

# **Social Work Practice in the Aftermath of Natural Disasters: A Qualitative Inquiry in the Sultanate of Oman**

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## **Abstract**

Climate change and increasingly extreme weather have caused a surge in natural disasters over the past 50 years. Oman is frequently exposed to tropical cyclones and storms, but very little empirical research exists on natural disasters, nor on the social work responses to those situations, a gap which motivated this research. The study is designed to explore social work practice in the aftermath of natural disasters in Oman; it conducted 43 semi-structured interviews with social workers, NGO workers, religious practitioners and people affected by disasters. A wide-ranging theoretical framework underpins the study, and includes Maslow's hierarchy of needs, the multi-capital approach, concepts of vulnerability and resilience, and the case management approach. The findings illustrate the impact of natural disasters on individuals, families and communities, and also the provision of material, financial, psychosocial, and spiritual support services. They show that while there are efforts to provide material and financial support, several issues need to be considered. More attention is also needed regarding the provision of psychosocial and spiritual support. The thesis also reviews the knowledge, skills, and values necessary for social workers to perform their roles effectively. The conclusion highlights the conceptual and theoretical implications of the findings, in order to develop more effective social work practice in response to natural disasters in Oman.

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## **Chapter 1 :        Introduction**

### **1.1 Research problem**

Natural disasters have been the subject of considerable discussion in the literature on global warming. Scientists have argued that global warming will increase the number and severity of natural disasters such as floods, storms, and heat waves (Huq, 2008; AlRuheili, 2022). It has also been noted that although global warming affects the entire globe, it produces different effects on different regions due to the influence of regional meteorology and geography (Lee and Zhang, 2012). According to the Global Climate Risk Index 2021, Oman is the most vulnerable of the Gulf Cooperation Council (GCC) countries to extreme weather events, and ranks 26th in vulnerability globally (Eckstein et al., 2021).

Natural disasters have a catastrophic effect on life and public property, affecting the demographic, economic, political and cultural aspects of human existence (Eckstein et al., 2018; Islam and Abd Wahab, 2020). The effects of natural disasters also impede development plans and programs offered by the state and may affect long-term sustainable development strategies and productive performance (Irfan, 2007). Their impact is seen not only in material losses and the numbers dead and missing but also in the long-term psychological impact suffered by the survivors. Natural disasters impact people differently all over the world, according to their circumstances and resources (Park and Miller, 2006; Howard et al., 2018; Fraser, 2021).

In recent years, however, societies have adopted a more proactive approach to handling natural disasters (ROP, 2011), partly due to the increasing recurrence of these phenomena and the growing risks they pose, and partly because of technological advances. Recent times have seen an increased interest in how to manage disasters, at local, national and global levels. It has become essential to factor disaster management into urban development, economic planning, national budgets and even school curricula (Rowlands, 2013; Nadkarni and Sinha, 2016; Cleary and Dominelli, 2020).

Oman's approach to these natural phenomena has taken various forms, which include developing strategic response plans, enacting legislation governing such situations and establishing appropriate mechanisms and procedures to deal with them (Al-Manji et al., 2021). One example is the formation of working groups whose task is to analyse the

potential risk of such events, assess their likelihood and envisage ways to prevent them or at least minimise their effects. Response plans have also been drafted, and specialised response teams have been established (ROP, 2016). Disaster management planning recognises that it cannot avoid disasters (Irfan, 2007) but aims to increase the effectiveness of the confrontation process and reduce the effects of disasters by taking preventive measures while ensuring a return to the standard conditions of society and the restoration of activity in the shortest time and with the least loss possible (Huq, 2008).

Despite these actions, some researchers argue that more effort is needed to deal with the management of emergencies in Oman (Al-Shaqsi, 2014). Given that social work is a humanitarian profession fundamentally related to society's problems, its resources should be utilised to help societies facing natural disasters and to provide services to individuals and communities before, during, and after disasters (Qandil, 2011; Alston and Chow, 2021; Kranke et al., 2022). Unfortunately, ongoing disasters have revealed significant gaps in social work education, research, and practice. An important lesson learned from disasters globally is that while adequate social services are often provided before and during natural disasters, needs may not be fully recognised or met in the aftermath of these disasters (Bell, 2008; Harms et al., 2020; Alston and Chow, 2021). Another related claim, by Cleary and Dominelli (2020), is that in the literature specifically focusing on post-disaster response, the roles and responsibilities of the social work profession tend to be misunderstood or even overlooked. Despite social workers' increased interest in disasters, there is limited social work research on the role of the profession in disasters, and especially in long-term recovery (Bell, 2008). Hassan and Adnan (2016) make stronger criticisms, arguing that the lack of professionalism and a lack of a theoretical base for social work mean that the rehabilitation of those affected by disasters is merely a vague goal with no definition of the mechanisms and resources needed.

Although social work is ideally placed to respond to the human impact of environmental change and stress, the profession is often lacking in ecological practice, research, and policy-making (Kemp, 2011). Indeed, this lack of participation is often seen as untenable, given the accelerating need for creative, practical and justice-oriented responses to the human dimension of growing environmental challenges. Several writers have recommended that the role of social work in disaster situations be improved through extensive research into disaster issues (Zakour and Harrell, 2003; Harms and Alston, 2018; Mhlanga et al., 2019).

There have been various calls for more effective research into the types, timing, role and extent of social work practice and post-disaster interventions needed (Harms et al., 2022). Research also needs to examine the wide range of resource losses caused by disasters and how best to protect populations from the challenges these produce (Cohen et al., 2019). There is a further need for research in communities that have actually suffered disasters, to understand local experiences and previous involvement, if any, of social workers (Herath, 2017; Mihai, 2017); this will contribute to a deeper knowledge of what roles social workers could play in future disaster management. For Das (2020) this current gap in knowledge of local realities - social, political, and geographical - has led to ineffective policy-making; whilst foreign expertise is a valuable resource to start with, understanding the local, regional, and national context is vital if social workers are to provide specialised services to the target population. This emphasises the need to delve deeper into local realities to create effective responses. For Kemp (2011), crafting a vibrant and meaningful presence is not an easy task; it requires the establishment of creative and well-articulated discussion of theories, models, and interventions, supported by research and practical evidence. It is with this vital point in mind that this research critically examines social work practice in Oman in the aftermath of natural disasters, with the aim of making recommendations for how to improve it in the future.

## **1.2 Research gaps and rationale**

This study has used the seven-point theoretical model put forward by Miles (2017) to identify gaps in the research topic: his model outlines an evidence gap, a knowledge gap, a practical-knowledge gap, a methodological gap, an empirical gap, a theoretical gap, and a population gap. The motivation for this study arose from an awareness of these gaps in the growing, but still incomplete, literature on social work practice in the aftermath of natural disasters. The gaps described below are those most relevant to this research.

The first gap is in content and is related to the knowledge gap. Put simply, the research results needed to inform a more effective social work response in the aftermath of natural disasters simply do not exist. Specific studies on social work practice in the aftermath of natural disasters are still scarce, and there have been calls for more research to be conducted in this area (Zakour and Harrell, 2003; Harms and Alston, 2018; Mhlanga et al., 2019; Harms et al., 2022).

The second gap involves methodology and emphasises the importance of diversifying research methods and samples in order to generate new insights and avoid distorting

results. To the researcher's knowledge, there is yet to be a systematic study that includes perspectives from all involved in disaster situations: social workers, NGO workers, service users, and religious practitioners.

The third gap relates to theory and means that any theory needs to be applied to a range of situations and contexts so as to test its validity. Theories generally accepted in the discussion of the role of social work in disaster management must be tested in different contexts from those in which they were originally developed. For example, Maslow's theory of needs must be investigated in the context of disaster situations (Cianci and Gambrel, 2003) and particularly examined in the context of Islamic society (Bouzenita and Boulouar, 2016). Other theoretical approaches requiring scrutiny are the multi-capital approach, where particular attention must be paid to the value and appropriateness of including spiritual capital (Badi'ah, Adi, et al., 2022; Badi'ah, Rahayu, et al., 2022). As Abu-Shawish et al. (2021) argue, Middle Eastern countries should carefully examine any contradictions between local traditions and values and those embedded in the theories transmitted largely from the West.

The fourth research gap involves the context and is related to the population gap; this looks at the populations not adequately represented in prior research. There is yet to be an empirical study involving Oman (Irfan, 2007) despite its relatively long and continuous experience with natural disasters (Al-Rasbi, 2019; Al-Manji et al., 2021; Al-Zaabi and Al-Zadjali, 2022); Oman is therefore a valuable site for examining the research objective. A recent systematic literature review on social work and disasters found 178 articles on the topic; none focused on Oman (Cleary and Dominelli, 2020). Similarly, a recent scoping review examined the extent and nature of social work research activity after natural disasters; 35 empirical studies were included, and again, none considered Oman (Harms et al, 2022).

The fifth gap is empirical. An empirical piece of research is one which is concerned with evaluating or, in other words, empirically verifying research results or propositions. The paucity of appropriate literature available in this area means that the evidence for social work practice in disaster contexts is still in its infancy. Indeed, much published literature in this area consists of descriptions of interventions (Abbas and Sulman, 2016; Wu et al., 2019), reflective writing (Jenson, 2005; Brigg and Roark, 2013; Crawford, 2021), or case studies illustrating educational interventions (Jassempour, 2014; Findley et al., 2017; Powell and Holleran-Steiker, 2017). While these are essential to social work as they reflect values-based approaches and implications for social work, they provide little evidence of

social work practice. This makes the development of an empirical knowledge base even more urgent (Harms et al., 2022). It is important that this research also takes note of the potential practical-knowledge gap between the behaviour that professionals advocate for as ideal support and the behaviour they actually display on the ground.

This study is important because Oman is highly vulnerable to the impacts of climate change, having already witnessed frequent storms and heavy rain due to warmer temperatures near the ocean. It is expected that by 2050 Oman will probably suffer from more frequent cyclonic storms and tropical depressions (Al-Ruheili et al., 2019). Climate change is costing Oman billions of Omani Rials and posing a growing threat to the state's natural resources and infrastructure, triggering increasing calls for the authorities to consider a proactive approach that will lessen the devastating impacts of natural disasters (Al-Yaqoubi, 2022).

Research studies on Oman so far have explored and quantified the economic impacts of the disasters, noting particularly the destruction of urban infrastructure and other land uses (Al-Ruheili, 2017). Others have asserted that Oman's social vulnerability level is increasing over time (Al-Rasbi, 2019), with Al-Ruheili (2017) criticising the lack of focus on creating resilient cities and infrastructure capable of withstanding these events. Surprisingly, however, there are no studies exploring the psychosocial consequences of the disasters.

Several researchers have noted that responses to natural disasters in Oman need improvement. Most decisions and actions regarding disaster management are still reactive, with only short-term outcomes (Al Shaqsi, 2014). For example, roads are repaired but preventive measures for the future are not taken (Al-Rasbi, 2019). Authorities have also failed to include climate change and risk-alleviation in development planning; they have focused on providing relief and implementing emergency measures during disasters, rather than on providing sustainable aid and developing resilience (Al-Yaqoubi, 2022). Given that a rise in the frequency of storms and cyclones has been predicted, authorities should be taking measures to make the country more resilient (Al-Ruheili, 2017). Natural disasters are a wake-up call; policymakers and planners must proactively plan for climate change and build resilient infrastructure.

The literature concerning natural disasters and social work practice in Oman shows that efforts have so far been superficial, and a more effective response is needed, from the authorities in general, and the social work profession in particular. This study is motivated

by the absence of research on the topic, and aims to fill the gap and deepen understanding by developing a robust, empirically-rich, theoretically-informed discussion about the impacts of natural disasters in Oman, how social work is practised after disasters and how it could be improved. It also presents practical implications to assist those involved in disaster management to make more informed decisions about the support and policies required.

### **1.3 Aims, objectives, and questions**

This study aims to contribute to research knowledge by critically exploring social work practice in the aftermath of natural disasters in Oman, and by making suggestions for improvements.

The study has four objectives:

1. To explore social service provision in the aftermath of natural disasters in Oman.
2. To examine current social work practice in the aftermath of natural disasters in Oman.
3. To examine how best to improve social work practice in Oman in the aftermath of natural disasters.
4. To address the conceptual and theoretical implications of the findings, so as to develop effective social work practice in the aftermath of natural disasters in Oman.

The research questions, directly related to the research objectives, are as follows:

1. What services are provided in the aftermath of natural disasters in Oman, and how are they coordinated? This question is designed to achieve the first and fourth objectives and was answered by all the sample: senior managers, practitioners, and service users.
2. What roles do social workers play, and what kinds of knowledge, skills, and values do they use in the aftermath of a natural disaster in Oman? The question is

designed to achieve the second and fourth objectives and was mainly answered by senior managers and practitioners in social development departments, but with some relevant responses from NGO workers and service users.

3. What roles and relevant knowledge, skills, and values do social workers need to practice more effectively in the aftermath of natural disasters in Oman? This question is designed to achieve the third and fourth objectives and was mainly answered by senior managers and practitioners in social development departments.
4. What are the conceptual and theoretical implications of the findings for developing effective social work practice in the aftermath of natural disasters in Oman? This question is designed to achieve the fourth objective.

#### **1.4 Terminology notes**

Some key terms will be frequently used in this research, and must therefore be clearly defined. This section relies greatly on the glossary of terms on Disaster Risk Reduction published by the United Nations Office for Disaster Risk Reduction (UNISDR, 2009), the authoritative body ensuring the implementation of the International Strategy for Disaster Reduction.

UNISDR (2009) refers to the United Nations Framework Convention on Climate Change (UNFCCC) in defining **climate change**, which means 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods' (UNISDR, 2009:7).

The Centre for Research on the Epidemiology (CRED, 2016:13) defines a **disaster** as 'a situation or event that overwhelms local capacity, necessitating a request at the national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering'. UNISDR (2009) explains that disasters occur due to hazards, vulnerabilities, and a lack of appropriate measures.

**Risk** is 'the possibility or chance of encountering danger, suffering, loss, and injury.' (Ferrier and Haque, 2003:273). In widespread usage, the term risk refers to the concept

of chance and possibility, whereas in technical settings, it is used to indicate potential losses. A **hazard** is 'A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage' (UNISDR, 2009:17). Ferrier and Haque (2003) distinguished between hazard and risk, explaining that a hazard is a potential threat to people and their welfare, while the risk is the probability of a hazard occurring.

Depending on their source, hazards can be divided into two broad categories: man-made and natural (Khan, 2012). **Man-made hazards** are those created by humans as a by-product of the activities related to the way that they live in society. These may be created unintentionally (e.g., constructing a chemical plant close to a residential neighbourhood) or intentionally (e.g., waging war against another country). **Natural hazards** are caused by nature's effects on human beings, such as hazards arising from the geographical location of a country. For Al-Shaqsi (2014) the distinction between the two categories is in fact arbitrary, as hazards may have elements from both sources. For example, climate change is an effect of nature, but is often attributed to human activity which affects the Earth's radiation balance (Khan, 2012). The Intergovernmental Panel on Climate Change (IPCC) 2022a stated: "The majority of the climate science community has reached consensus that mean global temperature has increased and human activity is a major cause." (IPCC, 2022a:1939). The report also emphasised that human-induced climate change is causing serious and widespread disruption to nature (IPCC, 2022a). The term **natural hazard** is used to refer both to actual hazard events and to underlying risk conditions that may stimulate future events. Natural hazard events are categorised based on their intensity, duration, speed of onset, and area of extent. Sometimes hazards may be linked, for example, in the case where the occurrence of a hurricane causes a flood.

The terms crisis and emergency are often confused in everyday speech, but technically they are different. Al-Dahash et al. (2016) argued that the key features of a **crisis**, for example, are its uniqueness, its danger, and the damage it causes; it is usually unexpected and involves an emotional human reaction, while an **emergency** is marked by the urgency of its nature, being unanticipated and imminent, creating damage, and needing immediate action. Indeed, both a crisis and an emergency are threatening conditions which require urgent action to avoid their escalating into a disaster. Indeed, the two terms are similar in that either can lead to a disaster if they are mismanaged or neglected. **Emergency management** means 'the organization and management of resources and responsibilities



for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps' (UNISDR, 2009:13).

**Prevention** is 'the outright avoidance of adverse impacts of hazards and related disasters' (UNISDR, 2009:22); examples are building dams to eliminate flood risk and setting land use regulations to prevent settlement in high-risk areas. Often, the adverse impacts of hazards cannot be entirely prevented; however, they can be mitigated. Hence, **mitigation** means 'the lessening or limitation of the adverse impacts of hazards and related disasters' (UNISDR, 2009:19).

**Preparedness** is 'the knowledge and capacities developed by governments, professional response and recovery organizations, communities, and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions' (UNISDR, 2009:21). **Readiness** is a related term and describes the ability to respond quickly and appropriately when needed (UNISDR, 2009).

**Response** means 'the provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected' (UNISDR, 2009:24). Disaster response is primarily focused on immediate and short-term necessities, which is also called "disaster relief". There is an overlap between the response phase and the following recovery phase, and the division between them is unclear, as with for example, temporary housing and water supply.

**Recovery** is 'the restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors' (UNISDR, 2009:24). The recovery stage begins shortly after the emergency stage is over. Effective recovery follows pre-existing policies and strategies, enabling institutions and the public to recover.

The disaster management process has been divided into two phases: pre-disaster and post-disaster. The pre-disaster phase is risk-reduction, and includes the activities of prevention, mitigation, and preparedness, while the post-disaster recovery phase includes the actions of both response and recovery (Asghar et al., 2006). This study focuses on the aftermath of natural disasters and therefore primarily explores the response and recovery phases.

## 1.5 Thesis outline

The thesis consists of ten chapters. **Chapter One** is an introductory chapter that includes the research problem, research gaps and rationale, the aim of the study, and objectives, and concludes with a thesis outline. **Chapter Two** critically reviews research and literature on the central topics related to climate change, global warming and natural disasters, both globally and in Oman, and presents the way that natural disasters are managed. It also explores the different impacts of natural disasters, with a focus on the issue of vulnerabilities and inequalities. The chapter concludes by presenting the reasons for selecting Oman as the location for this research.

**Chapter Three** critically reviews the literature on social work practice and natural disasters globally by outlining the roles, knowledge, skills, and values related to social work practice in natural disasters. It then presents a comprehensive picture of the nature of social work education and practice in Oman, followed by a presentation of how natural disasters are managed in the country.

**Chapter Four** begins by exploring how social work is informed by theories from different fields, such as the humanities, sociology, psychology, philosophy, political sciences, and cultural and religious studies. It then outlines the theoretical framework underpinning the study, which includes Maslow's hierarchy of needs, the multi-capital approach, concepts of vulnerability and resilience, and the case management approach.

**Chapter Five** is concerned with the philosophical and methodological underpinnings of this research and begins by exploring the ontological and epistemological stances of the study. It also addresses the practicalities of the research design, including the method, sample, data collection, transcription, translation, and analysis. The chapter also explores reflexivity and discusses the ethical issues concerning institutional ethics and continuous ethical commitment, emphasising the changes imposed by the COVID-19 pandemic. The chapter concludes by showing how this research, as qualitative research, can be evaluated.

**Chapter Six** examines the impacts of natural disasters in Oman. The chapter begins by exploring the devastating effects of natural disasters and how they are disproportionately distributed among individuals and communities. The chapter then explores the devastating impact of natural disasters on three main areas: individuals and families, communities,

and the provision of services. It finally notes some potentially positive impacts, such as strengthening social bonds and raising disaster awareness.

**Chapter Seven** examines the support provided in times of natural disasters in Oman, informed by Maslow's theory of human needs, capital theory, and concepts of vulnerability and resilience. The chapter identifies four fundamental areas of support: material, financial, psychosocial, and spiritual. For each type of support, the chapter attempts to answer several questions: What are the needs of service users? What are service users doing for themselves? What is being delivered to service users? What is being missed? And finally, what are the problems involved in providing this support effectively?

**Chapter Eight** focuses on social work responses in Oman immediately after disasters and in the medium and long term. The immediate social work response to natural disasters is based on Maslow's theory of human needs, while the medium-and long-term responses are based on the case management approach. The chapter also explores the knowledge, skills, and values underpinning social work practice.

**Chapter Nine** discusses the research argument and summarises the research findings. It outlines the theoretical and conceptual implications of the findings with the aim of analytically developing more effective social work practice in the aftermath of natural disasters in Oman. **Chapter Ten** concludes the study, revisiting the four research questions and summarising the study's key contributions to knowledge. It also considers possible implications of the research, acknowledges its limitations, and discusses areas for future research.

## **Chapter 2 :        Natural disasters: globally and in Oman**

### **2.1 Introduction**

This chapter begins by exploring the relationship between global warming and natural disasters, followed by a particular focus on natural disasters in Oman. It will then examine the consequences of natural disasters on the people affected and raise the issue of inequalities both globally and in Oman. It will then show which Omani governorates are most badly affected by natural disasters, and the implications of this.

### **2.2 Climate change, global warming, and natural disasters: interrelationship**

The burning of fossil fuels such as oil and coal releases large amounts of carbon dioxide, a greenhouse gas, into the air; this traps heat in the atmosphere (Khan, 2012). The increase in greenhouse gases in the atmosphere due to human action will increase the earth's surface temperature and cause other climate changes (McMichael et al., 2006). Oman is a fossil fuel exporter, and the Omani government derives approximately 70% of its annual budget from oil and gas revenues, producing over 1 million barrels per day of crude oil and condensate (International Trade Administration, 2022). The Intergovernmental Panel on Climate Change (IPCC) 2022b stated that net anthropogenic greenhouse gas emissions have increased globally since 2010 across all major sectors. The total net anthropogenic GHG emissions continued to rise during 2010-2019, as have cumulative net CO<sub>2</sub> emissions since as far back as 1850 (IPCC, 2022b). The average annual GHG emissions during 2010-2019 were higher than those in any previous decade (IPCC, 2022b). There is now a large scientific consensus that greenhouse gas emissions from human activity are changing the Earth's climate. Estimates of global warming since 1880 are now at 1.2°C, running at 0.2°C per decade, and are projected to reach 1.5°C by 2030, attributed at least partly to anthropogenic emissions (IPCC, 2022a).

Climate change can be seen in increased temperature trends worldwide. It is also described as global warming and has led to a rise in sea levels, increased melting of ice and snow, more frequent rainfall episodes and storm tides, shifts in vegetation growth and an increased occurrence of extreme weather events (Khan, 2012; AlRuheili, 2022) such as the record-breaking precipitation of the hurricanes of 2017 (Eckstein et al., 2018). The

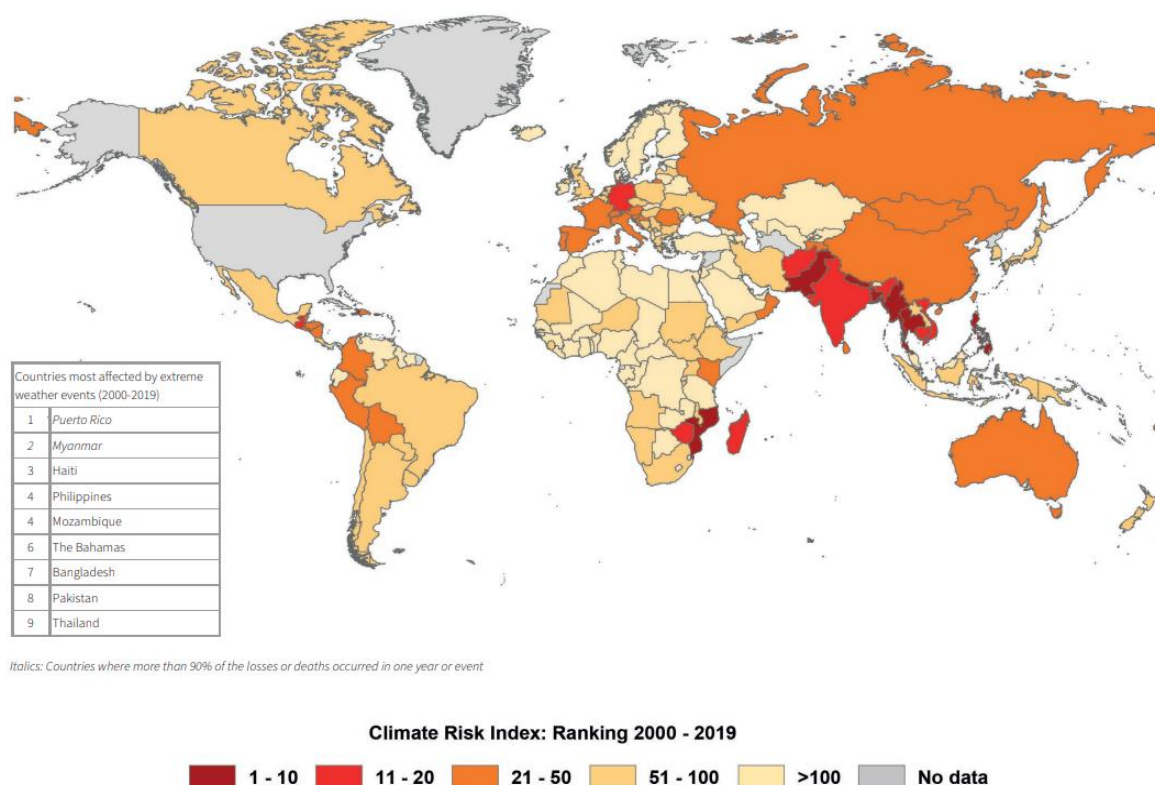
United Nations Framework Convention on Climate Change has recognised that climate change is one of the drivers of disaster risk (UNDRR, 2018). The latest statistics from the United Nations Office for Disaster Risk Reduction regarding climate-related disasters reveal that since 1980 there have been an estimated 3455 floods, 2689 storms, 470 droughts, and 395 extreme temperature events around the world (Hang, 2015). Given these natural disasters, climate change may well be the most severe and wide-ranging challenge facing the globe.

There has been considerable discussion in the literature on global warming as to whether the increase in global temperatures will bring about an increase in natural disasters. Some scientists claim that the evidence for this remains questionable (Haque et al., 2012), but recent evidence strongly suggests that every tenth of a degree in the rise of the average global temperature will increase the number and the severity of natural disasters such as floods, cyclones, heat waves and powerful storms (Huq, 2008).

Changes in temperature and precipitation pose a potential threat to many aspects of human society and create permanent changes in the living conditions of animals and plant life. UNDRR (2018) expressed deep concern at the number and scale of disasters that have occurred in recent years, and the significant loss of life and human displacement that have resulted, along with the long-term economic, social, and environmental consequences for vulnerable societies worldwide. Over the past two centuries, approximately two million people have died worldwide due to tropical storms, and millions more have been injured (Haque et al., 2012).

Eckstein et al. (2018) argue that the storms of 2017 and the precipitation, floods, landslides and cyclones that resulted must be considered a major cause of damage. The number of cyclones worldwide has increased more than threefold from 1970 to 2006, with losses and damage similarly increasing (UN News, 2019) and likely to triple by the end of this century, with the cost reaching US\$ 185 billion annually. The number of people exposed to storms and earthquakes in large cities could double to 1.5 billion by 2050 (UN News, 2019). The map below (see figure 1) shows the level of global climate risk by country 2000-2019 (Eckstein et al., 2021). Oman is the most vulnerable country in the Middle East and most likely to be affected by extreme weather events; indeed, it is ranked in the group of the 21-50 most affected countries worldwide.

**Figure 1 World Map of the Global Climate Risk Index 2000-2019**  
(Eckstein et al., 2021)



### 2.2.1 Consequences for those affected by natural disasters

Generally, disasters impact people's lives in five ways: practically, emotionally, in behaviour, in relationships and at work (Newburn, 1993; Al-Ruheili, 2017; Botzen et al., 2019; Islam and Abd Wahab, 2020; Al-Zaabi and Al-Zadjali, 2022). Many studies have also categorised the impact of natural disasters at individual, familial and societal levels.

At an individual level, a disaster has practical consequences for those who are bereaved, those who survive and those who are otherwise affected by the event (Newburn, 1993). There are three further major areas of impact (Al-Ruheili, 2017; Botzen et al., 2019; Fahm, 2019; Harms et al., 2022). The first is on emotions and behaviour, including anger, depression, irritability, aggression, changes in eating and sleeping patterns, and the increased likelihood of becoming involved in accidents or suffering from ill-health. Second, there are cognitive effects, including problems with concentration as well as flashbacks and nightmares. Disasters also have an impact on relationships, particularly between partners or parents and children. Findings on this issue vary. Some research indicates relationships between spouses and family members strengthen (Lowe et al., 2012), while

others indicate that social relationships are more likely to be harmed by a disaster (Randall and Bodenmann, 2017). However, these studies are limited by a lack of pre-disaster data that would reveal whether relationships had changed.

A disaster has many social, economic and health effects at the family level, causing problems such as the injury and death of loved ones, displacement, loss of home and personal property, security problems, relationship problems and economic hardship (Qandil, 2011; Al-Charaabi and Al-Yahyai, 2013). At a societal level, natural disasters destroy public services such as drinking water, communication towers, electricity cables, paved streets and drainage systems. They also devastate communities, creating loss of homes and livelihoods, diseases, homelessness, droughts, and famine (Mhlanga et al., 2019; Islam and Abd Wahab, 2020; Al-Zaabi and Al-Zadjali, 2022). The effects of natural disasters vary between societies, depending on the nature of the disaster and the conditions of the society (Hugman, 2010). Generally, natural disasters lead to financial loss and physical damage to community infrastructure. Additionally, they are often accompanied by chaos and a lack of clear roles among authorities, factors which disturb the provision of services (Gibson, 2006).

### **2.2.2 Vulnerabilities and natural disasters**

Huq et al. (2020) suggest that vulnerability is based on the equation (Vulnerability = Exposure + Susceptibility - Resilience). The terms 'response capacity', 'coping capacity', and 'resilience' are often used synonymously. For example, Füssel (2007) argued that a community's "internal socioeconomic capacity" or "response capacity" to climate involves its "coping capacity" and "adaptive capacity". However, these terms cannot always be used interchangeably as they may vary in meaning. For instance, coping capacity is more the ability to deal with weather variations in the short term, while adaptive capacity is the ability to adapt to long-term climate change.

There are several reasons for the inequalities in vulnerability during disasters (Alston, 2007; Mathbor, 2007; Haque et al., 2020); their impacts vary worldwide (Park and Miller, 2006). First, how natural disasters strike different communities and individuals within communities is highly socially structured (Alston, 2007) and unequally distributed according to socio-economic class, gender, race and ethnicity and age (Alston, 2007; Van Zandt et al., 2012). Those already experiencing income, health, and social difficulties are highly likely to be more intensely impacted both immediately and long-term (Howard et al., 2018).

Pre-existing access to material or social resources greatly assists individuals in dealing with major events. Past resources influence the acquisition of future resources, and after a disaster, already socially-isolated and oppressed populations find it far more difficult to recover (Park and Miler, 2006). Poverty is particularly pertinent here, as low-quality dwellings and lower socio-economic status, which both arise from and result in financial limitations, can contribute to reduced hazard awareness and/or a diminished capacity to cope and recover (Van Zandt et al., 2012). Traditional service users, such as the elderly and disabled, tend to be disproportionately affected by disasters, because they may not receive their usual services due to the disruptions in procedures and the provision of services (Maglajlic, 2019). The areas in which they live are often more vulnerable to disaster and may be geographically isolated, so that resource distribution is slowed by formidable geographic barriers (Zakour and Harrell, 2003). They may also be served by fewer organisations, which also may have less capacity and network interaction than those serving the less vulnerable.

There is also a relationship between low income and geographical location (Haque et al., 2020). The wealthy have the resources to afford to build or select homes on higher land or on higher foundations (Usamah et al.; Haque et al., 2020). Low-income residents are usually forced to choose low-rent housing, and may thus live outside the municipal area or in vulnerable locations such as in settlements built on bodies of water. Their usually temporary structures are also particularly vulnerable because of construction methods and materials (Haque et al., 2020). All this was evidenced by the effects of Hurricane Katrina in the United States, of the severe droughts in Australia, and of the Asian tsunami (Hugman, 2010).

According to Usamah et al. (2014), there are three main types of housing construction. The first type of house is a reinforced concrete house owned by the wealthiest people in towns and cities; their homes are also built on strong or raised foundations. The second type is semi-concrete buildings with corrugated iron panels and palm-frond roofing, and these structures are partly strengthened to avoid damage from strong hurricane winds. The third and most vulnerable type is houses made entirely of organic materials such as bamboo and palm fronds, also known as "nipa", that can be obtained locally at low cost. Their owners usually belong to the lowest socioeconomic category, and most do not have a fixed income.



Climate change has also increased concerns about the fact that, with the rise in sea levels, coastal areas are particularly vulnerable (Kesavan and Swaminathan, 2006; Mathbor, 2007; Mansour et al., 2021). Some areas are already sinking, and those on the coast are also at risk of landslides and the effects of coastal erosion (Sundermann et al., 2014; Mansour et al., 2021; AlRuheili, 2022). At best, the condition of many coastal communities in the developing world can be described as fragile, especially rural ones, which have a higher percentage of people living below the poverty line than the national average (Pomeroy et al., 2006). Rural communities also build their homes and animal shelters from unstable materials which cannot withstand disasters (Usamah et al., 2014). Their heavy dependence on natural resources and their inability to manage changes in resources mean that disasters have a considerable impact on them (Pomeroy et al., 2006). As they have few resources, their ability to recover is also weak. Rural communities are outside the areas served by municipalities, and thus often outside the range of donor-funded NGO activities (Haque et al., 2020). These areas also pose a particular challenge to emergency management planners, as their geographic isolation, the proliferation of the rural population, and the scarcity and inadequate distribution of basic community services make the provision of emergency activities an immensely difficult task (Al-Shaqsi, 2014).

However, some researchers have argued that urban areas can be even more vulnerable to natural disasters. Cities are at risk because of the high concentration of settlements and population, because of the exponential growth of economic development and urbanization and because of the existence of a high percentage of equity and capital assets (Mansour et al., 2021; AlRuheili, 2022). For the first time in human history, more people now live in cities than in rural areas. According to United Nations expectations (Sundermann et al., 2014), around 6.3 billion people, or 68% of the world's population, will live in urban areas by 2050. The same writers point out that many of these cities lie on the coast and are threatened by earthquakes, floods, storms and other natural hazards. Rapid and often unplanned growth, unsafe construction methods and materials, and flaws in zoning laws can all exacerbate the risks of natural hazards to urban communities.

Within societies, people's ability to access and control resources needed during and in the aftermath of natural disasters is determined by several factors: gender, age, physical ability, citizenship status, and their racial/ethnic and cultural group (Enarson, 2000; Kusmaul et al., 2018). Women, the frail elderly and children, members of minority groups, the chronically ill, undocumented residents, and the pre-disaster homeless have been categorized as the most vulnerable populations; they are both socially excluded and economically insecure. For example, Hurricane Katrina displaced a population with high

rates of chronic illnesses such as diabetes, hypertension, and renal disease (Parmer et al., 2013). Their study also showed, surprisingly, that thousands of survivors of the 2011 Japan earthquake and Hurricane Katrina suffered less from the direct effects of the disaster than from the impact of mass displacement, where access to medication and life-saving treatments such as dialysis was not offered. It is therefore crucial that any plans for mass evacuation incorporate a robust analysis of older and institutionalized people, the chronically ill, and those living with mental illness.

