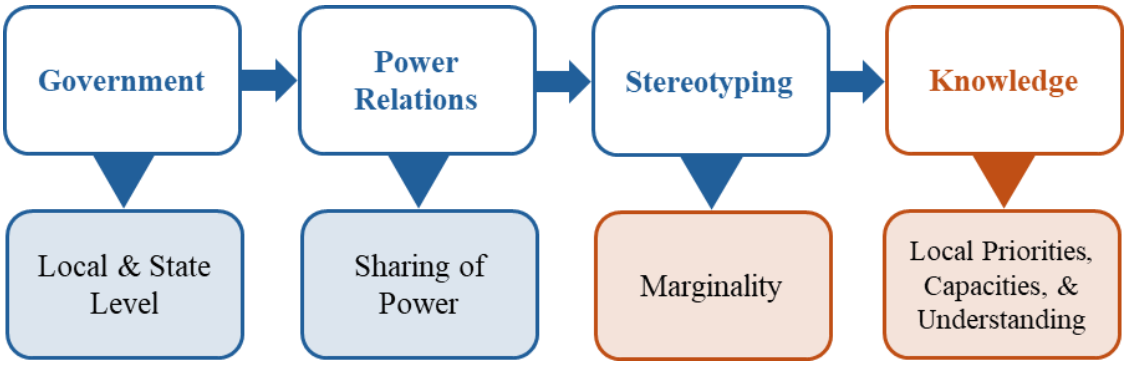

Figure 6: Marginalisation and knowledge, consisting of local priorities, capacities, and understanding in Indian disaster policymaking.

The social fabric of marginalised communities unravels itself in the face of policy implementation. Marginalised communities are complex and multifaceted, shaped by a combination of historical, economic, and environmental factors. These communities are often characterised by a diverse population with people from various cultural, linguistic, and ethnic backgrounds. Residents migrate from different regions, bringing with them a range of traditions, practices, and knowledge, hence displaying diversity and heterogeneity. The social interaction within informal communities is a notable aspect as these form informal social networks. These networks play a crucial role in providing support and sharing resources, while the shared experience of marginalisation contributes to the development of a distinct community identity and sense of belonging.

> "जिनके घर गिरे हैं, उनके साथ बैठे तो उनको ऐसे न लगे कि वे बेघर हैं, खाना भी दिया... उनकी बातें सुनी। यूनिटी देखी हमने कम्युनिटी में, जैसे एक का घर गिरा तो सब ने मिलके मदद की."
>
> *[The people whose houses fell (during the landslides), we sat with them, so they didn't feel like they have no home here, we gave them food and listened to them.*

We saw unity within the community, if one person's house fell everyone came to together to help.]

[Participant 8]

"रहना तो बहुत अच्छा लगता है फागली में...माहौल यहाँ का अच्छा है और सब मिलके रहते हैं."

[I like living here in Phagli…the environment is nice, and everyone lives in unity.]

[Participant 11]

"यहाँ पे दोस्त हैं और दिल लग जाता है."

[I have friends here and my heart is happy here.]

[Participant 12]

As the data suggests, residents identify strongly with their community, creating a sense of belonging that transcends the challenging living conditions. In facing common challenges, informal communities often develop collective coping mechanisms and community-led initiatives to address issues like post-disaster recovery. Understanding the social fabric of marginalised communities is essential for developing effective interventions that address their unique needs and challenges. It requires a nuanced approach that recognises the strengths and resilience within these communities while addressing the systemic issues that contribute to their marginalisation. Authorities are often faced with the challenges of social constructs when assisting informal settlements, such as caste dynamics and acceptance in society from other classes. Migrants who occupy unauthorised dwellings are often pushed out of their states and settle where there is social acceptance for them. With informal settlements it is important to understand slum ecology, even though the caste system is no longer used in legislation in India, it remains ingrained into the social fabric. This can become an issue for initiatives like

relocation, where people who are moved into public housing are not accepted into the area by other castes and classes. Participant 2 spoke of this in relation to Shimla:

> "Initially, the plan was to translocate them to housing near Dhingu temple…my three counsellors who come from two different political parties, BJP and Congress, they surround the hill there, and those counsellors didn't allow us to construct the houses for the vulnerable communities, because most of them were Dalits and how can Dalits stay there, near a temple? And near the councillors' homes who are from an upper cast group?"
>
> [Participant 2]

This caused controversy in emergency house allocation, meaning that families remained in vulnerable homes and the emergency houses were retrofitted and given to Municipal Corporation staff, hence vulnerabilities persist in informal settlements such as Krishna Nagar. In terms of state level action, the barriers are more political than social, this takes us back to the illegal occupation of government land. The state government finds it difficult to assist informal settlers by giving them land or ownership of permanent houses as the national land and housing policies do not permit such assistance. This means state governments assist through humanitarian relief and aid, providing food, water, emergency shelters, blankets, and clothes.

5.3 The NGO Approach

Gaining an NGOs perspective was crucial to understanding ground level DRR and the involvement of a neutral actor. I explore the role of NGOs through their own DRR programmes and collaboration with government actors. The thematic analysis resulted in three main themes: DRR Implementation, NGO-Government Collaboration, and Understanding Slum Ecology and Dynamics. My analysis reveals the pivotal role of knowledge in effective DRR

implementation, emphasising the need to comprehend local priorities, capacities, and community perspectives. This is backed by the indirect contributions from NGOs towards informal settlements through DRR education initiatives for government stakeholders, fostering their inclusion in broader development processes. NGO-government collaboration in DRR, highlights the pivotal role NGOs play in bridging the divide between informal communities and government bodies. My analysis delves into power relations, examining their impact on the empowerment of informal communities, with a specific focus on advocacy, challenges, and critiques. Understanding slum ecology and dynamics for effective DRR in informal settlements is crucial. I explore this through the research lens, focussing on stereotyping and marginalisation. The data underscores the significance of comprehending the intricate social, economic, and environmental dynamics within these communities. This analysis offers a ground level perspective and complements the theoretical framework by emphasising the role of knowledge, power relations through collaboration and coordination, and the understanding of local dynamics in disaster-prone areas. This integration provides a multifaceted understanding of how governmentality operates in disaster governance, offering implications for policymaking and acknowledging the contributions of diverse actors, such as NGOs, in shaping effective strategies for DRR.

5.3.1 Knowledge in Governmentality

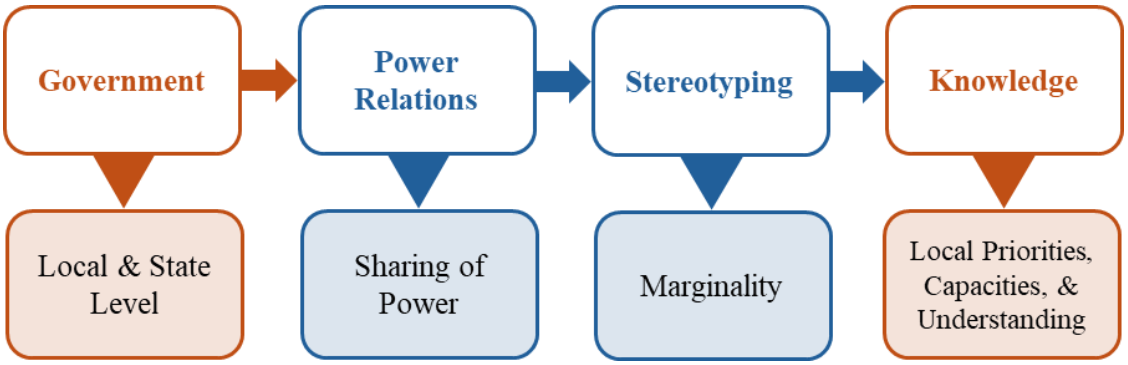

Figure 7: Governmentality and knowledge in DRR implementation.

Knowledge is an important component in achieving successful DRR implementation. To achieve this, we must learn the priorities, capacities, and the local understanding of DRR, within informal communities. The data largely presents findings on addressing the vulnerabilities of informal settlements and integrating these into the institutional landscape, as well as the delivery of DRR programmes in communities, and partnership with government actors.

Out of the few NGOs established in the area of study, all of which provide relief and aid in the aftermath of disasters, only one is focused on DRR. Doers NGO has established DRR specific programmes which teach prevention, preparedness, and emergency response. These programmes are implemented throughout the local community in Shimla, through schools, community centres, and local and state government departments. However informal settlements receive limited attention in these DRR interventions, as the programme designs often fail to address the unique vulnerabilities and capacities of informal settlers. This can be attributed to a perceived lack of local knowledge, where NGOs may lack an in-depth understanding of the local context, including the specific vulnerabilities and capacities of

informal communities. Insufficient community involvement may also hinder effective DRR initiatives that require the active involvement of the communities they aim to serve. If NGOs do not engage with informal communities during the programme design phase, there is a risk of overlooking crucial insights and needs. Limited resources may also contribute to this as NGOs often operate with tight budgets, which can constrain their ability to conduct thorough assessments and design programmes that are finely tuned to the complexities of slum environments. Some NGOs may also adopt a top-down approach, where decisions are made at higher organisational levels without sufficient input from the communities. My analysis points towards fragmented initiatives as NGO intervention does exist but focuses on specific hazards without considering the interconnected vulnerabilities within informal communities. My analysis found an underlying theme of indirect contributions from NGOs towards informal settlements, participant 3 spoke of this as something that happens through the mentioned DRR and climate change adaptation trainings, which are incorporated into the projects of various government departments, such as the public works department, forestry, and agriculture:

> "…when we build the capacities of government stakeholders, like how they promote inclusive DRR in their programmes and activities, then their capacities are enhanced, and it leads to the inclusion of informal settlements in the development processes."
>
> [Participant 3]

This leads us to understanding and addressing the specific vulnerabilities of informal communities. My analysis suggests that educational efforts would be the most effective way to achieve this, through the trainings that already occur for government department employees, there can be a specific focus on informal settlements so that there aren't only indirect impacts buts also direct impacts. However, educational efforts must be bottom-up approaches that incorporate local knowledge and capacities rather than top-down transfers of knowledge. A

particular focus on how information is distributed by government entities and NGOs is important, as it must be delivered in a way that is understood by locals, reflecting their level of knowledge on disasters. Here, the concept of governmentality could imply that the distribution of information by government entities may be influenced by a top-down approach, where those in power impose their perspectives without considering the nuanced understanding needed at the local level (Foucault et al., 2008). This could lead to communication that is not effectively tailored to the local context and may result in a disconnect between the information provided and the needs of the affected population. The "how" of information distribution highlights the need for a nuanced approach in providing information to locals, recognising the diverse perspectives and levels of understanding within the population. This highlights the role of government and NGOs in shaping knowledge and practices related to DRR, emphasising a form of governance that goes beyond just imposition, to engage with the local context and knowledge. The key to understanding the specificities of informal settlements is through understanding the concept of layered vulnerabilities, how the layers of vulnerability function, and how they interact with each other:

> "…if you have to prioritise any disaster preparedness, relief, or response intervention, you have to see how the different forms of vulnerabilities interact with each other…if you take the example of a migrant worker, who is also disabled and who is also jobless, then, things get worse for him."
>
> [Participant 3]

Through an NGO approach, not only should prioritisation be based on vulnerabilities but also on the expectations of the communities, which is paramount for comprehensive and impactful actions.

> "…we carried out research in an area which is largely inhabited by informal workers. So, at that time we tried to make their problems visible before the government because they are considered "no one", they are invisible. So, the reason why we carried out that research, we were trying to showcase that they are differential in terms of vulnerabilities, because they are not considered a part of the design of the cities and towns where they live."
>
> [Participant 3]

Participant 3 advocates for community involvement in the design process which ensures that the programmes are specifically tailored to local needs and preferences, fostering a sense of ownership and active engagement within the population. This approach acknowledges the importance of cultural sensitivity by respecting and aligning with local practices, beliefs, and customs (McCance et al., 2013). Effective communication is facilitated when DRR initiatives are rooted in community expectations, enabling clearer messaging that resonates with the local population. Moreover, incorporating the unique local knowledge held by communities enhances the relevance and precision of interventions, drawing on insights into specific vulnerabilities or historical experiences with disasters. By meeting community expectations, NGOs not only address immediate risks but contribute to building long-term resilience within the population.