The United Nations Office for Disaster Risk Reduction Report recognised that women and girls are disproportionately exposed to risk, increased loss of livelihood and even loss of life during and in the aftermath of disasters. Given the social and cultural context of the affected community, women may have traditional roles and responsibilities that make them more vulnerable than men (Mihai, 2017). Worldwide, women take longer to recover from the effects of disasters due to their caring responsibilities and the social expectation that they meet the unmet needs of others. This delays their ability to seek support for their own physical losses and psychosocial well-being. The cultural norms and conditions prevailing before the disaster may also exacerbate the severity of the damage (Alston, 2013). An example from Bangladesh showed that women there are more vulnerable to disasters because of the relative poverty caused by cultural discrimination against them (Mihai, 2017). Women may also have a longer recovery period than men because of the cultural norms and practices that impede their ability to benefit from support services and efforts for healing (Cleary and Dominelli, 2020). For example, in orthodox Muslim communities in Sri Lanka, widows go into seclusion for 130 days to mourn the death of their husbands. During this period of over 4 months, women widowed by the disaster were not allowed to access any health or psychosocial support services (Akerkar, 2007).

It is also widely recognised that disasters and the subsequent disruption disproportionately affect persons with disabilities and their families (UNDRR, 2018). As Mhlana et al. (2019) explain, disasters can affect people with disabilities by causing challenges to mobility, a lack of access to basic services, and even death. It is therefore vital that disaster risk management mainstreams both a gender perspective and consideration of people with disabilities.

It is widely recognised that children and young people are probably the most vulnerable group in any society (Kreuger and Stretch, 2003), and thus require particular attention. It is easy to see that infants and young children are physically vulnerable to disasters because of their dependence on adults. However, older children and adolescents are also

vulnerable to injury or death and may develop behavioural, psychological, and emotional problems in the aftermath of a disaster (Peek, 2008). Before a disaster, they believe that the world is stable, but when they suddenly find that this is not the case, adjusting to the new situation can be very hard. Also, when parents and other adults are themselves distracted and challenged by a disaster, they may be unable to help children regain a sense of safety and security. An extra disadvantage faced by children in a disaster is that they are often unable to express their distress or to seek help, even if support is available (Peek, 2008).

Fothergill and Peek (2015) studied the effects of Hurricane Katrina on children for ten years after the disaster occurred, and found three main types of children. The first group is children who fully recover, and find what the researchers call “the path of equilibrium”. The second group consists of children whose situation has worsened since the disaster, and are on “the path of deterioration”. The third are children whose life path oscillates, depending on the well-being of those taking care of them, and are thus described as on “the fluctuating path”. The authors noticed that socio-demographic factors such as gender, race, age, and social class, that determined discrimination among children before the disaster, also influenced post-hurricane recovery. Many governments have already realised the importance of looking after children and younger people. Zakour (1997) argued that social workers have a vital role in providing resources and professional services to vulnerable children. There are many examples of such post-disaster psychological rehabilitation. Russoniello et al. (2002), cited in Liang and Zhang (2016), noted that, after a hurricane in Taiwan, it was school social workers who provided post-disaster therapeutic recreational services for primary school children and thus helped to reduce their post-traumatic stress. A ‘school teaching and student mentoring program’ was also included in the 921-reconstruction plan–life renewal programme in response to the quake that hit Taiwan on 21 September 1999.

Another socially vulnerable group are ethnic minority groups. Researchers such as Agyeman et al. (2002) and Raleigh (2010) noted that ethnic minorities are more likely to live in the most economically disadvantaged and environmentally degraded areas of society. What makes these groups especially vulnerable are the trauma and social exclusion they must deal with, in addition to the general effects of the disaster, and the frequent inadequacies of the support services in their communities (Cleary and Dominelli (2020).

Refugees and migrants are also highly vulnerable in disaster situations. Akerkar (2007) noted that state support after a disaster is often limited exclusively to the citizens of the affected country. Marlowe (2015) also pointed out that refugees have the highest unemployment and homelessness rates, so the impact of disasters on stateless populations exacerbates their social vulnerability and levels of deprivation, which are often compounded by the lack of targeted interventions and comprehensive support services.

Another significant factor needing recognition in disaster management is poverty. The higher an individual's income, the less socially vulnerable they are, due to their ability to respond to the disaster and find ways to make a quick recovery (Al-Rasbi, 2019). Poverty is likely to bring significantly increased risks during the immediate crisis of a disaster and also poses ongoing challenges for recovery (Howard et al., 2018). Hang (2015) argued that the deadliest impact of natural disasters is on the lives and environment of people in poverty. The vulnerable are those who most bear the brunt of natural hazards; for instance, whilst worldwide there were 3.3 million deaths from natural hazards from 1970 to 2010, almost one million died in Africa's droughts alone (UN News, 2019). In the USA, people living in poverty, particularly those from ethnic minority populations, who tend to be more impoverished than their white counterparts, are more likely than the wealthy and the privileged to suffer the adverse effects of natural disasters (Park and Miler, 2006).

Other researchers made similar points. For Huq (2008), the people who suffer most from cyclones are the most impoverished, even in wealthy countries. For example, in Hurricane Katrina in the US in 2005, over 1,000 people - mostly living in poverty - died in New Orleans, despite early warnings predicting the hurricane. A major reason cited is the federal government's ongoing neglect of the city of New Orleans and its largely poor and black neighbourhoods; they thus had diminished economic, political, and social capital and thus inadequate resources for storm protection and recovery (Park and Miler, 2006). Emergency planning managers must therefore include poverty as a critical risk factor in every natural disaster. Mathbor (2007) emphasised the need for community capacity-building, for income-generation possibilities and for improvement of housing conditions.

Researchers such as Enarson (2000) and Howard et al. (2018) confirmed that lack of economic security leads to social vulnerability, and that possession of key economic resources can provide security and resilience during disasters. These resources are a secure income, access to financial savings, employment with social protection, marketable job skills, qualifications and training, and control over productive resources. Enarson (2000) outlined further resources central to reinforcing disaster resilience. These resources

include mobility, good health, social support systems, language and education. Buckland and Rahman (1999), cited in Mathbor (2007), noted the importance of similar resources after studying the Red River flood in Canada. It was found that communities characterized by higher levels of physical, human and social capital were better prepared for and more effective in responding to natural disasters. A good education can also be a decisive factor in disaster resilience. For example, during the tsunami devastation of 2004, no deaths occurred among the indigenous people of the Andaman Islands as they understood early warning systems (Mathbor, 2007). Communities that are well-trained culturally, socially and psychologically are better prepared for disasters and more effective in responding to them.

It thus seems clear that vulnerable populations are those who are least likely to have the social power, economic resources, and physical capability needed to anticipate, survive, and recover from the effects of natural disasters (Enarson, 2000). Social workers need to be significantly engaged with oppressed and disadvantaged populations in the wake of natural disasters if they are to embody and maintain the values of social justice and empowerment at the heart of their profession (Bauwens and Naturale, 2017).

### **2.2.3 Management of natural disasters**

Effective disaster preparedness can considerably reduce deaths and overall impact on a population (Huq, 2008). A clear and well-defined model is vital in managing disasters because it can make it easier to secure support for disaster management efforts. Nojavan et al. (2018) presented a model of management disaster action in five stages: prevention (warning), mitigation, preparedness, response, recovery (rehabilitation), and learning (development). Asghar et al. (2006) divided this traditional description into two phases: pre-disaster risk-reduction and post-disaster recovery. The former includes the activities of prevention, mitigation, and preparedness, while the latter explores the actions of response and recovery (see figure 2, below). This research focuses on the aftermath of natural disasters, primarily on the immediate aftermath, where needs include evacuation, assistance for victims, and the handling of casualties. The recovery phase involves actions taken to enable a return to normal life after a disaster, such as damage assessment and reconstruction.

**Figure 2 Disaster Management Actions**

(The Author)



People cannot wholly control floods and hurricanes, but they can influence the factors which increase risk and vulnerability (Park and Miler, 2006). Preventing or even reducing disaster risk provides exponentially valuable returns and significantly reduces future disaster-response costs (UNDRR, 2018). There are different stages involved in managing the impacts of a disaster. Some can be managed by a direct response and may require only a short time, while others take much longer to resolve, in what can be described as a recovery stage (Puig and Glynn, 2003). While all the stages are vital and should be taken seriously, the recovery stage requires most attention because it lacks current research evidence (Nojavan et al., 2018; Alston and Chow, 2021; Hay and Pascoe, 2021). Additionally, recovery is the stage where individuals can begin to heal and regain a sense of control over their lives and thus, it is a critical time for individuals to acquire coping strategies, build resilience, and receive support to help them move forward from the experience. Failure to receive appropriate support during the recovery stage may lead to more troubling long-term consequences (Kreuger and Stretch, 2003; Cleary and Dominelli, 2020). Furthermore, recovery is a complex and multifaceted process that can vary widely depending on the individual and the type of disaster they have experienced (Puig and Glynn, 2003; Rowlands, 2013; Howard et al., 2018). Understanding the recovery stage therefore requires a nuanced understanding of critical factors such as social support,

cultural background, and individual differences in coping practices, in order to develop more effective interventions.

### **2.3 Research field: Why Oman?**

Although global warming affects the entire globe, it has different effects on different regions because of regional meteorology and geography (Lee and Zhang, 2012). In the Gulf Cooperation Council (GCC) region, Oman is the most vulnerable to extreme weather events, ranking 26th in the Global Climate Risk Index for 2000-2019 (Eckstein et al., 2021). Others in the GCC are comfortably ranked over 100, with Qatar at 182, Kuwait at 178, the UAE at 169, Bahrain at 140 and Saudi Arabia at 117. The index bases its ranking on analysing the extent to which countries have already been affected by weather-related events such as storms, floods, and heat waves.

Scientists predict a global increase in the intensity and frequency of storms (Cheal et al., 2017); evidence of this has already been seen in Oman, most notably in Cyclones Gonu, Phet, Mekunu, and Shaheen (AlRuheili, 2022). Al-Yaqoubi (2022) noted that between 2007 and 2021 Oman experienced 22 extreme weather events, including six cyclones. Oman's vulnerability is already evidenced by a considerable increase in average temperature, a rise in sea-levels, and less regular and lower precipitation. In future it may also witness more frequent storms with heavier rain due to warmer temperatures near the ocean. It is expected that, by 2050, Oman is likely to suffer from more frequent exposure to extreme rainfall events, cyclonic storms and tropical depressions (Al-Ruheili et al., 2019). However, studies addressing the impact of such extreme events on the country are still limited (Mansour et al., 2021).

Geographically, Oman is located in the south-eastern quarter of the Arabian Peninsula, between 16° 39' and 26° 30' north of the equator. It borders the Kingdom of Saudi Arabia and the United Arab Emirates in the west, the Republic of Yemen in the south, the Strait of Hormuz in the north and the Arabian Sea in the east. Its coastline extends about 1700 km from the Strait of Hormuz in the north to the border with the Republic of Yemen in the south. Oman overlooks three significant bodies of water: the Arabian Gulf (also known as the Persian Gulf), the Gulf of Oman and the Arabian Sea (Sultanate of Oman, 2019) (see figure 3). Oman is approximately 309,000 km<sup>2</sup> in area, and is composed of various topographic features, with dry riverbeds and desert accounting for 82% of the land mass, mountain ranges covering 15%, and the coastal plain, 3% (Al-Awadhi, 2009; Al-Shaqsi, 2014; Al-Jabri, 2016).

**Figure 3 Oman map**  
(Encyclopedia Britannica, 2022)



Oman's location on the easternmost side of the Arabian Peninsula exposes it to multiple natural hazards. Oman is close to a cyclone development area over the Indian Ocean (Al-Awadhi, 2009) and Makran tsunamis – from what is now called Pakistan - produce large tsunamis affecting Iran and Oman (Intergovernmental Oceanographic Commission, 2019). The country is also subject to tsunamis from the distant Sunda Trench, as well as tropical cyclones and flash floods (IOC, 2019).

Due to its complex topography, Oman has several local climates, ranging from hyper-arid conditions in the Empty Quarter (Al-Ruba'a Al Khali) and along the coasts and plains, to arid conditions in foothills and highlands, to semi-arid conditions along the slopes and summits of the Hajar Mountains in the north (Al-Charaabi and Al-Yahyai, 2013). Oman has two seasons, summer and winter. Summer begins in mid-April and lasts until October. The highest temperatures are in the interior, where readings of more than 50°C in the shade are common. On the Al-Batinah plain, summer temperatures seldom exceed 46°C, but the humidity can reach 90% due to low elevation. The mean summer temperature in Muscat is 33° C, but the "gharbi" (or "western") a strong wind from the Al-Ruba'a Al Khali, can raise temperatures in the towns on the Gulf of Oman by 6°C to 10°C (Sultanate of Oman, 2019).



During periodic droughts, summer winds often create large sandstorms and dust storms in the interior, while, following rain, valleys can fill with rainwater and vast tracts of land can be flooded. Southern Oman, mostly the Dhofar governorate, has a southwest monsoon between June and September, receives heavier rainfall and has constantly-running streams, making it Oman's most fertile region (Al-Jabri, 2016). Winter temperatures there are milder, ranging between 15° C and 23° C. Precipitation on the coasts and interior plains ranges from twenty to a hundred millimetres a year and falls during mid- and late winter. Rainfall in the mountains, particularly over Al-Jabal al Akhdar, is much higher and may reach 700 millimetres (Al-Charaabi and Al-Yahyai, 2013)

The biggest natural hazard in Oman is the tropical cyclone, which leads to flash floods (Al-Jabri, 2016). Tropical cyclones in Oman are almost entirely confined to two cyclone seasons: the pre-monsoon period (May - August) and post-monsoon period (October-November) (Al-Yahyai, 2009). Although cyclones may be low-risk in themselves, they cause torrential rains that frequently lead to flash floods (Al-Yahyai, 2009; Al-Jabri, 2016). Studies of Oman's history of natural disasters are rare but provide convincing evidence that its coastal areas are frequently struck by tropical cyclones (Al-Rasbi, 2019; Mansour et al., 2021).

### **2.3.1 The damage in Oman**

The urban infrastructure and environment of Middle Eastern countries like Oman can be easily overburdened by extreme natural hazards (AlRuheili, 2022). This is largely because it lacks a modern legislative system, and the cities are thus unable to organise responses to extreme natural hazards; this especially affects coastal cities with larger populations. The lack of effective urban laws means that construction often occurs in flood areas and valleys, putting buildings in the path of natural phenomena. Cities in Oman therefore lack resilience in the face of the destructive effects of hurricanes and floods (Al-Yaqoubi, 2022).

The tropical cyclones in Oman, and resultant flash floods, most commonly damage or destroy housing built close to waterways and urban areas built in low-lying areas. Floods also lead to the accumulation of water in low-lying areas, creating breeding opportunities for disease-carrying insects like mosquitoes (Al-Jabri, 2016). Most years have seen flash floods that pose a hazard to life and property along wadis (riverbeds) (IOC, 2019), with storms the most frequent type of natural disaster in the country. The first recorded major natural disaster in Oman's modern history was the 1977 flood, which caused serious

destruction in wide areas in the north, killing around 105 people and injuring over 5,000 others (Al-Shaqsi, 2014).

The most extreme natural disaster so far documented occurred in June 2007, when Cyclone Gonu caused torrential rains and flash floods, bringing the whole country to a standstill for a week. Researchers such as Al-Awadhi (2009), Al-Shaqsi (2014), and Al-Jabri (2016) recorded its effects, reporting an economic loss of approximately three billion pounds and the deaths of 76 people, with 20,000 left homeless. Most deaths were of migrant workers from the Indian subcontinent, predominantly labourers living in the city's low-lying areas, which were hit by sudden flooding hours before the cyclone struck. However, this number of recorded deaths does not take account of others who died from the aggravation of chronic diseases and lack of access to health care facilities (Al-Shaqsi, 2014).

In Cyclone Gonu in 2007, the floods left significant damage. The intense winds knocked down power lines and communication poles across much of the country's coastline, so that telephone networks were overwhelmed and inaccessible to much of the population (Al-Shaqsi, 2014). The infrastructure and services of Oman were under unprecedented stress for days, with health care services severely stretched (Al-Shaqsi, 2009). Natural disasters like Cyclone Gonu also caused immense damage to Oman's water supply systems (Al-Jabri, 2016). Indeed, in 2007, potable water was in short supply in many parts of the country, and fresh water was delivered by fishing boats to isolated towns near the coastline.

Cyclone Gonu also caused a great deal of permanent damage to information technology systems and services (Al-Badi et al., 2009). Once the storm had passed, offices opened, but computers did not. Systems were seriously or even permanently damaged by flood water and the resulting mudslides and power outages. Organizations without disaster recovery (DR) plans, business continuity planning (BCP) and effective backup systems had no time to react and suffered badly. Several researchers have summarised the damage done by Cyclone Gonu (see Al-Shaqsi, 2014). The economic and infrastructural losses due to cyclones account for 85% of the financial damage to Oman. For instance, the infrastructural damage in 2007 cost Oman US\$ 4.2B; US\$ 1B in 2010; and US\$ 80M in 2011 (Al-Ruheili et al., 2019). Other researchers estimated the casualties and damage in Cyclone Mekunu, the Dhofar Depression, and the November Trough, and have also described the state's response to them (see Al-Zaabi and Al-Zadjali, 2022).

More recently, on 3 October 2021, tropical cyclone Shaheen hit Oman, causing severe damage which forced measures as serious as the evacuation of coastal areas and delays to flights to and from the capital, Muscat (Al-Nassriya, 2021). According to the Preliminary Report on Tropical Cyclone 1–4 October 2021, published by the Civil Aviation Authority (CAA), Cyclone Shaheen was the second strongest tropical cyclone to occur in Al-Batinah province, exceeded only by the 1890 cyclone (AlRuheili, 2022). The Civil Defence and Ambulance Authority (CDAA) dealt with around 2341 situations in this cyclone; including assisting people trapped in vehicles in valleys, dealing with fire reports, land and water rescues, and ambulance callouts (Al-Nassriya, 2021).

The National Centre for Statistics and Information monitored the damage caused by the Shaheen. The heavy rain led to massive flooding, particularly in Saham, Al Khaboura, Al Suwaiq, and Al Musanah; causing casualties and urban and infrastructural destruction of both private and public property. Thirty-four people were killed and 362,000 affected, from 51,000 families, of whom 38,000 were Omani. The cyclone also destroyed 66,000 buildings, containing 91,000 units; 67,000 were residential, and 22,000 commercial. 1,072 mosques, 14 health centres, and 102 government schools were also damaged. There was also major damage to farms, crops, electricity, transport infrastructure, the water supply, and large areas of land (Al-Nassriya, 2021; AlRuheili, 2022).

Some improvements have been made, with large-scale evacuations carried out before cyclones Phet in 2010 and Mekunu in 2018. The country has also, however, been affected by other meteorological hazards, the more regular depressions and troughs which are seen as 'lower hazards', but are rapidly worsening, resulting in numerous casualties and devastating damage (Al-Zaabi and Al-Zadjali, 2022). Al-Ruheili (2017) argued that current development planning approaches in Oman are still inadequate to deal with the uncertainty of the natural hazards caused by climate change. The potential scale of damage and destruction to built-up areas, cities, and infrastructure is not an acceptable risk for Oman to endure, especially given its unstable economy and the fluctuating oil prices.

### **2.3.2 Oman, vulnerabilities and natural disasters**

Physical and social vulnerabilities greatly determine the likelihood of a disaster (Al-Zaabi and Al-Zadjali, 2022) and there is broad agreement that risk is differentially distributed between and within communities (Enarson, 2000; Park and Miler, 2006; Howard et al., 2018). In other words, natural disasters have the strongest effect on the most vulnerable individuals, families, and communities.

No systematic assessment of risk and vulnerability to natural hazards yet undertaken in Oman. Al-Rasbi (2019), noting the dearth of studies of social vulnerabilities in times of natural hazards, highlighted significant indications of social vulnerability in Oman, but focused primarily on the status of individuals, without considering other key factors such as hazard and physical vulnerabilities. This limitation may be because the climate change field involves several different disciplines (Füssel, 2007). However, both statistical data and evidence of the effects of past disasters demonstrate that vulnerability to natural hazards has not only one, but several drivers (Al-Shaqsi, 2009).

Geographical location affects vulnerability to disaster. In Oman, nearly 50% of the population, estimated at 2,088,000, live in the Muscat capital area and on the Al-Batinah coastal plain northwest of the capital (eCensus, 2022). This region is the second most populated area after the capital and has experienced rapid population growth, expansion and development.

The natural hazards arising from climate change are becoming the norm in coastal areas (Mansour et al., 2021), with some coastal areas in Oman already experiencing the rapid flooding of valleys, the resultant casualties, and urban and infrastructural damage (AlRuheili, 2022). Unfortunately, Oman's main towns and cities, Muscat and Sohar, Salalah and Sur, are located on the coast, which makes them directly vulnerable to the effects of threats from the sea (Al-Zaabi and Al-Zadjali, 2022). Most of Oman's population and infrastructure are located along the lower-lying areas of the country, particularly on the Al-Batinah Plain, increasing their vulnerability (Al-Habsi, 2021; AlRuheili, 2022; Mansour et al., 2021).

Most literature on natural disasters worldwide (Pomeroy et al., 2006; Haque et al., 2020) suggests that rural areas are more vulnerable than urban to natural disasters. The reasons include geographical isolation, being outside municipal areas, the low density of the rural population, the scarcity and sparse distribution of basic community services, poverty, and a heavy reliance on natural resources. However, in Oman, it is the urban coastal areas that are the most vulnerable to disasters. Mafi-Gholami et al. (2020) examined the components of social vulnerability - exposure, sensitivity, and capacity to adapt. Between 1988 and 2017, the coastal communities of the Persian Gulf and Gulf of Oman saw an increase in adaptability; however, this was unable to keep pace with the increases in their exposure and sensitivity, and the resulting increase in social vulnerability. Any attempt to reduce people's vulnerability must therefore carefully consider geographic location.

Poverty is another key marker of vulnerability. The most destructive impact of natural disasters is on the lives and living environment of the poor (Hang, 2015). The higher an individual's income, the less socially vulnerable they will be, and the greater will be their ability to respond to and recover from the disaster (Al-Rasbi, 2019). On this score, Omanis are in a fortunate position. In 2018, the poverty datum line set by the United Nations was \$1.90 per person per day. According to the Household Expenditure and Income Survey in Oman for the year 2018 (NCSI, 2021), Omanis had a daily income higher than this minimum. Recently, in September 2022, the World Bank updated the global poverty datum line, shifting the figure from \$1.90 to \$2.15 (The World Bank, 2023); new surveys are now required to update poverty data in Oman.

Oman has exceeded the poverty index standard set by the United Nations, due to its care of vulnerable groups and individuals. In addition, free government health and education are provided to all. The state also provides material assistance to groups in society that do not have a breadwinner or a relative who is obligated to support the family; in such cases, the state pays a monthly stipend and provides social security services. These groups include orphans (including those 18 years old and above who are still studying), widowed, divorced and unmarried women, women abandoned by their husbands for more than a year, families of prisoners, people with disabilities, the elderly and those in a 'special category' with criteria related to poverty and incapacity of the 'head of the family' (MOSD, 2019).

The size of the monthly social security allowance depends on the number of members of the family, and is set by the social security regulations (MOSD, 2019). According to the annual report of the Ministry of Social Development for the year 2021 (MOSD, 2022), a total of 129,475 individuals benefited from the social security pension, 42,842 male and 86,633 female. The largest group was the elderly (41.8%), followed by the disabled (29.5%). By governorate, North Al Batinah Governorate had the highest number of cases benefiting from the pension with 36,822 cases, or 28.4% of the total. In the 2021 natural disasters in that governorate, 347 cases received social security assistance because of damage to housing, loss of sources of livelihood or loss of life, with a total of US\$ 224,128 paid out. Thus, while the average Omani income does exceed the UN level for poverty, many people suffer in times of natural disaster because they lack economic capital. Although the monthly benefit is generally enough to cover people's basic living expenses, it does not enable them to save money for future emergencies (Al-Badi, 2022).

Quality of accommodation also determines how people are affected by natural disasters. Generally, there are three main categories of house construction: reinforced concrete houses, semi-concrete buildings, and houses made from organic materials (Usamah et al., 2014). These are similar to the three types described by Oman's Social Assistance Law issued by the Ministry of Social Development, namely: cement buildings, mud buildings, and buildings made of palm fronds, wood and metal sheets (MOSD, 2021). Reinforced concrete houses are strong cement houses owned by people with high incomes who can also afford to keep them constantly and properly maintained; these are often the least affected by natural disasters. The second type is houses made of clay, but this classification also includes older houses built of cement which are not regularly maintained and are thus more vulnerable to disasters. Such houses are mostly inhabited by people from the social security category dependent on monthly assistance from the government, and by low-wage migrant workers. The third type, and the most vulnerable, is that made of organic materials; in Oman, these are often houses made for animals, or buildings which form part of a main cement-made house. They are mostly inhabited by those receiving monthly state aid.

Many studies indicated that marginalised populations are disproportionately vulnerable and at risk from disasters (Fernandez et al., 2002; Pongponrat and Ishii, 2018; Al-Rasbi, 2019), showing that vulnerability is not homogeneous. Stark differences are evident within socially differentiated categories, including class, race, gender, age, caste, ethnicity, disability, and citizenship (Mihai, 2017; Cleary and Dominelli, 2020), with the groups most discussed in the literature being children, the elderly, women, ethnic minorities and the disabled.

The most widely discussed vulnerable group is children, who are usually dependent on their parents. The effects of disasters on children include dropping out of school, hunger, stress and trauma, disease and death (Mhlanga et al., 2019). Omani society has a high proportion of children, with approximately 26.5% of the population aged 14 or younger (eCensus, 2022).

A second group of vulnerable people is the older population. They are among those least able to recover well from the impact of a disaster, because many have chronic health conditions, physical limitations, and an increased dependence on others (Cleary and Dominelli, 2020). For older people, the most critical aspect of being in a disaster is to avoid being injured, as this would reduce their level of independence (Mihai, 2017). While age in itself does not determine the ability to cope with the aftermath of a disaster (Fernandez

et al., 2002), their vulnerability is increased if they face additional challenges such as poverty, lack of social support, injury, or the loss of a loved one or of property. Disasters also affect the elderly by causing stress, trauma, and death (Mhlanga et al., 2019). In Oman approximately 4.3% of the population are aged 60 and above (eCensus, 2022).

A third group of vulnerable people is women and girls. They may be affected by disasters in different ways, such as by dropping out of school, by hunger, stress or trauma, and by sexual abuse, disease or death (Mhlanga et al., 2019). The latest statistics indicate that the number of women and girls in Oman is 1,731,194, or about 38.7% of the total population; of these, 53,352 are widows, and 27,052 are divorced (eCensus, 2022).

Another vulnerable group includes those from ethnic minorities, who are likely to have less economic, political, and social capital than others (Agyeman et al., 2002; Raleigh, 2010; Parmar et al., 2013). Oman has an ethnically diverse population, being composed of Arabs, ethnic Balochis, ethnic Lurs, and people of Zanzibari origin. The Omani population also follows several religions, with statistics showing that Muslims are predominant at 85.9%, Christians 6.5%, Hindus 5.5%, Buddhists 0.8%, Jews <0.1%, others 1%, and the unaffiliated at 0.2% of the population (World Population Review, 2019). Religious and ethnic minorities such as the Mehri and the religiously unaffiliated are likely to be more vulnerable to disasters than Arabs and Muslims, who possess the strongest social capital. The official language used is Arabic, and most spiritual support provided is directed at Muslims.

People with disabilities are another group particularly vulnerable to disasters (Mihai, 2017). Disasters can affect them by causing mobility challenges, lack of access to basic services, and death (Mhlanga et al., 2019). In 2020, the census registered 42,304 Omanis living with disabilities, or 1.5% of the Omani population (eCensus, 2022). In 2018, about 31,727 people held an official disability card, with 21% in Al-Batinah North, followed by Muscat with 15% (NCSI, 2019). Helping anybody with a disability can be difficult in a disaster, and assisting those with a severe intellectual disability or with multi-disabilities poses an even more significant challenge, but one which must be prioritised.

Oman also hosts a sizeable non-Omani population, with around 2,055,000 living in Oman, making up approximately 38.9% of the country's population (eCensus, 2022). Most of these are from India, Pakistan, Bangladesh, Egypt, Jordan, and the Philippines, with men making up 78.4%, and women 21.6%. Nearly half these foreigners (46.9%, or 964,663 people) are aged between 25 and 39. Educationally, 56.3%, or 1,157,575 people, are

literate but do not have a high school diploma. More than 88% are in the labour force, while the rest are their family members. Most (43.7%) are concentrated in the capital city Muscat. Bangladeshis, Indians and Pakistanis make up the vast majority of the migrant workers; they generally work for low wages, and are housed in poor conditions (Al-Shaqsi, 2014). There are no statistics showing the average length of their stay in Oman, but a resident card for workers is valid for two years and can be renewed. Both Omanis and non-Omanis living in disaster-affected areas are directed to go to shelters when a disaster occurs, if their place of residence is damaged and/or cannot withstand the disaster (Al-Zaabi and Al-Zadjali, 2022).

Non-Omani residents speak at least 12 native languages between them (Sultanate of Oman, 2019). The language issue is significant and can clearly impact the group, particularly those who can read neither Arabic nor English. In Cyclone Gonu in 2007, for example, the Civil Defence Unit sent out mass messages to the population on their mobile phones, but they were only in Arabic and English and were thus not understood by many migrant workers. In Cyclone Phet, however, three years later, the civil defence messages were broadcast in seven different languages (Al-Shaqsi, 2014) to deal with this issue. Other factors that exacerbate the vulnerability of many migrant workers are their low wages and poor living conditions. They often live in weak temporary housing blocks in what are known as 'labour camps'; these houses are easily destroyed by severe rainfall and strong winds (Al-Shaqsi, 2014) as they are either old houses made of clay or cement, or even housing blocks made of fragile materials such as wood panels. Indeed, during Cyclone Gonu, 57% of the fatalities were foreign construction workers living in temporary caravans next to riverbanks that were washed away by the floods. Again, in the November Trough in 2019, seven people were reported to have died as a direct result of the event; six of these were foreign workers on a flooded construction site (Al-Zaabi and Al-Zadjali, 2022). Previous natural disasters showed that many foreign workers are particularly vulnerable because they live in exposed industrial areas, crammed into poorly-constructed and over-crowded dwellings with inadequate facilities (Al-Shaqsi, 2014; Al-Rasbi, 2019).

Another factor that increases vulnerability to disasters is low community awareness of risk and capacity, and this is specifically mentioned in the literature concerning Oman and disaster management (Percy, 2014; Al-Manji et al., 2021). Observations about recent disasters in Oman highlight the inadequacy of the community's awareness of local hazards and therefore, its lack of appropriate response. Al-Rasbi (2019) argued that in flooded areas, a significant driver of vulnerability is the increase in urbanisation, the rapid increase in population and the change in land use. Other factors of vulnerability are people's



underestimating the strength of the event and language barriers when warnings are issued (Al-Zaabi and Al-Zadjali, 2022).

It is therefore especially important that disaster managers recognise and understand the unique problems and particular needs of these groups, especially in times of crisis (Alston, 2007). The social work profession, the government, community organisations, and educators must all take vulnerable groups into account if their work is to implement social justice and human rights. Creating a system of informed warning decisions in Oman requires experts such as hydrologists, geologists, sociologists, and disaster management professionals, who must work collaboratively with meteorologists to understand the variety of risks and vulnerabilities faced by different people in different places (Al-Zaabi and Al-Zadjali, 2022).

### **2.3.3 The governorates in Oman most affected by natural disasters**

The impact of climate change impact in Oman is growing and the design of effective disaster management strategies requires not only an accurate estimation of possible changes in the future climate (Al-Charaabi and Al-Yahyai, 2013; Al-Zaabi and Al-Zadjali, 2022), but also a greater focus on the demographic distribution of the population (Al-Shaqsi, 2014).

Disaster management plans should consider geographical data and the demographic distribution and infrastructure of a country if they are to form a full view of affected areas and to succeed in minimising potential damage. Oman is divided into eleven administrative regions known as governorates: Al-Dakhiliyah, Al-Dhahirah, Al-Batinah North, Al-Batinah South, Al-Buraimi, Al- Wusta, Al-Sharqiyah North, Al-Sharqiyah South, Dhofar, Muscat (the capital), and Musandam (NCSI, 2022) (see figure 4), and those most likely to be affected by natural disasters need to be identified.

**Figure 4 Oman governorates**  
(Oman Explorer, 2022)



In terms of geographical location and meteorological conditions, the north-eastern part of the country is the most vulnerable to natural hazards as it is closest to the cyclone development area over the Indian Ocean, Pakistan, and Iran. Lower-lying areas, particularly the densely-populated Al-Batinah Plain, are also particularly vulnerable since most of Oman's population and infrastructure are located there. Indeed, the North Al-Batinah governorate is the governorate most exposed to tropical storms; Muscat, Sur and Salalah, all coastal towns or cities, are also at significant risk (Al-Yaqoubi, 2022). The northern part of Oman, which includes the Al-Batinah region, has indeed witnessed several recent cyclones (AlRuheili, 2022).

In the south, the Dhofar governorate is also exposed to disasters arising from the heavy rainfall in the southwest monsoon. The interior governorates, by contrast, are less likely to be affected by cyclones due to their distance from the coast. The country's rural areas also pose a particular challenge for emergency management planners as their geographical isolation, the fact that the rural population is widely and thinly spread out, and the scarcity and sparse distribution of basic community services all make emergency service provision particularly challenging (Al-Shaqsi, 2014).

Population distribution and density are also crucial factors in natural disaster planning. Human distribution in Oman tends to concentrate around bodies of water, which increases exposure to the impact of flash floods (Al-Jabri, 2016). Muscat governorate has the highest population density in the country, with approximately 326 people per square kilometre, followed by Al-Batinah North with 99 people per square kilometre. Nearly 50% of the population live in Muscat and on the Al-Batinah coastal plain northwest of the capital, while the southern region of Dhofar has a population of around 416,400 people (eCensus, 2022).

The demographic concentration in Oman is also caused by the rapid growth of several industrial cities, such as the capital, Muscat, and some parts of the Al-Batinah governorates; people are attracted to them because of the job opportunities available (Al-Rasbi, 2019). However, in most industrial cities, basic services were not designed to cater for the rising number and density of workers, which increases their vulnerability (Al-Shaqsi, 2014). Because of this population density, disasters that occur in Muscat, Al-Batinah or Dhofar are likely to cause greater damage than those in other governorates.

Infrastructural development in Oman, including health, education, construction, and transport (NCSI, 2021), is proportionally related to the population density of each governorate. For example, as the capital city of Oman, with a population of around 1,400,000, Muscat has the most developed infrastructure. By contrast, governorates with a smaller population, like Musandam, have far fewer infrastructural services. Generally, however, these services are still sufficient for the people there, because their population is not expanding.