NGOs can enhance the effectiveness of their community DRR programmes and address the root causes of vulnerability in formal settlements by actively incorporating community expectations through a set of strategic approaches (Seddiky et al., 2020). Commencing with robust community engagement and participation, NGOs should involve residents in the entire programme lifecycle, from planning to implementation. Comprehensive community assessments should delve beyond vulnerabilities, exploring the social, cultural, and economic

context. From my analysis of participants 3's interview, I have compiled a list of steps that can be taken by NGOs to achieve this:

1) Establishing partnerships with local organisations, leaders, and influencers facilitates effective communication and ensures that community expectations are accurately grasped.

> "I believe that communities need good communicators, so we can fill that gap as NGOs." – *Participant 3 speaking about community expectations*

2) Customising communication strategies to align with local languages and cultural norms enhances resonance and understanding.

> "I think DRR and climate change adaptation…they're still very fresh, even for, the general public. But if you're talking about, in particular these people (informal settlers), I don't think that they even know a bit about it." – *Participant 3 speaking about challenges in public understanding*

3) Utilising participatory approaches, such as community mapping and risk assessments, empowers communities to contribute actively to programme planning.

> "…direct them or provide some guidance on, for example, how to be self-sustained in terms of developing their own community led interventions, for example community managed DRR." – *Participant 3 speaking about community empowerment*

4) Identifying and empowering local leaders within the community adds credibility and builds trust, essential for programme success.

> "Leadership is present in informal settlements. The government nurtures this for votes and then the informal settlement leader will step back when government leaders come

into play because there is a sense of fear." – *Participant 3 speaking about leadership dynamics*

5) Prioritising inclusivity and considering the needs of all community segments, including vulnerable groups, ensures that interventions address diverse challenges.

> "…people who may not be even from here, who may not be living in the same kind of spaces, they are also our people, this moral imperative is the foremost and then everything follows because, once you see people without any discrimination or prejudice, then everyone is the same to you. And then you design policies to bring them to the same level." – *Participant 3 when speaking about inclusive approaches and the gap between ideals and implementation*

The aim of educational campaigns and DRR programmes is to raise awareness and align community expectations with programme goals. When it comes to educational campaigns within informal settlements, power dynamics play a crucial role. The content and approach of educational initiatives may be influenced by those in positions of power, potentially perpetuating existing stereotypes or challenging them. The inclusion or exclusion of certain perspectives and voices in educational materials can be a reflection of power relations within the broader society. Power dynamics may influence whose knowledge is prioritised and included in these initiatives. If there is a lack of inclusivity in decision-making processes related to DRR programmes, certain voices and perspectives may be marginalised, hindering the development of effective and contextually relevant strategies.

The aim of educational campaigns, as stated, is to raise awareness and align community expectations with programme goals. This aligns with the need to challenge stereotypes and address societal biases within informal settlements. Educational campaigns can be a powerful

tool to debunk misconceptions, foster understanding, and promote inclusivity. By actively countering stereotypes and providing accurate information, these campaigns contribute to creating a more informed and empathetic community. However, the success of these efforts depends on the acknowledgment of power dynamics, ensuring that the campaigns are not driven by biased perspectives but rather aim to empower and uplift the marginalised communities.

This sustainable partnership and continuous monitoring and evaluation mechanisms will enable NGOs to adapt programmes based on evolving community expectations, fostering lasting impact and resilience. Effective interventions would be those that incorporate this and reinforce the capacities that already exist in informal settlements, while using them to raise awareness of the strengths and resources of the community. Participant 3 describes their NGOs approach as two-pronged, focussing on preparedness and response. The preparedness approach is to proactively build capacities in the community through their DRR training programmes, while the response approach is based on prioritising the distribution of resources in communities, when responding to an incident. Although the preparedness approach is not implemented in informal communities, the NGO always assists with response through relief and humanitarian aid.

To effectively implement DRR in informal settlements, the awareness and perception of challenges is the first step. As suggested above by participant 3, for DRR interventions to yield positive outcomes, it is crucial for NGOs to acknowledge the prevailing low awareness levels among informal settlers, concerning DRR. The initial hurdle encountered by external actors engaging with these communities lies in the limited awareness surrounding these subjects. Complementing this issue is the behavioural challenge - prior to the commencement of educational initiatives, there exists the task of persuading individuals about the significance of

DRR (Heijmans, 2009). This challenge arises from the idea that certain preparedness and prevention measures may necessitate alterations to the day-to-day lives of these communities (Dominelli, 2010). If government action is taken into consideration, this is largely in response to disasters rather than in prevention efforts:

> "In terms of challenges, we have faced in our programme implementation, I think DRR is something that not even the government takes seriously, everyone finds the response as a fascinating thing. But when it comes to risk reduction, no one wants to spend time and invest resources into it. So, this behavioural challenge is I think the biggest thing we face."

[Participant 3]

It is not only the behavioural aspect that poses a challenge to NGOs but also varying perceptions of DRR between actors. The data suggests that the national and state government take a preference to response, and the local government and NGOs take a preference to risk reduction. Here, NGOs play a vital role in convincing other actors to consider things that have not yet happened and to instil future-oriented thinking in policy and planning. National and state governments, with their expansive resources and administrative capabilities, spearhead large-scale relief efforts, focusing on rescue operations, medical aid, and the rapid distribution of essential supplies. Their emphasis lies in efficiently mobilising resources to address the urgent needs of affected populations. This approach aligns with their overarching responsibility for coordination and control in DRR, playing out a more traditional role of the state in crisis management and reflecting the centralised and authoritative aspects of governmentality. In the past, it was more about governing specific territories, but now it's about managing populations (Foucault, 2007). This shift tells us how governance has adjusted to different situations, which is important when looking at how disasters are governed over the years. The focus on efficiently

mobilising resources to address immediate needs of informal settlers, aligns with this shift outlined by Foucault, emphasising the state's role in managing crises and asserting control over populations. On the other hand, local governments and NGOs adopt a more nuanced approach, centring their efforts on risk reduction. Operating at the grassroots level, these entities recognise the importance of community engagement and long-term impact. The emphasis on risk reduction involves strategies and practices aimed at understanding and mitigating potential hazards, reflecting a more decentralised and community-based DRR (CBDRR) approach. Within the framework of governmentality, one could consider how the state, NGOs, or other governing bodies use knowledge and power to implement and regulate DRR measures at the community level. However, the concept of CBDRR is a new form of neoliberalisation of DRR (van Niekerk & Coetzee, 2012). Neoliberalism is reflected in CBDRR through the pronounced emphasis on local communities taking charge of their own DRR measures (Barrios, 2017; Satizabal et al., 2022). This perspective on CBDRR as a form of neoliberalisation underscores the nuanced dynamics between neoliberal ideologies and community-based approaches in DRR. However, while CBDRR promotes community empowerment and local responsibility, it may serve as a mechanism for control, in disguise. Neoliberal governance techniques, as discussed by Foucault, involve shaping behaviour through various strategies (Hamann, 2009). In the context of CBDRR, the promotion of self-reliance and local responsibility could align with neoliberal governance techniques that seek to govern populations through indirect means. By fostering a sense of responsibility, CBDRR might be influencing communities to adhere to certain norms and expectations, within predefined boundaries, set by governing bodies (Sharma, 2019).

The observed divergence in preferences among actors underscores the complexity of governmentality in the context of DRR. It highlights the interplay of power, knowledge, and strategies deployed by different entities to govern and manage populations in the face of

disasters. Here, governmentality provides a lens through which we can analyse the intricate techniques and practices involved in governance. In governmentality, governance extends beyond traditional state-centric models, emphasising the strategic use of norms and discipline in the interest of those who hold power. These norms, which are societal standards defining acceptable behaviour, shape and influence individuals and populations in ways deemed favourable by those in positions of power. Participant 1's account on the general disaster management policies in place (see section 5.2), reflects the deployment of norms by the state government in the context of DRR policies for informal settlers, in Himachal Pradesh. The participant mentions that there are general policy guidelines for disaster management at both the national and state levels. These policies, functioning as norms, establish the acceptable standards of conduct in disaster management. The state government, by enforcing these norms, exercises a form of governance over the population. Additionally, participant 1 emphasises that assistance and relief are provided according to the "norms of assistance," indicating a structured set of rules dictating who is eligible for aid. Further, participant 1's remarks on the construction of illegal dwellings on government land reflects the imposition of norms or rules by the state, suggesting a disciplinary approach to those who violate rules regarding land use, by denying them compensation post disasters.

5.3.2 The Power Dynamics of Collaboration and Coordination

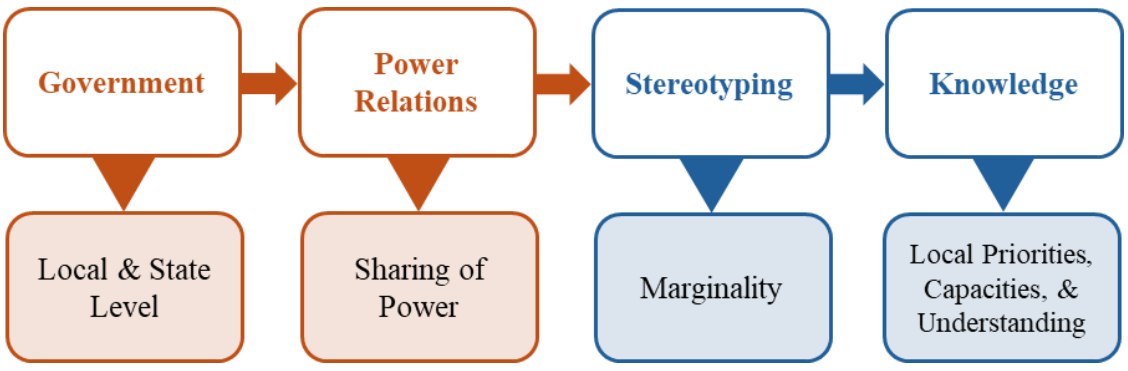

Figure 8: Power sharing between government and NGOs.

Collaboration and coordination between actors are crucial for successful DRR. This theme describes the vital role NGOs have in bridging the gap between informal communities and the government. This idea can be explored through power relations and how and where power is shared and how this impacts the empowerment of informal communities.

The data emphasises the importance of synergy and close coordination of NGOs with the government, in implementing DRR programmes. In terms of coordination, my analysis suggests that NGOs and government entities communicate well, while NGOs are allowed to implement their agendas within the community, without any government interference:

> "In terms of government allowing us to do our thing, there are no regulations as such, unless there is something critical, you know, but then we have never experienced any such instance where government tries to intimidate us or stop us from doing something."
>
> [Participant 3]

However, the data does suggest a gap in collaboration between NGOs and government entities. Participants 1, 2, or 3 do not speak of any sort of collaboration on DRR programmes for any communities in Shimla. Partnership can occur at various levels of government whether that is the state government, local municipal corporations, or the district and state disaster management authorities. Participant 3 believes it is the responsibility of NGOs to actively advocate for improvements, playing a vital role in voicing opinions and concerns to enhance collaboration. A successful collaboration would incorporate knowledge from both sides and integrate this with the specific needs of informal settlements for DRR and empowerment.

The importance of effective communication within informal communities is highlighted, emphasising the role of good communicators to bridge gaps. Participant 3 also illustrates the

obvious differential vulnerabilities of informal settlers. Informal settlements exhibit unique vulnerabilities to hazards. Often situated in precarious locations such as floodplains or steep slopes, these settlements are predisposed to events like floods and landslides, as seen in figure 9, the Krishna Nagar informal settlement sits on a steep slope, extending to the bottom of the hillside. Compounding the issue, is the poor infrastructure found in informal settlements, where overcrowded and poorly constructed dwellings are prone to collapse during earthquakes, landslides, or heavy rainfall. Limited access to emergency services and healthcare facilities, due to narrow and poorly planned pathways (see figures 10 & 12) further complicates disaster response. The informal nature of construction, with the use of cheaper and unstable materials, increases susceptibility to damage shown in figure 11.

Figure 9: The Krishna Nagar informal settlement, shown from afar, sits on a sloped, landslide prone environment (Author's own, 2023).

Figure 10: A scene from Krishna Nagar showing the narrow and uneven pathway leading down to the centre of the settlement (Author's own, 2023).