The demographics of the vulnerable groups described earlier are also significant, as Muscat and the Al-Batinah North governorates account for 42% of the country's children, while governorates like Musandam and Al Wusta have only 2% (eCensus, 2022). The geographical distribution of the elderly is very similar, with the highest percentage living in Muscat and Al-Batinah North, and Musandam and Al Wusta again having only 2% each (NCSI, 2022). With children and the elderly being the more vulnerable groups, working adults must provide the resources to support them in times of disasters. Disaster management authorities must also consider these factors when planning for service provision.

Special attention must also be given to the disabled, the highest percentage of whom, 21%, live in Al-Batinah North, followed by Muscat and the Al-Dakhliya governorate with 15% each (NCSI, 2019). The measures needed to assist them, especially those with a

severe intellectual disability or with multi-disability, must be carefully and thoroughly envisioned. Another group already seen to be particularly vulnerable to cyclones is migrant workers. The highest number, 759,917 workers, is in Muscat governorate, followed by North Al-Batinah, with 246,638 workers and Dhofar in third position with 201,367 workers (eCensus, 2022). Preparations to protect them also need to be included in disaster planning.

Disaster management planning also needs to take account of the demographics of social security recipients, as poverty often results in increased risk during a disaster and ongoing challenges for recovery after it. Al-Batinah North has the highest number in need of state support, with an estimated 19,103 cases (MOSD, 2022); emergency plans should consider this. It is thus clear that, for a variety of reasons, Muscat, North Al-Batinah and Dhofar are more at risk from natural hazards than other governorates in Oman.

## **Chapter 3 :        Social work practice and natural disasters: globally and in Oman**

### **3.1 Introduction**

This chapter begins by exploring the literature on social work practice and natural disasters globally, followed by a discussion of the roles, knowledge, skills, and values related to social work practice in these situations. It will then present a comprehensive picture of the nature of social work practice in Oman, with a particular focus on disaster management in the country.

### **3.2 Social work practice and natural disasters: a global overview**

Social work addresses the multiple and complex transactions between individuals and their environments. Natural disasters disrupt people's social functioning by destroying common forms of survival such as food security, health and education. Mhlanga et al. (2019) pointed out that social workers generally work with issues related to quality of life, well-being and human interaction, which enables them to play a significant role in disasters. Professionals in emergency management urgently need to understand this role and how social workers can assist in disaster planning, response and recovery (Drolet et al., 2021; Harms et al., 2022).

Despite the critical role of social workers in the front line of practice interventions, many studies claimed that they are largely invisible during disasters and their aftermath (Cleary and Dominelli, 2020; Alston and Chow, 2021; Drolet et al., 2021; Hay and Pascoe, 2021). There are several significant reasons behind this limited involvement. One of the most important is the failure of the social work profession to affirm its identity and importance in society (Dominelli, 2015). Another reason, given by Mathende and Ndapi (2016), is that environmentalists focus excessively on the natural sciences and fail to link them to the social sciences. Muzingili (2016) also noted the lack of a rigorous social work education curriculum. Indeed, social work professionals have also contributed to their own lack of visibility in disasters, because their excessive belief in the residual social welfare system has often limited their awareness of environmental crises (Mhlanga et al., 2019). However, this is not a reason to limit the intervention of the social work profession but indicates

rather the importance of defining the competencies of each party involved in disaster situations, and how they can best achieve cooperation and integration.

Sim and He (2022) focused on exploring core competencies such as knowledge, values and skills of social workers in each phase of disaster management: mitigation, preparedness, response and recovery. Their review outlines three essential skills for social work in disaster situations: community resilience building, localisation and environmental sustainability. They underscored the importance of cultural competence, as disasters often affect diverse populations differently. Social workers must be attuned to these cultural nuances to provide effective support. Competencies, including knowledge and skills in interdisciplinary research, interdisciplinary coordination and collaboration, advocacy, community impact assessment, communications and intermediary service, are important and should not be overlooked or undervalued in disaster mitigation and preparedness (Sim and He, 2022). Their findings also highlighted the significance of continuous training and professional development for social workers to enhance their competence in disaster response, emphasising reflective practice as an essential resource (Sim and He, 2022).

Similarly, Boetto et al. (2021) examined disaster preparedness in social work. They found that effective disaster preparedness in social work involves knowledge, skills, and a proactive approach to community engagement and collaboration. This highlights the need for social workers to be proactive in building resilient communities that can withstand and recover from disasters. Maglajlic (2019) examined the organisation and delivery of social services in disaster contexts. The review emphasised the need for adaptable and flexible service delivery models. It found that effective disaster response in social work requires collaboration within the profession and with other organisations, such as faith-based organisations and other non-governmental service providers. This interprofessional collaboration enhances the capacity to provide comprehensive support during disasters.

Social work theory and practice are now focusing increasingly on natural disasters, and social work involvement is clearly needed in disaster response. First, the way that natural disasters impact different communities and individuals within communities is highly socially structured (Park and Miler, 2006), an area in which the social work profession possesses much expertise. Second, there has been considerable growth in the frequency of natural disasters and the number of people affected (Dominelli and Ioakimidis, 2014). Third, these disasters cause a great deal of panic and distress (Hang, 2015; Bauwens and Naturale, 2017), and it is vital that the psychological and social aspects of disasters are addressed.

### **3.3 Social worker roles in the aftermath of natural disasters**

The different roles of social workers in the aftermath of natural disasters have been discussed extensively (Qandil, 2011; Hang, 2015; Al-Zamil, 2016), with social work responses being best understood in terms of the immediate, medium, and longer time scales (Kreuger and Stretch, 2003).

#### **3.3.1 Social work practice in the immediate phase**

In the period immediately after a disaster, social workers can be involved in many tasks. These include undertaking basic needs analyses, identifying affected families and individuals, and sourcing the financial and material resources to meet people's practical needs for shelter, food, water and other basic requirements (Hugman, 2010). Most importantly, social workers should ensure social justice in the provision of these services (Qandil, 2011). They should also work to assess the impact of disasters (Mathbor, 2007; Mhlanga et al., 2019), identify the loss of life and property (Irfan, 2007), and ensure the repair of damaged homes and other essential property (Park and Miller, 2006).

Maglajlic (2019) refers to Bliss and Meehan (2008), who suggested that, besides immediate core needs such as housing and transport, health and social support must be prioritised. Qandil (2011) similarly recommended that social workers should provide special services for traditional service users, especially vulnerable groups such as the elderly and people with special needs. They can also frame preventive strategies for vulnerable young people, so they do not become involved in risky or dangerous activities (Kusmaul et al., 2018). Social work is therefore a valuable resource, connecting people to a variety of resources.

Initial psychosocial care is a significant part of early intervention in the immediate post-disaster period, even though it will also be used in other stages of the disaster (Al-Zamil, 2016). The primary aim of this care is to provide reassurance and a sense of security, recovery, moral and psychological support for survivors. Psychosocial support must now be seen as a vital component of emergency response (Mathbor, 2007). Post-disaster psychological care services should be developed, to include the screening of affected populations, prioritizing interventions based on risk assessment, providing trauma/grief-focused interventions and monitoring recovery (Haque et al., 2012).

For Newburn (1993), the key aspect of the work undertaken in the aftermath of a disaster is simply the process of listening to the often painfully detailed accounts of relatives and

survivors. He emphasised that stigma may make people reluctant to request or accept help. Survivors may feel shame about asking for help and are aware of the stigma towards people with disabilities, the homeless, and those who seek support multiple times (Ganapati, 2012). This often makes it more challenging for people who need to access services to seek help (Krishna et al., 2018). Social workers should be particularly aware of the existence of these feelings when organising and running post-disaster services. Indeed, those providing services must proactively approach those affected by disasters, as the majority will not seek help without being prompted.

Hang (2015) noted that social workers should assist survivors by undertaking mental and psychological health assessments, providing referrals when needed, and providing a range of psychosocial interventions. As social workers are familiar with the potential resources available, they should communicate with executive bodies and coordinate to resolve the difficulties faced by the people affected, as these are likely to last for much longer if survivors are not helped as early as possible (Al-Zamil, 2016).

### **3.3.2 Medium- and long-term responses of social work**

Although the role of social welfare officers is most prominent in the post-disaster period (Mhlanga et al., 2019), there can be no absolute separation of the social work practices needed in the various stages after disasters (Cleary and Dominelli, 2020). Some roles in the immediate phase, such as psychological counselling and psychosocial interventions, might also be necessary in the medium and longer-term time phases.

Kreuger and Stretch (2003) noted that after a major event, the emphasis tends to shift more towards psychosocial interventions, especially relevant and appropriate post-traumatic stress counselling. Liang and Zhang (2016) argued that social work plays an essential role in providing psychological counselling and spiritual comfort, which can be needed continuously in the stages after the disaster. There is now widespread agreement that cyclones and the like are responsible for many indirect traumas and mental disorders in whatever part of the world they have occurred (Haque et al., 2012), and that post-traumatic interventions must recognise that these mental health problems can have long-term impacts.

Social workers have another key role to play, as reconstructing communities and social relationships is vital to recovery (Liang and Zhang, 2016). This can be achieved by rebuilding both physical and social infrastructure (Hang, 2015). Social workers should



therefore appeal to different governmental and private bodies to rebuild physical infrastructure and reconstruct destroyed buildings and facilities. The rebuilding of social infrastructure requires that social workers should track people down after disasters so that families can be reunited (Mathbor, 2007); they also need to reintegrate internally-displaced disaster survivors into the community (Hang, 2015).

Social development methods should also be adopted to empower citizens and communities and improve grassroots social development so that social networks and communities can be rebuilt (Hang, 2015). Social workers can be key intermediaries between government and communities for community development. They can also educate people on how to mitigate the consequences of disasters during the relief, recovery, and reconstruction periods (Mathbor, 2007). For Mhlanga et al. (2019), it is crucial for social workers to shift from reducing vulnerability to building and strengthening resilience. Methods include working to promote access to information and services while emphasising inclusion and meaningful participation for all (Hang, 2015). Social workers must consider treating financial stress, as this can affect people's emotional well-being during long-term recovery (Kusmaul et al., 2018).

Several researchers stressed the wide range of roles that social workers can play in these situations, as therapists, service providers, advocates, educators, policy-makers, mental health practitioners, community organisers, researchers and volunteers (Qandil, 2011; Hang, 2015). Naturally, they cannot play these roles in isolation from professionals such as teachers, doctors, psychiatrists, psychologists, and policymakers (Al-Zamil, 2016), and all professionals must work hard to enhance cooperation. Several writers recently outlined the key elements of good practice in delivering emergency and long-term disaster social services (see Maglajlic, 2019).

### **3.4 Social work skills and post-disaster management**

Several authors have outlined the skills that social workers need in responding to natural disasters (Trevithick, 2005; Hickson and Lehmann, 2014; BASW, 2019), emphasising that they must be prepared in advance and anticipating a disaster before it strikes, rather than simply waiting for it to happen. Social workers should be familiar with community resources and leadership potential, as well as being equipped with the necessary knowledge for addressing disaster-related issues at micro, mezzo, and macro levels (Mathbor, 2007). Researchers generally agree that the key skills needed are crisis intervention skills, stress management, grief and bereavement counselling, teamwork,

conflict resolution, problem analysis, data collection, case management, communication, advocacy and leadership (Rock and Corbin, 2007; Qandil, 2011; Nadkarni and Sinha, 2016; Mhlanga et al., 2019; Alston and Chow, 2021).

Newburn (1993) found also that service users need social workers to have a variety of interpersonal skills and qualities, including but not limited to friendliness, honesty, supportiveness, patience, reliability, flexibility and listening skills. They also need to be consistently reliable, however long the process. Interestingly, the skill that both users and social workers most often referred to in the literature was the ability to listen. Al-Berbery's (1998) outline of needed skills focused on relaxation skills, crisis intervention skills, referral skills, and training in first aid, as well as the ability to build and renew support systems to help those affected recover their resources. They can also help to create teams of volunteers and neighbours' organisations to support the worst affected.

These lists are helpful, but many social workers still feel unprepared to respond to disasters, mainly because their professional training has not prepared them adequately, if at all, for disaster work (Newburn, 1993; Rock and Corbin, 2007; Kranke et al., 2022). Neuwelt's study (1988) sought to measure the skills of social workers working in crisis institutions and found that the most critical disaster-related skill-set needed is the ability to assess the situation, develop an appropriate treatment plan, and organise contact with community institutions to assist their clients. The study's results also examined the correlation between how social workers were rated, and their gender, qualifications, work location, and experience, finding for example that the optimum age for social workers in disaster work was 30-49 years of age.

Another study on necessary skills comes from Qandil (2011) referring to Adams (2010) and seeking to ascertain the minimum qualifications required for relief workers and how to improve recruitment. The study was applied to a sample of 600 regional managers and department-level supervisors in Pennsylvania. The results indicated that the most effective professional relief team member would be between 23 and 45 years of age and would also have received special training in disaster-related social work. 88% of the participants also indicated that the specialist must be able to carry out their work at the micro, mezzo, and macro level. The capacity of social workers should also be enhanced through continuing training courses that review disaster planning and response. Social work professionals should reflect on what happened, what went well and what did not (Kusmaul et al., 2018), and share their professional experiences in disaster work and lessons they have learned.

These training courses would enhance social workers' skills base and enable them to manage disasters more effectively.

### **3.5 Social work knowledge and post-disaster management**

A unique feature of social work is its multidisciplinary knowledge base, as social workers move into areas of skill and knowledge that belonged originally to other fields such as psychology, philosophy, economics and education (Germain, 2010; Healy, 2014). This knowledge assists them in their practice, in assessing cases, understanding clients, creating interventions and evaluating outcomes.

Many researchers stressed that social workers need sufficient knowledge to address issues at micro, mezzo and macro levels (Irfan, 2007; Mathbor, 2007; Mihai, 2017; Barney, 2020). However, there is little research outlining how this can be achieved, though (Al-Berber, 1998) explains that social workers need to know about expressing feelings, cognitive integration, mobilisation of resources and how to carry out required actions. For Maglajlic (2019), another critical element is having accurate and up-to-date knowledge of the potential capabilities and resources of social service organisations. The British Association of Social Work (2019) also provided guidelines for these situations. Social workers must first understand their role in disaster preparedness, response and recovery; they must also understand the legislation, policies, and procedures relevant to the disaster context. They should also know about research-informed practices in the field and the evidence behind it, as well as the relevant social work theories and models.

As well as theoretical knowledge, social workers also need strategies that will enable them to play their roles effectively (Al-Berber, 1998; Qandil, 2011). One example is multi-impact support, which involves an intensive and comprehensive assistance effort, often accompanied by an active behavioural change program, in which environmental support is combined with help from relatives. This strategy includes agency teams and specialists as well as individual assistance. Other recommended techniques are methods of building and maintaining hope, therapeutic counselling, and renewal and growth strategies. There are also various professional study tools that can be used in these situations, including individual interviews, group and focus group discussions, field visits and the formation of specialised committees and seminars (Qandil, 2011).

In summary, social workers are required to know the roles they need to play in times of disaster, along with the skills, techniques, and values that will make these possible.

However, in practice they have generally had limited experience in environmental crises; nor is there a rigorous social work curriculum to teach everything required (Muzingili, 2016). Adamson (2014) called for a broad population-based structuring of knowledge for disasters and suggested some fundamental areas for a model curriculum, including: theory and values, practice and skills, social policy and community, and culture and diversity/fields of practice.

### **3.6 Social work values and post-disaster management**

Values are at the heart of the social work profession, where it is essential to maintain respect, promote dignity, integrity, justice, self-determination and practise advocacy (Soliman and Rogge, 2002). Social workers can best understand how to deal with disasters if they emphasise the professions' values (Cleary and Dominelli, 2020), paying special attention to oppressed and disadvantaged populations (Enarson, 2000; Usamah et al., 2014; Mihai, 2017; Pongponrat and Ishii, 2018). Social workers must identify and address vulnerability to uphold the values of social justice, as the effects of disasters and ability to recover from them are influenced by structural privileges and inequalities that prevailed long before the disaster struck (Mhlanga et al., 2019). Social workers should therefore advocate for and include marginalised, oppressed and vulnerable communities in all disaster management strategies (Cleary and Dominelli, 2020). Ensuring that disaster survivors have a right to self-determination not only follows the fundamental social work principles of respect, dignity and participation (Mhlanga et al., 2019), but also ensures that social workers will be providing meaningful professional services.

### **3.7 The nature and scope of social work practice in Oman**

Although many research studies have been conducted in different fields of social work in Oman, there are no robust accounts of the overall nature, history and scope of social work practice in the country. This section will therefore briefly summarise the context of social work education and practice in Oman.

#### **3.7.1 Social work education and employment opportunities**

Social work education in Oman is in its infancy. In 2001, the first official Social Work undergraduate programme in Oman was established at Sultan Qaboos University (Oman's first university, est. 1986). Before this, social work jobs were often occupied by graduates from other disciplines and social work graduates outside Oman. In 2018, the programme obtained academic accreditation from the prestigious Accreditation Agency in Health and

Social Sciences (AHPGS) in Germany (DSSW, 2018). In 2004, Oman's second Social Sciences Department was opened at Dhofar University (DU, 2019). These remain the only two social work programmes across Oman.

Around 70 students join social work departments in the two universities annually, most of whom are Omani, while 60% of academic staff are expatriates and 40% Omani (DSSW, 2018; DU, 2019). However, since 2012 and due to the financial crisis in Oman, it has been extremely difficult for social work graduates to find employment; as a result student numbers are declining (CASS, 2016), dropping to only 25 in 2018/2019 (SQU, 2019; DU, 2019). Interestingly, the gender balance has shifted in recent years; females now outnumber males 2:1. At master's level, there are eight students a year, and this number remains constant. There are no significant employment differences between holders of BAs and MAs. Dhofar University also offers a Diploma in Social Work; these graduates can also work as social workers, but receive lower salaries (DU, 2019). The social work courses involve a compulsory internship under academic supervision, which can be across a range of areas including hospitals, courts, schools, centres for people with disabilities etc. (SQU, 2019; DU, 2019).

Despite the introduction of formal social work education, it is not a requirement to hold a social work qualification to practice as a social worker in Oman. The number of social work graduates is therefore not an indicator of those practising social work, because positions may still be occupied by graduates from other disciplines, such as sociology and psychology. Equally, many officials and employers still do not recognise the profession, so there are not enough employment opportunities to absorb the new graduates (The Omani Vision Newspaper, 2019), leaving an estimated 500 graduates without employment within the sector (Public Authority of Manpower Register, 2019).

Unfortunately, there are no statistics showing the number and gender of practising social workers in Oman. Social work graduates can find employment in private and public sectors but are not sought after in the current market, possibly due to Oman's economic challenges. For some time, the government's response to the overcrowding of the job market was to offer job opportunities at random, without identifying a job-seeker's specialisation. Unfortunately, this policy brought back the haphazard processes that occurred before specialised Social Work departments were established in universities, and before social work graduates were recruited into appropriate positions (Sofy, 2017). The new policy drove social work graduates to take on jobs that did not fully utilise their skills and training, for example, as religious guides or military officers, while graduates from

other disciplines, such as sociology and psychology, were given social work jobs. Recently, however, this ill-advised policy has been abandoned, and jobs are again allocated according to specialisation.

Several possibilities have been suggested to increase employment opportunities for social work graduates, such as opening social work departments in new fields such as factories and in more government and private bodies (Al-Noufli, 2019). Others have stressed the need to develop potential areas for social worker inclusion, such as natural disaster management (Irfan, 2007). Overall, despite the introduction of formal social work education, the links between training in social work and employment in formal posts are still in development.

### **3.7.2 Social work fields in Oman**

In Oman, social work is not a tightly protected title. The profession is practiced by those who have a social work qualification, those who have a similar qualification in, say, sociology or psychology, and even by those who possess qualifications in disciplines other than the social sciences. There is not yet a regulatory body for the registration of social workers as is the case with Social Work England. Most social workers are employed by the government and work on behalf of the state to provide support to vulnerable groups (including children and widows). Social workers in Oman often work with other professions (e.g. in health, education, police, etc.) and the voluntary sector to provide this support; however, this cooperation needs more coordination and integration.

As social work education in Oman is relatively recent, there is limited but growing awareness about the potential role of social workers in the community (Sofy, 2017). Currently, social work focuses more on individuals and families than on community development. "Social worker" titles are predominant and "community worker" titles rare. Researchers such as Al-Noufli (2019), however, claim that more modern social work trends are developing, with social workers in health institutions and courts, dealing with issues involving children and with women prevented by their family from marrying the man of their choice. These modern trends are likely to broaden the scope of social work to include more community-focused practice. The most common fields of social work employment in Oman are in schools and in the Ministry of Social Development. Emerging fields of social work include institutions of higher education, the courts, health facilities and youth care institutions (Bakri, 2017; Al-Noufli, 2019). Social work managers are also recommending that social workers be included in additional fields such as ministries, factories and

companies (Al-Noufli, 2019); their mediating presence would help to create more comfortable environments, and thus ensure more productive and efficient work.

A major social work area is in schools; nearly every school has one social worker, with a second in schools with over 700 students, and a total of 1132 social workers in 1125 schools in 2018/2019 (Sofy, 2018). In schools, social workers act as advocates, behaviour management specialists and intermediaries. They also deal with allegations of abuse, offer individual student support, supervise and support trainee social workers and undertake a range of administrative activities, including parents' councils, organising field trips, attending various meetings and conferences (*see further* Al Shaksi, 2007; Al Kuzairi, 2018; Sofy, 2018). Social workers also play a valuable role in the health sector, at the patient, family, group and society level (*see further*, Al Haddabi, 2016; Bakri, 2017). They also work with individuals with substance misuse problems or disabilities (Bakri, 2017).

Another significant social work field in Oman is in different directorates of the Ministry of Social Development (*see* 3.8.2). The work here is determined by the role of the directorate, for example, working with children, women, or the elderly (MOSD, 2019).

Since it is government establishments that provide most social services, there are laws and regulations that regulate intervention in individuals' and families' affairs. Most relevant to disaster-related work is the Social Assistance Law (Ministerial Resolution No. 72/2014), which governs compensation and assistance for families and individuals in need in the event of natural disasters (Ministry of Social Development, 2016). It includes details on temporary, emergency and special cash assistance, as well as on assistance in cases of loss of life, damage to housing or to the only source of livelihood. There are several conditions governing disbursement of aid for housing loss or damage, such as the type of building and the number of people who lived there (MOSD, 2021). It is important to note that, even in normal times, the Omani government provides many resources to assist clients whom social workers have identified as requiring support; those identified receive social security payments.

### **3.8 Social work and natural disaster management in Oman**

#### **3.8.1 Managing natural disasters in Oman**

Emergency management is never an easy task. It is a complex process involving multiple players who must act as one team with one goal. Coordination and cooperation are central

to successful emergency management, and the coordination must include all community services and agencies, both governmental and private (Al-Shaqsi, 2014).

The Omani government has acknowledged the serious dangers posed by climate change and natural disasters, and has emphasised the need to safeguard the lives and property of both nationals and expatriates. However, there are still shortcomings in disaster and emergency management, due to a lack of standard operating procedures, of clear emergency response plans and of documentation showing lessons learned from past events (Al-Rasbi, 2019; Al-Manji et al., 2021).

Before 1988, emergencies and disasters were managed by a variety of government bodies, such as the Royal Oman Police, the Ministry of the Interior, the Ministry of Social Development and the Ministry of Health, with contributions from some other departments that had relevant and available resources and capabilities (Al-Manji et al., 2021). In 1988 a single entity was established, the National Committee for Civil Defence (NCCD), and was made responsible for all crisis management, planning and execution, for mobilising state and public resources and for ensuring that they were effectively channelled to the tasks identified (ROP, 2011). This was done in the belief that successful response to and management of crises and emergencies is beyond the scope of individual initiatives and requires national-level planning and institutions.

The National Committee for Civil Defence deals with major emergencies through a comprehensive and integrated system, known as the National Emergency Management System, or NEMS, which aims to minimise the impact of disasters, to implement early warning systems and awareness programmes and to enhance community capabilities (The official Oman eGovernment Services Portal, 2019). It also carries out various preparedness activities to ensure that disasters are met with a timely and effective response and successful recovery mechanisms (Al-Zaabi and Al-Zadjali, 2022).

NEMS consists of the executive office of the NCCD, early warning systems, the national emergency management centre, a civil defence sub-committee in each governorate (ROP, 2016) and eight area-specific sectors, which are permanent inter-agency working groups with specific functions. These are early warning, media and public awareness, search and rescue, medical response and public health, relief and shelter, critical infrastructure, victim affairs and the hazmat (hazardous materials) sector (ROP, 2011). They ensure an effective emergency response by carrying out planning, training and capacity-building that will link



government, NGOs, and the private sector, this linkage being essential to providing a comprehensive and integrated response (Al-Manji et al., 2021).

For social workers, the most relevant sector of National Emergency Management System (NEMS) is the relief and shelter sector, which is at the centre of my research. This sector is responsible for providing relief aid and shelters for affected populations, as well as planning for the provision, storage, transport and distribution of relief and aid items, such as water, food and clothing. The Ministry of Social Development chairs the sector, whose other members are from the Public Authority Food Reserve, the Oman Charitable Organisation, and other NGOs and authorities (The official Oman eGovernment Services Portal, 2019).

In Oman, a multi-agency approach is thus the main method of responding to disasters (MOSD, 2021; ROP, 2016) and of dealing with affected individuals in their aftermath. This approach aims to provide a seamless response to individuals with multiple and complex needs (Sturge, 2001), and involves a wide range of sectors and institutions, such as the Ministries of Housing, Social Development, and Defence, to ensure an effective response and recovery process within disaster-prone areas (ROP, 2016). The multi-agency approach contains a broader set of roles that provide services and support through what is called the case management approach (Althumali, 2021).

Although the emergency management concept had existed in Oman for years, Cyclone Gonu in 2007 was the stimulus for modern emergency management in the country and region (Al-Jabri, 2016). Up to this point, no research on emergency management had been carried out by any of the relevant authorities (Al-Shaqsi, 2010). However, Al-Rasbi (2019) pointed out that the same effects are still repeated in each disaster incident, showing that disaster experts continue to respond to disasters as they occur rather than planning effectively in advance. Indeed, actual emergency management measures are relatively recent, particularly regarding the involvement of humanitarian professionals (Al-Shaqsi, 2014; Al-Manji et al., 2021).

### **3.8.2 The Ministry of Social Development**

Oman's Ministry of Social Development has five directorates:

- Social care (includes social security, social assistance, combatting beggary, elderly affairs, juvenile affairs)
- Persons with disabilities

- Family development (includes family counselling and guidance, women's affairs, children's affairs, family protection, and family development and empowerment)
- Associations and clubs (includes Omani women's associations, social development committees (previously called voluntary teams), professional associations, charitable organisations, community clubs).
- Planning and studies.

No department is specifically responsible for social work in times of natural disasters, but the general aims and functions of the ministry are wide-ranging, and almost all departments are involved in disaster-related work (see MSD, 2019). The department of social assistance, however, is the most relevant to disaster management, especially the issues arising in the aftermath of disasters. The department provides cash and temporary material aid, assistance to emergency cases, and assistance to families and individuals in cases of disaster and calamity.

The lack of a specific department concerned with disaster management may be a weak point of government policy and should be further discussed. Indeed, a study conducted with 135 social workers in Muscat after Cyclone Gonu found that they have little knowledge about disaster management planning, nor about the three main phases of a disaster: pre-disaster, during the disaster, and the aftermath of a disaster (Irfan, 2007).

What makes the situation worse is the lack of clarity concerning the function of social workers during the different phases of a natural disaster. Indeed, this issue affects not only social workers but other professions as well. Al-Shaqsi (2010) showed that many of the doctors interviewed were also concerned that there were no guidelines on the nature of each person's responsibilities during a disaster.

### **3.8.3 Non-governmental organisations**

Thus far, although government ministries have contributed to disaster management in Oman, it is NGOs who have played the dominant role in supporting victims. Mhlanga et al. (2019) noted that this reliance on donor services is largely attributable to the government's lack of an effective resource system and also to the dependency syndrome that still exists in most developing countries.

Although Oman is one of the few countries with no national Red Cross Society (Sultanate of Oman, 2019), there are many other non-governmental organisations, and, significantly, these are local rather than international. They are listed in section (3.2.2) as Associations and Clubs (MOSD, 2019); the social development committees and the Omani Women's Associations are the most visible in disaster relief work. These organisations work closely with the Social Development departments but do not necessarily have qualified social workers because their members are all volunteers, most between the ages of 21 and 35 (Sofy, 2017). The only NGO composed entirely of social workers and sociologists is the Omani Sociological Association, but it has played no visible role in disaster management.

Several studies have suggested that government services in many countries are often too bureaucratised to allow the flexibility and scope of delivery necessary to respond effectively to a disaster (Newburn, 1993). They are not designed to respond to sudden changes in their service population. If on offer at all, government social services usually provide targeted social services limited to specific community members (as opposed to universal provision). In addition, they are commonly delivered through cumbersome systems built more to identify fraud prevention than to ensure flexibility and wide-ranging delivery. Despite these factors, people frequently expect an immediate response from the government following a natural disaster, preferably shown as coming from its highest level and implemented locally (Maglajlic, 2019).

In contrast, non-governmental service providers are characterised in the literature as flexible and effective first responders to disasters. In some countries, such as the USA, faith-based communities and organisations are the preferred providers of assistance in disasters (Cain and Barthelemy, 2008). However, it has also been suggested that even a vibrant non-governmental sector may be lacking in many areas. Where they do exist before disasters, local non-governmental services may focus on specific needs and/or populations, and they may work in relative isolation from each other. In a crisis induced by a natural disaster, they are expected to extend their services to evacuees and to collaborate, both of which may prove challenging. Indeed, some such organisations, particularly when located at the site of a disaster, may temporarily or permanently disappear due to the disaster's impact on their members and infrastructure; others may need to find new organisational strategies to provide services and meet both new and pre-existing needs.

Oman has tended to unify government and non-government efforts. A key example is the Social Development Committees, originally called Volunteer Charitable Teams, but

restructured and renamed by a series of ministerial decrees between 2002 and 2009, which also defined their powers and terms of reference, (Al-Rashideen Centre, 2012). The decrees set out the membership of the committees, the length of time that members may serve, and the objectives and tasks of the committees. The formation of these committees helped to organise the cooperation between governmental and non-governmental institutions; they are also in constant contact with social development departments in the ministry, and with social workers.

Other studies of NGOs, such as that by Marwaad (2001) in Egypt, found that their response to crises and disasters was weak. One reason was that major national crisis and disaster management plans do not include specific roles for NGOs. Second, their efforts may be made in isolation, and hindered by a lack of coordination, which may mean that resources are not concentrated and effort is unequally spread. Two other hindrances are the poor geographical distribution of the NGOs and the fact that their leaders may frequently be incapable of contributing effectively in the face of crises and disasters. Also, the physical and technical capabilities of the NGOs are often weak or even completely non-existent, and they may also be unable to attract and mobilise additional resources.

However, this is not true in all situations, and a good deal of the literature about the response of NGOs to natural disasters is positive, noting the flexibility and responsiveness of many organisations. Mhlanga et al. (2019), for example, writing about Zimbabwe, highlighted the crucial role of NGOs in service delivery, particularly on relief issues, emphasising that access to basic services, needs assessment, and even the financing of government programmes are the most prominent activities carried out by NGO workers. Across the globe, social services before, during and after disasters are likely to be provided by both governmental and non-governmental organisations, with different roles, remits and types of provision (Maglajlic, 2019). The social work profession can take advantage of social support systems and social networks in the community to increase the effectiveness of its disaster and crisis relief systems (Qandil, 2011). In this way, social workers do often provide emergency disaster relief services in collaboration with volunteers, associations and governmental and non-governmental organisations.

### **3.9 Conclusion**

This chapter began by exploring the literature on social work practice and natural disasters globally, noting the roles played by social workers in the three post-disaster phases and discussing the roles, knowledge, skills, and values needed in social work practice in these

situations. It then looked specifically at Oman, presenting a picture of the nature of social work education, employment opportunities and fields of social work in the country. The chapter ended with a description of the history of disaster management in Oman, focusing particularly on the role of the Ministry of Social Development and of non-governmental organisations (NGOs).

## **Chapter 4 :        Theoretical frameworks**

### **4.1 Introduction**

This chapter outlines the theoretical framework upon which the data interpretation is based, beginning by discussing how theory is used within social work. It then explores Maslow's hierarchy of needs theory (Maslow, 1943), capital theory (Bourdieu, 1986), the concepts of vulnerability (Pongponrat and Ishii, 2018; Rühlemann and Jordan, 2021) and resilience (Mayunga, 2007), and the case management approach (Hall et al., 2002; Cleary and Dominelli, 2020). These theories will be drawn upon at various points throughout chapters 6 – 9 to explore and interpret the data.

### **4.2 Theory in Social Work**

A unique feature of social work is its multidisciplinary knowledge base, as social workers often draw upon areas of skill and knowledge that originate in other professions. Social work theories and perspectives draw ideas from many different fields, including the humanities, sociology, psychology, philosophy, political sciences, cultural and religious studies, economics, and education (Germain, 2010; Healy, 2014).

Teater (2014) argued that some terms, such as 'intervention', 'methods' and 'theories', are often used interchangeably to describe social work practice. However, a theory and a method are separate concepts, although they influence one another. A 'theory' is synonymous with a hypothesis, an explanation that helps predict or explain why something has happened or might happen in the future. A 'method' is synonymous with process and technique, it refers to a social worker's actual activities when working with a client; the term can be replaced with others, such as 'intervention', 'approach', or 'practice'. Social workers use theory to understand a current situation or behaviour; this then informs the selection of the method they will use to deal with the situation.

One challenge of applying social work theories is deciding on the correct theory for the situation. Sometimes it can be challenging to assign a single theory to complex client issues (Munro, 2002) and it will be more practical to draw upon multiple views and use that understanding to design multifaceted interventions (Birkenmaier and Berg-Weger, 2017). In practice, many social workers have a limited knowledge and practice base, and

use only a few theories, despite realising that a more complex intellectual picture is available. Their limited choice of practice methods may also result from agency constraints, personal preference, or the prevailing ideological climate (Howe, 2017).

A range of ideas influences social work practice; this tends to become complicated when many of the ideas may conflict or overlap (Howe, 2017). The theoretical framework used here was drawn from various disciplines, with theories selected according to their suitability for precise and accurate interpretation of the data.

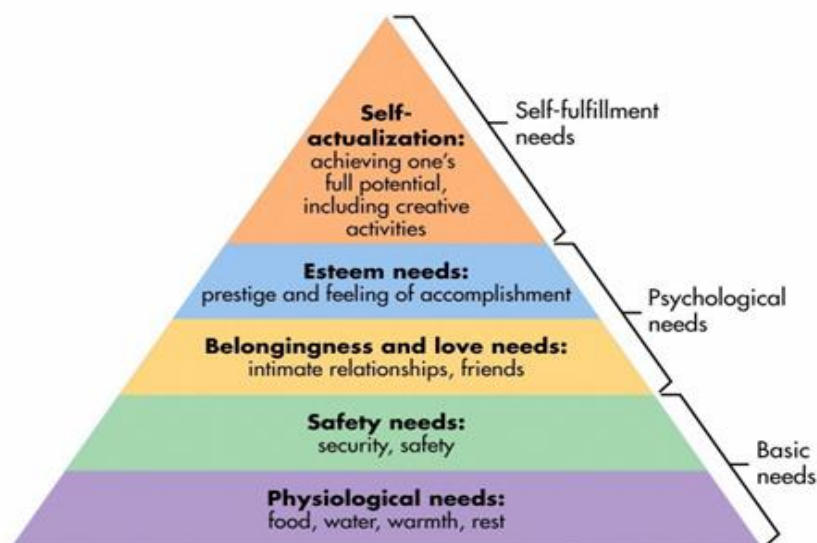
### **4.3 Maslow's hierarchy of needs**

Maslow (1943) classified human needs into five categories, often portrayed as hierarchical levels within a pyramid, with the most basic needs at the bottom. From the bottom of the hierarchy upwards, the needs are; physiological (e.g., food and shelter), safety and security (e.g., job security), belonging and love (e.g., friendships), self-esteem (e.g., feelings of accomplishment), and self-actualisation (e.g., achieving one's full potential), as shown in Figure 5 below. Maslow hypothesised that people have five types of needs, and individuals move through these hierarchical motivations in a particular order. Kaur (2013) argued that the first three stages of needs (physiological, safety and security, belonging and love) can be seen as deficiency needs, while the later stages (self-esteem and self-actualisation) can be called growth needs. As McLeod (2018) explained, deficiency needs arise due to deprivation and motivate people when their needs are not being met. The motivation to satisfy these needs will become stronger the longer they are denied; for example, the longer people stay without food, the hungrier they will be. The theory assumes that if people grow up in an environment where their deprivation needs are not fulfilled, they are more likely to experience negative physiological and psychological consequences and are less likely to function as healthy and well-adjusted individuals (Kaur, 2013; King-Hill, 2015). However, if these deficit needs are adequately satisfied, they will disappear, and the individual's activities will become habitually directed towards meeting the next set of needs. In contrast to deficiency needs, growth needs may become more potent once engaged. Growth needs do not stem from a deficiency but rather from a desire to grow as a person (McLeod, 2018).

Researchers such as Kaur (2013) and McLeod (2018) noted that while Maslow may have initially stated that individuals must satisfy lower-level deficit needs before meeting higher-level growth needs, he later clarified his position, explaining that the satisfaction of needs is not an "all or nothing" phenomenon, and asserting that one need does not

have to be fully met before the next need arises. King-Hill (2015) took this further, arguing that the stages in the hierarchy are not mutually exclusive, but may overlap according to which need is dominant at any one time; this may motivate the individual depending on their individual psychological and physical circumstances.

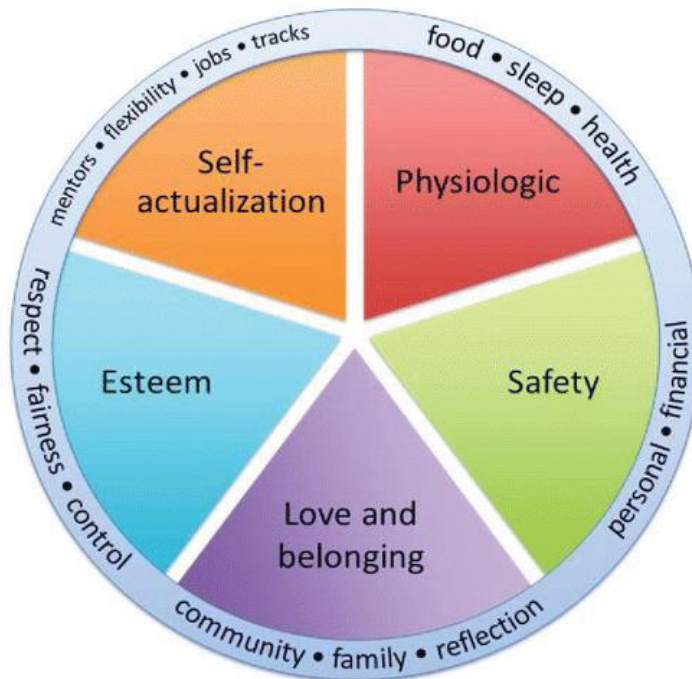
**Figure 5 Maslow's Hierarchy of Needs**  
(McLeod, 2018)



While Maslow's hierarchy of needs is one of the most discussed motivation theories in numerous fields (Cianci and Gambrel, 2003), it has been criticised in several studies. King-Hill (2015), for instance, referred to Wahba and Bridwell (1979), who suggested that although the importance of fulfilling human needs must indeed be recognised, the existence of a strict order of needs, or "hierarchical unidimensionality", should be called into question. Hale et al. (2019) presented a new model altogether, removing the hierarchical nature and acknowledging instead that there are multiple concurrent threats to human needs (see Figure 6, below). However, even this conceptualisation seems not to be comprehensive, in that it neglects to consider the spiritual aspect of human need. McLeod (2018) also developed Maslow's theory, arguing that not everyone will move through the hierarchy unidirectionally, but that people may move back and forth between the different levels of needs. The order of needs is thus not rigid but flexible and is based on people's external circumstances and individual differences. For example, individuals living in scarcity can still express high-level needs; a useful example is self-actualised artists who have lived in poverty.



**Figure 6 Modified Maslow's Hierarchy of Needs**  
(Hale et al., 2019)



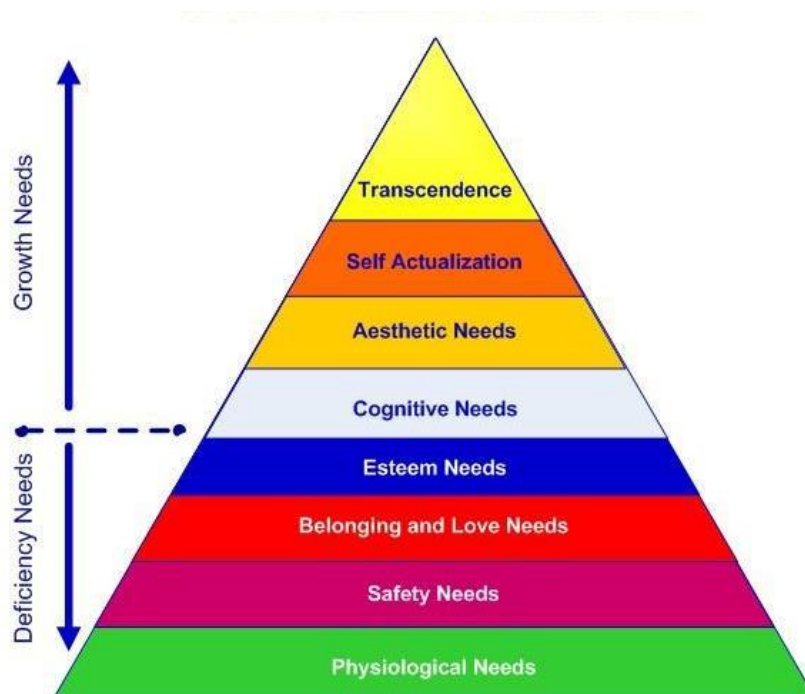
King-Hill (2015) referred to Hofstede (1984), who interestingly claimed that Maslow's hierarchy was steeped in ethnocentrism, based on Western ideology, and did not consider the differences in societies' unique cultural, social, and intellectual needs, one, for example, being the difference between collectivist and individualistic societies. The needs of people in individualistic societies may well be for individual self-actualisation and self-fulfilment, but collectivist societies focus instead on community, acceptance, and belonging. Edwin C. Nevis (1983), an American psychologist who taught organisational psychology in Shanghai, realised that Maslow's hierarchy of needs did not fit the Chinese context and therefore developed a new model called "Nevis's hierarchy of needs". He declared that the hierarchies of needs of different cultures are classifiable based on two main dimensions: individualism-collectivism and the ego-social dimension (Bouzenita and Boulanouar, 2016).

Others like Koltko-Rivera (2006) defend Maslow, explaining that the commonly used model of his hierarchy of needs does not consider his own later ideas; he continued to refine his theory over several decades (McLeod, 2018). Regrettably, many researchers and authors still rely on the original model without considering the modifications made to it by Maslow and others. The fact that the model's successful adoption depends on the simplicity of its

original idea may, however, be a symptom of the current era and the nature of academia. It is also true that Maslow had few opportunities to publicise his modified theory and others may have had difficulty accessing the modified material. Third, psychology is perhaps unwilling to give credit to the place of spirituality in many people's lives (Bouzenita and Boulanouar, 2016).

In 1943, Maslow suggested five levels of needs, while his revised ideas proposed a seven-level hierarchy (Bouzenita and Boulanouar, 2016), with understanding/cognition and aesthetic needs being the levels added. The first refer to the need to know and acquire relevant knowledge and skills, the need for curiosity and exploration, and also for meaning and predictability. Aesthetic needs are the need to enjoy and promote the beauty of the human environment (Aruma and Hanachor, 2017). Later, Maslow added another level at the top of the pyramid, called self-transcendence (see Figure 7, below). This represents a motivational step beyond self-actualisation; it seeks to promote a cause beyond the self and to experience communion beyond the boundaries of the self through what he called 'peak experiences' (McLeod, 2018). Koltko-Rivera (2006) explained that Maslow described peak experiences as including mystical experiences, aesthetic experiences, emotional experiences involving nature, and the like. Beyond "the self" includes service to others, devotion to an ideal (e.g., truth, art) or a cause (e.g., social justice, environmental protection, the pursuit of science, religious faith), and/or a desire to unite with what is seen as transcendent or divine. He also illustrated the meaning of "beyond the limits of the self" through his depiction of a peak experience, in which the person experiences a sense of identity that transcends or extends beyond the personal self. This level can involve mystical experiences, specific experiences with nature, aesthetic experiences, sexual experiences, and/or other transpersonal experiences (Koltko-Rivera, 2006; McLeod, 2018), and may be relevant to the religious nature of many of this study's participants.

**Figure 7 The New Hierarchy of Needs  
(McLeod, 2018)**



McLeod (2018) also referred to Maslow's later views (1987) in which he argued that most behaviours are multi-motivated and simultaneously triggered by more than one basic need; the order of needs may also be flexible based on external circumstances or individual differences. Koltko-Rivera (2006) declared that Maslow's later ideas supported the acceptance of spirituality and introduced a more integrated multicultural approach. However, Bouzenita and Boulanouar (2016) argued that Maslow's theory, even the later version, is still not entirely appropriate for Islamic societies, and possibly not for others. In their view, an Islamic approach calls for the balancing of material and spiritual needs in every state of human existence, in times of abundance or poverty, stability or change, health or disease, happiness or distress.

Another example that illustrates the challenge of applying Maslow's theory to Muslim societies is the practice of fasting in the month of Ramadan. Muslims worldwide perform this fast annually; basic food needs are not met from dawn to dusk, but many see it as a high spiritual experience which provides a sense of self-fulfilment (Bouzenita and Boulanouar, 2016). Maslow's hierarchy cannot be seen as a valid description of the interaction of an individual's physical and spiritual aspects in situations like this, even if

the spiritual aspect is placed at the top of the pyramid. There is a clear need to design a model more applicable to the Muslim world, for example, in Oman, where 85.9% of the Omani population are Muslim (World Population Review, 2019).

There have been other criticisms of the hierarchy of needs. Cianci and Gambrel (2003), for instance, criticised the theory as not relevant to societal needs at times such as recession and disasters, which is important to the focus of this study. However, regardless of the numerous criticisms of Maslow's hierarchy of needs, it remains after 75 years an immensely popular model within studies in sociology, management, psychology and education (Cianci and Gambrel 2003; Kaur 2013; Hale et al., 2019).

Maslow's theory of needs was selected because of its relevance to the data analysis of this study. The review of the services provided in the aftermath of natural disasters in Oman made it clear that the primary concern of the relevant Omani authorities is the provision of necessities such as food supplies, clothing, and temporary safe housing. Other types of support, such as financial, psychosocial, and spiritual, are provided, but not as immediately. Thus, although this theory has been used effectively in many areas and circumstances, the question remains about its validity in times of crisis like natural disasters and its relevance to Islamic and other religious societies. This research seeks to examine and answer this key question.

#### **4.4 Capital theory**

Another theory that is helpful when analysing the data collected in this research is capital theory. This was a primarily economic concept first formulated by Becker and Schultz in the early 1960s. Since then, many forms of capital have been conceived and debated by researchers (Hauberer, 2011). Deshmukh et al. (2015:40) defined capital as "a potential capacity to produce profits". They asserted that the capital distribution structure in society represents the inherent governance of constraints and opportunities that influences an individual's chances of success and failure in life.

There is no consensus on a definitive list of types of capital (Cochrane, 2006). Bourdieu (1986) described three fundamental forms: economic, social, and cultural capital, but these are not sufficient to explain the data of this research. Wright and McMahan (2011) noted that economic literature had produced a new form called human capital, which codifies the concept of cultural capital developed by Bourdieu and adds details that contribute to a more accurate research data analysis. Ecological researchers such as

Cochrane (2006) also adapted the definition of cultural capital, which is relevant to the topic of natural disasters. Another form of capital addressed in the literature and relevant to this study is spiritual or religious capital (Finke, 2003).

Researchers such as Mayunga (2007) and Smith et al. (2001) added a type which they called natural capital. This is related to factors like residence location, natural resources (i.e. water, minerals and oil), environmental risk, land that provides adequate space to live and work on, and local ecosystems that maintain clean water, air and a stable climate. Some of these determinants, local geography and environmental characteristics, have also been categorised as within physical capital (Ivkov et al., 2019). However, given that this research does not closely examine natural resources and ecosystems, and to reduce the diversification of types of capital, natural and physical capital will be merged.

The main forms of capital, then, are complex and include many dimensions; some cannot be directly and clearly measured and are often difficult to quantify (Mayunga, 2007). This section will present the types of capital most relevant to the research data, namely: physical, economic, social, cultural, human, and religious/spiritual capital, and will highlight how each is applicable to this study.

#### **4.4.1 Physical capital**

Physical capital focuses largely on characteristics of the environment, buildings, infrastructure (i.e., roads, electricity, water supply, telephone coverage), emergency resources (i.e., police and hospitals), and evacuation plans (Ivkov et al., 2019). It is widely agreed that people's actions and responses will vary depending on their resources and perceptions (Paton and Johnston, 2001; Rühlemann and Jordan, 2021; Sheafor and Horejsi, 2010). In this research, physical capital is vital in interpreting the data, particularly that contributed by service users. Physical capital refers to the built environment, its residential dwellings, public buildings, businesses/industries, dams, and shelters. It also includes lifelines such as electricity, water, the telephone network, and critical infrastructure such as hospitals, schools, fire stations, and the police (Mayunga, 2007). The study will also adopt the simplified classification offered by Ivkov et al. (2019) and will include characteristics of the environment in the idea of physical capital.

#### **4.4.2 Economic capital**

There is general agreement on the nature of economic capital, which has been simply defined by Reininger et al. (2013) as financial resources. Deshmukh et al. (2015) explained that economic capital means property rights and economic sovereignty. It consists of monetary and physical assets owned by family members, individually and collectively, which can be loaned, invested, leveraged, or relied upon. It can be converted into money immediately and directly, but also exists in the institutionalised form of property rights (Bourdieu, 1986).

As people's actions and responses will vary depending on their resources, the notion of economic capital is vital in interpreting this data. It includes financial resources, income diversity, investments and savings, access to credit, and insurance coverage (Ivkov et al., 2019); the data will show how the level of participants' economic capital impacts their recovery from natural disasters.

#### **4.4.3 Social capital**

Bourdieu (1986) observed that social capital represents the sum of actual or potential resources associated with having a permanent network of institutionalised relationships of mutual acquaintance and recognition. Social capital affirms the value and effectiveness of social relations and the role of cooperation and trust in achieving socioeconomic goals. Social capital includes social networks, interaction, cohesion, and solidarity among the members of society. It can be seen simply as an individual's social network and the trust they have earned (Deshmukh et al., 2015). Mathbor (2007) and others usefully describe social capital as having three levels: bonding within communities, bridging between and among communities, and linking through ties with public and financial institutions. Bonding social capital refers to the relationships between members of a network, while bridging social capital refers to the relationships between different people across age, ethnicity, socioeconomic status, and education. Linking social capital is the extent to which individuals build relationships with institutions and individuals of higher authority. Bonding and bridging ties are horizontal, while linking social capital is vertical (Hawkins and Maurer, 2010; Reininger et al., 2013).

In this research, the idea of social capital is vital in interpreting service user perspectives. It explains how different factors of social capital, such as social cohesion, community involvement, communication, norms, and trust impact how service users are dealt with

and how they recover from natural disasters (Mathbor, 2007; Usamah et al., 2014; Ivkov et al., 2019).

#### **4.4.4 Cultural capital**

Bourdieu's theory of cultural capital has been interpreted in various ways. Researchers linked it first to class inequality and social exclusion, then to concrete and integrated cultural gains, and to the aptitude of a group or society to act in a certain way. Lamont and Lareau (1988:164) defined cultural capital as a "widely shared, legitimate culture made up of high-status cultural signals (attitudes, preferences, behaviours, and goods) used in the direct or indirect social and cultural exclusion." Throsby (1999) argued that cultural capital might exist in two forms, tangible and intangible. Tangible cultural capital appears in artworks and artefacts such as paintings and heritage buildings while the intangible part consists of such art forms as music and literature, as well as the stock of inherited traditions, values, and beliefs that make up a group's culture. Deshmukh et al. (2015) also argued that cultural capital could be expressed in non-financial social assets that produce social harmony, such as education. Hauberer (2011) described cultural capital as existing in three forms: an embodied state, an objectified state, and an institutionalised state. The embodied state is presented in long-term actions of mind and body, like knowledge or skills acquired over time. The objectified form appears in cultural goods like books and pictures. The institutionalised state is involved in imparting the original characteristics of cultural capital, such as educational qualifications.

Interestingly, due to the intersection of social and cultural capital indicators, some researchers combine them to produce a single capital called organisational capital (Ivkov et al., 2019). Berkes and Folke (1994) used the term cultural capital somewhat differently, to describe "the rules of society or factors that provide human societies with the means and adaptations to deal with the natural environment" (Cochrane, 2006:320). It also describes the capabilities of a group or society and their ability to behave in a specific way. Cultural capital can include many elements, such as socio-political institutions, values, social preferences, needs, environmental ethics, and traditional environmental knowledge (Cochrane, 2006). This last definition has been seen as most relevant to the nature and scope of this study; it has therefore been adopted; cultural capital is thus seen as distinct from human capital.

As previously noted, people's actions and responses will vary depending on their resources and perceptions (Paton and Johnston, 2001; Rühlemann and Jordan, 2021). The notion of

cultural capital is significant for this research as it can show how knowledge about local culture and cultural influence on the social environment affect how people deal with and recover from natural disasters.

#### **4.4.5 Human capital**

While much humanistic literature focused on these three forms of capital (economic, social, and cultural capital), it was economic literature that produced a new form called human capital. Becker (1964), cited in (Wright and McMahan, 2011:94), defined human capital as '...the knowledge, information, ideas, skills, and health of individuals'. Wright and McMahan (2011) added that human capital also expresses how individuals make choices regarding investments in their own human capital, for example by joining a training programme or gaining a college education. The idea of human capital relies on the assumption that individuals decide on their education, training, medical care, and other additions to knowledge by considering the benefits and costs, which of course means that not everyone starts with the same opportunities for choice.

Baez et al. (2010) defined human capital as the internal resources of an individual, and their capacity to be effective in the world. People who are effective in their personal lives can have high human capital. Education, emotional resilience, physical health, self-esteem, and other inner states produce a solid foundation for achieving their goals (Smith et al., 2001). Therefore, a family full of individuals with high human capital is likely to be resilient and perform at their optimum levels. Human capital is unique because individuals cannot be separated from their knowledge, skills, abilities, health, or values, while they can, by contrast, be separated from their financial and physical assets (Wright and McMahan, 2011).

Human capital is probably a more significant indicator of resilience than other forms of capital; the more human capital exists in a community, the greater that community's capacity for developing resilience (Mayunga, 2007). In this research, the notion of human capital is vital in interpreting the contributions made by service users. It explains how components of human capital, such as knowledge and skills, the field and level of education, health, work and disaster experience, transportation options, and demographic characteristics (Wright and McMahan, 2011; Ivkov et al., 2019) impact the way that service users can deal with and recover from natural disasters. For example, the literacy rate in Oman is relatively strong, with an estimated 93% of the population over the age of 15 able to read and write (World Population Review, 2019). This literacy rate is a great



advantage, as it can raise people's awareness about natural disasters and the proper strategies to follow to respond to and recover from them.

#### **4.4.6 Religious/Spiritual capital**

The literature also refers to religious or spiritual capital, which is extremely relevant to the analysis of this study. Researchers differ about where the concept originated, and about how to define it. For Verter (2003), its origin must be attributed to Bourdieu, as it is a clear aspect of cultural capital. Religious/spiritual capital exists in three main states: the embodied, the objectified and the institutional. The embodied state comprises the knowledge, abilities, and credibility one accumulates in the field of religion. The objectified state refers rather to material and symbolic goods used in religious practice, such as votive objects and ritual vestments. The institutional state refers to the power exercised by churches and religious institutions.

Other researchers attributed the establishment of the religious/spiritual capital concept to the economist Gary Becker (Iannaccone, 1990; Finke, 2003). He saw similarities between human capital and religious/spiritual capital, asserting that in the same way that the production of household wealth is improved by the knowledge and skills known as human capital, religious practices and religious satisfaction are enhanced by religious/spiritual human capital. One point that must be clarified is the classification of friendships linked to a given religion and those that help individuals produce valuable religious commodities; while these could arguably be considered part of religious/spiritual capital, they are classified in this study with other friendships and social networks as part of social capital, that acquired by joining any network (Finke, 2003).

A detailed portrayal of religious/spiritual capital was given by Finke and Dougherty (2002:106), who describe it as 'the degree of mastery of and attachment to a particular religious culture.' The first part of the definition, "mastery of", refers to the knowledge and familiarity needed to participate in a religion, such as when to say Amen, and the words to blessings and prayers. The second part of the definition refers to the emotional attachments and experiences required to fully appreciate a religion. Religious activities, like prayers and fasting, strengthen the believer's confidence in the truth of that specific religion and enhance their emotional ties to it.

There may be a difference in Bourdieu's focusing primarily on the institutional form of power exercised by churches and seminaries, while others like Iannaccone and Fink are

more concerned with spiritual capital in its embodied state (Verter, 2003). However, in this study, all the forms are integrated under the name of religious/spiritual capital.

The terms religious capital and spiritual capital are commonly used interchangeably; but there is a distinction between the terms, expressed most clearly by Holt et al. (2012:1062): "By religiosity, we refer to an organised system involving beliefs and practices including participation in organised worship, while spirituality reflects a broader construct that involves having a relationship with a higher power (e.g., God)". In this view, religious capital is derived from the individual's relationship to a faith community, while spiritual capital is derived from an individual's relationship with a higher power.

While aware of these distinctions, the present study has adopted the term spiritual capital to incorporate the meaning of both spiritual and religious capital. Most importantly, the inclusion of spiritual capital is consistent with the focus of this research, which recognises the value in applying Maslow's theory of needs, but also believes that this theory should be adapted to be made suitable for strongly religious societies like Oman, which is predominantly Muslim.

#### **4.4.7 Multi-capital approach**

It has been pointed out that people's actions and responses will vary depending on their resources and perceptions (Paton and Johnston, 2001; Sheafar and Horejsi, 2010; Fraser, 2021; Rühlemann and Jordan, 2021). When people face difficult situations, they naturally turn to their own strengths and resources to help them face the problem and discover solutions to it, and will only seek help from a professional when feeling confused or overwhelmed (Hall et al., 2002). The capital theory, particularly that of human, social, economic, cultural, and spiritual capital, is vital in interpreting the data of this study and showing how participants' circumstances and resources impact how they are affected by and how they recover from natural disasters. The capital theory can thus be used to assess which groups were most lacking in various forms of capital and were thus most vulnerable to disasters. This in turn will indicate whether social workers provided assistance to those who needed it most, which will help to evaluate the effectiveness of the social work practice, and guide it in future.

Capital theory is often linked to the concepts of vulnerability and resilience. Several studies, such as those by Mayunga (2007), Serfilippi and Ramnath (2018), Brown et al. (2019) and Ivkov et al. (2019), examined individual and community resilience to natural

disasters by focusing on five major forms of capital that can contribute to reducing vulnerability and increasing disaster resilience. This approach is called the multi-capital approach, and includes the following types of capital: economic, social, human, physical, and natural. The main advantage of this approach is that it encompasses the types of capital most essential to understanding and examining resilience to disaster.

Before the development of the multi-capital approach, most available frameworks depicted disaster resilience in a similar way, focusing on factors that can reduce vulnerability and increase community resilience (Mayunga, 2007). These factors include economic resources, assets, information and knowledge, skills, support networks, access to services, and shared societal values. The concept of the multi-capital approach has clarified this, detailing the most important types of capital necessary for understanding and examining disaster resilience. However, one limitation of this approach is its failure to include and address the notion of spiritual capital; indeed, literature on the value of spiritual capital in natural disasters remains scarce.

Researchers such as Cleary and Dominelli (2020) and Althumali (2021) emphasised the importance of considering the cultural, social, religious, political, and economic contexts of a society if professional intervention plans are to be successful. Research in contexts different from those in the current study, such as those by Brown et al. (2019), Ivkov et al. (2019), and Mayunga (2007), did not examine the spiritual aspect of the societies they considered. However, because Oman is a deeply religious community, this research has attempted to discover whether spiritual capital is an authentic form of capital and whether it can legitimately be included in the multi-capital approach. It is also worth noting that, due to the correlation between the capital theory and the concept of resilience (Serfilippi and Ramnath, 2018), the multi-capital approach will also be linked to vulnerability (see 5.5) and resilience (see 5.6).

## **4.5 Vulnerability**

### **4.5.1 Definition of vulnerability**

As discussed in the literature review (see 2.2.2), considerable research has demonstrated that the impact of a disaster is not experienced equally by all (Enarson, 2000; Park and Miler, 2006; Howard et al., 2018; Cleary and Dominelli, 2020). In other words, some parts of the population are more vulnerable to disaster than others.

Researchers are generally in agreement on their definitions of vulnerability. Mihai (2017) defined vulnerability as the characteristics and context of a community that make it sensitive to loss after the emergence of a potential threat. Vulnerability, then, concerns the degree of ability or inability of people or communities to respond to, cope with, or recover from any external threat to their livelihoods and well-being. Vulnerability has many different aspects; these depend on a variety of social, physical, economic, and environmental factors, which include lack of public awareness, poor construction of buildings, inadequate protection of assets, and lack of environmental management (UNISDR, 2009). Pongponrat and Ishii (2018) used the term “double vulnerability” to describe people who are already made vulnerable by poor living conditions and then face even more difficulties when a disaster happens. Enarson (2000) explained that vulnerable populations are the least likely in society to have the social power, economic resources, and physical capacities needed to anticipate, survive, and recover from the effects of natural disasters.

#### **4.5.2 Types of vulnerability**

Researchers detailed and discussed many forms of vulnerability. Al-Rasbi (2019), for example, noted that biophysical vulnerability is the vulnerability of areas and physical assets, while social vulnerability is the vulnerability of affected people. In his view, these vulnerabilities, when seen together, represent the overall vulnerability of a place. Usamah et al. (2014) explored what they call community vulnerability, and saw it as comprising geographic, economic, and physical vulnerability, with land-related vulnerability being included as an additional component. This is characterised by unsustainable land use, poor urban planning, lack of building codes, and poor land administration. Al-Zaabi and Al-Zadjali (2022) argued that any attempt to examine disaster hazards in Oman should have as its foundation a vulnerability assessment based on important data such as the population, land use and assets in the target area.

This thesis earlier discussed those groups who are the most vulnerable to natural disasters: children, women, people living in poverty, the elderly, the disabled, and those living in coastal areas (see 2.2.2). An examination of the rather scanty literature on natural disasters in Oman (Al-Shaqsi, 2014; Al-Rasbi, 2019; Mansour et al., 2021; Al-Zaabi and Al-Zadjali, 2022) and of the statistical data discussed earlier (see 2.3.2), reveals that the groups most clearly vulnerable to natural disasters are the people living in poverty, those who live in coastal areas, those with low community awareness of risks and hazards, and low-level migrant labourers, particularly those working in the construction industry.

Al-Rasbi (2019) found, surprisingly, that the level of social vulnerability in Oman had increased over time. For example, in 1993, only three municipal areas had high social vulnerability to cyclones, while in 2010, there were 20 of these areas. One of the reasons behind this escalation is the increase in urbanisation and related issues such as the change in land use and the rapid increase in population, related particularly to people migrating from rural to urban areas for employment. The increase in social vulnerability can also be attributed to the rise in numbers of foreign workers, especially those on low wages. Al-Zaabi and Al-Zadjali (2022) emphasised that while climate change can lead to extreme weather events, other factors such as construction in valleys and poor infrastructure also contribute. They also argued that other vulnerability factors are at play when people underestimate the strength of a disaster event and language barriers prevent some groups from accessing warnings.

The impact of disasters on these groups has exacerbated their vulnerability and levels of deprivation, often because of a lack of targeted interventions and of comprehensive support services (Cleary and Dominelli, 2020). There is therefore a critical need to design intervention strategies for minority communities within broader disaster management plans. In this study, the concept of vulnerability is vital in interpreting the data and in showing how participants' circumstances and resources impact how they are affected by and recover from natural disasters. It also helps to determine which groups are most vulnerable to disasters, and whether the study findings are in line with ideas in the literature. This in turn will help to determine whether social workers in Oman have effectively assisted those most vulnerable to disasters, information which will help to assess the effectiveness of the social work practice and suggest potential improvements.

## **4.6 Resilience**

In the literature, the concept of vulnerability has always been associated with that of resilience. Since the adoption of the *Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities to disasters*, countries have shifted the main goal of risk planning and disaster risk reduction; where they originally focused merely on reducing vulnerability, the main focus now is on building community resilience (Mayunga, 2007).

Resilience has been defined as 'The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions' (UNISDR, 2009:24). It is also described as the

ability of individuals and communities to respond effectively to and adapt to and recover from crises (Wilson, 2012; Mihai, 2017). Any discussion of resilience must also include the distinction between structural and non-structural measures. According to the United Nations Office for Disaster Risk Reduction (UNISDR, 2009:28), structural measures are 'Any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard resistance and resilience in structures or systems'. These may include dams, wave barriers, and evacuation shelters. Non-structural measures are 'Any measure not involving physical construction that uses knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public awareness raising, training and education' (UNISDR, 2009:28).

Two other key points arise from Mayunga's (2007) examination of resilience. First, researchers generally agree that the idea of resilience in the face of disasters should relate to the ability/capacity of an individual, group of people, or community to deal with disasters. Second, the term recovery is extensively used in definitions of resilience, so that resilience is also defined in terms of how quickly a person, group of people, or community, recovers from the effects of a disaster. Researchers generally argue that the concept of resilience to disasters is based on the ability or capacity to anticipate, prepare for, respond to, and recover quickly from the effects of a disaster (Mayunga, 2007; Ivkov et al., 2019). It is thus not only a measure of how quickly one recovers from the effects of a disaster but also refers to the ability to learn, deal with and adapt to future hazards.

The resilience of communities is closely related to the forms of capital it possesses (Serfilippi and Ramnath, 2018). Wilson (2012) argued that the resilience and vulnerability of a neighbourhood can best be visualised based on how the different forms of capital are developed in a society and how these forms of capitals interact. Resilient communities are characterised by well-developed economic, social, and environmental capital (Wilson, 2012). The greater a community's capital in the form of both resources and opportunities, the greater its potential to lessen the impacts of disasters, and the more resilient it will be (Mayunga, 2007).

#### **4.6.1 The relationship between vulnerability and resilience**

Resilience and vulnerability are two related concepts that have gained popularity in disaster discourse, with the relationship between them generally viewed as paradoxical. The higher the social vulnerability, the lower the resilience level, and vice versa (Mayunga, 2007). However, and perhaps surprisingly, field investigations have suggested a more

complex relationship between the two concepts, and the possibility of co-existence, where vulnerability and resilience are able to exist simultaneously. Wilson (2012) argued that communities may show signs of vulnerability linked with poverty and high exposure to natural hazards; however, at the same time, they may have some aspects contributing to resilience, such as strong social capital that can balance vulnerability. Thus, even when several communities are severely affected, their recovery process may differ, given their levels of vulnerability and resilience (Mihai, 2017). Usamah et al. (2014) pointed that a community can be both vulnerable and resilient because resilience is dynamic and contextual; vulnerability and resilience can overlap in the context of multiple risks. The first is inbuilt resilience. People who suffer from economic hardship in everyday life resist shock more easily than those who do not; they can therefore deal more easily with disasters and other challenging situations. Mihai (2017) argued similarly that resilience is associated with community features such as collective memory and the ability to self-regulate. Traditionally, residents benefit from experiences accumulated and preserved in the collective memory by residing in places with a lower risk in order to reduce the risk of exposure to disasters.

Inbuilt resilience is a form of psychological resilience, operating at individual and family levels. In the individual personality it exhibits in such positive traits as sociability, autonomy, self-esteem, positive self-concept, problem-solving skills, humour, and balanced mental and physical health. Inbuilt resilience can also be seen at the family level in family relationships that are full of warmth, commitment, cohesion, affection, and emotional support. Another significant factor is the existence of a social system that promotes cohesion and is marked by social trust and respect for authority (Usamah et al., 2014).

Usamah et al. (2014) also noted that frequent disasters in an area have helped community members to perceive that disasters are a part of their life, an attitude which has helped them to develop an inbuilt resilience. Mihai (2017) and others disagree, arguing that the community's resilience is more likely to be weakened when disaster events increase in intensity and frequency. Pomeroy et al. (2006) also explained that responses to natural disasters typically focus on physical reconstruction, and pay relatively little attention to rebuilding the livelihoods of individuals and communities so that they will achieve long-term sustainability. They stressed the need to refocus rehabilitation efforts; instead of merely returning to the unsustainable status quo of the past, they should analyse and tackle the root causes of vulnerability. This involves consideration of critical issues such as marginalisation, power imbalances, access to resources, access to markets, lack of

information, unsustainable use of resources and sustainable building methods. Only these efforts will result in building a resilience that can deal with future events.

#### **4.7 Case management approach**

There is a good deal of discussion about the best ways to respond to disasters, for social workers and others. Desai (2007) and Mihai (2017) argued that social workers need to follow specific steps: observation and the collection of data; assessment of the data by drawing out the implications for action; developing a work contract; initiating action; bringing it to an end and then evaluation of the activity. Other studies highlight the importance of psychosocial care, stress assessment, case management, and counselling when responding to the well-being needs of individuals after a disaster (Bell, 2008; Becker, 2009; Hickson and Lehmann, 2014; Harms et al. 2022).