Figure 11: A scene showing building material debris, fallen onto the roof of a Krishna Nagar family's dwelling, post the August 2023 rain and landslide event (Author's own, 2023).

Figure 12: An area of Krishna Nagar, showing poorly planned construction, where one house sits right below another building on a hillside. Additionally, the lack of care with infrastructure can be seen through the proximity of electrical wiring to public pathways and homes (Author's own, 2023).

Additionally, the lack of formal land tenure and urban planning inhibits investments in resilient housing or infrastructure, this is evident in figure 12. Economic vulnerabilities stemming from poverty also restrict the ability of slum dwellers to prepare for or recover from disasters. The high population density in these communities amplifies the risk of casualties during disasters, while the lack of access to information hinders timely evacuation (Chand & Choudhary, 2014). Informal settlements often rely on precarious livelihoods, making them susceptible to disruptions caused by natural hazards, leading to income loss and exacerbating existing poverty. Addressing these multifaceted challenges requires a comprehensive approach encompassing improved infrastructure, secure land tenure, enhanced access to information, and measures to alleviate underlying socioeconomic issues. Participant 3 cites illiteracy as a major challenge in understanding government agendas.

> "...to make them (informal settlers) understand the most precise version of risk, I would say, because governments communicate something to them, but eventually, it doesn't either reach them or they are unable to comprehend it, so I believe that communities need good communicators, so we can fill that gap in particular, as NGOs."

[Participant 3]

Within the community, a culture of fear and silence in addressing societal issues is identified as a challenge. The data critically point out the exclusion of marginalised groups from policy discussions, leading to a lack of representation. Participant 3 identifies fear and silence as a significant barrier to rights advocacy, as people living in informal settlements are often too scared to speak up about their problems as they do not have home or land ownership rights to where they live. The participant suggests that political will and moral imperative must be practised in these situations to make improvements to the quality of life of informal settlers.

> "...the biggest challenge here is again the moral imperative and no one bothers about it, because, if there's this moral imperative, it gives birth to political will. If there is no communist or pro-communist kind of government, they would still try to engage with people from informal settlements. But if it's a mainstream kind of political party, either, the right wing or the centralist, then the story is different…because people who may not be living in the same kind of spaces, are also our people. Once you accept people, without any discrimination or prejudice, then everyone is the same to you. And then you design policies to bring them to the same level."

[Participant 3]

5.3.3 The Stereotyping and Marginalisation of Informal Settlements

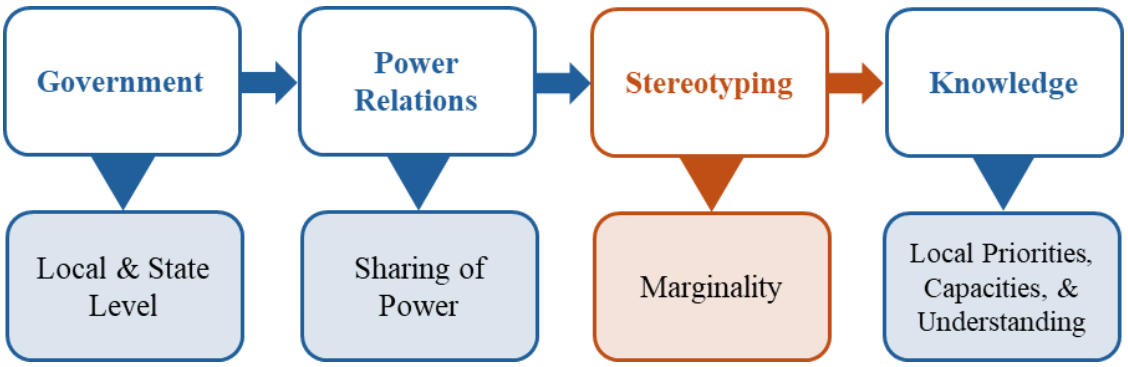

Figure 13: Stereotyping of informal settlements, leading to marginalisation in society and policymaking.

Understanding the ecology of informal settlements is crucial for effective DRR in informal settlements, due to their characteristic features such as dense populations, limited infrastructure, and precarious living conditions. These factors render informal settlements highly vulnerable to the impacts of natural hazards. My analysis delves into the social, economic, and environmental dynamics within informal settlements to inform DRR strategies tailored to their unique challenges. To explore these dynamics, the findings presented here focus on identity and community dynamics.

A critical aspect in the realm of DRR is understanding the social perception and behaviour within informal settlements. Identity intricacies and the sense of belonging significantly shape response strategies. Notably, individuals often adapt their identities for societal acceptance, including changes to their names, reflecting the dynamic nature of social structures within these settlements.

> “For a sense of belonging they (informal settlers) will tweak their names to match the rest of society, even though he may not look it, but he wants to utilise it.”
>
> [Participant 3]

The sociological significance of such adaptations underscores the importance of recognising the unique social fabric of informal settlements.

> “Sociology is important in informal settlements…fear is the biggest driver…people continue to live with risk, they don’t have a choice.”
>
> [Participant 3]

In DRR, acknowledging and leveraging the roles of influential figures, such as schoolteachers and community leads, becomes imperative for shaping social dynamics. Incorporating these individuals into decision-making processes ensures responses are rooted in the community's specific needs. By prioritising knowledge and need-based interventions through a theoretical lens, DRR becomes more effective and attuned to the sociological intricacies of informal settlements.

> "When you have a proper ground level analysis that is, what is the situation on the ground, who are these people, you try to know them and then try to include them, not just in DRR, but in all the developmental interventions.”
>
> [Participant 3]

This underscores the necessity of a holistic understanding of the ecology of informal settlements to inform strategies that address not only physical vulnerabilities but also the social dimensions that influence perception and behaviour during and post disasters.

The concept of power relations is apparent in the ways dominant groups influence social narratives and perpetuate stereotypes about marginalised communities. Policymakers, driven by their positions of power, can either challenge or reinforce stereotypes through the formulation of policies. Products of power dynamics such as social hierarchies, contribute to the development of stereotypes, maintaining control, and justifying unequal treatment. This influence contributes to the establishment of norms and expectations regarding how marginalised communities, particularly those in informal settlements, are perceived in the context of DRR. Normative expectations are shaped by the stereotypes perpetuated by these dominant groups, reflecting their power to influence societal norms. Policymakers, positioned within power structures, play a crucial role in shaping normative expectations as these norms embedded in policies which can either contribute to more inclusive and equitable DRR or perpetuate existing power dynamics that lead to unequal treatment. Inclusivity and power sharing promote a diversity of viewpoints, contributing to a more comprehensive local understanding of disaster risks. On the contrary, power imbalances may lead to the exclusion of certain voices, limiting the range of knowledge available for community planning, normative expectations may then reflect a narrower understanding of disaster risks.

The issue of equality is highlighted, that shows not only are basics lacking, but there exists a prevailing atmosphere of prejudice and bias. Migrants are pushed into vulnerable spaces, challenging their identity, and essentially leading them to become children of none.

> "If you talk to people in cities, there's often a lot of prejudice towards them. Whenever there's a crime in a city, all fingers point to them like "ओह इन लोगों ने किया होगा" [*these people must have done it*], this has happened a lot of times. So, when you have a proper ground level analysis where you try to know them and include them, not just in DRR, but in all the developmental interventions, you accept them and you don't consider them

> as aliens to your cities, then only you achieve the goals of resilience or DRR or climate change adaptation and so on. I think, unless you bring something at the policy level, this won't change."
>
> [Participant 3]

The sociology of informal settlements is explored noting how society marginalises informal dwellers, while government level marginalisation manifests apathy. A consistent and underlying theme of fear emerges in the data, stifling the advocacy for rights, as individuals are often reluctant to "call out" societal and governmental injustices. Despite the heightened risk and lack of choices, fear becomes the overriding driver to stay silent about one's grievances.

> "They (informal settlers) won't speak up for their rights because of fear as the government might say that "we are letting you stay on this land illegally" and they might take this away from them. So, people will stay with heightened risk but won't speak up as they don't want to upset the government… slum dwellers need to understand that they have a right and a responsibility, they should not project themselves as victims".
>
> [Participant 3]

The inadequate living conditions of informal settlers often lead to negative perceptions about the capabilities of individuals in these settlements. These negative perceptions, in turn, give rise to stereotypes that fail to recognise the diversity and unique qualities of the residents (see section 5.2.2). Such stereotypes perpetuate biases and stigmatisation, reinforcing societal misconceptions about the people living in informal settlements. Simultaneously, the adverse living conditions contribute to the marginalisation of these communities, positioning them on the fringes of social and economic considerations. This marginalisation not only affects the

way residents are perceived but also influences broader aspects such as policy decisions and resource allocation, thereby deepening the socio-economic disparities experienced by those living in informal settlements.

5.4 The Residents of Informal Settlements

While the government and NGO data offers a broader perspective, the local community perspective becomes indispensable in exploring the ground level impact and nuances of DRR in informal settlements. The analysis of local community interviews unveils crucial themes such as the emotional and psychological impact of disasters, community actions and dynamics, lack of information and communication, NGO and government intervention, and the impacts, responses, and challenges faced by the urban poor. My analysis delves into the emotional experience that residents of informal communities go through. The data highlights sentimental attachment to communities and homes, as well as the isolation and challenges that come with post-disaster recovery. The data also reveals scepticism in community outlooks, reflecting a lack of confidence in government contributions. My analysis further explores the lack of information and communication from government entities, revealing a disconnect between government and locals. These findings are discussed through the lens of stereotyping, governance, and power relations, allowing the reader to gain an understanding of the experiences of informal settlers amidst and post disasters.

5.4.1 Locals: The Psychological Impact of Disasters

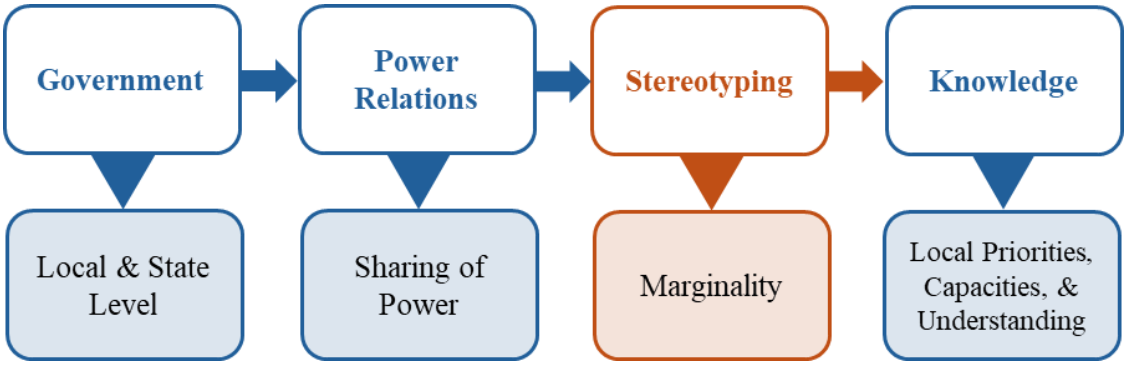

Figure 14: The stereotyping and marginalisation of informal settlements in disasters and DRR.

In the aftermath of disasters, the emotional and psychological impact on communities is profound. Marginalised communities are affected disproportionately as they rely heavily of informal work sectors for their livelihoods, which exacerbates their economic vulnerability further (Olsson et al., 2014). My analysis emphasises the sentimental attachment and positive emotions associated with community and homes. However, this emotional landscape is often impaired by fear and anxiety, which are heightened due to their precarious living conditions**.** Fear stems from the loss of lives, displacement of people, and the widespread destruction of homes and community structures. This shift in community sentiment is not a change in outlook, instead signifies a profound transformation in daily life, for example after the August 2023 landslides, now even the slightest rainfall induces anxiety.

> “पहले अच्छा लगता था कि स्नोफ़ॉल होगी और टूरिस्ट आएंगे, अब तो डर लगता है कि स्नोफ़ॉल से कुछ और नुकसान न हो जाए। सब बहुत डरे हुए हैं, थोड़ी सी भी बारिश आती है अब तो सब डर जाते हैं.”