The case management approach is frequently discussed in relation to disaster relief. Weil and Karls (1985) defined it as 'a set of logical steps and a process of interaction within a service network which assure that a client receives needed services in a supportive, effective, efficient and cost-effective manner' (Hall et al., 2002: 132). This approach originally emerged as the human services sector expanded and became so fragmented and complex that clients needed help and direction if they were to receive services (Austin, 1990 cited in Rowlands, 2013). As Hall et al. (2002) pointed out, the emergence of case management in the last twenty years is a re-emergence of the social work practice approach.

The origin of the development of disaster management plans is derived from post-disaster recovery experiences (Cleary and Dominelli, 2020). Case management in disasters has entailed identifying, assessing, planning, linking, monitoring, and advocating for survivors, always emphasising that coordination is a critical component in a successful response (Bell, 2008). The appropriateness of this approach for recovery is that it contains six basic stages that are compatible with the tasks undertaken in a disaster recovery context (Bell, 2008; Rowlands, 2013). It is an approach well suited to facilitating recovery when faced with the complexity of the post-disaster environment, the diversity of people's needs and the traumatic experience of the effects. Case management is also a service delivery framework that includes various social work models beyond disaster intervention (Cleary and Dominelli, 2020).



In reviewing the different types and definitions of case management, Hall et al. (2002) indicated that no single model or description could be considered correct or appropriate for all client groups. Each model is likely to be effective in selected areas, such as service use, client independence, or cost-saving. Many agencies have changed their case management programs in response to the needs of their clients, the philosophy of their clinical programs, or the requirements of their social and political systems.

Hall et al. (2002) reviewed the history of case management and identified its six generally accepted functions:

1. Identification of and communication with clients. In a disaster situation, this involves all individuals affected by the event.
2. A needs assessment process which involves a multi-sectoral range of key disaster organisers collaborating to achieve the next function.
3. Organisers plan with survivors to determine the most appropriate mechanism for meeting their needs. Cleary and Dominelli (2020) referred to Dombo and Ahearn (2017), who argued that distinguishing the unmet needs related to disasters from those that existed before the disaster (i.e., individual pre-existing health conditions and ongoing social issues) is crucial to the case management in a disaster scenario.
4. Organisers need to identify available local support networks to which survivors are connected and which can help to meet their needs in the face of dwindling resources (Stough et al., 2010).
5. After initial communication, the case manager is expected to constantly and frequently monitor the effectiveness of the interventions provided to clients and assess whether their needs have been fully met.
6. The final function emerges when the initial links to help are unsuccessful; what is now needed is to advocate for the unmet needs of survivors at the local, national, and international levels when necessary.

It should be noted that these six functions are distinct in their activities and prioritisation but should not be regarded as linear or even strictly sequential. For example, although conducting a survivor needs assessment is listed as a 'second function', it may need to be redone several times during the post-disaster intervention period. The needs assessment is done once initial links with the community are established, but a redo may be required when trying to deal with the unmet needs of certain individuals and social groups (Hall et al., 2002).

The case management approach has several advantages. As described by Intagliata (1982), it improves the continuity of care, it allows easy access to cross-sectional services, it overcomes administrative barriers, and it provides comprehensive and coordinated delivery. It also promotes accountability, as the case manager is the sole point of responsibility for ensuring the overall effectiveness of the system, and it promotes efficiency by increasing the likelihood that clients will receive the right services at the right time.

One of the most significant advantages of the approach is its ability to go into depth in studying each case individually and in designing the appropriate support needed (Intagliata, 1982; Hall et al., 2002). However, criticism could be levelled at this because it focuses on the individual or a single household or family (Hall et al., 2002) instead of paying attention to the needs of a community or neighbourhood, thus taking the individual or family out of their broader context. In cases where entire neighbourhoods are damaged, other community-focused approaches such as social development, could be more beneficial (Patel and Hastak, 2013; Harms et al., 2022). Barney (2020) argued that the role of social work is to help return affected communities to pre-disaster conditions. This help includes supporting unmet needs such as temporary housing, access to relief services, and organising and managing long-term community recovery programmes. Working with the entire affected community will shorten the time needed to provide assistance (Patel and Hastak, 2013). It can also take advantage of innovative approaches that suit community-led practice initiatives and focus on healing relationships and promoting community growth, for example, through craft (see Tudor et al., 2015). Since social and community development type approaches have been rarely used in disasters thus far (Harms et al., 2022), there is now a need to focus on community-based approaches in cases where entire communities are affected.

Another criticism of the case management approach is that the focus should be on the "unmet needs" of survivors, and specifically related to the disaster, rather than on concentrating on pre-disaster conditions or ongoing social problems (Bell, 2008). However, this has been debated by Zakour and Harrell (2003) and others; and it seems impossible to focus solely on people's unmet disaster-related needs, as the disaster case management approach recommends.

It is also important to be aware of other issues around approaches to social work in disasters. Hall et al. (2002) pointed out a critical difference between case management in disasters and everyday social work casework; case managers in disasters are less involved

in their clients' lives than when they are working in non-disaster settings. They are also more likely to be dealing with whatever resources are available instead of trying to develop new ones. Moreover, the focus of case management is on helping clients deal with fragmented services, and one of the challenges that case managers' face is having a broken system that leaves them unable to assist clients successfully (Intagliata, 1982). It is therefore vital that they prioritise the establishment of a clear and integrated system that uses the resources and services available, as this will greatly facilitate the speed and success of serving those affected. Another critical point relevant not only to the case management approach but to all types of interventions is that some affected people rarely reach out to agencies because they are unused to seeking assistance from outside. For example, African-American survivors in Hurricane Katrina in 2005, rarely reached out to agencies because they were unused to seeking assistance outside of their family, friends, and church community (Bell, 2008); social workers and other organisers must be aware of this challenge and must proactively engage with disaster survivors.

Case management is no longer an issue only in the United States but has become a global concern. This intense interest has led to the proliferation of case management models across disciplines and in a variety of care delivery settings (Bell, 2008). The focus of disaster management is developing a 'recovery plan' that identifies both the resources and needs of survivors (Bell, 2008). Case management as an intervention in disaster recovery aims to connect people to the services they need to support their return to their normal daily lives. For example, people may need short-term income support, support to connect with medical or counselling services or help to negotiate Medicare (in the US) (Rowlands, 2013). Although the approach is an essential component of disaster recovery, there is disappointingly little research on the topic (Bell, 2008).

Whether consciously or not, it appears that the assistance provided after the initial stage of the disasters in Oman largely followed a case management approach, despite complete residential neighbourhood incurred damage. This is consistent with the few references available (Irfan, 2007; MSD, 2019) dealing with the provision of support and services in times of natural disasters in Oman. Several researchers have called for this approach to be explored in greater depth, with a need for more research and evaluation studies to be conducted on the outcomes of disaster management (Bell, 2008; Stough et al., 2010; Cohen et al., 2019); this would allow the design of better programmes in the future. Heeding this call, this research study seeks to highlight where the case management approach has been effective and what adjustments may need to be made.

## **4.8 Conclusion**

This chapter has outlined the theoretical framework upon which the interpretation of the data is based. It starts by noting that the discipline of social work draws upon theoretical frameworks from various disciplines, with the framework of this study consisting of four main theoretical notions: Maslow's theory of needs (chapters 7 and 8), capital theory (chapters 6 and 7), the concepts of vulnerability and resilience (chapters 6 and 7), and the case management approach (chapter 8). The following chapters will now use these theories to explore the data collected in this research.

## **Chapter 5 :        Methodology**

### **5.1 Introduction**

Although the COVID-19 pandemic began halfway through the research process, every effort was made to bring the study to fruition, and to make it both ethical and valid. This chapter discusses the philosophical underpinnings and the methodology, describes the sample chosen for this research, and explains the choices made. It then explains the data collection and analysis processes and discusses reflexivity and the ethical considerations related to the study.

### **5.2 Philosophical underpinnings**

#### **5.2.1 Ontological approach**

Ontology is the science of being and deals with the structure of reality (McLaughlin, 2012); it helps researchers recognise the nature and existence of the objects under research (Creswell, 2009). Identifying a specific ontological approach depends on three key issues. The first asks whether social reality is independent of human conceptions and interpretations; the second whether there is a single shared social reality or a multiplicity of realities; and the third whether social behaviour is unalterable and/or generalisable (McLaughlin, 2012).

The two major ontological paradigms are objectivism and constructivism. Objectivism asserts that there is an external social reality independent of human understanding, creating a common shared reality (McLaughlin, 2012). Individuals see the world differently; their preconceptions and backgrounds influence how they see disasters. A review of references and the literature shows that a natural disaster cannot be viewed as having an objective reality independent of individuals' conceptions of it. Individuals contextualise their perceptions and experiences toward disasters based on their capacity to anticipate, respond to, and recover from their impact (Enarson, 2000; Ferrier and Haque, 2003; Parmar et al., 2013), and their capacities vary according to their different forms of capital (Serfilippi and Ramnath, 2018; Brown et al., 2019). Natural disasters affect different people differently (Park and Miller, 2006), so that obtaining a common shared reality of natural disaster management is extremely difficult.

In contrast, the constructivist paradigm asserts that reality is only knowable through the human mind and through socially-constructed meanings (Warburton, 2013). McLaughlin (2012), for example, argued that social reality is not independent of individuals' conceptions and interpretations of it, while for Carey (2013), individuals hold subjective meanings of their experiences, so a researcher will gather varied and multiple meanings of any event. Social behaviour is also changeable and thus may not be suitable for generalisation (McLaughlin, 2012).

Management of natural disasters is shaped by human interaction; the interaction takes place because of the need to find a method for managing the disaster (Pathranarakul and Moe, 2006). In times of natural disasters, as always, individuals hold different meanings of their experiences based on their different situations; as a result, multiple realities exist. For example, the experiences of developed countries differ from those of developing countries, with issues such as poverty and illiteracy making developing countries more vulnerable and more likely to suffer from disaster damage (Pathranarakul and Moe, 2006). Developing countries are also more harshly affected by natural disasters due to their geographical location, exposure to natural hazards, development processes, limited resources, and lack of awareness of risk management (Al-Rasbi, 2019).

Social behaviours are also not fixed and, therefore, cannot be subject to generalisation. Grothmann and Reusswig (2006) explained that individuals respond differently to natural disasters. Many factors can influence how people deal with disasters; these include their subjective perceptions of disaster risk, their different coping abilities, their varying levels of fear, and how much money and social support they can access. Their responses will, of necessity, vary. Given these arguments, this research study adopted a constructivist ontological approach.

### **5.2.2 Epistemological approach**

Epistemology examines the nature of knowledge and knowledge production (McLaughlin, 2012) as well as what researchers count as knowledge, because different forms of knowledge exist (Carey, 2013). Carey (2013) also referred to Corby (2006), who stated that social work research is influenced by two epistemological stances, positivism and interpretivism. Positivism attempts to study people and society by applying scientific methods drawn from the natural sciences (Bryman, 2012). It presumes that people's social life is independent of human consciousness and that researchers can therefore collect and measure empirical evidence (Carey, 2013). Positivism asserts that the behaviour of social

actors is objectively predictable. Interpretivism, by contrast, sees knowledge as something derived from people's experiences of social factors rather than as something out there to be discovered (McLaughlin, 2012) and thus aims to discover the meaning of people's experiences in the social world (Adams et al., 2014). Interpretivist researchers do not objectively predict the behaviour of the research participants but subjectively seek to understand them and their social world.

This research has therefore adopted an interpretivist standpoint. It argues that participants will have different interpretations of social phenomena. These can be explored when appropriate methods are used to ask them to talk about, explain and justify their actions, views, and experiences (McLaughlin, 2012; Warburton, 2013), as this study has endeavoured to do.

Carey (2013) explained that, in an interpretivist approach, the researcher works first to understand participants' opinions and attitudes and then links these to their behaviours and actions. This research study involved several categories of participants; it was therefore expected that a variety of opinions and behaviours would arise and illustrate how each category interpreted the experiences of natural disaster management, particularly of social work responses, thus constructing a broader view of disaster management and the services provided. This position means that researchers are not required to obtain measurable facts as in positivism; instead, they collect and document different meanings and interpretations of how disasters are managed, what sectors operate, and what social services are provided. This is made possible by how people describe and evaluate these factors, with information and interpretations gained through the researcher's listening and analytical skills (Carey, 2013; Dennis, 2014).

### **5.3 Method**

The two key methodological approaches within social science research are quantitative and qualitative. Quantitative research seeks to discover how frequently specific social behaviours happen; this is achieved by separating behaviour patterns into variables that can then be presented numerically as rates and frequencies (McLaughlin, 2012). As Kvale (1996) noted, quantitative research takes an objective stance and concentrates on numerical measuring of specific aspects of phenomena; in this way, facts are reduced to a set of statistics. Writers such as Bryman (2008) suggested that this approach allows researchers to control bias and achieve a high level of objectivity. However, it can also be argued that seeking numerical findings and using statistical tests to assess the reliability

and validity of quantitative research does not automatically make it objective. As Smith and Noble (2014) have argued, quantitative research can exhibit bias without realising it; examples include design bias, bias in selecting participants, in data collection and measurement, analysis bias, and publication bias.

Although quantitative research does have several advantages, such as the ability to study many subjects and the achievement of highly generalised findings, it also has weaknesses. Bryman (2012) argues that it takes scientific methods developed for the natural sciences and applies them to people and social institutions, where they may not be appropriate. Quantitative research also relies on instruments and procedures that may ignore the disparity between the subjects' behaviour in research settings and their behaviour in everyday life. Most importantly, quantitative research reifies the social world by adopting objectivist ontology and employs a positivism which assumes that people's social life is independent of their consciousness. Ultimately, how research participants interpret their experiences in natural disaster situations cannot be explored and analysed through a quantitative approach and its philosophical underpinnings, so it was judged to be unsuitable for this study.

Qualitative research is arguably more sensitive to human issues and involves more emotional contact with participants (Kvale, 1996). Mason (2002) explained that qualitative social work research allows for a deep exploration of specific people's understanding, experiences, imaginings, and behaviours. It is ideal when searching for an in-depth description of any phenomenon (Walliman, 2018). It produces a large body of descriptive data in words rather than numbers, and its richness and intensity are most likely to provide insightful perceptions about human society (Mason, 2002). Carey (2013) referred to Daly (2003), who argued that meaning and contexts are vital elements in social work research and are included in qualitative methods. This approach studies a phenomenon within its context and looks at all its aspects, identifying its interrelationships and how they form a whole.

A qualitative approach allows this study to explore the behaviour and experiences of several types of people in times of natural disasters: social workers, NGO workers, religious practitioners, and service users. The study might well uncover differences in descriptions of the situation, as each group of participants would have had a different vision. Gaining a range of perspectives was expected to create more valid and authentic answers to core issues such as the meaning of natural disaster management and what the



social work response should be. These different views could then be used to support conclusions and shape recommendations.

Moreover, a qualitative research approach was seen as better able to identify service users' needs and any problems that had prevented them from obtaining the available services, so that there can be an attempt to change the current disaster management systems (Carey, 2013). In fact, not only can service users discuss challenges they faced in accessing services, but social workers and allied professionals can also describe their challenges in supplying the services required. The study would thus produce a better and more in-depth understanding of what is and is not currently offered in post-disaster services in Oman. It would also allow the identification of what more is required from social workers and social work practice in such situations.

Qualitative research has several significant characteristics. It can create a close and sometimes personal and emotionally sensitive relationship between the researcher and participants (Carey, 2013). Although this may exist with all participants, it is most likely to arise with service users when they are enabled to spontaneously explain what they went through (Arksey and Knight, 2007). Ravitch (2020) has pointed out that the principal criterion for qualitative validity is commitment to the participants and their experiences rather than a strict adherence to research and design methods. Furthermore, qualitative research does not claim to be objective but recognises the researcher's influence on the research process (McLaughlin, 2012); this will be discussed further when exploring reflexivity (see 4.8).

These strengths of qualitative research are sometimes overshadowed by criticisms, particularly the accusation that it is merely anecdotal and depends on a casual rather than a systematic practice (Mason, 2002). This criticism is unreasonable, however, as qualitative approaches employ systematic methods to collect and analyse data. Data is collected through observation, interviews, and focus groups (Adams et al., 2014) and analysed with a range of tools such as thematic, content and narrative approaches (Bryman, 2012). Indeed, the idea that the weaknesses above are inherent is based on a misunderstanding of the logic of qualitative inquiry; it also fails to see the importance of the context in which qualitative research is carried out, especially how it develops individuals' attitudes and interpretations of the world around them. It is more important to note that each research design has its specific characteristics and thus needs to be determined by the research topic and aims.

This study relied mainly on the collection of primary data through the use of interviews, which have long been employed in the social sciences as an essential way of obtaining information. Given the interpretivist standpoint of the study, interviews were ideal for gaining individual perspectives on natural disasters. They provided interviewees with the opportunity to provide detailed personal and professional information based on their views and lived experiences (Bryman, 2012; Newman et al., 2021); they also helped the researcher to identify and explore relevant issues (Arksey and Knight, 2007). Liamputtong (2007) made the critical point that interviews allow participants to describe their situations freely and in their own words; indeed, this made them an ideal tool for this study.

The use of interviews has several other advantages. They are appropriate for medium-sized samples (Kvale, 1996), such as the 43 participants in this study. Qualitative interviews benefit illiterate participants or those who cannot easily read and write because the interview is based on a verbal dialogue between the researcher and the participant (Arksey and Knight, 2007). In addition, any ambiguous points can be clarified immediately (Bryman, 2012), and both verbal and non-verbal language can be considered (Rossetto, 2014). Interviews also allow the exploration of overt and covert information that underpins people's feelings and behaviour (Arksey and Knight, 2007).

There are three common types of interviews: structured, semi-structured, and unstructured. Carey (2013) has argued that unstructured and semi-structured interviews are the main interview formats in qualitative research as they are flexible and allow participants to speak in their own words (Arksey and Knight, 2007). Semi-structured interviews are probably the most widespread and diversely-used format; they combine the characteristics of structured and unstructured interviews while also having their own characteristics. This study opted to use semi-structured interviews because of these advantages.

Although both semi-structured and unstructured interviews allow people to share their experiences and views freely, semi-structured interviews provide a degree of framing for the dialogue, ensuring that it remains focused on the topic being studied. This is because the researcher refers to a guide known as the interview schedule (Creswell, 2009). Semi-structured interviews thus allow new questions to be improvised and added at any point, with the interview being led partially by the researcher and partially by the participant. (Arksey and Knight, 2007). For Rossetto (2014) semi-structured interviews also permit both participant and researcher to participate in constructing meaning.

Although there are benefits to qualitative interviews, they also carry disadvantages. The interview format can easily lead to errors, particularly in the attempt to accurately transcribe the interviewees' answers (Bryman, 2012). However, this disadvantage may be reduced by applying the replacement position for assessing qualitative research (see 4.10). Additionally, some people may be reluctant to speak in face-to-face settings, especially regarding sensitive topics; this is mainly a challenge when participants doubt that they will remain anonymous. In this study, the steps to ensure anonymity and confidentiality were fully explained to research participants, and were strictly followed. Another disadvantage of interviews is the cost incurred in terms of money and time (Arksey and Knight, 2007). The stages of interviews are all time-intensive, from designing the interview guide to the implementation of the interview and beyond. Financially too, interviews incur costs, such as recording equipment and phone bills. For this study, the financial expenses were met by the researcher's fully funded scholarship, but the time involved in preparing, transcribing, translating, and analysing the interviews was undeniably exhausting. However, semi-structured interviews were still deemed the most appropriate method for this study.

Although semi-structured interviews were used with all the participants, the interview schedule differed for each sample category. There were, therefore, three interview schedules: one for senior managers and social work practitioners in social development departments, one for senior managers and workers in NGOs, including religious practitioners, and one for service users affected by natural disasters.

## **5.4 Sample**

### **5.4.1 Type of sampling**

In purposive sampling, the researcher's priority is to recruit enough people to obtain sufficient data to fully explore the topic under research (Carey, 2013). This method seemed most appropriate for the interpretivist epistemological position of this study, which aims to ensure the capture of different meanings, experiences, and perspectives, thus gaining a complete understanding of the social phenomenon studied (Clough and Nutbrown, 2012).

Two primary considerations were considered when identifying the sample for this research study. The first was the geographical and demographic factor, determined after reviewing the literature and identifying the Omani governorates (provinces) most vulnerable to

natural disasters. The governorates of Muscat, North Al-Batinah governorates and Dhofar were thus selected (see 2.3.3).

A second consideration concerned sample categories. A review of official Omani government documents (ROP, 2011; 2016) enabled the researcher to identify the groups involved in providing social services during disasters. This showed that three sample categories needed to be recruited: senior managers and social workers in social development departments, NGO workers and religious practitioners, and service users affected by the disasters. Senior managers and social workers are responsible for social work practice in times of natural disasters and have direct experience of what was done. Some NGO workers were closely involved in the provision of social services (ROP, 2011). Service users are the people affected by natural disasters; their accounts of their experiences would show how the provision of social services worked on the ground and describe the roles played by social workers. As Omani society is a strongly religious society, the sample of NGO workers included a group of religious practitioners, who were later labelled as a separate and distinct support category.

Snowball sampling was employed to achieve specific goals. In snowball sampling, the researcher initially recruits a small group of people who are linked to the research topic. This group then proposes other people who may be relevant to the study (Bryman, 2012). Researchers such as Creswell (2009) and Clough and Nutbrown (2012) argued that snowball sampling does have a number of disadvantages. First, selection bias can occur, due to the heavy reliance on the initial participants to recruit additional participants. Second, the researchers have limited control over the sample size since they are dependent on the willingness of participants to recruit additional participants. There may also be a lack of generalizability, as a sample obtained by snowball sampling may not be representative of the larger population being studied. Snowball sampling was therefore only used to recruit service users, and only in two specific cases. One was to enable the researcher to reach people who were affected by the disasters but who did not receive the services they needed. The other was to find a service user who had stayed in the temporary houses provided for those whose homes had been made inhabitable.

#### **5.4.2 Sample size**

It has been argued that there are no guidelines for determining the ideal size of a purposive sample. Typically, the size depends on the notion of "saturation", which is the point at which no new themes will be obtained from the data and no new information will emerge.

This is valid at a conceptual level, but is not very helpful in estimating sample sizes before data collection begins. However, researchers such as Guest et al. (2006) suggested that twelve interviews should be sufficient in a study that aims to understand perceptions and experiences among a group of relatively homogeneous members. As this research sample includes four different categories, the researcher tried to include no fewer than twelve participants in each category (see table 1).

There were more than twelve in the initial NGOs and religious practitioners' group, but for clarity of analysis and ease of data presentation, religious practitioners were separated into a new category. There were then eleven NGO members and four religious' practitioners. In all, the research sample contained forty-three participants.

#### **5.4.3 Selected sample**

Some departments of Social Development in Muscat, Al-Batinah North, and Dhofar governorates were recruited, along with the registered Omani NGOs which had worked closely with them in the most recent natural disasters in the country. Precise details are not given, in order to maintain confidentiality.

It is worth noting that the Oman Charitable Organisation was included in the NGO category of the sample due to its critical role in times of disaster, and to reduce the number of categories in the sample. The Oman Charitable Organisation is a public charitable organisation established in 1996. It has a legal identity with an independent financial and administrative status (Oman Charitable Organisation, 2019). It involves workers from different disciplines, including social work.

More interviews were carried out in the north of Oman than in the south because there are two governorates in the north and only one in the south; the population of the northern governorates is also much higher than that of Dhofar. The samples of all three governorates were grouped together, by category, to facilitate the classification of the research sample and reading the findings. The main focus revolves around the participant's role in the disaster management process, whether as a social worker, a service user, or other.

Although this research relies on a relatively small sample, the recruiting process attempted to achieve a gender and age balance so as to ensure that the experiences of all different participants are included and that the research results are more widely applicable

(Tannenbaum et al., 2016). Also, a failure to strive for this may promote unintentional gender stereotypes and an age-group bias. However, obtaining a gender balance and diversity of ages in each category of participants was not always possible. First, only a limited number of senior managers and social work practitioners have been involved in times of natural disasters; there are more males than females, and they are not age-diverse. In the case of service users, managers and social work practitioners usually suggested female participants for interviews because of the gender of the researcher (see 4.8).

In addition, although the researcher intended to include affected migrant workers in the research sample, this was not achieved. First, social workers hold no records of non-Omani workers. When asked about this issue, social and NGO workers explained that this group of people are usually provided with immediate in-kind support, which is not documented, while long-term services, such as the reconstruction of houses, are managed by their employers and the entities they work for. Low-level migrant workers are also difficult to access because many are not settled in one place but are moved from one region to another according to the needs of their companies. Many workers also left Oman during the COVID-19 pandemic, because of a policy decision that gave those with expired residency cards the right to return to their countries without being prosecuted.

However, the various samples chosen did provide answers to research questions from a variety of different angles. Senior managers and social work practitioners in the Ministry of Social Development, NGO managers and workers, religious practitioners, and service users were all allowed to describe freely their experiences of disaster management and of social work practice in the aftermath of natural disasters in Oman. The interviews provided useful findings about how these groups viewed the issues, with both similarities and differences being collected. Senior managers and social work practitioners were most likely to provide relevant responses when focusing on how best to improve social work practice in the aftermath of natural disasters, while the perspective of service users also provided valuable information that must be borne in mind when proposing mechanisms for improving social work practice in these situations.

As noted earlier, religious practitioners were originally categorised with NGO workers, then classified as an independent category before analysis. An additional interview was also conducted with the manager of the Forecasting and Early Warning System. The Directorate General of Meteorology at the General Authority of Civil Aviation conducts Tsunami IOWave exercises, organised by the Intergovernmental Oceanographic Commission, a

committee of the Educational, Scientific and Cultural Organization (UNESCO) concerned with the early warning system of tsunami hazards in the Indian Ocean. This exercise is held once every two years, with the participation of twenty-four countries bordering the Indian Ocean, and three regional centres (Indonesia, India, and Australia) responsible for activating the exercise (IOWAVE16, 2016). Al-Manji et al. (2021) emphasised that Oman had made progress in public awareness. For example, in 2016, tsunami evacuation training was conducted in some coastal schools, providing students with new knowledge about the disaster. In 2018, a tsunami exercise was extended to cover a larger area, Al-Sawadi, targeting around 5,000 people. The Forecasting and Early Warning System manager invited the researcher to attend this regional exercise, which was due to take place in November 2020, but was cancelled due to the COVID-19 pandemic.

The strengths of the sample in this study are the involvement of different categories and the fact that gender and age were considered, while its limitations lie in the choice of non-probability samples and the reliance on a relatively small sample. The table below shows the sample distribution and the number of participants in each category.

**Table 1 The research sample**

Affiliates	Categories	Number of participants
Social Development departments	Senior managers	6
	Practitioners	9
NGOs	Senior managers	4
	Practitioners	7
Service users		12
Religious practitioners		4
Forecasting and early warning system manager		1
Total		43

#### 5.4.4 Access

Two main issues are involved in locating participants: the first is gaining access to the research site, and the second is obtaining consent from the people to be interviewed (Arksey and Knight, 2007). In the case of this research, permission was sought from gatekeepers, those responsible for facilitating or restricting access to research settings. Here, the gatekeeper for senior managers and practitioners in the Social Development Departments and NGOs is Oman's Ministry of Social Development, particularly the Relief and Shelter sector in the National Emergency Management System (NEMS). The official letter provided by the Relief and Shelter sector coordinator in NEMS facilitated legal access to eligible participants. However, religious practitioners and service users were recruited through social workers in social development departments, NGO workers, and personal networks. An invitation to participate in the study was distributed to relevant service users through social media platforms.



One of the effects that the COVID-19 pandemic has had on researchers is access to participants. The world has been practising social distancing, with many people staying at home and rarely attending their workplaces (Ravitch, 2020). Consequently, researchers have had to find alternative procedures for recruiting and interviewing participants. In this study, the impact of COVID-19 meant that it was difficult to access social workers and NGO workers as they were busy dealing with the pandemic. In addition, at the end of May 2020, Dhofar Governorate was affected by a cyclone that caused heavy rainfall and flooding; this made social workers and NGO workers even busier. However, the researcher tried to stay in touch with all who had volunteered to find suitable opportunities to complete the interviews and finish the data collection.

## **5.5 Data collection**

When conducting interviews, it is vital that the interview setting is always comfortable for the interviewee (Arksey and Knight, 2007). Before the start of the pandemic, the interviews with participants from the Social Development departments and NGOs took place in the interviewees' workplaces. Service users were asked whether they preferred to be interviewed in NGO buildings or another location such as a café or park. Parks in Oman are quiet during the day, and there is usually one close to people's homes.

For some service users, being interviewed outside their homes presented a challenge because of the problem of transport. In Oman, public transport is not very common, and while most people own private cars, some cannot afford one. The other reason was that many older people are used to staying at home and feel uncomfortable going to a public place. Participants had been assured that their transport costs would be paid and that the interview could be done at any time they chose (perhaps when they planned to go shopping or visit relatives), but some were still reluctant to meet outside their homes. They were also encouraged to choose a place near their home, which made parks the best choice. The researcher herself did not want to do home interviews, primarily because her family was not comfortable with her going alone into unknown homes and also because the possibility of home interviews had not been included in the ethics application.

As Oman has a long history of weather-related disasters, the researcher tried to focus mainly on recent disasters, as these will be more accurately remembered. However, some participants did refer to Cyclone Gonu, which occurred in 2007. Although this seems like long ago, for anyone involved it was an unforgettable event; it was the most devastating event in Oman since 1990, with seventy-six people killed, 20,000 others affected and

damage totalling more than 3,000 million pounds sterling (Al-Shaqsi, 2014). Al-Rasbi (2019) and Al-Manji et al. (2021) both also highlighted that Cyclone Gonu was the event that reshaped the perception of natural disasters in Oman and revealed that Oman is and would continue to be prone to natural disasters such as cyclones, tsunamis, floods and storms.

Also to be noted is that when interviews took place, all participants were motivated to freely recount their experiences. However, two professional participants asked for two situations they recounted not to be transcribed; this was because they reflected negatively on the country. These requests were respected, but the limited data excluded did usefully confirm some points raised by service users.

Another challenge was postponed interviews, some for understandable reasons, like a birth or death of a family member or sickness. When interviews were postponed at short notice, the researcher worked on transcription or translation instead. Once COVID-19 started, this challenge increased. No interviews were conducted for several weeks because of initial uncertainty around the transmission of the infection and, thus, interview safety. The university then announced that researchers must avoid all forms of face-to-face data collection (University of Nottingham, 2022) and were to use telephone interviews instead. Although planning research design is key to ensuring study robustness, predicting and planning for unexpected crises is challenging, and requires what is called research resilience (Abdul Rahman et al., 2021). Both telephone and face-to-face interviews can be subject to bias and error, with social desirability bias and environment bias possible in face-to-face interviews, and response bias, nonverbal cues, and selection bias in telephone interviews (Holbrook et al., 2003). Researchers should take steps to minimise these risks through appropriate sampling, question design, and data analysis techniques (Abdul Rahman et al., 2021).

The telephone interview issue has been discussed earlier by researchers such as Becker et al. (2012) and Liamputtong (2007). They saw it as cheaper and more convenient than face-to-face interviewing; it requires no transportation and saves time, as no travelling and waiting are involved. It also can be done at any time of day. As some interviews were being held during Ramadan, the Muslim month of fasting, when activity decreases during the day, the use of telephoning was a significant advantage. The researcher conducted several interviews in the evening, which would not have been possible had they been conducted face-to-face.

However, telephone interviewing also posed some challenges. Visual materials had to be shared electronically and in advance, and both parties needed access to a good-quality telephone connection. Traditional analogue phone call interviews were used, as these reduced the confidentiality concerns that would have existed with the use of digital media and the risk of sharing photos and videos (Newman et al., 2021). However, these also meant that it was impossible to see facial expressions and body language and the hesitation, enthusiasm, discomfort, or distress they could convey. Although the researcher made maximum attempts to enable the participants to choose a day and time most convenient for them, several interviewees were interrupted, sometimes several times (Abdul Rahman et al., 2021). Indeed, COVID-19 had already raised concerns about the ethics of asking people to give their time to take part in an interview (Ravitch, 2020) amid the stresses and responsibilities of the pandemic. These concerns are central, as people's lives have changed considerably, with many working from home, being fired from work, looking for jobs, juggling family responsibilities such as children and elderly parents during the workday, or taking care of the sick.

Overall, visual materials were shared effectively. There was a good connection on the phone networks, but the loss of non-verbal language may have deprived the research of information that could confirm, contradict, or add to what was said. Video calls were considered but not used, primarily because many participants would not be comfortable with being video-recorded. Also, video call software programmes are not commonly used in Oman, may not be available to all participants, and require the use of programmes/VPNs whose legality and confidentiality are dubious at best. They also need a better network connection than is generally found in Oman.

One of the advantages that the COVID-19 pandemic has brought to this research is that it included both face-to-face and telephone interviews, which provided an opportunity to compare both types and benefit from their respective advantages. The interviews were conducted in Arabic, audio-recorded, transcribed verbatim, and translated into English. The researcher used two mobile devices with voice recorder software, one as the main device, and the second as back-up.

## **5.6 Data transcription and translation**

Transcription of audio interview recordings, the process of converting speech into text, is an important step in data management and analysis. Transcribing is a common and

integral practice when conducting interviews because it enables the researcher to perform the analysis and interpretation of verbal data (Oliver et al., 2005). There are practical considerations assisting researchers in preparing transcripts (McLellan et al., 2003), as well as essential guidelines for tracking and storing audiotaped materials. Specifications should also be developed for handling confidential or sensitive information and evaluating the reliability and validity of texts.

McLellan et al. (2003) presented a transcription protocol explicitly designed to assist with analysing interview data. The first consideration is to decide how best to deal with the data in a set of in-depth audiotaped interviews, whether the analysis will best be supported by transcriptions or by notes made by researcher from reviews of the audiotapes. In this study, the researcher decided to transcribe the entire interview. Although software exists that can automatically transfer audio into text, in this research the entire interviews were transcribed manually due to the interviewees' use of colloquial Omani Arabic, which the software applications are unlikely to recognise.

McLellan et al. (2003) stated that the researcher must decide whether the text document should include non-verbal notes (facial expressions, body language, place descriptions, etc.). Oliver et al. (2005) noted that transcription can be done in different ways; through naturalism, where all speech and details are captured, or through denaturalism, where grammar is corrected and interview noises such as stutters and pauses are removed.

There are pros and cons to both approaches. McLellan et al. (2003) added that when the researcher does not adhere to "linguistic traditions" such as semiotics or conversation analysis, the texts produced will read less conversationally and more like written text. Choosing a naturalised approach may provide details that can obscure the interview and influence the analysis, while a denaturalised approach can lead to white data, which removes subtle sociocultural features of the data or even information important to the study results. Oliver et al. (2005) have usefully argued that adding an intermediate step may be valuable, rather than choosing one specific approach. As this study focuses on capturing people's experiences and perceptions of disaster management, it was decided to employ denaturalised transcription, as the main concern was with informational content, where researchers are more interested in ideas than in how the dialogue plays out.