[*It used to be nice when there would be snowfall, and tourists would come. Now, there's fear that snowfall might cause more damage (post the landslides). Everyone in the community is quite scared; even if there's a little rain now, everyone gets scared.]*

[Participant 9]

"अब जब बर्फ आएगी उसमें अब ज़्यादा डर है हम लोगों को, हम सोच रहे हैं कि क्या करें, अब बरसात में तो निकला गया टाइम जैसे भी, अब बर्फों में कैसे करेंगे टेंशन है, डर ही है। पेड़ पे बर्फ गिरेगी तो वह भारी होके गिरेगा ज़मीन कच्ची होने की वजह से."

[We are more scared for when the snowfall comes. We are thinking about what to do. The time during the rainfall was managed somehow, but now, there is tension about how to handle snow. If snow falls on the trees, they will become heavy and fall due to the ground being loose since the landslides.]

[Participant 13]

Participant 9 and 13's accounts indicate the physical vulnerability of their communities. The concerns expressed by the participants regarding snowfall reflects the limited resources and support available to their communities for recovery. These include adequate infrastructure, support systems, natural resources, and monetary compensation.

The emotional and psychological impact extends beyond sentiment as informal communities often find themselves in a state of isolation, grappling with a lack of support or contact (Walsh, 2007). As communities cope with the aftermath of disasters, these emotional and psychological dimensions emerge as critical elements that demand careful consideration in DRR. By doing so, risk reduction can be achieved not just in terms of physical infrastructure but also at a social level. Recognising the importance of emotional and psychological well-being in DRR policies contributes to enhancing the overall resilience of informal settlements, this fosters strong social

networks and community cohesion which play a pivotal role in disaster resilience (Ludin et al., 2019). This, in turn, enables residents to provide mutual assistance, share resources, and collaborate effectively during and after disasters. By strengthening social cohesion, communities are better equipped to withstand and recover from the impacts of disasters. Furthermore, integrating emotional and psychological considerations into DRR policies aligns with principles of equity and social justice. It acknowledges the unique vulnerabilities of marginalised populations living in informal settlements and seeks to address the disproportionate impacts they face during disasters.

5.4.1.1 Psychological Impacts in Relation to Governmentality and Power

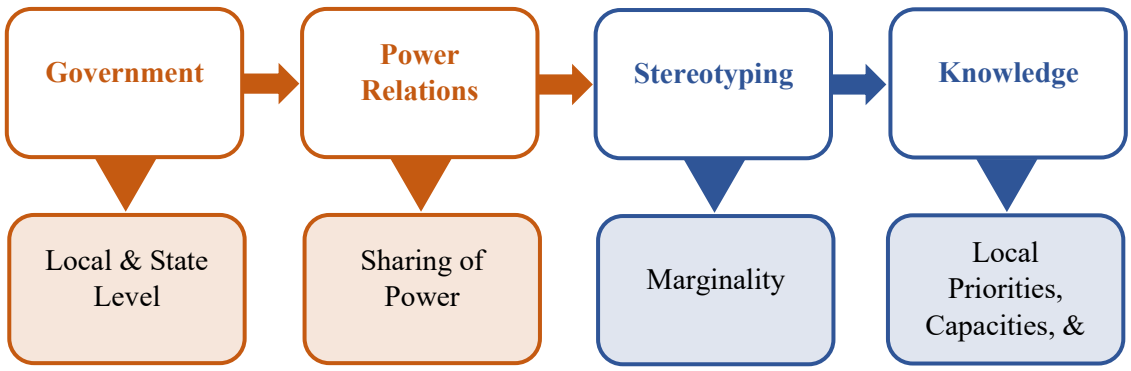

Figure 15: Government and power relations in relation to the impacts of DRR.

The emotional and psychological impact on communities reveals power dynamics, where fear and anxiety emerge as influential forces. The perceived lack of predictability and heightened uncertainty reflects the impact of power relations on individuals within the community. When we look at community outlook and attitudes, the data largely points to scepticism regarding the government's willingness or ability to provide timely assistance during crises. There is a strong perception that the government does not proactively contribute to mitigating the effects of challenges faced by informal communities, fostering an underlying fear of reliance on

governmental support. Therefore, cynicism towards political promises is heightened, especially when commitments that are made during elections remain unfulfilled.

> "नीति हमारे लिए नहीं बनी है, ये वोट मांगने आते हैं फिर दिखते नहीं हैं... मुद्दे पे कोई आता नहीं है, सब गोल गोल घुमाते हैं."
>
> [*The law is not made for us; they (politicians) come asking for votes and then they disappear... No one comes to address the issues; they just keep going in circles.*]
>
> [Participant 7]

The residents' scepticism about government support reflects a form of disciplinary power that influences behaviour and perceptions. The failure of the government to fulfil its promises, especially after elections, has significant implications for the vulnerability of informal communities, particularly in the face of disasters. When the government fails to deliver on its promises, it undermines trust and exacerbates existing power imbalances within society. This erodes the community's confidence in governmental institutions and reinforces feelings of disenfranchisement and marginalisation among its members. Furthermore, the failure to provide substantial support can have profound consequences for disaster preparedness and response efforts. Governmental support and resources are crucial for effective DRR, including early warning systems, evacuation plans, and post-disaster recovery initiatives. When the government fails to uphold its obligations, it leaves informal communities without essential support mechanisms, rendering them more susceptible to the impacts of disasters. The aftermath of elections often serves as a critical juncture where government accountability is put to the test. However, when promises made during the electoral process remain unfulfilled, it not only weakens the social contract between the government and its citizens but also perpetuates a cycle of dependency and vulnerability. The government's failure to meet its

commitments reinforces its influence over the community, consolidating its power and control. Moreover, the failure to address the needs of communities in the aftermath of elections can have far-reaching implications for social cohesion and resilience (Meerow et al., 2019). Communities that feel neglected and disregarded by the government are less likely to mobilise effectively in response to disasters. This lack of cohesion and collective action further compounds their vulnerability, as they may lack the necessary resources and support networks to withstand and recover from the impacts of disasters.

The influence and control exerted by the government illustrates the intricate web of power relations at play. Within the community itself, power operates through various mechanisms such as social norms, hierarchies, and local leadership structures. These internal power dynamics shape individuals' behaviours, beliefs, and interactions within the community. A prime of example of this is shown by the presence of a community councillor. The data highlights the pivotal role played by community representatives, as residents often rely on them for leadership and guidance. In Himachal Pradesh, the nominated councillor is appointed by the Chief Minister of the state. He or she is a resident of the local informal community they represent and assumes a leadership role in facilitating access to resources, coordinating assistance, and providing essential information. The community's interaction with this councillor becomes a crucial element in problem solving, from restoring electricity and water supply, post disasters, to addressing broader issues regarding legal documents and employment. The appointment of a nominated councillor illustrates their role in structuring and influencing power dynamics within the community. Because the person in this role is not elected by the community, this demonstrates the operation of power between the government and residents, by handpicking and individual that favours the governing party. The councillor's position of authority within the community reinforces this power dynamic as they are tasked with managing community affairs on behalf of the government, reiterating the government’s

influence over individuals' access to resources and support. Although the nominated councillor has the ability to act as a communication channel between their community in and the state government, participants criticised their councillors by expressing the need to maintain good relationships despite their frustrations and disappointment with the appointed individual.

"मैं काउंसिलर से बात नहीं कर सकता, वह मेरी आवाज़ नहीं है, लेकिन हमें उनके साथ रिश्ता रखना पड़ता है क्योंकि उनका साइन हर चीज़ के लिए चाहिए होता है."

[*I cannot talk to the councillor, she is not my voice, but we have to maintain a relationship with her because we need her signature for everything*.]

[Participant 7]

"सरकार ने कहा कि जिनके घर गिरे हैं या जिनके छतें उड़ी हैं, उनके नाम लिखकर दो, तो काउंसिलर ने तीन चार घरों के नाम लिखे और हमारा तो लिखा ही नहीं."

[*The government said to write down the names of those whose houses have collapsed or whose roofs have flown off, so the Councillor wrote down the names of three or four houses, but he didn't write ours*.]

[Participant 13]

5.4.2 A Communication Gap: Evaluating Government Intervention

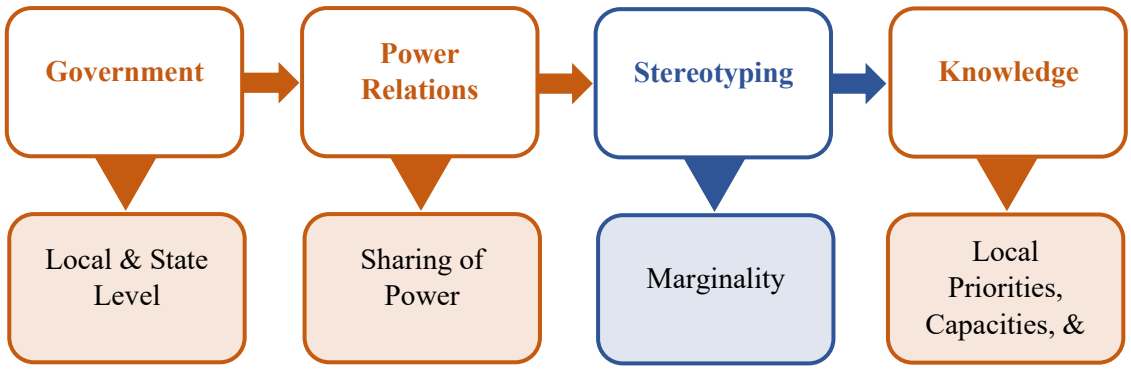

Figure 16: The integration of knowledge and power relations in government intervention.

During the August 2023 landslides, participants found themselves grappling with an acute absence of information regarding impending risks or any preparatory measures. The lack of information became particularly evident during evacuation processes when people sought further help, only to be met with little success. Barriers were caused by a lack of assistance from official channels, while those unable to read relied heavily on public alerts from radio or television. This highlights a layer of vulnerability as people had to rely on others for crucial information. This deficiency of information is not a result of lack of local capacities; instead reflects the inconsistencies of authoritative bodies at different levels, to disseminate crucial information. Criticism was directed towards the government for a lack of engagement, exacerbating the information gap and perpetuating a sense of marginality.

> "...ऐसे कोई सूचना नहीं थी , वही गूगल पे कि आज रेड अलर्ट है या ग्रीन अलर्ट है, वह चीज़ हमें पता थी, पर ऐसे किसीने आके हमको कुछ नहीं बोला कि यहाँ खतरा है तो आप घर खाली करो."

[*There was no such (preparedness) information, but we relied on Google Alerts, whether it's a red alert or green alert for that day. But no one came and told us that there is danger here, so we should vacate our homes*.]

[Participant 12]

"कोई सूचना नहीं थी, अलर्ट मोड पे रहो ऐसे कुछ नहीं बोला गया था, ना कोई सवालियात, ना कोई इंतज़ाम। कोई ऐसी तैयारी नहीं है। कोई संपर्क ही नहीं है। जनता कहाँ जाएगी इस बात के लिए कुछ नहीं था."

[*There was no information given; nothing was said to stay in alert mode, no inquiries, no arrangements. There is no preparation like this. There is no contact. There is no plan for where the public will go (during a disaster)*].

[Participant 7]

"सूचना तो अखबार से आती है, टीवी में भी, और फोन पे भी। बाकी लोगों को हम बता देते हैं जो पढ़े लिखे नहीं हैं। ऐसी सूचना वाली चीज़ तो कोविड के समय पे हुई थी, आपदा के लिए नहीं."

[*Information comes from newspapers, on TV, and on the phone. We inform other people who are not literate. Such information-sharing (by the authorities) happened during the time of COVID, not for disasters*.]

[Participant 8]

The power relations are evident in the participants' criticism. In the context of governmentality, where power operates through mechanisms of governance where the state exercises control over populations, the government's authority to disseminate information is a manifestation of its power to govern the population. The participants' reliance on the government for crucial

information during and post disasters, reflects the government's exercise of power through knowledge production and distribution. The power dynamic at play here is multifaceted. Firstly, the government's monopoly over information channels positions it as the primary source of knowledge, giving it a significant advantage in shaping perceptions and responses to crises. By comparing the August 2023 response, or lack thereof, to disasters like COVID-19, where information sharing was more widespread, participants highlight the government's selective dissemination of information based on perceived priorities and interests. With COVID-19 being a global scale pandemic, this put pressure on governments around the world to utilise all resources in response to the spread of the disease. World leaders and states were praised and criticised for their approaches, hence the importance of information sharing during the pandemic may have been highly prioritised. While communities may traditionally look to the government for information during and post disasters, it's imperative to recognise the importance of self-reliance and seeking alternative sources of knowledge. Depending on the government for information creates a power disparity wherein the government holds sway over the community's ability to make informed decisions and take appropriate actions during disasters.