The researcher did try to convey important non-verbal notes, especially with the service users' interviews, as strong feelings were evident and moments of silence gave extra expression to the experiences they were describing. Transcripts benefit by including

information relevant to the content and appropriate labelling; a transcript header or cover sheet with basic information about the interviewee is helpful (McLellan et al., 2003). The researcher created an Excel sheet containing the different transcripts, with a summary of the interviewee's basic data added at the beginning of the text. All transcripts were organised in labelled files to enable easy access to them for the different categories of interviewees.

Dealing with data obtained raises other challenges, and maintaining control is a significant part of data management. Researchers need to determine how to manage their data most efficiently. They must ensure that they have high-quality and accessible data, that they carefully document the analysis performed, and that the data and associated analyses are retained after the study is completed (McLellan et al., 2003). Researchers also need to be aware that they are handling confidential and sensitive information which must be dealt with appropriately, either by replacing the names of individuals and organisations or by obliterating this information altogether.

Another crucial consideration in transcription is reviewing transcripts to ensure accuracy. It is essential to check the transcript against the audiotape. It is recommended that two typists independently translate a recorded and audible interview, after which the two transcripts are compared and confirmation of the agreement between them is made. The ideal strategy suggested is the transcribing of each audiotaped interview by a professional transcriber; this is then proofread by the interviewer. However, this strategy may fail if the proof-reader is not entirely familiar with the transcription protocol, the research topic, related terms, and the slang used by the interviewees (McLellan et al., 2003). In this study, the researcher did not have this opportunity, so they themselves transcribed and then checked the accuracy of the whole transcription. However, an assistant transcriber was later recruited, and this provided a better chance to verify the accuracy of the interview transcripts. The assistant transcriber transcribed 11 audiotaped interviews, which the researcher then checked and proofread.

Since the interviews were in Arabic, they needed to be translated into English before being analysed. Van Nes et al. (2010) argued that subtleties of language used may be lost during translation because each language has a unique system of connotations and meanings that cannot be replicated, or the word or idea may not carry the same meaning when translated. As Al-Mubarak (2017) pointed out, this is particularly evident when translating local idioms and phrases in local dialect. In this study, the issue was dealt with by the researcher giving a direct translation in the main text, with the colloquial meaning

following in brackets. Assistance was also sought from a specialised translator who could verify the correctness of the translation of some complex excerpts. Additionally, the researcher tried to further verify the accuracy of the translation by using the member check (respondent validation) method which can confirm credibility when evaluating qualitative research. The researcher sent a summary of the findings in English to eight interviewees; they all agreed on the correctness of the information and made no suggestions for changes.

The researcher began transcribing and translating the interviews herself, feeling that this would bring them the closer to the data and make it easier to recognise codes (Tilley and Powick, 2002). However, transcription and translation are immensely time-consuming and place a heavy burden on the researcher. An amendment was requested by the Research Ethics Committee in the school to authorise the addition of a transcriber and translator to provide some assistance. The researcher gave assurances that the transcriber would have, at minimum, a bachelor's degree in social sciences, while the translator would have a bachelor's degree in translation. The transcriber and translator were tested in an initial interview to ensure their competency, and it was then decided to hire them.

To check the standard of the work done for the transcription, the researcher reviewed the work for quality. After receiving the interview transcript, the researcher listened to the interview again and verified that the written text was precisely what was said. The review did not take any longer than the actual interview time, as the researcher listened to the interview and read the transcript simultaneously. Since checking the translation of the entire interview might have been difficult, the researcher randomly selected certain parts of the interview for a check on the quality of the translation.

The data was shared with the transcriber and translator via the University of Nottingham's One-Drive folder. The researcher ensured that both the transcriber and the translator adhered to university researchers' data management and security and confidentiality requirements (University of Nottingham, 2021). They did their work directly on the One-Drive folder and were prohibited from storing any information on their personal devices. Also, they understood that they could not communicate the contents of interviews to anyone in writing or verbally, as the interview data are confidential. Access to this folder was password-protected, and upon completion of the work, the translator and transcriber no longer had access to it.

## **5.7 Data analysis**

After transcription and translation, the next step in the study was data analysis, which was largely done manually. However, NVivo software was also used, because, as Zamawe (2015) argued, it is the most appropriate type of Computer Assisted Qualitative Data Analysis Software (CAQDAS). In this case it assisted and organised the analysis process rather than actually carrying out the data analysis. As Bazeley and Richards (2000) explain, NVivo helps researchers to organise and analyse unstructured data, allowing them to classify and arrange information, examine data relationships, and combine analysis with linking, searching, and modelling.

As this study seeks to explore rather than test explanatory theories (Mason, 2002), inductive reasoning can usefully be employed. Researchers collect observations and assess data, then identify patterns from which a set of statements is produced (McLaughlin, 2012). The research process thus enables the questioning or re-forming of established theories. In this study, Maslow's hierarchy of needs, the capital theory, and the concepts of vulnerability and resilience were used to support data interpretation, with each theory being used to interpret participants' contributions (see chapter 5). The process was also supported by the case-management approach in interpreting the social work intervention.

Thematic analysis was a key tool for analysing the interviews. As Carey (2013) explained, thematic analysis looks for specifically identified themes within data; these themes contain outcomes that can be used to draw conclusions. Thematic analysis is an appropriate strategy for a profound exploration of the participants' experiences, perceptions, opinions, and feelings, and suits a research approach that stresses the importance of such exploration.

Researchers such as Mason (2002) and Auerbach and Silverstein (2003) outlined the six main stages in thematic analysis. The first involves familiarisation with the data, which can be achieved through a line-by-line review of the transcriptions; here, this was easier because the researcher had already become familiar with the data during transcription and translation. The second stage is the generation of initial codes, which continuously develop as more data is analysed. As Bryman (2008) argued, this method is essential when attempting to collapse a large amount of data into purposeful labels in a quest to create categories. Coding thus helps to find more possibilities for analysis; it can relate to existing theory or generate new theoretical frameworks from the data. The third stage is searching for appropriate themes into which the codes can be grouped; here, the researcher must describe the meaning of each theme. The next stage involves reviewing the themes to

ensure their coherence. Fifthly, the themes must be defined and named, in a comprehensive analysis of how they contribute to an understanding of the data. The last stage is to produce a final description of the results by selecting themes that contribute meaningfully to answering the research questions. Here, the analysis can be significantly supported by including examples and quotations from the interview dialogues (Walliman, 2018).

## **5.8 Reflexivity**

A critical point that any researcher must bear in mind is that their own experiences affect every aspect of the research, from the conceptualisation of the research issue to relationships with the research participants, interpretation of the findings, and the writing up and dissemination of the results (Hesse-Biber, 2017). The researcher needs to ask crucial questions, such as: who am I, how did I behave in the field, how did I deal with any issues that arose, and how have I interpreted the findings? This underlines the notion that the research might have been carried out differently if it had been done by someone else. Conducting a research study also affects the researcher themselves. As Palaganas et al. (2017) argued, conducting research, perhaps especially fieldwork, changes every researcher in many ways, and thus creates changes in the research process itself; all of these must be acknowledged. Palaganas et al. (2017) emphasised that reflexivity of both kinds should be recognised and presented as an essential element of the research findings. In this study, continuous reflexivity was maintained throughout to ensure that findings were presented in a thoroughly analytical manner.

According to Creswell (2009), there are two types of reflexivity: prospective and retrospective. Prospective reflexivity refers to the effects of the researcher on the study, while retrospective reflexivity refers to the impact of the study on the researcher. Three critical considerations arise when exploring prospective reflexivity: methodological, analytical, and relational. Methodological reflexivity examines how the researcher's presence affects the field, while analytical reflexivity highlights what informs the researcher's interpretation of the findings. The third type, relational reflexivity, refers to what occurs within the relationships between the researcher and the participants.

Bryman (2008) has argued that adopting a constructivist stance makes it difficult to achieve unbiased research. This is, first, because the dominant cultural and social norms affect reality, so individual meanings are not formed solely by individuals but are socially, culturally, and historically determined (Carey, 2013). Researchers, therefore, need to take



into consideration the contexts in which individuals live and interact if they are to be able to understand them properly, which means that they should be offered a wide range of open-ended questions (Creswell, 2009). Carey (2013) went further, asserting that the participants should play a leading role in the research process, rather than merely being directed by the researcher to recount their experiences.

When looking at the social context in which the study took place, arguably the most critical factor defining Omani society is that of its religion, Islam. The Holy Quran informs Muslim communities, and the religion and the Holy Quran have shaped, indeed determined, most aspects of Omani society and culture (Omanuna.com, 2020). The Holy Quran argues that fate is in the hands of Allah, and a person cannot control their destiny except by praying to Allah. Islam also calls on Muslims to accept whatever happens to them without complaining or objecting. As a result, natural disasters and their effects are accepted as the will of Allah, and people are convinced that these disasters bring something good that only Allah knows. Islam also emphasises the need for the solidarity of members of society in both good and challenging times (Al-Nassriya, 2021). This can be seen clearly in people's cooperation in times of natural disaster, and that help will often come from family and neighbours even before government aid arrives.

It is also important to stress that the participants' views are not affected only by their own social and historical norms but also by how they see the researcher's personality and background and, therefore, their embodied presentation and choice of questions. A researcher's personal, social, and historical experiences can also influence their interpretation of participants' views (Creswell, 2009). Researcher bias can be either active or passive (Onwuegbuzie and Leech, 2007). Active bias may include behaviours and statements made by the researcher that provide participants with information about the researcher's preferences. As Carey (2013) asserted, the participants should play a leading role in the research process, rather than merely being directed by the researcher to recount their experiences. In this study, therefore, the researcher tried to reduce their influence on the interviewees by using a semi-structured interview, which provided the interviewees with a role in leading the interview and expressing their experiences more freely. In contrast, passive sources include the researcher's personality traits (such as gender, ethnicity, and social class). The researcher is a female Omani Arab Muslim, 30 years old, a social work lecturer at Sultan Qaboos University, and has witnessed several natural disasters.

In a case like this, where the researcher has personally witnessed several natural disasters, the research might be influenced by their past experiences and beliefs. Therefore, as Onwuegbuzie and Leech (2007) argued, acknowledging personal biases and conducting self-assessment through examining their own experiences, values, and beliefs are critical steps to minimise these effects as much as possible. Similarly, Carey (2013) asserted that the researcher should make every effort to examine their own background to minimise its effect; this will allow them to interpret and convey the participants' perspectives more accurately. However, Walliman (2018) argued that there is always an interactive relationship between the researcher and the participants in generating knowledge; the researcher should therefore be considered a part of the research process and cannot be isolated from the situation being studied (Creswell, 2009). From this perspective, potential bias can best be minimised not by denying the researcher's role in co-constructing the research data, but rather by exploring that role within the analysis.

In qualitative research, differences between the researcher and the participants can lead to differences in the findings (Bryman, 2008); these differences may be in gender, social class, age, ethnicity, or religion. The most significant factor affecting data collection and findings in this study is gender. Several researchers commented on these. Liamputtong (2007) stressed that gender differences between the researcher and the participants should be considered, while Archer (2002) noted that race and gender could affect the interaction in complicated and unexpected ways. Liamputtong (2007) noted that women tend to talk freely and without shame when being interviewed by a female researcher; this is not the case when the interviewer is male. Male participants, however, do not seem to be as restricted by the researcher's gender, with some possibly feeling that a woman researcher will listen to them with greater care and empathy. In this study, the researcher thought that her gender made participants more welcoming to her, which may have provided her with more detailed information than she would have obtained had she been male. An example of this is the two respondents who spoke comfortably and shared sensitive information with the researcher but later asked for some details not to be included.

While writers such as Archer (2002) have discussed the effect of racial differences between researchers and participants, this researcher could not identify any challenges arising from her ethnicity. This was hardly surprising, as both researcher and participants are Omani; indeed, this fact encouraged people to express their responses more freely than had they been interviewed by a foreign researcher. One reason is that interviewees were free to use local dialects and idioms, which non-Omani researchers may not have understood.

Also, some people would not speak openly about their experiences and perspectives to non-Omani researchers, possibly because of the conservative norms of Omani society or perhaps because of the fear of giving a negative image of the country. It is important to explain what "conservative" means in relation to Omani culture. While Oman has modernised significantly in recent years, the country's conservative values and traditions significantly shape its society and way of life. Omani society strongly emphasises respect for authority, family values, and religion. There is a deep sense of loyalty and pride in the country's history and culture, and people are generally expected to conform to societal norms and customs (Abuiyada et al., 2016; Al-Rabaani, 2018).

Another researcher/participant difference that may cause uncertainty and discomfort is that of social class (Liamputtong, 2007). In this study, the participants were informed of the possible power of the research to improve social work practices in managing natural disasters. Still, some participants appeared to put excessive faith in this simply because the researcher works at Sultan Qaboos University, Oman's most prestigious educational institution. Whether the researcher's social class affected what participants said was difficult to determine; this could only be examined if other researchers repeated the research. Despite all these potential challenges, researchers should seek diverse perspectives to ensure that their own biases and assumptions do not limit their research. For example, the credibility of individual participants' answers can be verified by examining the consistency of their responses to the interview questions as a whole and by assessing the coherence of the individual's answers with those of other participants. Although reviewing relevant literature from various sources might be a possible way to seek diverse perspectives and minimise researcher bias, this did not apply to this research as there is no available relevant research to compare with. Overall, reducing researcher bias requires a combination of rigorous research methods with a transparent research protocol, awareness of potential biases, and a firm commitment to objectivity and rigour in the research process.

Not only does the researcher affect the study, but the study also affects the researcher; this is called retrospective reflexivity. During the research, after interviewing NGO workers and learning about their roles and the impact of their tremendous efforts on those in need of assistance, the researcher themselves became eager to join a voluntary team. Indeed, the researcher has already been involved in several events organised by voluntary groups—for example, a campaign for blood donation during the COVID-19 pandemic. Also, despite having witnessed several natural disasters in the past, interviewing those affected and hearing their stories so directly led to a greater awareness of their circumstances and

suffering, and feeling the emotional and psychological impact on them did upset the researcher, which may have affected the interviewing process, the data collection and the analysis. These are all subjective processes affected by the disposition of the researcher. However, the researcher took steps to combat these thoughts and feelings and to attempt to reduce biases; these included establishing clear research questions and objectives, using a semi-structured interview protocol, and acknowledging their potential biases. The researcher also let some time elapse between conducting an interview and analysing it, in an attempt to get rid of the feelings associated with that interview; it was hoped that this would allow a more objective analysis of the data.

The pandemic meant that an even more rigorous and ongoing reflexive process was needed. For example, shifting to online methods meant that researchers had to be prepared to address ethical issues in online research, with specific concerns about participants' privacy and confidentiality having to be considered and addressed (Newman et al., 2021). The pandemic has had a profound impact on individuals worldwide; this researcher is no exception. The panic and uncertainty created by the pandemic have affected everybody's emotional states, and caused stress, anxiety, and isolation. This might possibly have influenced the questions researchers asked and the way they interpreted data, even without their knowledge. The researcher in this study acknowledged their emotions, made sure to write their daily journals regularly, sought support from colleagues and took time to take care of their own well-being, so that they could carry out data collection and analysis in a calm and undisturbed mood, minimising the feelings of anxiety and stress associated with the pandemic.

## **5.9 Ethical Considerations**

Ethical considerations are critical in research, and recognition of their importance is growing. Researchers need to understand the basics of ethical research and how this might affect their research project. They also need to be aware of potential ethical issues that might arise when they are conducting the study and how these can be avoided (Polonsky and Waller, 2011).

In a pandemic, qualitative research, whether in process or new research, requires careful ethical assessment of procedures, risks, and benefits. Researchers must consider all research aspects, such as sampling, site selection, and data collection (Newman et al., 2021). Researchers such as Newman et al. (2021) and Ravitch (2020) outlined the importance of the lessons learned from the current COVID-19 pandemic; these can be

applied in any future pandemics and in any future climate change emergencies that we must anticipate, if we are to ensure that qualitative research remains ethical and valid. Within this research, attention will be paid to two main areas: institutional ethics and continuous ethical commitment.

### **5.9.1 Institutional ethics**

Many universities have developed guidelines for the undertaking of ethical research. The University of Nottingham's policies on research ethics have been designed to comply with the Framework for Research Ethics (FRE) outlined by the Economic and Social Research Council (ESRC) (University of Nottingham, 2022) and aim to maintain the highest standards of integrity in the conduct of research. The university has several policies regarding research ethics, all of which were followed closely in this research. One of the policies adopted by the university is the concordat to support research integrity which seeks to provide a comprehensive national framework for responsible research conduct and its governance (University of Nottingham, 2022). Also followed was the University Research Data Management Policy, which concerns data management, storing and organisation, both during the research process and after it is completed (University of Nottingham, 2021). Also, as only one researcher conducted this study, it also followed the University Policy on Lone Working (University of Nottingham, 2020).

The University of Nottingham (2022) emphasises that research that involves the participation of human subjects must undergo ethical review and receive approval before any research work can begin. As the research was conducted in Oman, the researcher submitted an ethics application which was approved by the School Ethics Committee and the University of Nottingham Insurance Department/Registrar's Office (University of Nottingham, 2022) (see Appendix 1). The ethics application required the submission of several forms: a participant information sheet, a GDPR full privacy notice, a participant consent form, a risk assessment form with a hazard checklist, and a Disclosure and Barring Service (DBS) check. The interview schedules were also attached.

All the actions undertaken by the researcher have thus been in strict accordance with the University of Nottingham's Policy on Research Ethics. It is important to note that reflections on the research have been made throughout the research process to ensure that any emerging issues receive prompt and thorough attention (Butler, 2002; University of Nottingham, 2022). Following the emergence of the COVID-19 pandemic in early 2020, the university also published guidance and information on COVID-19, including guidelines

for data collection in the light of the pandemic. It stressed that researchers should avoid all forms of face-to-face data collection to meet precautionary measures and prevent the spread of the virus (University of Nottingham, 2022). As a result, the ethical approval was amended, and researchers were instructed to replace face-to-face interviews with telephone interviews.

### **5.9.2 Continuous ethical commitment**

It is not easy to anticipate all the ethical dilemmas that might arise in the field, which meant that the researcher needed to reflect before, during and following the research process to ensure that the research was conducted ethically (Newman et al., 2021). An examination of the ethics application and the research ethics literature showed that key ethical issues for social work researchers are that they must protect both their research participants and themselves. They must therefore ensure that various measures are fully guaranteed: voluntary participation, informed consent, anonymity, and confidentiality, protecting participants from harm, treating participants with respect, and protecting researchers from harm (McLaughlin, 2012; Rubin and Babbie, 2016).

### **5.9.3 Voluntary participation**

Participants in this study all received both the "Participant Information Sheet" and the "Participant Consent Form". These informed participants that their participation is completely voluntary and that they have the right to withdraw from the research at any time until the end of the data collection period, December 2020, without having to give any reason for their withdrawal (University of Nottingham, 2022). It was also critical to consider the challenges to people's time amid the stresses and responsibilities of a pandemic (Ravitch, 2020) which has brought so much uncertainty and unrest, anxiety and confusion, across the world. However, the participants willingly gave their time and experience and contributed effectively to the research, which is very much appreciated.

Newman et al. (2021) argued that research participants should be compensated for their time and related costs, such as childcare costs and loss of income due to missed work hours. However, there are some concerns about paying research participants. First, it could impact the relationship between the researcher and the participants. Payment may create a sense of obligation. If participants receive monetary compensation for their time, they may feel obligated to provide what they see as favourable responses (Largent and Lynch, 2017). Additionally, payment may undermine voluntary participation. Participants may want to participate in a study solely for the compensation, rather than because they

are genuinely interested in the research topic (Newman et al., 2021). There are also ethical implications of compensating vulnerable and marginalised individuals. Payment may create power imbalances; participants who are economically disadvantaged may take part in research primarily out of financial need (Largent and Lynch, 2017), which could compromise the integrity of the research and bias the findings. However, Wertheimer and Miller (2008) emphasised that researchers need to distinguish between an unproblematic (non-undue) inducement and an undue inducement. Any gift or payment given to research participants should be seen as thanks for help and compensation for the expertise they provide, rather than constituting inducement or coercion. The researcher therefore made sure that only simple gifts were given, and that they were intended purely as an expression of gratitude.

Online research suggests gifts such as e-gift cards, e-vouchers for groceries and books, or music downloads. Gifts should also be thought through in the context of the pandemic; commonly-used incentives may not be compatible with recommended public health measures (Newman et al., 2021). Gifts must also, of course, be culturally appropriate. In this study, participants were given simple gifts as an expression of gratitude for their participation. In face-to-face interviews, chocolates and biscuits were provided, while e-vouchers for groceries were provided in telephone interviews. These gifts also avoided the risk of any cultural inappropriacy. In Oman, gifts should be carefully chosen, especially between two people of different sexes. For example, gifts such as flowers or perfume should not be given to males from a woman who is not of their family. Additionally, in Oman, gifts are often exchanged in a reciprocal manner, and the recipient may feel obligated to give a gift in return at a later time. Therefore, the researcher emphasised that these gifts were solely a token of appreciation for their effort and time.

#### **5.9.4 Informed consent**

After participants had read and understood the Participant Information Sheet and the GDPR full privacy notice or had these read to them, they were asked to decide whether they were willing to participate in the research (Butler, 2002). The consent form included some critical points, such as confirming that they had read and understood the Participant Information Sheet, that participation was voluntary, and that anonymity and confidentiality would be ensured. Those willing to participate were asked to confirm their participation by signing the consent form. Before the COVID-19 pandemic, the consent form was signed physically before the actual interview commenced, and most participants provided this written consent. The consent of the few non-literate service users was

obtained by having a witness who confirmed that the consent form had been read accurately to the potential participant.

The pandemic and the shift to telephone interviews meant that consent forms were sent and received electronically; documents no longer had to be printed and signed. Newman et al. (2021) have argued that technology has improved the informed consent process for both researchers and participants, and, indeed, those benefits were clear in the context of the pandemic. For example, participants could take the opportunity to search for the researcher online to verify that their stated identity is genuine. Researchers may use technologies to pre-circulate information and consent forms and respond to any questions and inquiries. The presentation and sharing of information with participants can be in various forms, such as written forms, pictures, and videos. Sharing information digitally allows participants to view them at their leisure and gain familiarity with the study procedures without the time and pressures that may appear when the researcher arrives in person immediately before the data collection interview.

It is argued that digitally signed consent forms might pose barriers to those who do not own a home computer or do not have electronic signatures or do not want to use them. However, this did not happen in this research, except in one case where one woman gave verbal consent only after the transition to telephone interviewing. As Newman et al. (2021) pointed out, some individuals, particularly from marginalised and vulnerable communities, may not be digitally literate and may not use email or social media. In such cases, the onus is on the researcher to provide alternative means of informed consent, and a simple solution to these situations is for the participant to provide verbal approval over the phone.

#### **5.9.5 Anonymity and confidentiality**

In accordance with research ethics, the confidentiality of all participants was ensured (Bryman, 2012), and participants were informed about how the researcher would preserve their anonymity. The researcher also verified that the participants were satisfied with the confidentiality guarantee; these issues were discussed before any interview was started.

Conducting interviews in their traditional context requires a private space, so as to meet confidentiality requirements. During the COVID-19 pandemic and due to the transition to online interviews, participants were encouraged to find a private area. However, as Newman et al. (2021) discussed, researchers need to realise that some individuals may lack recourse to private rooms in restrictive home environments. This indicates the



importance of anticipating potential privacy interference in online research, for example, interruptions such as the entry of a family member during the interview. This may entail agreeing with the participant before the interview about an exit plan, such as whether to continue the interview, change the subject during the interruption, or terminate the interview. In this research, some interviews had interruptions, and the agreed action was taken.

Principle (3) of the GDPR concerns data minimisation. It states that personal data must be adequate, relevant, and limited to what is necessary concerning the purposes for which it is to be used (University of Nottingham, 2022). In this study, the researcher ensured that only the necessary information about research participants was collected. A part of the research aims to obtain the views of diverse groups affected by natural disasters and needs to know whether there has been any injustice in providing social services to those affected. Thus, the researcher must reveal certain information in the research outputs, such as the gender, age, and physical condition of individual participants. However, steps were taken to ensure that participants could not be identified. Only participants' pseudonyms were used when reporting data and using direct quotes; identifying features like the name of their town were also changed. These steps aim to maintain the integrity of the data while also protecting the participants' anonymity.

Participants agreed that they understood that taking part in this study would involve an interview that would be recorded using audio, and that these recordings would be transcribed as text. After every interview, the interview was uploaded onto 'OneDrive', and the audio file was then deleted from the dictaphone, so there did not need be any concerns about the dictaphone being dropped or stolen. According to the university's Storage Solutions for Digital Research, audio recordings are stored on 'OneDrive' offered by the University of Nottingham (University of Nottingham, 2021). When the researcher recruited a transcriber and translator, the data was shared with them only via the University of Nottingham One-Drive folder. The researcher ensured that the transcriber and translator adhered to university researchers' data management and security and confidentiality requirements. They did their work directly on the One-Drive folder and it was made certain that they could not store any information on their personal devices. Also, they understood that they could not communicate the contents of interviews to anyone either verbally or in writing, as the interview data are confidential. Access to this folder was password-protected, and upon completion, access to the folder was removed from the translator and transcriber. After that, only the researcher could access the drive and thus is solely responsible for its content.

All paper copies of consent forms and transcripts are kept strictly confidential and stored in a locked cupboard (Butler, 2002) in the researcher's private room at home. When the researcher travelled back to the UK, these papers were placed in a folder in a locked cupboard in their private room at the apartment. It had originally been intended to store them in the PGR Student Office in the Sociology and Social Policy School, but it was later decided to keep them in one secure place; this was because of the COVID-19 pandemic and the uncertainties about people working from home and returning to the workplace.

Data analysis was carried out using both manual analysis and Nvivo software. This provides secure data storage where users can store the project on their computer or a network drive. According to Nottingham University's Data Protection Policy, participants must be informed that original recordings of interviews will be stored securely for seven years after the completion of the research, with any identifying information removed to further assure anonymity. After that, all recordings will be disposed of safely (University of Nottingham, 2022).

#### **5.9.6 Protecting participants from harm**

One of the essential criteria for ethical research practice is avoiding harm to participants and minimising any adverse effects the research may have on them (Liamputtong, 2007). This researcher sought to do this by ensuring that all participants had read the Participant Information Sheet, which clarifies what will happen if they participate and the possible benefits and disadvantages of participation. The researcher guaranteed not to disclose any information given by the participants to third parties unless what they said suggested that they or someone else was at risk. This meant that senior managers and social work practitioners could rest assured that there would be no repercussions from their employer if they said anything negative about their institutions. Also, disaster survivors did not need to fear that anything they said would affect any services they received from governmental or non-governmental sources.

Another point relevant to the protection of participants was that some interviews inevitably brought back stressful experiences and memories, such as the death of relatives or the loss of homes and other property. Describing these events could make participants feel upset. Some felt better if they cried, took a break, or postponed the interview to another time (Butler, 2002), but none wanted to terminate their participation altogether. The researcher was aware that recalling traumatic events might be distressing and used

various methods of showing empathy with affected participants. As Newburn (1993) has argued, the process of listening to the painfully vivid accounts of relatives and survivors is a vital relief technique, and being listened to with empathy can provide comfort and support in times of crisis. All the interviewees were also provided with sources of support in their communities; these included voluntary societies and Islamic religious leaders.

Another issue arising from conducting research in the context of the COVID-19 pandemic was the possibility of participants facing constraints in accessing resources and referrals provided by the researcher. Newman et al. (2021) pointed out that many popular helplines might become overwhelmed due to the pandemic, and that researchers therefore needed to explore alternative resources. During the pandemic, several new online resources were actively initiated in Oman, which enabled the researcher to provide participants with a list of relevant resources they might wish to contact for counselling and support. Indeed, the COVID-19 pandemic has raised many questions and brought to the surface many uncertainties about the world and humanity. As a result, the traditional research criterion of protecting participants from harm must be adapted and must now become the criterion of actively promoting participant well-being (Newman et al., 2021). Interestingly, talking about the pandemic at the beginning of the interviews and discussing its effects was found to be a useful release for the participants.

### **5.9.7 Respect**

Another fundamental element in the ethical treatment of participants is respect. Banks (2012) explained that respecting research participants means enabling them to make considered choices about their engagement in the research and stressed that participants be treated respectfully throughout the research process. In this study, participants were made aware from the start that their participation in this research was voluntary and that their contribution was greatly appreciated. The researcher also translated all the forms into Arabic to ensure that every participant could read them. However, as three service users were not literate, the researcher read the research information to them in the presence of a witness. Providing a witness meant that their consent, if given, could be obtained through the confirmation made by the witness (Liamputtong, 2007), who could confirm that the consent form was read accurately to the participant. In telephone interviews, the researcher read the research information to the service user and obtained consent orally. In all cases, participants could ask questions about the study until these were answered to their satisfaction. The researcher's appreciation for their contribution was made clear, and the participants were also thanked both before and after the interviews.

One relevant issue related to respect is the selection of a suitable time and place for the interviews. It was simple to agree with senior managers and social workers as they preferred to be interviewed at their workplace during office hours. However, some challenges arose with NGO workers and service users in locating places and times; these were explained in the data collection section. Ultimately, however, the challenges were resolved, and participants' decisions were respected. A few participants - professionals - asked the researcher not to include some parts of the interview in the official transcription; these requests were also respected.

The COVID-19 pandemic has placed great burdens on everyone; it is therefore an even more crucial task to approach the participants respectfully and to show appreciation for their contribution. There are several valuable techniques for creating an ideal space and ensuring that participants are happy to be interviewed. As Ravitch (2020) explained, researchers should treat the participants with respect, humility, and appreciation for their time; they should do everything possible to make arrangements to meet any needs arising from the interview (e.g., over childcare or work schedules). Ravitch (2020) also recommended using a short script at the start of online interviews that would make clear the researcher's awareness of the challenges caused by COVID-19, including changes caused to the interview format, and would also emphasise how much the interviewee's participation was appreciated.

#### **5.9.8 Protection of researchers from harm**

Ethical considerations do not merely take account of the safety of research participants but also pay attention to the safety and well-being of the researcher. The researcher in this study completed the "Fieldwork Safety Policy and Action Plan" form, which sets out arrangements for mitigating any risks to the researcher. It complies with the University's Lone Working research policy and guidance, which describe the arrangements considered by the university to be best practices for researchers working individually (University of Nottingham, 2020). Several points in this policy need to be emphasised here. In terms of physical condition, the researcher must be medically fit and able to work alone. The researcher must also have received sufficient training, be competent in research procedures and have previous experience in doing fieldwork in Oman. The researcher must also constantly inform the supervisory team on how the fieldwork is going, and the supervisory team must be alert for any issues potentially harmful to the researcher.

As the researcher is a female working alone, their personal safety was taken very seriously, and several measures were taken to ensure it. The researcher always carried their mobile phone during the fieldwork, carefully selected the place and time for interviews, and always informed someone of their expected whereabouts (Arksey and Knight, 2007; Liamputtong, 2007). As a result, the researcher's mobile phone was always switched on. The university policy and guidance on lone working provide further guidelines when walking and visiting alone (University of Nottingham, 2020). However, as an Omani woman, the researcher did not travel independently and was always accompanied by a male family member on all their trips; he knew where the researcher was going and when the interview was expected to start and end. It must be noted, however, that the family member was not in earshot. In other words, there were not three people around the microphone; there were just two. Interviews in workplaces did not present a special risk to the lone worker. Before the COVID-19 pandemic, the researcher conducted interviews in offices in the Department of Social Development, in volunteer centres, and in public areas such as cafes and parks, ensuring the comfort and safety of both participants and the researcher. During the COVID-19 pandemic, the researcher conducted telephone interviews from their private room at home.

Another key concern is to protect the researcher's mental and psychological health. It has been argued that exposure to people disclosing traumatic experiences can be painful for the researcher, and action needs to be taken to mitigate its effects (Liamputtong, 2007). Arksey and Knight (2007) suggested that fieldworkers need a social support system in place so that they can share experiences and problems with others. In this study, while the researcher already had some experience in dealing with stressful situations due to previous fieldwork with the elderly and neglected, the experience of undertaking this fieldwork alone turned out to be very isolating and emotionally demanding, especially at the unprecedented time of the pandemic. The researcher valued having people to speak to about their experiences and feelings; the supervisory team provided a WhatsApp contact number that would provide support and guidance in situations of uncertainty, and family and friends in Oman were a constant source of support. It goes without saying that this was all within the boundaries of respecting the anonymity and confidentiality of the participants.

## **5.10 Evaluation of qualitative research**

A criticism levelled at qualitative research is that it uses a relatively small number of participants. This is indeed true, but the drawback is balanced by the fact that more time is usually spent with each participant, producing both profound and comprehensive data

(Walliman, 2018). Carey (2013) has also noted that, by its nature, social work practice is sensitive and confidential and casework itself involves working with small numbers of people at a time. These facts highlight the importance of qualitative design in suitably exploring and fully understanding research participants. Qualitative research methodology is also complex rather than casual because of the strict nature of the inquiry and its capacity to explore causes and interrelating layers of the phenomenon under review (Carey, 2013). Qualitative research methods can thus be said to focus on seeking not only explanations but also understanding.

Another criticism of qualitative research is that its quality is questionable because the criteria used to assess it differ from those used to assess quantitative research (Creswell, 2009; Becker et al., 2012; Bryman, 2012). It is indeed true that quantitative researchers have developed a clear set of criteria that influence how research is conducted and ensure that it is robustly assessed. These criteria are reliability, validity, generalisation, and replication (Adams et al., 2014). However, while there are no such generally agreed principles in qualitative research (Creswell, 2009), qualitative researchers have developed several schemes that outline the criteria used in its evaluation. For example, Becker et al. (2012) suggest that the four quantitative research criteria be replaced with others that are relevant and appropriate to the assessment of qualitative research. Lincoln and Guba (1985), to whom Becker et al. (2012) refer, argued that these can be seen as different from, but equivalent to, quantitative research standards; they relate primarily to whether the results are trustworthy. These alternative criteria – credibility, transferability, dependability, and confirmability – are equivalent to the conventional quantitative criteria of internal validity, external validity, reliability, and objectivity, respectively.

The first of these criteria, credibility, is concerned with the believability of findings. Qualitative researchers use several practices to make findings more credible, such as triangulation and member checks (Creswell, 2009). Member checks, also called respondent validation, appeared to be the most appropriate technique in this study. In this technique, the researcher must provide research participants with the research material, such as transcripts of interviews, short reports, and draft chapters, so that participants can ensure that the researcher has correctly understood their social world. Once given, this confirmation or validation makes the research findings more credible and accurate (Bryman, 2008; Dennis, 2014). Although there is no triangulation in the data collection methods as only the interview tool was used, triangulation can be achieved through the multiple perspectives of the research participants. The study included the views of social workers at management and front-line levels, of NGO workers at

management and front-line levels, of religious practitioners, and of service users. The study was able to review the views and experiences of all these groups and clarify points of similarity and difference. Additionally, the findings can be checked through comparison with the available documents and literature related to the context and topic. The member check (also known as respondent validation), was done by sending a summary of the main findings, in English, to two participants from each category (social workers, NGO practitioners, religious practitioners, service users), making eight in total. All of them confirmed their agreement with what was stated in the summary and made no dissenting comments. It can also be noted that the researcher was engaged with the data for a long time, enhancing its credibility.