Considering the evident power dynamics between communities and governmental bodies regarding information dissemination, it becomes imperative to emphasise the significance of proactive measures at the community level, as outlined above. By taking proactive steps to access diverse sources of information and knowledge, communities can empower themselves to make informed decisions and take appropriate actions in the face of disasters. Thus, instead of being solely dependent on the government, communities can actively engage in building their resilience and capacity to respond effectively to hazards.

CHAPTER 6

DISCUSSION AND IMPLICATIONS

Chapter 6: Discussion and Implications

6.1 Introduction

In this chapter, the research findings are discussed in the context of the theoretical framework outlined in chapter 2. In the first section, the decentralisation of DRR efforts and the importance of holistic approaches are discussed. The next section touches on navigating the marginalisation of informal communities through power dynamics. Next, I discuss navigating power through caste dynamics and how this affects DRR in informal settlements. I then discuss the dynamics of NGO-Government collaboration and the importance of integrated approaches in DRR. Finally, I deliberate community-government relations, touching on scepticism and mistrust.

6.2 Decentralisation Dynamics: Power, Collaboration, and Governance in DRR Efforts

In this study, the decentralised approach adopted by each state in customising the national DMA reflects the intricate mechanisms of governance elucidated within the framework of governmentality. This decentralisation allows for adaptation to local contexts but may lead to inconsistencies and potential power imbalances across regions (Faguet, 2014). The data presents challenges faced by informal settlers in accessing post-disaster compensation due to their legal status which highlights the marginalisation of these communities within formal governance structures, underscoring the power dynamics at play. Because informal settlers often lack formal property rights or legal recognition of their settlements, they may face barriers in accessing relief and compensation mechanisms provided by the government (Durand-Lasserve (2006). This disparity in access to resources and support perpetuates existing power imbalances, with formal governance structures often favouring those with legal recognition

and property rights. Scott and Tarazona's (2011) research sheds light on the multifaceted impacts of decentralisation on DRR efforts. Their findings highlight the critical role of local government capacities in effectively implementing DRR measures, with low capacity at the local level identified as a significant constraint on marginalised communities. Strategies such as technical assistance and training programmes are suggested to address these capacity gaps, although political economy factors, such as deliberate under-resourcing of local governments, pose challenges (Scott & Tarazona, 2011). Scott and Tarazona (2011) also found that decentralisation influences funding arrangements for DRR, often leading to the diversion of funds away from risk reduction activities due to competing priorities and political dynamics. Similarly, in this study, the data points to the predominant focus on response rather than prevention or recovery in government initiatives, reflecting a disciplinary approach to governance, wherein societal norms and expectations shape policy priorities. The initiatives primarily targeting the houseless and landless reveal stereotyping within disaster policies, with a tendency to categorise and address the needs of specific social groups based on perceived vulnerabilities. This approach may overlook the diverse experiences and capacities within informal settlements, perpetuating existing power differentials. Furthermore, the limited role of local government bodies in disaster-related decision-making underscores the need for greater decentralisation and empowerment, aligning with Foucault's emphasis on the dispersion of power throughout society.

Decentralised approaches can be achieved through collaborative efforts between stakeholders at various levels of governance or with NGOs (Rajashekhar, 1999). In this study, the collaboration between state and central agencies occurs primarily through financial assistance, highlighting the intersection of power and knowledge within disaster governance. The allocation of resources and the prioritisation of certain areas or communities over others, reflects the distribution of power. Limited engagement with NGOs at the local level indicates

a gap in knowledge production and dissemination, with local perspectives and capacities potentially underutilised in DRR efforts. Efforts to enhance collaboration, such as establishing a Social Justice Committee as suggested by participant 2, demonstrate attempts to address these knowledge and power imbalances. Peters et al's (2022) research suggests that effective DRR requires cooperative partnerships between formal and informal governance structures. Their findings show evidence of the success of these partnerships at the city and national levels. This involved training local volunteers, establishing community-led emergency committees, and bridging gaps between formal and informal governance systems. The authors further suggest maintaining a long-term presence in the communities, conducting regular assessments to track changes over time. They also developed dynamic communication strategies to facilitate ongoing engagement and feedback among various stakeholders. In this study, the data indicates challenges in collaborative efforts when addressing extreme vulnerabilities within informal settlements, such as the feasibility of retrofitting and potential social and political implications of rehabilitation, which highlight the complexity of implementing risk reduction measures within the governmentality framework. The recognition of the need for more localised, inclusive, and proactive approaches aligns with Foucault's critique of traditional hierarchical power structures and calls for a reimagining of governance that incorporates diverse perspectives and empowers local communities. Overall, the data reveals the multifaceted nature of governance in addressing the challenges faced by informal settlers and highlights the importance of adopting a holistic approach informed by the outlined theoretical framework.

6.3 Navigating Marginalisation and Power Dynamics: Insights into Inclusive Decision-Making in DRR for Informal Settlements

This research delves into the complexities of government initiatives and their implementation in informal settlements within the context of DRR in India. It reveals a significant focus on

inclusivity in decision-making processes, particularly concerning informal settlements, with discussions based on exploring how to address the vulnerabilities of these communities at the policy level. However, challenges emerged in translating these intentions into action due to underlying social dynamics within informal settlements. These challenges include a perceived lack of participation of informal settlers in policymaking processes, driven by barriers such as marginalisation, distrust, and frustration with the government. Research conducted by Geekiyanage et al. (2020) also identified numerous barriers and challenges to community entry and engagement in risk-sensitive urban planning and development. These include a lack of knowledge and awareness about such plans, resulting in consultation fatigue and disinterest in engagement. Also, cultural norms and life circumstances which play a role in impacting participation, alongside poor relations between communities and decision-makers. The challenges outlined in both research studies share some commonalities. Both, this research and Geekiyanage et al. highlight issues related to weak relations between communities and power groups. These are identified as hindrances to effective participation in both studies, indicated through distrust, lack of knowledge, and communication gaps, as a result of an underlying marginalisation.

Numerous studies have delved into the complexities surrounding effective participation among marginalised groups in decision-making processes related to DRR, particularly within the context of informal settlements in India. Among the plethora of research conducted on this topic, two authors stand out for their significant contributions: Mihir Bhatt and Emmanuel Raju. Bhatt underscores the presence of distrust between marginalised groups and power structures as a significant barrier to participation (Bhatt, 2018). He highlights the need to address knowledge gaps and communication barriers to facilitate more meaningful engagement. Similarly, Raju emphasises structural barriers that impede participation, intersectionality in marginalisation, and the importance of empowerment and culturally

sensitive approaches (Raju, 2013; Raju & Van Niekerk, 2013). In the context of informal settlements in India, my research findings align with the works of Bhatt and Raju. My analysis reveals a significant focus on inclusivity in decision-making processes, particularly concerning informal settlers. Participant insights from my analysis underscore the importance of a people-centric approach and community-led initiatives in disaster governance, echoing Raju's emphasis on community empowerment through capacity building (Raju & Van Niekerk, 2013). Similarly, Challenges related to public accessibility to policy documents and information dissemination align with Bhatt's emphasis on addressing knowledge gaps and communication barriers, especially in terms of informing people about risk (Bhatt, 2018). Furthermore, the disparities between top-down policymaking approaches and bottom-up perspectives advocated by local communities highlight the need for tailored and inclusive approaches, as emphasised by both Bhatt and Raju. The perpetuation of marginalisation and exclusion within these communities underscores the urgency of fostering trust, incorporating local knowledge, and addressing power differentials, as suggested by both researchers.

My analysis reveals that marginalisation can be attributed to the stereotyping within disaster policies, which reflect societal perceptions and biases associated with informal settlers. These biases are influenced by power dynamics and shaping inclusion or exclusion from policy discussions and resource allocation (Raju et al., 2021). This points to a need to address power imbalances and build trust between government authorities and informal communities to foster meaningful participation in decision-making. Addressing these stereotypes and empowering marginalised communities are essential steps in fostering inclusive decision-making processes and creating policies that effectively address the diverse needs of these communities (Geekiyanage et al. (2020). In their approach to understanding marginalisation, Lemanski et al. (2015) discusses the persistent marginalisation faced by urban informal settlements, particularly within the context of evolving understandings of urban poverty and informality.

The authors suggest that despite advancements in theoretical understanding and policy responses, these settlements continue to experience disproportionate levels of marginalisation, ranging from discrimination to eviction and displacement. They theorise that critical gaps in urban theory and knowledge production often frame urban informal settlements in negative and stereotypical ways. These narratives then overlook the productive aspects of informality and contribute to the marginalisation of these communities. Both Lemanski et al (2015) and this research highlight the significant impact of marginalisation on informal settlements, albeit from slightly different perspectives. This study focuses on the specific manifestation of marginalisation within DRR and the importance of addressing power imbalances, while Lemanski et al (2015) provides a broader perspective on the historical and theoretical dimensions of marginalisation within urban informality. Overall, both studies point to the notion that stereotyping leads to marginalisation in informal communities which can be attributed to the gaps in knowledge on the government's part.

In this study, the findings on stereotyping and biases which influence the inclusivity and participation of marginalised groups, resonate with Partha Chatterjee’s critique on colonial knowledge systems. Chatterjee suggests that dominant ideologies and power structures perpetuate marginalisation by marginalising indigenous perspectives and reinforcing hierarchies of knowledge, thereby reinforcing existing power differentials (Chatterjee, 2011). Within the context of disaster policies, stereotypes about informal settlers as inherently vulnerable or less deserving of assistance may stem from Western-centric notions of development and urbanisation (Chatterjee, 2004). Chatterjee suggests that these stereotypes are embedded within policy frameworks that prioritise certain forms of knowledge and expertise over others, thereby marginalising the voices and experiences of marginalised groups (Chatterjee, 2004). Chatterjee's critique highlights the need to decolonise knowledge systems and centre marginalised voices and perspectives in decision-making processes. By challenging

dominant knowledge systems and amplifying diverse ways of knowing, it becomes possible to disrupt stereotypes and biases that perpetuate marginalisation and exclude marginalised groups from decision-making (Chatterjee, 1993). Similar to Chatterjee's views, the findings in this study suggest that the inclusion of marginalised groups in decision-making processes requires a shift towards more equitable and inclusive approaches that recognise the validity and importance of diverse knowledge systems and perspectives (Chatterjee, 2004).

The data for this study shows that despite opportunities for public consultation to address gaps at the state level, disparities between the current top-down approach to policymaking and bottom-up perspectives advocated by local community members were evident. The analysis further suggests that this disconnect may stem from literacy and accessibility barriers, emphasising the necessity for tailored and inclusive approaches that consider the diverse needs and capabilities of informal communities (Seddiky et al., 2020). Additionally, the perpetuation of marginalisation and exclusion within these communities, highlighted through dismissal of their existing knowledge and expertise, underscores the pressing need for more inclusive, people-centric, and locally led approaches to disaster governance. Addressing power differentials, building trust, and incorporating local knowledge are essential steps towards fostering these bottom-up approaches and reducing vulnerability within informal settlements (Bouwer, 2017).

Participant 2 and 3's insights emphasise the importance of a people-centric approach, where the vulnerabilities of marginalised communities are documented through ground level engagement. However, challenges related to public accessibility to policy documents and information dissemination persisted, highlighting the impact of low education and literacy rates within these communities. Participants 2's recommendation for a layered policy approach, starting from the village or community level and integrating with state and national policies,

underscored the importance of localised and community-led initiatives in disaster governance. This approach aligns with the need to downscale focus to local communities and address the unique circumstances and dynamics at various administrative levels (Prabhakar et al., 2009). Research by Dodman et al (2018) highlights several barriers to bottom-up community-led initiatives in building resilience in informal settlements. With heterogeneity being the main hurdle, the authors highlight the diversity of informal settlements where different priorities and needs exist among residents, structure owners, women, children, older people, and those with disabilities. The study concludes that a one-size-fits-all approach is inadequate, and participatory planning processes informed by local knowledge are essential for identifying and addressing specific vulnerabilities and adaptation priorities. Both research findings advocate for a people-centric approach to address vulnerabilities. This study highlights the significance of documenting the vulnerabilities of marginalised communities through ground level consultations, while Dodman et al. (2018) emphasise the importance of participatory planning processes informed by local knowledge. Both studies also underscore the importance of localised and community-led initiatives. While the suggestion of a layered approach emphasises integration of local knowledge with DRR efforts. Dodman et al. (2018) back this notion through indicating the inadequacy of a top-down approach and advocate for participatory planning processes tailored to the specific needs of different groups within informal settlements.