Another criterion for the validity of qualitative research is transferability, that is, whether the findings are relevant to settings other than those in which they were conducted. It has been argued that qualitative researchers need to provide a detailed description of their research settings so that further researchers can determine whether the findings could apply to another context and whether generalisation could be achieved (Bryman, 2012). This study has described the Omani society in which it is set and also outlines the nature and scope of social work in Oman; this is done primarily in chapters 2 and 3.

Dependability, the third factor, focuses on how far we can rely on the research findings. Some researchers argued that reliability can be enhanced through an auditing approach, which means that detailed records must be kept throughout all stages of the research. These records can then be viewed to answer any questions that may be raised and to verify that correct procedures were followed throughout the research (Becker et al., 2012). To ensure this, the researcher has kept all documents, such as transcripts of interviews, minutes of meetings, and the research diary, as well as a notebook of the themes and codes that were extracted in the analysis using the Nvivo software. These have been stored safely and can be accessed at any time to ensure that dependability can be confirmed.

The fourth criterion is confirmability; this refers to the interference of the researcher's personal values in the study. The audit trail approach can also be used here (Bryman, 2012). Many researchers realise that their values and biases may have interfered with the research process but emphasise that the critical issue is keeping this interference to a minimum (Creswell, 2009). In this study, the researcher has tried to keep the reflexivity section updated and note the potential effects of personal experience or bias. However, it should also be noted that some researchers have argued that social research should not aim to be value-free; instead, it should always thoroughly examine the effects of the

researcher's experiences and interpretations on each study (Carey, 2013). In this study, the researcher has made every effort to meet these criteria through providing extensive reflection and explicitly considering aspects of positionality, discussed in the sections above.

The COVID-19 pandemic has raised other questions that may affect the validity of the research. Data validity threats could result from changing the methods and modes to adhere to the preventive measures for the pandemic by avoiding face-to-face meetings and working remotely (Ravitch, 2020). This threat was countered by turning to COVID-19-specific data collection procedures and exhibiting even greater consideration in accessing the sample, scheduling interview times, and implementing them remotely. The COVID-19 pandemic also brought some difficulties in the process of participant selection. Before the COVID-19 pandemic, approaching the gatekeepers was through face-to-face appointments, while during the pandemic, approaching the gatekeepers and agreeing on possible participants had to be done remotely. At that time, employee attendance at the workplace was reduced to 50%, so reaching the people targeted as participants was not easy. It often required calling repeatedly to get a response and being directed from one employee to another until reaching the employee concerned. As Ravitch (2020) argued, consideration of issues of participant access and representation is central to determining whether these choices create validity and credibility in the research data. It was therefore important to be patient and face this challenge in order to reach the target sample. Patience was also needed to determine the right time to call the targeted employees based on their new work timetable.

Changing the mode of data collection from face-to-face to telephone interviews may also affect participants' level of trust in the researcher and thus their level of honest disclosure. To counter these potential challenges, the researcher followed some suggestions made in the literature, such as making introductions through gatekeepers to facilitate rapport-building, asking attention-grabbing questions, and discussing their and participants' expectations of telephone interviews (Holbrook et al., 2003; Abdul Rahman et al., 2021).

### **5.11 Conclusion**

This chapter has outlined the philosophical and methodological underpinnings for this research. The study is underpinned by an interpretivist philosophical standpoint, and follows a qualitative approach using the semi-structured interview method. The chapter then described the selected sample, gave reasons for the choices made in the selection,



and described the means of access to the participants. The next section presented the process of data collection, and discussed issues around transcription, translation, and analysis. Overall, the chapter focused mainly on clarifying how and why decisions were made regarding the research methodology. It has also highlighted the researcher's positionality and how it has impacted the research process. The chapter concluded by addressing the ethical considerations related to the research.

## **Chapter 6 :        Impacts of natural disasters: from the lenses of capital theory, vulnerability, and resilience**

### **6.1 Introduction**

This chapter outlines the devastating negative impacts of natural disasters and some positive impacts. It draws upon 43 semi-structured interviews with a wide range of parties involved in disaster situations: service users, social work practitioners in the various departments of the Ministry of Social Development, NGO workers, and religious practitioners. The chapter explores the impact of the natural disasters that have occurred in Oman, particularly since Cyclone Gonu in 2007. The disasters resulted in casualties, extensive damage to property and infrastructure, and interruptions to basic services. The chapter focuses on three critical areas of impact: individuals and families, communities, and the provision of state services. This is explored by highlighting how notions of capital, particularly human, social, financial, and cultural capital (see 5.4), vulnerability (see 5.5), and resilience (see 5.6), can be used to describe the extent of and the response to these impacts.

### **6.2 The impact of natural disasters on individuals and families**

#### **6.2.1 Human impact**

This study found that the effects of natural disasters included loss of life, injuries, exacerbation of chronic diseases, severe disorientation, displacement, and learning loss.

There were fatalities in many cyclones, hurricanes and depressions, and people knew that some or all of their family members might lose their lives. Participant 4, for example, (male social work manager) said: *"Unfortunately, natural disasters cause many deaths"*. Participant 25 (male social work manager) said: *"The girl who passed away is my niece...the strong wind blew her away and she was flung roughly into a wall"*. The deaths in Cyclone Gonu in 2007 were terrifying; participant 8 (male social worker) described a shocking experience he encountered:

*When we returned one of the families to their home after the water level had decreased, one of their children entered his room and saw a dead body inside.*

*The police identified the dead person, and he was an immigrant...The sight of the body was a massive shock to this child.*

Because of the strength of their human capital, some people were able to escape death. Participant 18 (service user mother) said: *"If they hadn't taken us to the hotel that night, I think all of the family would have died"*. When her family was in a dangerous situation, she called the Royal Oman Police at 3:30 am and told them what was happening. She persisted in stressing the danger and the family's need for immediate assistance; her assertiveness and articulacy here show the strength of her human capital. As a result, they were moved to a hotel and later provided with a new house. The strength of their human capital is shown through their ability to act wisely in emergencies and their courage in making the right decisions. The woman's action and determination kept her family alive, a saving human capital.

Other service users were also able to survive and find a safe place to stay without relying on the help of public state agencies. They were supported by being in a solid social network that enabled them to find accommodation quickly and easily without having to go to a shelter. Participant 15 (service user daughter) said that she and her family went to stay with a relative who lives in a spacious and comfortable house away from the vulnerable areas. This is also linked to economic capital, reflecting their ability to travel safely and draw upon others with high economic capital. As Baez et al. (2010) argue, the deaths and injuries inflicted by disasters represent significant damage to human capital. The loss of life is a common effect of natural disasters (Al-Charaabi and Al-Yahyai, 2013; Thordardottir et al., 2018; AlRuheili, 2022).

In addition to the loss of life, natural disasters also create many health issues. Participant 35 (service user daughter) referred to their health status during the disaster, saying: *"The rain fell heavily and entered our area, and the situation was difficult, and we were very dizzy, and fainted due to the pressure that preceded the rains"*. Al-Zaabi and Al-Zadjali (2022) also detailed these health effects, perhaps the most difficult being injuries caused by lightning strikes; this occurred in the November trough in 2019, when people were hospitalised after being struck by lightning.

Another health issue arose when service users have chronic diseases such as diabetes, which is very prevalent in Oman (Elliott et al., 2013). The extent of chronic diseases in Oman has increased considerably between 2008 and 2017, with 40% of the population suffering from high blood pressure, and 12% from diabetes (Abu-Ruzq, 2022). Participant

25 (male social work manager) emphasised that serious attention should be paid to the issue of people with such chronic diseases, saying:

*There was a Pakistani family whose wife had diabetes, and her condition had gotten worse in this situation...I contacted the health authorities, but nobody would come and risk his safety at that time. What did I do? The school [that was being used as a shelter] was in the middle of a residential neighbourhood, so my colleague and I had to go and knock on the doors of all the surrounding houses and ask if there was anyone in the house who had diabetes and spare medicine. Thanks to Allah, we succeeded and found a home with a woman with diabetes, so we took some of her medication and brought it to the Pakistani woman. Fortunately, she recognised the tablets and knew they were suitable for her, so she took some medicine, and her sugar levels went down, and she was much better.*

This situation is a good example of social capital and the willingness of neighbours to help each other; mutual assistance is frequently found in communities in Oman, even between people unknown to each other. Mathbor (2007) also emphasised the importance of social relationships and how local community members were engaged in helping affected people.

Natural disasters also forced some people to move to new areas, as participant 21 (service user mother) explained: *"We left the area affected by Cyclone Gonu and are now staying in a higher area at the top of the mountain where the houses donated by His Majesty Sultan Qaboos were built"*. Some of the other service users said that they had to leave their old neighbourhoods and move to new homes in new residential neighbourhoods. Some showed a great attachment to their old neighbourhoods and struggled to put their memories of them behind them. Participant 19 (service user father) described his daughters' attachment to the sea: *"My daughters used to play on the beach, so when we moved to the new house, they missed the beach very much. They always ask me to take them there, so I take them to play every two weeks"*. Others, however, adjusted to their new neighbourhoods more easily and made an effort to adapt to the situation. Participant 20 (service user daughter) recounted her experience of being moved to a new neighbourhood:

*After we settled in the new house, we started to build a good relationship with our neighbours. We knew some of them before, but we got to know new women*

*as well because, in the afternoon, women would put a mat near our home, gather, and drink coffee.*

Some researchers, such as Islam and Abd Wahab (2020), found that families who lose their land and shelter may suffer permanently from the trauma of the experience, especially older family members who are also grieving for lost relatives. Resilience varies among affected individuals, resulting in differences in people's ability to adapt to a new situation and return to their usual practices, such as regular informal gatherings with neighbours. This activity is an example of non-structural measures of resilience that do not depend on physical construction but rather use knowledge and practice to reduce risks and negative impact (see 5.6). It is also worth noting that carrying out normal activities, such as frequent informal gatherings with neighbours, develops people's social capital by strengthening bonds and support systems.

Another impact of natural disasters is the interruption of school. Some service users indicated that students missed school, some for a few days but others for more than a month. Participant 20 (service user daughter) said: *"She [her sister] missed school some days"*, while participant 15 (service user daughter) said: *"You remember that the whole country took five days holiday, but areas that were affected a lot like us, took around one month until we could go back to school and work"*. This account was corroborated by multiple researchers, such as Mutch (2015) and Weiland (2019), who coined a new term, "Disaster Learning Loss (DLL)", which is defined as a "theorised term used to identify the amount of instructional time lost because of climate-related disasters, hazards, stressors, shocks, variability, and/or change." (Weiland, 2019:202).

### **6.2.2 Economic impact**

The data showed that a significant impact of natural disasters is the destruction of homes, farms, vehicles, furniture and other possessions. All the participants agreed on the economic damage done by the disasters. Participant 3 (male social work manager) noted that: *"Concerning the material impact, it is represented in the damage caused to citizens in their properties, such as their homes, their shops, as well as in public facilities in terms of roads and so on"*. These findings echo previous studies (Guha-Sapir et al., 2013). Some families experienced not just one but several disasters, which sometimes caused a gradual depletion of the household's asset base. As participant 17 (service user son) said:

*We were affected by Cyclone Gonu and by the last depression that occurred. I mean, thank God, our financial situation is good, but you know that these disasters damage our properties, and we have to fix the damage from our own budget, which may exhaust our budget sometimes.*

Repeated disasters deplete people's financial and physical capital, making people more vulnerable to the next disaster (Charvériat, 2000; Rentschler, 2013).

The data showed that a significant impact of natural disasters is the destruction of homes, a clear loss of physical capital. The amount of damage to homes varies, as participant 1 (male social work manager) observed: *"The damage is not the same with all families. It varies according to several factors such as the location of the home and the quality of the house"*. Participant 41 (female social worker) described the damage to homes, saying: *"There were cracks in the ceilings, damage to floors, cracks in the interior and exterior walls, and sometimes even the demolition of some exterior fences and also total or partial damage to furniture"*. Participant 5 (female social worker) shared her personal experience: *"The ground floor had completely gone, and we stayed on the second floor until the next day"*. Participant 18 (service user mother) said: *"When we returned to the old house, we found it was so badly damaged that we couldn't live in it any more"*.

Some people evacuate their homes because they are in danger of collapsing totally, and their physical capital is not solid. However, many social workers and NGO workers noted that Omanis of all economic levels generally have a high level of social capital and are usually invited to stay with other family households when challenges arise.

By contrast, foreign workers, who largely had lower social and economic capital and could not afford safer accommodation, would benefit from the shelters; these were mostly government schools provided by the Ministry of Education or sports centres provided by the Ministry of Youth, Culture, and Sports. Participant 5 (female social worker) said: *"Most of those who came to the shelters were foreigners, while there were only a few Omani families"*. Some hotels and apartment owners offered their properties to house affected people. The authorities selected designated shelters people affected could use depending on their geographical location away from the disaster site. In Oman, they are available to everyone who is affected and needs to use them, but they are mostly used by those who do not have the option to go to their relatives or pay to stay in hotels. This was mentioned

in the data, for example, participant 28 (male social worker) said: *"Omanis usually go to their relatives or even move to stay in hotels when they feel that they might be in danger"*.

This study found that some individuals suffered damage to their homes and had to resort to alternative solutions. These are the people who are vulnerable to disaster as they live in houses made of clay, or older houses built of cement which are not regularly maintained. People whose houses are made of organic materials are also more vulnerable to natural disasters; their dwellings may originally have been made for animals, or may be an attachment to a main cement-made house. These homes are inhabited by people with limited economic incomes, such as those who depend on monthly government assistance and migrant workers on low wages. In contrast, people with high incomes lived in more substantial homes of reinforced concrete that were able to withstand hurricanes and depressions. These people are often the least affected by natural disasters. Others were in cement homes, but they were constantly and properly maintained. The location of the home and the strength of its structure were critical factors of physical capital and reduced the level of impact on households. Participant 7 (male social worker) shared his experience of having a new solid house, saying:

*Our house was still among the areas affected by the hurricane, but thank God our house is new, and in a high area, so my family settled in the house. You know, some of our relatives came to stay in our house, because their house is in a low area and risked being damaged.*

Another example of this was given by participant 36 (service user father): *"We were told that we must go to a shelter, but our house, praise be to Allah, is new, so we stayed in it, and we didn't go to a shelter"*. When asked if he would go to a shelter if his home were likely to be destroyed, he ruled out the idea because of his social status. His family's reputation and prestigious job enabled him to think of other options, such as staying in a hotel or going to a relative. This shows that people with high physical, social and economic capital are better able to cope smoothly with disasters. Many participants from all sample categories agreed that shelters, even if well-equipped, cannot be as clean and comfortable as individuals' homes. For example, participant 8 (male social worker) said: *"Honestly, I understand why some people are upset in the shelters because they have lost the comfort they had in their homes and are tense about the situation"*. Therefore, individuals often try to find other, more comfortable alternatives before deciding to go to shelters.

It is clear from these testimonies that individuals vary in their positions on Maslow's pyramid. The responses of participant 36 (service user father) show that the motivation for his behaviour was based not so much on meeting his basic needs but rather on meeting his need for self-esteem, higher up the hierarchy. Although McLeod (2018) pointed out that individuals may move back and forth between the different levels of need, individuals who have strong financial, human, social, and cultural capital are unlikely to move down the hierarchy of needs.

Others were initially less fortunate. Participant 15 (service user daughter) explained how their house was affected by natural disasters, but was later repaired:

*Cyclone Gonu was the natural disaster that affected my family most because our home was very old, unlike now, when it has been repaired. Then, when it rained, rain entered from the roof because the roof had cracks, and water accumulated in front of the house and came in through the main door because it wasn't very high off the ground. The situation was very bad, but now it is much improved.*

The participant above did not have strong economic capital to restore their old house. However, after they received a grant from the state to repair the house, it then became capable of withstanding disasters, thus strengthening their physical capital. The old house made them more vulnerable to natural disasters, but when the house was repaired with solid cement, this reduced their vulnerability.

The data also revealed a crucial point regarding the destruction of homes. Participant 9 (male social worker) said that the problems of homes being destroyed were exacerbated in cases where entire neighbourhoods were destroyed. When this happened, it was not easy to quickly provide compensation to those affected because there were cumbersome administrative procedures to go through, and a large budget was needed to cover the high costs. This happened to whole residential communities in Cyclone Gonu in 2007. Affected people were housed in with temporary mobile homes, known as caravans, until permanent homes were built for them. Participant 21 (service user mother) recounted her experience:

*Living in caravans was tiring and difficult. It is true that with the goodness of Allah and the existence of the government, water was provided to us, and electricity was free of charge, but living in the caravans was very difficult. We*



*lived five difficult years with mice and scorpions, the water was leaking from the pipes, and we experienced electric shocks. Our lives were turned completely upside down for five years; honestly, we were really wretched in those caravans.*

It is clear from the previous statement that living in these temporary homes was neither easy nor comfortable, and the difficult living conditions had psychological implications.

The disaster also meant that many lost most or all their belongings when their homes were damaged, including clothing, school and work supplies, furniture, electrical goods, electronic devices, and vehicles. Some of the affected people lost everything, as participant 16 (service user mother) said: *"On the day of Cyclone Gonu, everything went with the water; we had nothing at all left in the house"*. Participant 22 (service user mother) said: *"Due to the hurricane, our things and clothes were all gone"*. Participant 18 (service user mother) said: *"They [the children] lost all their school supplies"*. Some working people also lost their uniforms when their homes were damaged. As participant 17 (service user son) explained: *"They [the workers] basically had lost their work clothes in the disaster and came in casual clothes till they got new work uniforms"*. People affected by natural disasters also suffered from damage to their furniture and the failure of their electrical and electronic devices due to their being submerged in water, as participant 43 (service user son) said: *"We lost the rugs and sofas"*. Participant 18 (service user mother) also said: *"The whole house was affected. The entire house. Even electronic devices did not work"*. Some also lost their vehicles, as participant 5 (female social worker) commented: *"Some people lost their car and were given aid by the governor's office"*.

Another effect reported by several service users was the issue of power outages caused by damage to the infrastructure, this in a situation where it is impossible to live without electricity. As Oman has intensely high temperatures for over half of the year, often above 40 degrees, living without electricity-powered fans and air-conditioning is extremely difficult. This issue alone forced some people to move to another area, as participant 22 (service user mother) said:

*Three days later, we returned to our house. We cleaned it and put everything back in place. But there was no electricity, and it was July, a very hot month, so we moved to Tiwi province and rented a house for a month because, with no electricity, we could not stay in the house.*

Participant 35 (service user daughter) described the same problem: *"They [officials] did not bring an electricity generator with them...So when our electricity was off after that, there was no source of electricity for us during that time"*. Some of those affected explained that the disaster was not limited to the power outage but also damaged the electrical wiring. Participant 36 (service user father) said: *"I also paid to change the electrical wiring in the house"*.

The data indicated that damaged houses were a significant issue and a major expense. Some service users, however, have strong economic capital and could thus deal with the damage themselves. When participant 20 (service user daughter) was asked about applying for assistance, she said, *"No, no, I repaired everything myself before they came"*. She explained that she could afford to pay for everything needed for the repairs and that she organised the work herself, as she could not wait for the delay that would have occurred if she had waited for the Department of Social Development to help. It is clear from the situation above how strong economic capital enables people to manage their affairs in the absence of sufficient and timely state assistance.

In contrast with this, the recovery time for those without economic capital may often be long. Families without strong economic capital are not able to recover quickly. Indeed, if these families have to wait for state assistance and are later hit by another natural disaster, the weakening of their human and economic capital will decrease their ability to keep recovering over time, and the delayed arrival of the services they need may make them even more vulnerable to other disasters. Wilson (2012) argued similarly that the resilience and vulnerability of a neighbourhood could best be visualised based on how different forms of capital are developed and how they interact.

The most common problem that appeared in the data is the problem of delayed compensation for new homes. Several affected individuals, including participant 19 (service user father) and participant 18 (service user mother), said that the delay in obtaining a new house in the first disaster meant that they were still living in the damaged house when they were hit by the next cyclone. After this, the house was no longer habitable, and officials were forced to expedite the delivery of their new home. Participant 19 (service user father) recounted his story: *"When I came home and saw the situation, I filmed a video of the house, how it was destroyed and completely drowned, and all our things were lost. We couldn't live in it anymore"*.

Sometimes the service provided, rather than dealing with the problem, may actually increase people's vulnerability and weaken their resilience. Participant 18 (service user mother) told her family's story:

*Our house was close to the sea, and when the cyclone hit, the whole house was destroyed, so they gave us a new house far from the sea. But what is the problem? It is the valley, the path of the river while it is going to the sea, that passes through our house and causes us harm. The area in which they built the houses is not appropriate as it is at a point in the valley crossing.*

Because their new home is located where a river will flow during storms, they will still be affected by weather-related events. Authorities must therefore be very careful that measures they take will actually reduce people's vulnerability; the location of alternative housing is a key issue. Another is the quality of the temporary housing provided for affected people, as recounted by Participant 21 (service user mother) quoted earlier. She added: *"When there is rainfall, the caravan drips water, but praise be to God, there has not been a strong hurricane while we have been living in the caravan, or else we would have suffered more damage"*.

As well as losing houses, many service users also lost many or all of their goods, but some had strong social ties with relatives, who provided them with the supplies they needed. Participant 15 (service user daughter) said: *"We did not have enough money to solve all our problems. But when the whole family cooperates, you do not need help from outside. You can stand again, solve your problems, and recover from the damage"*. However, other service users were in a very different situation, with deficient levels of various forms of capital. Participant 16, for example, (service user mother) explained that she does not have money, does not have people to help her, and does not have the skills that would enable her to claim her rights from the competent authorities. Due to this lack of capital, they could not do anything to improve their situation, as she explained: *"We did not go anywhere; we left the water to dry on its own. Then, we cleaned the yard"*. These testimonies show very clearly how natural disasters effect different people differently (Park and Miller, 2006). In the disasters in Oman, those who lacked access to resources or lived in poorer circumstances before the disaster tended to be worst affected by its immediate impact, a situation that also shows how human capital is also shaped by factors beyond the individual.

Studies show that rural people and farmers are impacted differently from other groups in other locations when climate-related disasters occur (Javadinejad, 2019). In rural communities, people raise livestock and grow crops, so major issues in rural communities include the loss of animals and destruction of farms. This was experienced by several rural participants. Participant 22 (service user mother) expressed her sorrow: *"We even lost our sheep; we have nothing except the clothes we wear"*. Participant 35 (service user daughter) said:

*The houses in the mountains and animal shelters are built of aluminium sheets and are not solid. I remember the animal shelter of our neighbours; the roof completely flew off. Also, the same thing happened in the second village; a whole house and the store for fodder were wholly destroyed.*

Participant 43 (service user son) also bemoaned the loss of their farms and said: *"Unfortunately, the hurricane destroyed our crops and uprooted many of them"*. Research has shown that natural disasters are increasingly causing damage to agriculture, especially to subsistence farmers (Kesavan and Swaminathan, 2006; Saldaña-Zorrilla, 2008). Heath and Linnabary (2015) also highlighted the issue of pets in disasters, arguing that most animals are likely to run away and get lost or are simply abandoned when their owners' lives are disrupted by changes such as moving to a different location.

Losing livestock and crops means damage to people's sources of income and leads to financial losses. One example was given by participant 37 (service user father), who said: *"I know some people whose boats were damaged and who were unable to go out to sea for a while"*. Similarly, participant 1 (male social work manager) indicated that a number of people had their sources of income ruined. Agricultural projects, fishing boats, fishing equipment and craft projects were destroyed, causing major damage to the owners' economic capital. Al-Zaabi and Al-Zadjali (2022) similarly emphasised that fishing and agriculture, the primary sources of income in the area they were studying, were severely affected by Cyclone Mekunu in 2018. Studies by researchers such as Islam and Abd Wahab (2020) also found that people's post-disaster household income dropped significantly compared with their pre-disaster income, causing a reduction in their economic capital.

Some service users reported taking time off work during natural disasters. As participant 35 (service user daughter) said: *"They gave us leave during the whole period of the hurricane"*. Although allowing employees to not go to work during natural disasters helps

reduce risks to workers, it may cause losses to employers. Some private companies greatly affected by work interruptions take strict measures against absenteeism. Participant 17 (service user son) told a surprising story:

*After 10 days, the workers came back to work and told us about the whole situation. I had seen what had happened to them, and I said yes, what they said was true. The company official came and told me that as long as I had witnessed the situation and could confirm the workers' story, the company would help them by providing new work uniforms.*

Fortunately, in this case, there was someone who could testify about the harm the workers had suffered and the reason for their absence from work. If there had been no witnesses to speak up for them, even though they were cyclone victims, the company could have cut their salaries for the days they had missed or might even have fired them. This would cause a major disruption to their economic capital, as in their situation even a small material loss can have very damaging effects.

### **6.2.3 Psychosocial impact**

The data on the psychosocial impact of the disasters revealed a disparity between the beliefs of professionals, especially at management level, and service users. Some religious practitioners and professionals, particularly at management level, believe that the strength of the cultural capital of Omani society helped service users in their psychological well-being, given their reliance on the fundamental Omani values of patience and endurance. They argue that strength is gained through people's commitment to Islamic values, which see natural disasters as fated; they must therefore be accepted. Participant 1 (male social work manager) explained this belief:

*In our experience, these cases [of psychological harm] do not occur, perhaps because most of the disasters that have occurred during our time were natural disasters. The members of our society are aware that natural disasters are beyond the control of anyone, including the state. Omani society is a conservative and religious society and views such events from a completely different angle, seeing them as a fate that must be accepted. So, we have not found that natural disasters have had a social or psychological impact.*

It is generally accepted that natural disasters can be attributed to human activities, such as use of fossil fuels and the resultant increase in greenhouse gas emissions (McMichael et al., 2006; Khan, 2012). However, in Oman it is also widely believed, but not by all the interviewees, that people with a high spiritual capital will attribute all matters, including natural disasters, to God, and will believe that everything that happens is in His hands. Through this acceptance, their spirituality increases their resilience and reduces psychological stress. It must be noted that this acceptance does not make them more vulnerable, but it does contribute to their resilience. Interestingly, their religious belief means they need to accept that the disaster is God's will; at the same time, they need to take action to adapt to the likelihood of further disasters.

Participant 4 (male social work manager) commented similarly: *"The Omani people, thank God, are strong and able to bear traumas like this, so we have only encountered a few minor physical things like sinus colds and fevers because of the change of weather"*. He sees these things arising from the bad weather though, as Ludot-Grégoire et al. (2022) argued, they may be bodily signs of psychological distress.

However, many other participants, particularly those heavily affected by one or more disasters, indicated that the experiences had a heavy psychosocial impact. The human and economic effects of disasters, such as the death of family members and damage to property, felt overwhelming and caused a great deal of distress to those experiencing them. For example, Participant 15 (service user daughter) said: *"You know that the situation was very difficult, and we needed someone to talk to about what happened. I felt better when I spoke to my classmates at school about what we had been through"*. Here, social capital gave a degree of psychological relief. Participant 43 (service user son) also said: *"The woman whose son died was badly shocked because he was the one who took her to the hospital and brought her back, and they had been fine, and suddenly she lost him"*. The examples found in the study indicated that it was mainly school-age children and women who suffered most socio-psychological harm. This is perhaps unsurprising as they are two of the most vulnerable groups; they are also groups who may find some level of comfort from discussing their psychological distress with friends and peers.

Some social workers and NGO workers highlighted the level of people's fear before disasters and how this affects behaviour. One behaviour they identified was that many people reacted to warnings of the coming disaster by panic-buying and storing excessive amounts of foodstuffs. Participant 8 (male social worker) said: *"When citizens were sure that the cyclone was coming, they rushed to buy food"*. Some people see these crises as

a fundamental threat to their life, security and goals; because of this, they try to secure what they feel they need, storing as much as possible regardless of the effect this might have on others. Some individuals, it was noticed, also tended to accumulate aid for themselves without taking the needs of others into account, thus depleting social capital.

Interviewees, mainly service users, mentioned feelings of fear and shock during and after disasters, alongside exhaustion. Participant 18 (service user mother) said: *"We felt drained and worn out by what had happened, and we were very afraid"*. This view was also echoed by participant 15 (service user daughter), who said: *"We were shocked to see the condition of the house. There was water everywhere, and all the home supplies were destroyed"*. She added:

*We were afraid because we expected to drown at any moment because the water level was rising so dramatically...My little brothers started crying when the electricity went off...When you see your house being destroyed and you know you can't live there any more, this has a massive impact on your psychological state.*

Participant 35 (service user daughter) said: *"There is a side of our place where the wall is broken, and a tree was struck by lightning and was knocked down, and people in the area said it seems as if we were experiencing doomsday. It was horror, horror, and horror"*. Similarly, participant 37 (service user father) said: *"The lightning strikes were continuing, and we could see them clearly, the same lightning strikes that occur in the films and drawings, but this was the first time we had seen anything like this on the earth"*. Participant 1 (male social work manager) described one incident in which he himself was involved:

*We received a call from the embassy that a family of foreigners required intervention. So, we looked at their demands and took action. The situation was that the father was not in Oman and was worried about how his family was doing. The wife and children wanted to go home to their country and needed to be helped. Moreover, the family was in shock and very anxious, so they needed the intervention of social workers.*

Some people's accounts indicated that these psychological effects did not end when the disaster ended, but continued after the disaster. Participant 35 (service user daughter) said:

*Even after the hurricane ended, no one cried for the people who had died because we were in shock. The shock of the hurricane was still present and dominating everyone, and after the hurricane, we would suddenly have crying spells because, honestly, the situation was very horrendous and terrifying.*

Fahm (2019) unsurprisingly found that disasters significantly impact people's emotions and behaviour. The effects of disasters were terrifying for most of those affected when they occurred, but after the initial shock, panic levels varied among those affected; this depended on the strength of their various kinds of capital. The stronger their capital, the easier it was to find strategies to deal with and recover from what had happened.

The case of participant 16 (service user mother) is an example of a person with high vulnerability and impoverished capital. Sadly, she described how insecure a state they were in, both financially and psychologically; in her own words: *"our conditions are difficult"*. Regrettably, she has low economic capital as her husband is unemployed and an alcoholic. She has low social capital because the members of her family do not get on or work together. In addition, she is uneducated, depleted of human capital, and has neither the knowledge nor the skills to claim support, which puts her among the most vulnerable. She is less able than others to manage the impact of disasters and is also more likely to be strongly affected by them.

There were positive reports too of psychosocial support. Many service users noted the considerable support provided by relatives, which mitigated the feelings of fear and anxiety that they initially experienced from their inability to cover all the expenses of repairs and the purchase of new supplies. Participant 15 (service user daughter) said: *"We were shocked to see the condition of the house...We asked ourselves - How will we live in this house? How will we get the things we need?"*. She stressed, however, that when people have the support of family and relatives, they will overcome this fear. Participant 37 (service user father) said: *"I received many calls from my relatives asking me if I needed any help in getting anything"*. This is a clear illustration of the immense importance of social capital in speeding up disaster recovery.



Some measures intended to help unfortunately had negative psychological and social effects; this was especially true of the provision of temporary mobile homes, also called caravans. Participant 22 (service user mother) said: "*The caravans are so small that you can't visit anyone; there is not enough space for guests*". Participant 30 (male NGO manager) also acknowledged the problem:

*Indeed, I do not deny that these caravans are narrow and not like what Omani families used to have, but the situation was difficult for us as well because it was the first experience, and we were not prepared for the situation.*

Omani society is characterised by hospitality, generosity and warm social relationships which are shown in the constant visits between relatives and friends (Abuiyada et al., 2016). However, the families temporarily housed in caravans were unable to carry out this everyday activity during their stay, which often lasted for years, as shown by the testimony of participant 21 (service user mother) recounted earlier. This family clearly did not have the robust economic capital that would help them find a more comfortable home and move out of the caravan, they simply had to be patient and wait until they received a new home from the state. When asked if she could benefit from her social capital and live with one of their relatives, the mother replied that they would not feel comfortable doing that for years. She explained: "*We will feel like a burden to the host family. It is easy to stay with a relative for a day or two, but not for years*". While social capital has been an effective tool in responding to natural disasters in Oman in that people can rely on it for material support such as housing and food as well as psychosocial support, it does have limits. The comment above and testimony by other individuals made it clear that social capital can be relied on for a short period but not for an extended one. Hawkins and Maurer (2010) found similar situations in Hurricane Katrina in the US in 2005, noting that while the bonding and bridging forms of social capital are essential for immediate support, it is the linking form of social capital that is vital for longer-term survival. Assistance from state institutions, and from those with higher status and greater power in society, is thus essential in the long run.

However, such state assistance can also be a source of stress, as was seen in the administrative processes involved in applying for and receiving assistance. Participant 17 (service user son) expressed his concern about applying for aid:

*Some of the citizens did not go to the social development authorities to seek help. In my case, I was affected by the recent bad weather, but I didn't go to the Ministry of Development. The people from the ministry should come themselves and see what has happened and inspect the conditions people are in. The problem with them is that when you ask for help, the matter needs time and follow-up! They don't take care of you immediately!*

The stress created by the bureaucratic nature of the procedures involved in applying for assistance or securing safe housing was also found in studies in other countries, such as that by Krug et al. (1998) in the US.

Numerous studies show an increase in post-traumatic stress disorder and depression among the victims of severe natural disasters (Krug et al., 1998; Kane et al. 2018); this can sometimes lead to thoughts of suicide. This could be attributed to the short-term and ongoing impact of disasters on those without strong capital; they are also affected by lack of hope for the future. Studies show that suicide rates increase after people have experienced severe floods, earthquakes, and hurricanes, which makes it all the more important to provide mental health support during disasters.

### **6.3 The impact of natural disasters on communities:**

Disasters affect not only individuals and families, but also whole communities, and may cause infrastructural destruction, disease, homelessness, droughts, and famine (Mhlanga et al., 2019). In this study, interviewees stressed two key issues affecting communities: the destruction of streets and of public buildings.

#### **6.3.1 Streets and roads**

The data revealed that natural disasters affected communities and infrastructure. Both service users and service providers described the damage to streets, which means damage to physical capital. They explained how road damage disrupted their ability to move around and contact others, limiting and reducing social capital in situations of significant dislocation. Indeed, the destruction of roads affected both service users and those attempting to assist them. Participant 36 (service user father) said: *"We contacted the concerned authority to tell them about the water pooling...thankfully, within half an hour, the road was opened"*. Some streets may be reopened within hours; those that were badly damaged took longer to repair, as participant 35 (service user daughter) explained:

*We were given an emergency vacation during the period of the hurricane, and also when the hurricane ended, because the Salalah road was broken, which meant that we could only get to Salalah on another road. We had used this old road before the new road was constructed and now we had to use it again so that we could still go to work and university.*

The repair process takes longer in cases where the streets are severely damaged. As Al-Zaabi and Al-Zadjali (2022) explained, poorly constructed urban drainage systems mean that many areas and roads become flooded with large pools of water and debris. However, the extract above shows that strong human capital can make it easier for those affected to find alternatives when their physical capital is being affected and they are trying to maintain their normal routines without disruption.