6.4 Navigating Power through Resilience and Caste Dynamics

Marginalised communities present a complex tapestry shaped by historical legacies, economic disparities, and environmental challenges. Within these communities, a rich diversity thrives, with individuals hailing from various cultural, linguistic, and ethnic backgrounds (Iqani, 2016). Migration from different regions further enriches this diversity, creating a multifaceted social

landscape. Despite the diversity, informal social networks emerge as crucial pillars, fostering solidarity and support among community members (Mehra et al., 1998). These networks not only provide essential social support but also contribute to the formation of a distinct community identity, strengthened by shared experiences of marginalisation (Ambedkar, 1917). The complex nature of these communities show governmentality in practice through the diverse and intricate ways they organise and exercise power. This emphasises the physical and social challenges that shape these communities, reflecting the broader societal practices and structures examined within governmentality.

The findings of this study have shown that residents within marginalised and informal communities demonstrate remarkable resilience and a profound sense of belonging, even amidst challenging living conditions, especially in the context of the August 2023 landslides. This resilience is particularly evident in times of crisis, where community members come together to support one another. The participants in this study underscore the profound sense of unity and camaraderie, highlighting the importance of social cohesion as a coping mechanism (Rao, 1990). This resilience and unity among community members oppose Foucault's concept of biopower, which involves the regulation of populations and the intersection of political power within governmentality. Biopower, as described by Foucault (2008), involves the regulation and management of populations by authorities. In the context of marginalised communities facing crises like landslides, their ability to mobilise resources, provide support to one another, and collectively respond to challenges reflects a form of self-regulation and self-management. Rather than relying solely on external authorities, these communities demonstrate resilience in managing their own affairs and well-being. This resilience reflects a complex interplay between social organisation, cultural practices, and biological capacities within these communities (Srinivas, 1962). The resilience and unity demonstrated by the participants in times of crisis represent a form of collective resistance and

solidarity against external pressures. This collective response challenges conventional power dynamics and asserts the agency and autonomy of these communities in shaping their own destinies. A study based on the resilience of slums in India by Andavarapu and Arefi (2016) revealed that despite facing multiple challenges, the Pedda-Jalaripeta slum maintained its social, cultural, and economic identity primarily as a fishing village. The findings show that despite massive destruction due to a fire incident, the community was able to recover due to their ongoing connection with local government agencies and NGOs as well as strong bonding and bridging social capital within the community which prevented redevelopment and gentrification. However, challenges presented themselves in the face of access to linkage capital which is not guaranteed for urban slums as they are often previewed as a hindrance to development. In this study, the resilience observed encompasses not only social and economic factors but also biological aspects such as adaptation to changing environments and mitigation of health risks. Additionally, the collective response of these communities represents a form of resistance against external pressures. In contrast, Andavarapu and Arefi (2016) examine the importance of social capital in overcoming challenges and building resilience.

When we look at government intervention in this study, we find that authorities often encounter significant challenges when attempting to assist marginalised settlements. Caste dynamics and societal acceptance present formidable barriers, as evidenced by participant 2's example of relocation near Dhingu temple. Caste dynamics are integral to Indian society, representing a traditional social hierarchy that categorises individuals into different groups based on birth and occupation (Gupta, 2000). These dynamics have significant implications for various aspects of life, including social, economic, and political opportunities (Bapuji & Chrispal, 2020). In the context of slums in India, caste dynamics play a crucial role in shaping the socio-economic conditions and power structures within marginalised communities. Caste-based discrimination persists within urban areas, impacting access to resources, services, and opportunities for

lower-caste individuals (Thorat & Madheswaran, 2018). Social exclusion, stigma, and prejudice from higher-caste groups can limit access to education, healthcare, housing, and employment opportunities, perpetuating cycles of poverty and marginalisation within informal settlements. Caste dynamics also influence political representation and power dynamics within these communities as caste-based identities may shape community leadership, access to government welfare schemes, and participation in local governance structures (Kurian & Singh, 2018). In this study, caste dynamics and societal acceptance as barriers, resonate with Foucault's concept of power relations within governmentality. Political considerations based on caste further complicate matters, with national and state policies sometimes constraining the ability of local governments to provide meaningful assistance. Despite efforts to alleviate vulnerabilities, controversies surrounding emergency housing allocation and limitations in state level and local level support persist, underscoring the systemic obstacles that hinder progress. The influence of political considerations in DRR aligns with the broader understanding of governmentality, which encompasses not only the formal structures of government but also the myriad ways in which power is exercised and contested within society. Political factors shape policy decisions and resource allocation, reflecting the complex interplay between political power and societal dynamics **(**Baumgartner et al., 2014**)**. Findings from Ray-Bennet's (2009) study examines the influence of caste dynamics on DRR efforts within slum communities. The findings show a complex interplay of caste, class, and gender in shaping survival experiences during multiple disasters. Upper-caste women with privileged kinship, neighbourhood ties, concrete houses, and residence in elevated areas coped more effectively with disasters. In contrast, middle-caste women were displaced and forced to seek emergency shelter with their kin and neighbours. Low-caste women were the hardest hit due to the lack of robust housing and social networks during the super-cyclone. Similar to the results in this study, Ray-Bennet's (2009) findings suggest that caste, class, and gender

boundaries are negotiated within social networks during disaster response. In terms of policy implications and DRR efforts, results from both studies suggest the inclusion of recognising the intersectionality of caste and class in disaster response and preparedness and ensuring that disaster policies address these complexities. In summary, policymakers and practitioners should consider the diverse needs of lower-caste and marginalised communities when making decisions for DRR efforts such as relocation.

6.5 NGO-Government Collaboration: Towards Integrated Approaches in DRR

The findings of this study illuminate the complex landscape of DRR efforts within informal settlements, particularly regarding the roles of NGOs and government policies. One prominent observation is the limited focus on DRR specifically tailored to these vulnerable communities by NGOs. While active in disaster relief, NGOs often lack specificity in their programmes, failing to address the unique vulnerabilities and capacities of informal settlers (Mohan, 2002). This gap underscores the critical need for a deeper understanding of the local context and active community involvement in programme design and implementation.

My analysis reveals a fragmented approach to DRR initiatives and indirect contributions from NGOs to informal settlements, often through partnerships with government departments. This fragmentation highlights the necessity for more coordinated efforts that directly target the interconnected vulnerabilities within slum environments, such as inadequate housing, economic insecurity, and environmental hazards. The recognition of the power dynamics at play highlights the necessity for stakeholders to share power and resources collaboratively to comprehensively address the multifaceted challenges faced by informal settlements. Power dynamics and governance structures also emerge as influential factors shaping DRR initiatives

within informal settlements. NGOs serve as advocates for improvements and inclusion, acting as intermediaries between marginalised communities and government policies.

However, the data also brings to light the challenges stemming from existing power structures, including fear, silence, and exclusion within informal settlements. This underscores the importance of critically examining power relations and governance mechanisms to ensure that interventions prioritise equity, inclusivity, and community empowerment. The call for a recalibration of morals in policymaking by participant 3 reflects resonates with this highlighting a deeper need for ethical considerations and a commitment to social justice in shaping DRR policies and interventions. The implications of the observed fragmented approach in my analysis are multifaceted.

Firstly, the limited focus on DRR tailored to informal settlements by NGOs signals a critical need for a paradigm shift in humanitarian efforts. NGOs must prioritise a deeper understanding of the unique vulnerabilities and capacities of informal settlers, necessitating a bottom-up approach that actively engages communities in programme design and implementation. This resonates with Paulo Freire's concept of contextualised education which emphasises the importance of tailoring educational processes and community interventions to the specific needs and contexts of the learners (Freire, 1996). Freire suggests making education relevant and meaningful to learners by grounding it in their lived experiences and socio-economic realities. Just as contextualised education involves engaging learners as active participants in the learning process, a community-centred approach to DRR with the incorporation of local knowledge actively involves community members in programme design and implementation.

This shift towards community-centred DRR, which reflects the nuanced approaches outlined within the framework of governmentality, not only ensures the relevance and effectiveness of interventions but also fosters local ownership and empowerment. These benefits align with

Freire's emphasis on the importance of empowering learners to critically engage with their own reality and take agency in shaping their educational experiences (Freire, 1996). Similar to the findings from my analysis, Mohan (2002) emphasises that successful NGO interventions require a deep understanding of the local culture, customs, and social dynamics of the communities they seek to serve. However, the author suggests that many NGOs operating in informal communities often fail to adequately engage with these aspects of the local context, leading to ineffective or inappropriate interventions. One key aspect of cultural sensitivity involves recognising and respecting local customs, traditions, and social structures. Mohan highlights instances where NGO programmes have clashed with traditional practices or norms, leading to resistance or resentment from community members. For example, a programme promoting Western-style education may face challenges in communities where traditional forms of education are valued and preferred.

Both Mohan's findings and this research highlight the importance of understanding the local context and engaging with communities in a meaningful way to ensure the success of NGO interventions. Furthermore, both studies recognise the significance of power dynamics and governance structures in shaping intervention outcomes. Mohan discusses how NGOs often overlook existing power structures within communities, leading to challenges such as resistance or resentment from community members. Similarly, this research identifies power imbalances and the need for collaboration among stakeholders to address the interconnected vulnerabilities within informal settlements comprehensively. Additionally, a study by de Wit and Berner (2009) underscores the challenges and complexities surrounding the role of NGOs in addressing urban poverty in Indian cities. While NGOs often aim to empower the urban poor and promote participatory development, the study finds that their interventions may not always align with these goals. The authors found that despite their intentions, NGOs may inadvertently reinforce existing power differentials and inequalities, particularly when they rely on

community-based organisations (CBOs) that are controlled by established local leaders. They suggest that some NGO interventions may primarily serve the interests of slum leaders and elites rather than the broader urban poor community. Similarly, in my study, the presence of nominated councillors, appointed by the government, demonstrates how power operates between the government and residents within informal settlements. These councillors, while serving as intermediaries between the community and the government, may prioritise the interests of the governing party or elites within the community, potentially neglecting the broader needs of the urban poor, as outlined by participants 7 and 13. This resonates with the fragmented approach from my analysis, often characterised by a lack of specificity in NGO programmes tailored to the unique vulnerabilities of these communities. Both studies emphasise the need for greater scrutiny and reflexivity regarding NGO approaches and interventions, as well as the importance of engaging communities in programme design and implementation to ensure genuine empowerment and sustainable development.

Secondly, the fragmented nature of DRR initiatives and indirect contributions from NGOs in this study underscores the importance of coordination and collaboration among stakeholders, aligning with Freire's concepts of collaborative problem-solving and two-way communication (Freire, 1970). By working in silos, NGOs risk overlooking the interconnected vulnerabilities within slum environments, leading to inefficiencies and gaps in coverage. Freire believed that dialogue should extend beyond the classroom and into the realm of social action, serving as a means of collaborative problem-solving (Abdul Razzak, 2020). Similarly, in the context of NGO-government collaboration, fostering dialogue between different stakeholders can facilitate the identification and addressing of social injustices. This collaborative approach outlined by Freire ensures that interventions are rooted in the lived experiences of communities and are responsive to their needs.

While there is evidence of communication between NGOs and government entities in my dataset, there exists a noticeable gap in collaboration. Despite the absence of overt government interference in NGO activities within these communities, the lack of formal collaboration impedes the development of comprehensive and well-coordinated DRR strategies. The absence of formal collaboration can be seen as reflective of underlying power dynamics and governance structures that may influence decision-making processes. This underscores the necessity for stronger partnerships at various levels of government, from local municipal corporations to district disaster management authorities, to ensure that DRR efforts are both responsive and inclusive of the unique vulnerabilities present in informal settlements. Freire's concept of two-way communication emphasises the importance of active listening and mutual learning between educators and learners. Similarly, in the context of NGO-government collaboration, two-way communication is essential for developing shared understandings of social issues and co-constructing solutions. This notion is reiterated in Habib's (2009) research on NGO-government collaboration in the context of slum development in Dhaka. Habib emphasises the importance of collaboration between various stakeholders, by arguing that no single entity, whether government or NGOs, can effectively address the complex and interconnected issues faced by slum dwellers on their own. Similarly to the findings from my analysis, Habib underscores the importance of government support and coordination in facilitating NGO activities. He also suggests that the government should play an enabling role by providing frameworks and supporting NGO participation in project preparation and implementation, which is reiterated by participants 2 and 3 in this study.

6.6 Unveiling the Emotional Fallout: Marginalised Communities' Post-Disaster Struggles and Governmental Scepticism

The findings of this study illuminate the deep-seated emotional and psychological repercussions of disasters on marginalised communities, particularly those living in informal settlements. Despite the strong sentimental attachment residents have to their communities and homes, this emotional landscape is marred by pervasive fear and anxiety, stemming from the loss of lives, displacement, and widespread destruction caused by disasters. These feelings are further intensified by the precarious living conditions in which these communities find themselves, where in the aftermath of the August 2023 landslides, even the slightest rainfall induced significant anxiety. The emotional and psychological dimensions of disasters extend beyond sentimentality, as residents also grapple with a profound sense of isolation and a lack of support, intensifying the challenges they face. Neglecting these aspects can have long-lasting consequences, including hindering recovery efforts and exacerbating poor relations between informal settlers and government entities.

Furthermore, this study sheds light on the presence of intricate power dynamics, particularly regarding governmentality and its impact on community perceptions and attitudes. Residents express scepticism toward governmental assistance, reflecting underlying power imbalances and fostering a sense of dependency on the government. My analysis reveals that this deep-rooted scepticism and mistrust prevalent within informal communities arises when governments fail to honour promises made during electoral campaigns. This scepticism is fuelled by a perceived lack of governmental support during crises, leading residents to feel neglected and disregarded. Participant 7 highlights the cycle of politicians seeking votes and then disappearing without addressing community issues, which reinforces cynicism towards political promises, undermining trust in governmental institutions and eroding the social

contract. Drawing on Piven and Cloward (1977), scepticism can be understood as a manifestation of institutional mistrust, wherein marginalised population's view government assistance programmes as insufficient or ineffective in addressing their concerns. Similar to the findings in this study, Piven and Cloward suggest that scepticism and mistrust arise when governments are seen as unresponsive to the needs of marginalised groups or when policies exacerbate inequality and injustice. From this notion, it may be argued that scepticism and mistrust are rational responses to systemic failures and the historical marginalisation of certain communities. When residents feel sceptical about government promises and assistance due to past failures and unfulfilled commitments, it fosters a sense of dependency on the government while simultaneously eroding trust. This erosion of trust can lead to feelings of neglect, disregard, and even betrayal among residents, as they perceive governmental support during crises as inadequate or non-existent. These emotional repercussions manifest in various ways, contributing to a landscape of fear, anxiety, and insecurity within marginalised communities. The scepticism towards government exacerbates the emotional toll of disasters, intensifying residents' feelings of isolation and lack of support. The cycle of disappointment and disillusionment perpetuated by governmental inaction further compounds the psychological distress experienced by residents, hindering their ability to cope with the challenges posed by disasters. Thus, the intertwining of scepticism towards governments and the emotional and psychological impacts of disasters underscores the complex power dynamics marginalised communities and governments. Addressing these intertwined issues requires a holistic approach to DRR policymaking that acknowledges the interconnectedness of social, political, and psychological factors, aiming to rebuild trust, provide adequate support, and foster resilience within these communities.

Similar results can be found from the audiotapes presented in Madon and Sahay's (2002) research on Bangalore's Jana Sahayog Slum. Participants in their study candidly narrate their

lived experiences, likening their living conditions to those of dogs and pigs amidst garbage bins, gutters, and cemeteries. They question why they are forced to endure hazardous environments and assert their rights to education, shelter, and basic amenities. Slogans such as *"Before giving you vote, I am your brother, after giving you vote, I am garbage"* reflect the disillusionment and determination of Jana Sahayog residents to hold politicians accountable for their actions. The findings from Madon and Sahay (2002) and my own study converge on several key points, revealing common experiences and implications for marginalised communities' interactions with governments. Both studies highlight the palpable frustration and disillusionment felt by residents living in informal settlements, who express profound grievances about their living conditions and lack of access to basic services. Moreover, residents in both studies articulate a strong demand for accountability from governmental authorities, emphasising the need for politicians to uphold their promises and address community concerns. This demand for accountability is underscored by slogans and expressions of determination to hold politicians responsible for their actions. Additionally, both studies uncover a deep-seated scepticism and mistrust among marginalised communities towards governmental assistance, which stems from historical neglect and perceived failures of government initiatives. This scepticism is further exacerbated by the cyclical nature of political engagement, leading to an erosion of trust in governmental institutions over time.

Satapathy (2012) also studied the behavioural and attitudinal impacts of disasters in individuals' functioning and outlook on life, in India. The author found that disasters often disrupt social relationships, leading to withdrawal from social interactions due to stress, fear, or grief. Furthermore, disasters induced feelings of lethargy and fatigue, as coping with the aftermath can be physically and emotionally draining. These behavioural and attitudinal impacts of disasters can have significant implications for individuals' relationships with the government. Disruptions in social relationships may extend to interactions with government agencies and

officials as individuals may feel alienated or disconnected from government institutions, particularly if they perceive a lack of support or responsiveness in addressing their needs during and post-disasters. Additionally, feelings of frustration or resentment towards the government may arise if individuals perceive a lack of transparency, accountability, or fairness in the distribution of resources and support services. This can lead to a breakdown in trust and communication and heightened tensions and conflicts between these communities and governments, further straining their relationship. Both, this research and Satapathy's research emphasise the profound emotional distress experienced by residents in the aftermath of disasters, including fear, anxiety, sadness, and a sense of isolation. Additionally, both studies acknowledge the importance of understanding these emotional dimensions beyond sentimentality, recognising their implications for recovery efforts and community relations with governmental entities. Furthermore, the ideas of scepticism and mistrust towards governmental assistance are prevalent, highlighting the underlying power imbalances and historical context that contribute to this scepticism. Overall, both studies underscore the complex interplay between emotional well-being, social dynamics, and governmental relations in the context of post-disaster recovery in marginalised communities.

The findings presented in this section underscore the imperative for DRR policies to evolve beyond conventional frameworks focused solely on physical infrastructure and hazard mitigation. In recognising the profound emotional and psychological repercussions of disasters on marginalised communities, it becomes evident that DRR policies must encompass the holistic well-being of affected populations. This includes not only addressing the tangible impacts of disasters but also attending to the emotional well-being and intricate social dynamics within these communities. By integrating provisions for mental health support, counselling services, and the creation of safe spaces for expression into DRR policies, policymakers can acknowledge and address the long-term psychological effects of disasters. Additionally,

considering the unique social challenges faced by marginalised communities, such as social isolation and unequal resource distribution, is crucial. DRR policies should thus strive to promote social cohesion, community empowerment, and inclusive decision-making processes to mitigate these challenges and foster resilience. By incorporating emotional and social dimensions into policy development, policymakers can pave the way for more effective and equitable post-disaster recovery strategies. This approach not only enhances the overall efficacy of DRR, response, and recovery efforts but also serves to rectify underlying social injustices and inequalities, ultimately contributing to a more resilient and inclusive society.

CHAPTER 7

CONCLUSION

Chapter 7: Conclusion

7.1 Introduction

In this chapter I begin with summarising the key findings from the thematic analysis to answer the research aim and the outlined objectives. I then suggest the need for nuanced and integrated approaches in DRR initiatives and polices, whether it be government or NGO initiated, in the context of informal settlements in urban India. Finally, I present the limitations of this study and recommendations for possible future research.

7.2 Key Findings

In section 1.2, I introduced the main aim of this research which was to investigate India's existing DRR initiatives to find out if the current agenda is suited to the risks faced by residents of urban informal settlements. To answer this, the following objectives were set:

1. Identify the state of existing DRR efforts and initiatives in urban Indian informal settlements.
2. Understand the unique vulnerabilities and hazards faced by residents of informal settlements, which is crucial for tailoring effective DRR strategies.
3. Analyse the effectiveness of current initiatives in addressing the identified risks, especially the root causes of vulnerability of informal settlement residents.
4. Propose targeted interventions or adjustments to existing DRR initiatives based on the identified gaps.

To investigate the research aim and objectives, a theoretical framework significantly influenced by the theories and concepts of Michel Foucault was proposed (see figure 1). This framework

integrates key concepts such as governmentality, power relations, stereotyping, and local knowledge and acts as a guiding lens to investigate the issues raised in the research objectives.

Objective 1: *Identify the state of existing DRR efforts and initiatives in urban Indian informal settlements.*

The data highlights the influence of top-down approaches adopted by the government in DRR efforts within the selected informal settlements of Krishna Nagar, Idgah, and Phagli. The analysis concludes that these approaches frequently lead to a disconnect between governmental actions and the unique needs of the people residing in these settlements. Despite the presence of policies that address DRR, challenges in their implementation, including bureaucratic obstacles and insufficient funding, impede their effective execution especially in informal settlements.

It is found that NGOs play a crucial role in filling gaps left by government interventions. However, they also face challenges, including limited resources and lack of collaboration with government stakeholders. Despite their efforts, the effectiveness of NGO-led initiatives may vary depending on factors such as funding availability and partnerships with government agencies.

To comprehensively assess the state of existing DRR efforts, further research may be needed to evaluate the extent to which policies are implemented at the local level, the impact of interventions on community vulnerability, and the effectiveness of coordination mechanisms between government agencies and NGOs.

Objective 2: *Understand the unique vulnerabilities and hazards faced by residents of informal settlements, which is crucial for tailoring effective DRR strategies.*

Residents of Krishna Nagar, Idgah, and Phagli proved vulnerable in facing disasters such as the August 2023 landslides. They live in inadequate housing structures on hillsides prone to landslides, which necessitate tailored DRR strategies. The data shows that marginalisation, discrimination, and stereotypes exacerbate the residents' vulnerability to natural hazards as they face neglect and exclusion from government interventions. This unequal treatment by government authorities and societal stigma perpetuates cycles of poverty and vulnerability. Moreover, stereotypes which depict residents of informal settlements as different from the rest of society contribute to their marginalisation and exclusion from mainstream society, hindering efforts to address their unique needs and vulnerabilities. These findings highlight the urgent need to address these issues to build more inclusive and resilient communities, as they directly influence access to resources, opportunities, and support systems necessary for effective DRR.

Additionally, the psychological impact of disasters, including fear and anxiety present as vulnerabilities which may have profound effects on mental health and well-being. Even minor occurrences such as rainfall post the August 2023 landslide disaster triggered heightened levels of anxiety due to the increased vulnerability of the residents' dwellings. Additionally, the emotional toll of disasters is exacerbated by the loss of lives, displacement, and destruction of homes, leading to a profound transformation in daily life and inducing a sense of insecurity and uncertainty about the future. These emotional and psychological challenges are further exacerbated by the lack of adequate mental health support services and the stigma associated with seeking help for mental health issues.

Understanding the environmental, social, and psychological dynamics within informal settlements is crucial for developing effective DRR strategies. An understanding and knowledge of community perspectives and prioroties provides valuable insights into the specific risks and challenges faced by residents. By incorporating local knowledge of the

physical and social vulnerabilities and the psychological impact of disasters into DRR planning, interventions can be better tailored to address the specific needs and priorities of informal settlement communities.

Objective 3: *Analyse the effectiveness of current initiatives in addressing the identified risks, especially the root causes of vulnerability of informal settlement residents.*

The findings from the residents of Krishna Nagar, Idgah, and Phagli corroborate the assertion that current DRR initiatives inadequately address the risks they face. Government responses to disasters exhibited a reactive rather than proactive approach, leading to delays in communication, insufficient allocation of resources, and limited community engagement. This reactive stance leaves communities ill-prepared to cope with disasters effectively, exacerbating their vulnerability and hindering recovery efforts. Additionally, the findings highlight challenges faced by NGOs in complementing government efforts, including limited resources and bureaucratic hurdles. Despite their grassroots presence and community-focused approach, NGOs encounter barriers that impede the scalability and effectiveness of their interventions. These findings underscore the need for significant improvements in the collaboration, resource allocation, and community engagement aspects of DRR initiatives, to better address the multifaceted challenges faced by informal settlement residents. Moreover, to address the limitations identified in the current initiatives, collaborative efforts are required between government agencies, NGOs, and community stakeholders to enhance the resilience of informal settlements and mitigate the impact of disasters on vulnerable populations. To improve the effectiveness of the current initiatives, there is a need for greater coordination, resource allocation, and community engagement. Interventions should prioritise community empowerment, local knowledge, and holistic approaches that address social, economic and environmental factors.

Objective 4: *Propose targeted interventions or adjustments to existing DRR initiatives based on the identified gaps.*

Based on the findings from this research, targeted interventions and adjustments can be proposed to address the identified gaps in DRR initiatives within informal settlements. Community empowerment emerges as a critical strategy, given the marginalised status of residents in these settlements. The research highlights the importance of involving residents in decision-making processes and capacity-building efforts. By empowering communities to actively participate in shaping DRR initiatives, interventions can be more responsive to their specific needs and priorities. This approach fosters a sense of ownership and accountability among residents, leading to more effective and sustainable resilience-building efforts.

Moreover, holistic approaches are necessary to address the complex and interconnected vulnerabilities present in informal settlements. This study underscores the significance of considering social, economic, and environmental factors in DRR interventions. Integrated interventions, such as urban planning reforms, infrastructure improvements, and community engagement initiatives, are essential for building resilience and reducing disaster risks. However, one of the critical challenges faced by informal settlers is the limited access to good land that is not vulnerable to natural hazards. Therefore, alongside infrastructure upgrades, efforts to secure safer land for settlement are imperative. For instance, upgrading infrastructure in informal settlements, such as drainage systems and housing structures, can enhance their resilience to floods and landslides. Additionally, community-based initiatives, such as early warning systems and evacuation plans, can improve preparedness and response capabilities.

Advocacy efforts play a crucial role in driving systemic changes and ensuring the effectiveness of DRR initiatives. This research emphasises the need to advocate for policy reform and promote inclusivity in decision-making processes. By advocating for the integration of local

knowledge, community perspectives, and participatory approaches into DRR policies and practices, stakeholders can work towards building more resilient and inclusive communities. This involves engaging with policymakers, government agencies, NGOs, and community representatives to influence policy agendas and resource allocation. Through collaborative advocacy efforts, it is possible to address systemic challenges and create an enabling environment for equitable and effective DRR initiatives.

In conclusion, targeted interventions and adjustments informed by the research findings can contribute to improving resilience in informal settlements. By prioritising community empowerment, holistic approaches, and advocacy for policy reform, stakeholders can work towards building more resilient and inclusive communities that are better prepared to withstand and recover from disasters. This can be achieved through engaging residents in decision-making processes, implementing integrated approaches that address social, economic, and environmental factors, advocating for policy changes to address systemic issues, strengthening the capacity of local communities and government agencies, and fostering partnerships and collaboration among various stakeholders. By adopting a multifaceted approach and leveraging the expertise and resources of different actors, progress can be made towards creating safer, more resilient informal settlements.

Addressing The Research Aim: *Are India's existing disaster risk reduction initiatives suited to the risks faced by residents of informal settlements in an urban Indian setting?*

The examination of India's DRR initiatives in urban informal settlements reveals a complex interplay of governance dynamics, community vulnerabilities, and policy challenges. The findings shed light on the inadequacies of existing approaches in effectively addressing the risks faced by residents of informal settlements, underscoring the need for targeted interventions and systemic reforms. Based on the conclusions drawn from each objective and

the analysis of my research findings, it is evident that India's existing DRR efforts and initiatives are not fully suited to address the risks faced by residents of informal settlements, based on the data collected in three informal settlements in Shimla, Himachal Pradesh.

At the heart of the issue lies the top-down governance approach adopted by governmental bodies, which often leads to disconnects between policy intentions and on-the-ground realities. This reflects a manifestation of power dynamics that influence DRR initiatives within informal settlements. This hierarchical structure often perpetuates power imbalances, resulting in a disconnect between policy intentions and the lived realities of marginalised communities, specifically in informal settlements. Despite the existence of DRR policies, their implementation is hindered by bureaucratic hurdles, inadequate resource allocation, and a lack of community engagement. This top-down governance approach can be seen as a form of governmentality, wherein governmental bodies exert control over the behaviours and actions of individuals and communities in the name of disaster management. This governance framework shapes the subjectivities of marginalised communities, positioning them as passive recipients of aid rather than active participants in the decision-making process. This results in marginalised communities feeling neglected and excluded from decision-making processes, exacerbating their vulnerability to disasters. Furthermore, while NGOs play a vital role in complementing government efforts, they too encounter challenges such as limited resources and bureaucratic obstacles. Despite their grassroots presence and community-focused approach, NGOs face power dynamics that limit scaling up their interventions and advocating for policy reforms. In addressing the shortcomings of existing governance approaches, it is essential to critically examine the underlying power dynamics, knowledge asymmetries, and governmentality mechanisms that shape DRR initiatives. By fostering better collaboration and coordination between governmental bodies and NGOs, it is possible to create more equitable and effective DRR initiatives that address the specific risks faced by informal settlements. This

research highlights the importance of understanding the unique vulnerabilities and hazards faced by residents of informal settlements. From the psychological impacts of disasters to the perpetuation of stereotypes and marginalisation, informal settlement communities experience multifaceted challenges that require holistic and inclusive responses. In assessing the effectiveness of the current initiatives, it becomes evident that there is a significant gap between policy formulation and implementation. Reactive responses, coupled with a lack of timely communication and support, leave communities ill-prepared to cope with disasters. There is a clear need for greater coordination, and community empowerment to bridge these gaps, by incorporating the existing knowledge capacities of informal settlements into government initiatives.

To address these gaps and improve the suitability of DRR initiatives, targeted interventions and adjustments are proposed. Community empowerment and participation are essential components, as involving residents in decision-making processes and capacity-building efforts ensures interventions are tailored to their specific needs and priorities using local knowledge. Additionally, holistic approaches that consider social, economic, and environmental factors are crucial, requiring integrated interventions such as urban planning reforms, infrastructure improvements, and community engagement initiatives. Advocacy efforts are also vital for driving systemic changes and ensuring the effectiveness of DRR initiatives by promoting inclusivity and integrating local knowledge and community perspectives into policies and practices.

In the normative context of governmentality, where there tends to be a singular truth or prescribed approach to DRR, the interventions and adjustments proposed above must navigate the complexities of power dynamics and knowledge production inherent in such a framework. While governmentality may advocate for a standardised approach to DRR, acknowledging and

incorporating diverse perspectives and local knowledge becomes imperative to address the nuanced challenges faced by communities in informal settlements. In this context, the proposed interventions prioritise community empowerment and participation, recognising the agency of residents in shaping their own resilience strategies. By involving communities in decision-making processes and capacity-building efforts, interventions can move beyond the singular truth dictated by governmentality and embrace the multiplicity of experiences and needs within informal settlements. Furthermore, the holistic approaches advocated for in the proposed interventions, align with the principles of governmentality by considering the social, economic, and environmental factors that shape vulnerability and resilience. Thus, while operating within the normative context of governmentality, the proposed interventions seek to expand the discourse on DRR by embracing inclusivity, diversity, and community-driven solutions. In conclusion, the findings underscore the urgency of reforming existing DRR initiatives to better align with the risks faced by residents of urban informal settlements in India. By adopting a community-centric approach, embracing local knowledge, and fostering inclusivity, policymakers, governmental bodies, NGOs, and communities can work together to build a more resilient future for all.

7.3 Limitations and Recommendations for Future Research

While the theoretical framework influenced by Michel Foucault's concept of governmentality and other relevant theories, provided a valuable lens for understanding the complexities of DRR in informal settlements, it also has inherent limitations.

One limitation of the theoretical framework is its abstract nature, which may pose challenges in operationalising and applying the concepts in empirical research. The complexities of power relations, stereotyping, and local knowledge within the context of governmentality require

careful consideration and interpretation, which could potentially introduce subjectivity into the analysis. Moreover, the applicability of Western theories, such as governmentality, to non-Western contexts like India may overlook indigenous knowledge systems and cultural specificities that shape governance structures and practices.

Furthermore, the theoretical framework may not fully capture the dynamic and multifaceted nature of DRR initiatives in informal settlements. It may overlook important factors such as community resilience, social capital, and the role of informal networks in disaster response and recovery. Additionally, the framework's emphasis on power dynamics and governance structures may overshadow other dimensions of vulnerability, such as socio-economic disparities and environmental factors, which also play significant roles in shaping disaster risks.

To address these limitations, future research could explore alternative theoretical perspectives or adopt a more integrated approach that incorporates insights from multiple disciplines, such as sociology, geography, and anthropology. Additionally, researchers could engage in participatory approaches that involve local communities in the co-construction of knowledge and the development of research methodologies. By critically examining the strengths and limitations of theoretical frameworks and adopting a reflexive approach to research design and analysis, future studies can contribute to a more nuanced understanding of DRR initiatives in urban Indian informal settlements.

My positionality as a researcher presents both strengths and limitations to this study. On one hand, my insider perspective as an Indian affords me invaluable insights into the community dynamics, as I am connected to the culture, traditions, and ways of Indian society, enhancing the credibility of my research findings. This insider knowledge also facilitates access to research participants and fosters trust, leading to more open and honest responses during data

collection. However, this close affiliation may introduce bias or subjectivity into my research process and findings.

Additionally, this research focuses on a specific geographic location (Shimla) which is a part of the mountainous Himalayan region and may not capture the diversity of experiences and challenges faced by informal settlements across India. Conducting comparative research across multiple urban spaces across the country, which present different terrains and climates can provide a more comprehensive understanding of the effectiveness of DRR initiatives and the influence of contextual factors. This could involve longitudinal studies to track changes in policy implementation and community resilience over time.

Appendix 1:

The PIS and CFs are available to view using the link below.

https://drive.google.com/file/d/1GAMxvGI7wuAlfsrGXBXoMOIX7JPARjM4/view?usp=drive_link

Appendix 2:

Interview Guide

1. **Informants of Local NGO**

- Can you tell me what Disaster Risk Reduction/management (DRR) programmes/projects have been implemented by your organisation?
- Why and how has your organisation implemented these programs/projects?
- Where are the programs/projects implemented?
- Why are these locations chosen for the implementation of those programs/projects?
- For how long are the programs/projects implemented?
- Who are your partners?
- Who are your beneficiaries?
- Have low-income households been specifically included in your programmes/projects? If yes, why are they included? If not, why not?
- What are the achievements or challenges your organisation have faced during the implementation of DRR programs/projects?
- What has your organisation done to hold accountability to your beneficiaries, donors, staff, government and other relevant stakeholders?

2. **Government Officers**

- What are the DRR/management policies/programmes/projects of your organisation?
- What do you think about international and national assistance for DRR in Himachal Pradesh, specifically for hillside towns like Krishna Nagar?
- How do you assess such assistance?
- As one of the government institutions, what has your agency done to assist NGOs in DRR programmes/projects?
- What outcomes have these NGOs achieved and what challenges have they faced?
- What would you recommend to improve DRR in Himachal Pradesh and in India?

3. **Local community members**

- What is your position in your community?
- What does the term “disasters” mean to you?
- What was your experience like in the August landslides? Tell us about this.
- Follow up questions about the August landslides: what did you do during the landslides? What happened after? Where was your information coming from? What mid-term and long-term effects have the landslides had on your life?
- What does it mean to be in your position amidst a disaster?

- What are your priorities during a disaster?
- What are your priorities post disaster?
- What are the problems you face during disasters and how do you overcome them?
- Are you aware of your capacities amidst a disaster? Do you know what resources/capacities you have at a household or community level that you can use during a disaster event?
- What impact/influence does belonging to a different caste/class have on your daily life and during disasters?
- Are you aware of the disaster management government policies in your state and nationally?
- How do you interpret this? What do these mean to you?
- Are you aware of the Disaster Management Act, 2005 and state compensation and other relief policies and guidelines during disasters?
- Do you know your rights in the context of disasters?

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