### **6.3.2 Public buildings**

Physical damage also affects public buildings. Participant 6 (male social worker) described damage to schools, health institutions, sports centres, and shopping centres. Participant 15 (service user daughter) referred to damage to a lake, which was a tourist and recreational site, and thus an important part of the community's physical capital. As she said: *"The lake was completely damaged and destroyed, and people did not visit it for a long time, and it was only restored after a long time"*. Participant 43 (service user son) also mentioned damage to a community facility, saying: *"The mosque in the neighbourhood was also damaged, but it was not much, praise be to God, because it is new and not old"*. The mosque was new and well-built, therefore representing solid physical capital, largely able to withstand the force of the cyclone. Participant 42 (male NGO worker) discussed the corniche being destroyed; he stressed the need for the municipality to carry out urgent repairs, as people would go there for sport and exercise and young people also gathered there in the evening.

There is a close relationship between economic capital and physical capital. Strong economic capital helps build solid services and thus represents robust physical capital. Having strong economic capital also allows the state to quickly repair any damage to physical capital; strong physical capital also facilitates the building of economic capital.

## **6.4 The impact of natural disasters on the provision of state services:**

The data collected showed that natural disasters could prevent state agencies from responding as quickly as was needed, or on a sufficient scale. Indeed, such agencies might themselves be vulnerable to disaster-related damage and disruption.

### **6.4.1 Impact on management systems**

Disruption to physical capital, particularly street damage, can disrupt disaster management and service provision. Service providers noted that the destruction of roads, and blocked roads, could be a major obstacle to getting aid to affected people. As participant 2 (male social work manager) explained:

*In Cyclone Mekunu, some roads in the western region were destroyed. And although supplies had been prepared, the road cuts stopped us from delivering them; this was a big problem because the western region was running out of supplies. It was a very, very tough lesson for the committee.*

Al-Zaabi and Al-Zadjali (2022) pointed out, similar problems were experienced in Cyclone Mekunu in 2018 and the Dhofar Depression in 2020. In both disasters, many roads between cities became inaccessible, and many roads connecting different areas to the city centre were severely damaged because they were in the path of a flash flood. As a result, villages became isolated, and whole communities were cut off from supply lines. This finding mirrors descriptions of disasters in other countries (Mhlanga et al., 2019). Their consequences can undermine access to social services such as health, education, food, water, and sanitation. It is therefore important that roads be properly maintained at all times through cleaning and other repairs, so that they can be reopened as quickly as possible to facilitate the process of assisting those in need, and to preserve the physical capital of the community.

The damage that occurs is not limited to roads but may also affect government buildings. Participant 8 (male social worker) noted: *"One of the problems that we faced in Cyclone Guno was the sinking of the police headquarters...The place sank completely, and the police had to use boats to escape"*. Physical infrastructure such as roads, bridges, dams and levees all make up the solid physical capital necessary to deal adequately with disasters (Mayunga, 2007). Communication and transportation systems are also vital parts

of this. It is important to provide key facilities to ensure people can access resources and support arrangements during emergencies.

One significant point that emerged from the interviews is that a disaster is often accompanied by chaos, with community authorities not having clear roles in unprecedented situations, and normal systems being disrupted. Participant 12 (male NGO worker) described the arrival of a truck carrying supplies: *"There was nobody there, but when we arrived, everybody gathered around the truck"*. Researchers such as Gibson (2006) and Farazmand (2009) note that chaos is normal and to be expected in crises and emergencies. Helsloot and Ruitenberg (2004) take an opposing view, claiming that individuals' behaviour does not change in times of disaster, and arguing that citizens - at least in Western societies - act rationally in disaster situations as they do in daily life. However, this is a minority opinion; most researchers, such as Arafat, Kar, Marthoenis et al. (2020), argued that it is normal for people to panic during disasters and calamities, because their normal balance of life is being threatened, and they therefore behave in uncharacteristic ways.

Interestingly, this study found that people's panic reactions in disasters often disrupt the provision of emergency services. One possible reason for this is that, in times of crisis, people struggle to obtain what Maslow's hierarchy defines as their most fundamental living needs, such as food and clothes and shelter. People may well become desperate and behave uncharacteristically when these necessities are threatened, and chaos is then to be expected (see 6.2.3). Both panic and hoarding behaviours rise dramatically if a scarcity of necessities develops, indicating that it is crucial to provide the basic necessities to as many people as possible to reduce their feelings of insecurity.

However, some observers interpret this behaviour differently, simply as people taking any opportunity to gain supplies for free. Participant 10 (female NGO manager) described her experience and response to it:

*Some families exaggerated what they needed, and we felt they were greedy and wanted to store extra supplies for nothing, so I delivered what we felt was an appropriate number of supplies and handed over the rest to the Ministry of Social Development.*

Mallick et al. (2011), in their research in coastal Bangladesh, also noted that some people were taking any opportunity to gain supplies for free. They might report more damage than they had actually suffered in order to obtain the greatest amount of assistance available; this could result in their receiving services to which they were not entitled (Dominelli, 2015).

However, the data from this study showed a rather different attitude; even in natural disaster situations, many people in Oman felt that there was stigma attached to getting help from state services. Participant 35 (service user daughter) said: *"They distribute a variety of food in the area, but frankly, we only go to take what we lack because my brother says it's shameful to ask for many things"*. Participant 37 (service user father) explained that while the authorities were distributing food, blankets, and clothes, he could not ask for any help from them because of his high economic and social level. He saw the assistance as being only for needy people who could not meet their needs on their own. Krishna et al. (2018) and Ganapati (2012) found similar perceptions in their research, highlighting that people were often reluctant to request or accept help due to stigma. Survivors may feel ashamed to ask for help and are aware of the stigma towards people with disabilities, the homeless, and those who frequently seek support.

#### **6.4.2 Impact on service employees**

One important point that must be borne in mind is that NGO workers, social workers, and others providing support are themselves vulnerable to disaster-related loss, destruction and disruption and may themselves suffer psychosocial damage. Participant 25 (male social work manager), for example, described his sadness when he learned about the death of a family member. He was distraught because of how he heard the news, not through a consoling call from one of his relatives but as a coincidence:

*Suddenly I checked Twitter; I remember it was in the month of Ramadan, and I saw the name of a girl who had passed away. It was my niece. By the name, I knew her! I called my family and my brothers, but no one answered!*

He discovered this when he was in a shelter providing support to others at a time when he himself needed consolation. Participant 5 (female social worker) recounted her experience and the difficulties involved:

*In Cyclone Gonu, we were working while everyone else was on vacation. I remember that I could hardly reach the house because the street was covered with water, and I could not even see the roundabout and the sidewalk. Can you imagine this when I was pregnant as well?*

Participant 4 (male social work manager) also barely survived while providing services for people staying in the shelter. He said: *"We were bringing lunch and coming from the al-Khoud area, and the roads were broken up and cut off. We could have died because the truck almost flipped over but thank God, we survived"*. It becomes clear that service providers are also working in dangerous conditions, which can lead to poor service quality or delays in reaching the affected people. It is clear, therefore, that professionals must receive training in managing disaster situations, and this must include how to pay attention to their own safety and well-being.

## **6.5 Communication issues**

Perhaps the most overarching issue that emerged throughout the analysis of the different impacts of natural disasters was that of the importance of communication networks. Communication is a key element of physical capital, and the ability to maintain a communications network during natural disasters indicates the availability of strong physical capital. A good communications network is vital to mitigating the severity of the effects of a disaster, and to the facilitation of service provision. The most prominent aspects of communication are the dissemination of warnings and general information, communication between family members and relatives, and support for the provision of services.

### **6.5.1 Public information dissemination disrupted**

The data revealed that any difficulty in communicating must be considered catastrophic if it leads to human losses. Participant 43 (service user son) explained how a car accident resulted from the interruption to communications that occurred. He said: *"I think that the problem that caused the car accident was the interruption of communications because the young people involved could not communicate with anyone to ensure the safety of the road they were crossing"*. There have also been a number of studies concerning the role of social media during disasters; these emphasised the important operational and emotional support roles played by social media in communicating the severity of the disasters and in providing updates on the situation (Al-Saggaf and Simmons, 2015).

Participant 43 (service user son) also explained that no one knew what was happening because the channel from which they had heard the news of the hurricane stopped working. When the wind and rain stopped, everyone, including the nurse and doctor at the school, returned to their places based on the assumption that the hurricane was over and the medical staff returned all the medical supplies. Unfortunately, they had an elderly lady suffering from a lack of oxygen, and her oxygen supply had run out. Fortunately, her son demonstrated strong human capital by effectively managing the situation and responding quickly to his mother's medical emergency. Firstly, he was able to identify that his mother was suffering from a lack of oxygen, which suggests that he has some medical knowledge. Secondly, he was able to take quick and decisive action to transport his mother to the hospital, which demonstrates good decision-making skills and the ability to act under pressure. The son may have had prior experience or training in emergency situations, which could have contributed to his ability to handle the situation effectively. Skills such as communication, problem-solving, the ability to drive in cyclones, and finding accessible routes can be considered strong human capital. He also has good physical capital as he owns a four-wheel drive car, so he could immediately take her to the hospital. Fortunately, she was treated immediately and they returned home safely. The weak physical capital represented by the interruption of communication channels could have caused severe damage but the son's physical and human capital helped him save his mother's life.

Participant 43 (service user son) emphasised that losing communication may mean that some people get lost with nobody knowing their whereabouts: *"There are people who are lost, and there is no one who knows about them, but if there were a wireless telephone at least in the schools, they would know whether they were fine or whether they needed anything"*. When asked whether these people were found safe, he said: *"There was a tradesman in our area who has road-building projects, and he has a wireless telephone; thankfully, he contacted the shelter in the other district and found that they were there and safe"*. Loss of communication may indeed have harmful consequences. Participant 43 (service user son) gave an example: *"Indeed, these people thought that the hurricane had ended, so they went to check on their houses and animals, but unexpectedly the rain came back. When they saw the rain, they entered the nearest shelter they could find"*. The human capital of these people helped them to act sensibly, as they realised that it was too dangerous to go back and found a shelter that would keep them safe.

While everyone has the potential to develop human capital, there are several factors that can influence an individual's ability to do so. These factors include socio-economic



background, education and training, health and well-being, personal motivation and initiative, and cultural and social factors (Sodirjonov, 2020; Sagikyzy et al., 2021). For example, individuals from high socio-economic backgrounds have more resources available to them, such as financial support or access to mentors that can help them develop their human capital. In contrast, people from low-income or marginalised communities may not have the same access to these resources and may face barriers which can limit their ability to develop human capital.

The story of the road-building tradesman shows that he has strong human capital, as in his intelligence and foresight in acquiring a wireless telephone for emergencies (when these phones were not yet common), as is the strength of his economic capital that enabled him to purchase the device. The phone itself represents his physical capital in that it enabled him to deal with the situation and reassure everyone about the missing people.

Some efforts were made to enhance physical capital by maintaining communication and providing the population with updates on what was happening. Efforts like these, however, need to be greatly improved, and communication systems must be upgraded to make them disaster-proof. Participant 35 (service user daughter) described their failure in one disaster:

*We did not know that rain was coming because the communication networks were cut. And even the channel that was provided to us to follow to know the latest developments in the hurricane - called the emergency channel - became unavailable and stopped working.*

The failures in the communication systems can be attributed to the country's low physical infrastructure at the time; the impact was sometimes devastating. The authorities at the shelters failed to warn people that there was more rain coming so they should not try to return to their homes, and should take precautions if they did. In addition, in these situations, guides from the civil defence unit must travel through all roads and check that they are safe, before other people are allowed to travel on them. Failure to do this can cause accidents, injury and death. The roads in the situations described by service users were broken and full of debris, but unfortunately, nobody had considered this, and people left the shelters without any information or guidance.

### 6.5.2 Family disconnection

Family communication and support play a massive role in natural disasters, but if the disaster causes any disruption of the communications network, it will also disrupt family connections. People cannot contact family members and do not know if they are safe. A disturbance in physical capital may thus lead to a disruption in the social capital. Participant 3 (male social work manager) said: *"As for the social impact of hurricanes, contact with family, relatives, friends and colleagues is interrupted and sometimes cut off altogether, which has a huge social impact"*. Participant 15 (service user daughter) explained how they made the right decision when the connection was lost, and no one could communicate with them if something happened. However, they benefited from their human and social capital when their physical capital was in trouble:

*They [their relatives] called as before and told us to come to their house, but we told them that we would stay at our home, and everything would be all right. But when the cyclone became stronger, the signal cut out, so we could not contact anybody. At that time, we decided to go to their house...They said we made the right decision because the cyclone would be stronger tonight.*

Loss of contact makes all parties anxious. The affected party cannot ask for help when they need it, and their family and friends cannot communicate to check on them. There have been several studies about the role of social media during disasters; they all emphasised the important operational and emotional support it has provided, not only in helping families and friends connect and in providing reassurance about people's safety, but also in requesting and receiving material aid (Al-Saggaf and Simmons, 2015).

### 6.5.3 Service provision interruption

Breakdowns in communication, a loss of physical capital, affects not only those affected by the disaster but also those providing support. It was frequently difficult for different work teams to communicate with each other because of network breakdowns. Participant 25 (male social work manager) said: *"Sometimes the interruption of communication between work teams is the problem. Sometimes communication is interrupted because the networks are unavailable"*. Social workers suggested that Al-Thuraya satellite phones should be provided in these emergency circumstances. Participant 4 (male social work manager) advised:

*There was loss of communication, and we could not always get through to the authorities we needed to speak to...From my point of view, it is necessary to provide the Al-Thuraya phones; they are connected to satellites, so the networks are not interrupted, and they maintain continuous communication.*

Participant 29 (male social worker) made a similar comment: *"Every group that goes to remote centres must be provided with a special method of communication, for example, an Al Thuraya phone, in case they lose contact, or an accident happens"*. Maintaining communication networks is therefore a powerful aspect of physical capital that enables both affected individuals and service providers to effectively manage the disaster.

## **6.6 Positive impacts of natural disasters**

While the main effects of natural disasters are clearly negative, the data did show that the participants' experiences also had some positive impact.

### **6.6.1 Strengthens social bonds**

One positive effect of a natural disaster is the strengthening of cooperation within a family and the improvement of relationships between family members. Interviewees frequently noted that extended family could be relied on as support systems. If a family member needs help, relatives generally do not hesitate to come to their aid and even see it as a welcome opportunity. The service users noted the considerable support provided by relatives, as with participants 37, 43 and 15 quoted earlier. These testimonies show how natural disasters can strengthen people's relationships and improve their social capital. Arguably, bonding is the most appropriate method for simple direct support and is the most appropriate method for short-term recovery. Family relationships can be reinforced by stressful situations that require people to help each other (Hawkins and Maurer, 2010).

Several studies, however, such as that by Newburn (1993), point out the negative effect of disasters on relationships, for instance between partners or between parents and children. Mathbor (2007) referred to Snowden (2005), who argued that community social capital reduces community distress, but the reverse is also true as community distress may suppress social capital. However, the data from this study showed that while the disaster may weaken social capital due to the disruption of communications and road networks, this only lasts for a short period. As soon as communications become available

and the direct effects of the disaster are over, social relations strengthen, and various forms of assistance and support appear. Participant 35 (service user daughter) said:

*When the communications network was cut off, we lost contact with my sisters, who are married in Salalah, but as soon as the communications returned, we contacted and reassured each other. As for the roads, as I told you, the new road was destroyed, but we started using the old road, and thank God we were able to visit each other.*

It is clear from the previous statement that social capital is disturbed at the height of the disaster (see 6.5.2), but later it may become even stronger than it was before the crisis (see 6.6.1). Indeed, crises create opportunities for support and solidarity and make individuals feel surrounded by supportive social relationships that mean they will not suffer alone.

### **6.6.2 Raising disaster-awareness**

Another positive impact of the disaster, revealed by the data in this research, was that the disaster awareness of the community did increase once they had experienced a previous disaster. Participant 8 (male social worker) compared reactions to Cyclone Gonu (2007) and Cyclone Phet (2010), saying:

*We did not face difficulty evacuating people during Cyclone Phet, and families did not object to leaving their homes. It was very difficult with Cyclone Gonu when we were trying to get people out of their homes, and a lot of people objected.*

Another interviewee, participant 5 (female social worker), told her own story. In Cyclone Gonu, she refused to leave home, but after what she experienced then, she became fully aware of what cyclone damage could be and, as a result, understood what she must do. All the interviewees in this study suggested that their awareness - and that of the general community - had risen and that they now understood the implications of cyclones. Individuals thus enhanced their human capital through learning from their experience of disasters.

The data also revealed that some individuals had learned what would happen and how they should then behave through the shared experiences of others, reflecting their strength of social capital. They prepared for the disaster by purchasing food and other necessities before it struck. Participant 17 (service user son), following advice from an Indian colleague who had experienced natural disasters before, went to buy food and other essential supplies for his family before the depression occurred. He explained:

*I remember that an Indian colleague was with me. We went to Lulu Hypermarket, and he said, a hurricane is coming. I asked what this meant, and he said I should buy extra bread, water, candles, and everything because of the hurricane! He told me that this happens in India, and he knew what things would be like! I came home and told my mother, and she said, yes, let's get extra food and water.*

Experiencing several natural disasters helps individuals learn how to deal with them and become more resilient, which develops human capital. As Cherniack (2008) argued, individuals may become more resilient to disasters with more frequent exposure.

The literature also indicates that the awareness of individuals and communities can be raised through education. Torani et al. (2019), for example, emphasised the importance of this and examined the effect of different methods of education on disaster risk reduction and preparedness. Thus, when people are well-informed and motivated to create a culture of disaster prevention and resilience, the impact of disasters can be reduced.

## **6.7 Which groups in the research sample were most affected and in what ways?**

Risk is differentially distributed between and within communities, with natural disasters affecting vulnerable individuals, families, and communities more than others (Enarson, 2000; Howard et al., 2018). Generally, the data showed that in Oman, the groups most vulnerable to natural disasters live in coastal areas, and the risk level is greatest for people living in poverty. Children and foreign workers are also highly vulnerable.

Geographical location is a key vulnerability factor, and this study data indicated that Oman's coastal areas are the most vulnerable to natural disasters (see 2.3.2). Participants testified to the significant damage in coastal areas. Participants 21 and 22 (service user

mothers), whose neighbourhoods were on the coast, witnessed the cyclone causing destruction to many houses. The danger was doubled because these buildings were old and had many animal pens built of unstable materials. Participant 19 (service user father) said: *"When the waves of the sea rose, it rushed towards our house, broke the fence of the house, and entered the entire house"*. The vulnerability of coastal communities in Oman is increased by there being many dry riverbeds, known as wadis; when there is a lot of rainfall, these quickly fill and overflow, flooding villages, destroying homes and roads, with the water finally ending up in the sea (Al-Zaabi and Al-Zadjali, 2022).

Another reason for the vulnerability of the coastal areas around the Gulf of Oman and the Arabian Sea is that they are the most densely populated regions of Oman, with recent years seeing an increase in numbers due to the availability of job opportunities and modern facilities, and the resultant migration from rural areas (Al-Shaqsi, 2014; Al-Rasbi, 2019). Most foreign workers, who are often unskilled or semi-skilled and have low physical, economic, social and human capital, are also concentrated in the capital city, Muscat, and in the Al-Batinah north governorate (eCensus, 2022), both coastal areas. The higher the population density, the greater the risk of disasters and the more significant the impact.

A third reason for the vulnerability of coastal areas in Oman, as elsewhere, is their geographical nature; they are low-lying and can be quickly and easily submerged, while higher elevations are less exposed to this risk. People who live near the sea are particularly exposed to flooding from the sea (Mansour et al., 2021).

Interestingly, the governorates studied in this research include a mixture of rural and urban settlements, both of which are at risk, for different reasons. In rural areas, the socioeconomic effects can be severe, with farms, crops, livestock, roads, and livelihoods all vulnerable. For example, participant 22 (service user mother) lost all her sheep, participant 37 (service user father) told the story of a fisherman friend who lost his boat, and the family of participant 43 (service user son) lost their farm. The weakness of their economic capital, and the resultant weakness of their physical capital, were responsible for the fragility of their houses, animal pens, and boat covers; all these were unable to withstand disasters. Urbanised coastal areas are also prone to natural disasters because they are overpopulated and are built on low-lying coastal areas that quickly become submerged. Examples are the flooding of the police headquarters mentioned earlier and the destruction of paved roads noted by many participants. As Mansour et al. (2021) confirmed, coastal areas in urban areas of Muscat Governorate were found to be at high risk.

People living in poverty are one of the most vulnerable groups, regardless of where they are located. Due to their poverty, they often do not have the financial means to build or maintain their homes with strong, durable materials. They therefore use unstable construction materials that are more affordable but less resilient to disasters, being easily damaged or destroyed (Alston, 2007; Usamah et al., 2014). Additionally, those with low economic capital have limited access to resources and support systems that could help them recover from disasters. They may not have insurance or savings to cover the costs of repairs or rebuilding, and they may lack the social networks or connections that could help them access aid or assistance. They therefore take longer to recover than those with stronger economic capital.

However, natural disasters have far-reaching impacts not only on people living in poverty, but on all populations within exposed communities, with children being particularly vulnerable. The data from this research shows that children are largely unaware of what is happening, nor do they understand the reasons for a disaster or its consequences; all they know is that the disaster changes their normal lives. For example, participant 15 (service user daughter) explained that her younger siblings started screaming and crying when the cyclone struck. Participant 19 (service user father) also noted his daughters' unhappiness when they could no longer play on the beach they were near before the cyclone. The data also showed that children often had to drop out of school both during and after the disaster, until new arrangements were made and they again had access to school supplies and uniforms.

Although no foreign workers were interviewed for the research, many interviewees revealed in passing that this group is among the most vulnerable in the country (see 2.3.2). The shelters were the only places they could go in times of disaster as they do not have a social network in Oman to host them in difficult times (low social capital) nor could they afford to stay in hotels (low economic capital). They also lack human capital, in that few are proficient in the country's official languages, so most could not stay updated with warnings, news and official reports related to the disaster. Official spiritual support was also provided, but this was primarily in Arabic and intended to assist Muslims. This highlights another vulnerable group, those who are non-Muslim, as other religions and beliefs were not considered in disaster-related support.

The data showed, then, that the groups most vulnerable to natural disasters live in coastal areas, both rural and urban, and that risk is exacerbated for the people living in poverty,

children and foreign workers. Having an analysis that highlights the groups most vulnerable to disasters can enable more effective management of disaster response at all stages: mitigation, preparedness, response and recovery.

## **6.8 Conclusion**

This chapter has addressed both the negative and positive impacts of natural disasters in Oman, on individuals and families, communities, and the provision of state services. The impact on individuals and families addressed three main themes: human, economic and psychosocial. The chapter has also illustrated how the notion of human, social, economic, physical and cultural capital is related both to the extent of the effects of the disaster and also to people's varying abilities to respond to its impact. People with strong capital are the least affected by natural disasters; they are better able to withstand and deal flexibly with their impact. Vulnerable populations, by contrast, are the least likely to have the social power, economic resources, and physical capacity needed to anticipate, survive, and recover from the effects of natural disasters (Enarson, 2000). Those interviewed showed most agreement on the human and economic impacts of the disasters, but had different perspectives on the psychosocial impact. Some service users mentioned it directly, while social and NGO workers paid it little or no attention.

The chapter also reviewed the impact of disasters on communities, such as the destruction of roads, public buildings and other state facilities. Blocked roads, the cutting of communication networks, and disorder among disaster management services may all hinder state agencies from providing a speedy and adequate response. Service providers are also sometimes vulnerable to disaster-related damage and disruption. Interruptions to communication systems particularly exacerbate the effects of natural disasters, with the chapter presenting situations where these have led to car accidents, medical emergencies and death. The chapter has also pointed out that disasters did have positive effects, though these were far smaller than the negative results. The final section of the chapter discussed which groups are most harshly affected by natural disasters and how they are affected.

The benefit of identifying the various impacts of disasters is that it will assist in the development of plans to minimise these impacts, plans which must focus particularly on the most vulnerable population groups identified. Since the effects of natural disasters are both diverse and complex, each case considered will require the assistance of multiple services.



## **Chapter 7 :      Support in the aftermath of natural disasters: reality and hope**

### **7.1 Introduction**

This chapter explores the services provided in the aftermath of the natural disasters in Oman, particularly since Cyclone Gonu in 2007, and how they have been coordinated and delivered. The chapter focuses on four critical areas of support: material, financial, psychosocial, and spiritual. For each type of support, the discussion attempts to answer several questions: What are the needs of service users? What are service users doing for themselves? What is being delivered to service users? What is being missed? And finally, what are the problems involved in providing this support effectively? Some conclusions are drawn at the end of the chapter.

In this chapter, the interpretation of the data is based on Maslow's theory of the hierarchy of human needs and capital theory. The chapter will seek to identify the most appropriate structure for this theory and ask whether the pyramid is best treated as a strict hierarchy, a system of equivalent needs or a structure where people's needs move up and down the hierarchy (see 5.3). This will be done in the light of the findings of this research, particularly in relation to how services were delivered in Oman in the aftermath of the various disasters and to an analysis of the mechanisms of service provision. The analysis of this chapter is also related to capital theory; this too is crucial in interpreting the contributions made by service users themselves and in showing how participants' circumstances impact how they are affected by natural disasters (Fraser, 2021).

### **7.2 Material support**

The most evident finding to emerge from the data analysis in this study is the need for material support. All groups participating in the research agreed that individuals affected by natural disasters have immediate basic needs, which, according to Maslow's theory, are physiological, with food and drink, clothing and shelter being the first things that service users seek to obtain and will demand before anything else (Maslow, 1943). The provision of these services is the priority because they are biological requirements for human survival. If these needs are not met, the human body cannot function optimally, so material resources should be organized immediately (Hugman, 2010). Material services are at the basic level of Maslow's hierarchy, and other needs thus become secondary until

these have been met. Material support can also be involved in the next level of the hierarchy, the need for safety and security. That is, when most of the physiological needs of the individual have been satisfied, their need for security and safety becomes prominent; this is the stage where people seek to experience order and control in their lives. In the aftermath of disasters, this need can be met in different ways, such as people being moved away from vulnerable areas to safe places like a shelter. Overall, material support can fulfil the basic needs described in Maslow's hierarchy's first and second levels.

### **7.2.1 What are service users doing for themselves?**

The findings indicated that the needs of those affected by natural disasters were food, sleeping mats, safe housing, electrical and electronic equipment, education and work supplies, as well as repair of damaged homes and other buildings. People's abilities to meet their needs varied, as some were able to buy what they needed by relying on themselves or on their immediate nuclear family. Some had strong ties with relatives, who provided them with whatever they needed, while others relied on aid from the state. Participant 37 (service user father), for example, explained that he did not need the help offered by relatives. Indeed, the strength of his human and economic capital had come from his prestigious job, which enabled his family to cover the expenses of the damages without any external help.

Others' needs were met by help from their extended family and relatives, as was the case with participant 43 (service user son), who said: *"May God bless us with the family and relatives who stood with us. They brought us food, bedding and equipment as gifts...They would call us several times and ask if we needed anything"*. Participant 15 (service user daughter) had a similar experience: *"Our relatives who live in other areas brought us many things when they knew that our house and belongings were gone"*. When she was asked about what they had brought, she replied: *"almost everything necessary, such as foodstuffs, kitchen utensils, bedding, and rugs"*. Participant 35 (service user daughter) indicated that they were initially able to rely on themselves to get what they needed, but they used the aid distributed when they ran out of some food items. She said: *"Praise be to God, we were able to buy food ourselves during the cyclone period; only when some of the food was finished, we took it from distributions"*.

Once basic needs, such as food and safe housing, have been met, families start to think about their children's education and replacing school uniforms and supplies that have been lost. Families also varied in how they did this, depending on the forms of capital they

possessed. Data showed that some families provided school supplies for their children either themselves or with their relatives' help, the latter representing their social capital. School administrations also helped by offering schoolbooks for the children. As participant 18 (service user mother) said: *"They [the children] lost all their school supplies, then the school provided them with new books, and I bought them uniforms and the rest of the school supplies"*.

Repairing damaged houses was an even more significant issue and a major expense. Still, some service users had strong economic capital and were thus able to deal with the damage themselves. Participant 17 (service user son) said: *"We repaired the damage ourselves and did not ask for compensation"* as did participant 20 (service user daughter) (see 6.2.2). Other service users, however, were in a very different situation, with lower levels of various forms of capital. Participant 16, for example, (service user mother) is still living at the first level of the hierarchy of needs. She explained that she has no money, nobody to help her and lacks the skills that would enable her to claim her rights from the authorities. Due to her family's lack of capital, they could not improve their situation, they simply waited for the water to dry on its own and then cleaned the yard (see 6.2.2.).

### **7.2.2 What is being delivered to service users?**

The first type of support provided to individuals and families was transport to a safe place. This transport can be provided by military authorities or citizens themselves. It ensured that people could stay somewhere safe in a shelter or elsewhere, such as an apartment or a hotel. In shelters, people were provided with transport and their other basic needs were met. As participant 27 (male social worker) indicated: *"We provide them with housing, food, drinking water and other goods, including blankets, mattresses and any special supplies that they need"*. These basic living needs, such as food and clothes, are fundamental. In times of crisis, when people's lives and basic necessities are under threat, they may become anxious and behave uncharacteristically. It is essential, therefore, to ensure that support services respond to people as quickly and effectively as possible, so that they can use their human capital to access the support they need in such situations.

As well as transport to safety, service users need vital material goods. A key element of material aid is food; all the participants agreed on this point. Participant 15 (service user daughter) said: *"They provided us with three basic meals a day because we were not able to cook at home"*. She added: *"For each main meal, trucks come loaded with food such as rice, bread, water and eggs"*. From the beginning, service users also received other

supplies, such as mattresses, blankets and clothes. Participant 16 (service user mother) said: *"We got a mattress and food"*. Participant 21 (service user mother) said: *"They brought the clothes, distributed them, and we took from them"*. Service users also received nappies and other items for children, as noted by participant 22 (service user mother): *"They came and distributed mattresses, food and things for the children"*. Participant 42 (male NGO worker) said that a charitable organisation from Muscat also sent trucks loaded with electrical appliances such as washing machines, ovens, and refrigerators. The NGOs counted the goods, evaluated the needs of potential beneficiaries and then distributed the goods to those who needed them most. Essential things like food, kitchen utensils, clothing and bedding are at the first level of Maslow's hierarchy, and thus have to be provided first. Individuals prioritise their fundamental needs over other things like education. As participant 20 (service user daughter) explained: *"She [her sister] missed school some days because she was busy collecting her stuff from the damaged house"*.

A less immediate but still critical need is the repair of houses. Interviews with and brochures from the Ministry of Social Development indicate that they are the authority responsible for the restoration of houses damaged by natural disasters and have a system for dealing with this. If a home is still habitable and has suffered only minor damage, owners will receive financial compensation according to regulations that lay down amounts for each amenity and piece of equipment in the home. However, if a residence is no longer habitable, the social development department coordinates with the authorities concerned to provide temporary accommodation for the family. This may be provided for six months, a year or even more. If the house is insured, the insurance companies are expected to deal with the problem, but if it is not, the Ministry of Housing will be responsible for either rebuilding the damaged house, providing a new house, or giving compensation. As participant 28 (male social worker) explained:

*Suppose the house is no longer suitable for living in. In that case, we provide them with a house or apartment, meaning we provide them with private housing for some time until the problem is solved by their getting either compensation or a new private residence.*

Another less vital but still important need is replacing school and work supplies. While educational needs were not specifically mentioned in Maslow's or others' hierarchies, researchers such as McLeod (2018) ranked employment at the second level of the hierarchy as one of the most important factors in achieving financial security. It would make sense to classify education likewise at the second level of the hierarchy pyramid, as

it works alongside employment to achieve financial security. Data showed that school administrations mainly helped by offering schoolbooks for the children. As participant 21 (service user mother) said: *"We replaced the school stuff ourselves, the school just provided them with new books"*. In fact, one of the social workers, participant 7 (male social worker) made this clear: *"In Social Security cases, I mean if families do not have the money to purchase school supplies, they can contact the school administration and they will certainly help them purchase these items"*. He added another method, saying: *"They can also go to the social development committees, as they will help them obtain these items"*. However, these statements make it clear that these situations need strong human capital in the service user, who must be capable of identifying the available methods of assistance and requesting what they need.

Some working people also lost their uniforms when their homes were damaged, but the employers later provided replacements. As participant 17 (service user son) said: *"They [the workers] basically had lost their work clothes in the disaster and came in casual clothes till they got new work uniforms"*. Providing school and work supplies reflects the restoration of economic capital disturbed during the disaster.

The data also revealed that natural disasters also lead to financial loss and physical damage for communities and their infrastructure. Both service users and service providers described the damage to the streets and the disruption to their ability to move around. They pointed out that the government did try to facilitate repairs and open the roads. However, while some repairs were done quickly, most took some time because of the extent of the damage and because there were not enough human and material resources available to work on all the damaged roads at once. As participant 2 (male social work manager) said:

*Roads are among the most damaged facilities, especially those in the valleys. The Ministry of Transport and Communications is responsible for restoring damaged roads, but sometimes they take a long time because the damage is considerable and there are many damaged streets and roads, and this definitely requires a large budget.*

The data showed that the responsibility for repairing damaged public utilities lies with the ministry responsible for each utility. Participant 1 (male social work manager) explained:

*Each ministry is responsible for repairing the damage to its buildings and facilities. For example, the Ministry of Education is responsible for any damage to schools, the Ministry of Municipalities is responsible for any damage to parks, and the Ministry of Transport is responsible for damage to roads and so on.*

Some volunteers cooperated with government agencies to help repair and clean public areas. Participant 6 (male social worker) said: "*Cleaning the streets, cleaning buildings, preparing places, and repairing existing damage is carried out by social development committees and other concerned institutions such as municipalities*".

The time taken to carry out these repairs varied. Participant 9 (male social worker) explained that their priority was to provide people with accommodation and basic items such as food and bedding. The data showed that while repairs to facilities such as schools and mosques were done fairly quickly, some services took longer. Participant 15 (service user daughter) said: "*The rest of the services, such as schools, were repaired and cleaned within a month, but the reconstruction of the roads took two years*". Similarly, Participant 42 (male NGO worker) said:

*The Corniche took a long time, and they did not repair it. Indeed, it was first destroyed by the depression that was in January and then by the storm in March, and then by the storm that followed...I mean, every time, it was destroyed more.*

From the data gathered, it is clear that the Omani government's focus was directed first toward the most important needs (houses, food, bedding, and basic electronic machines) as defined by Maslow, and then shifted to welfare needs. The repair and restoration of schools came very early because education can be classified at Maslow's second level, that of the need for safety. Repair to roads can also be classified as a second-level safety need because it provides safety and comfort for road users. However, road repair is less urgent than the reopening of schools. This is because, first, it is impossible for students to study in badly damaged schools that are not ready for them and second, disruption to school education should be kept to a minimum, to provide children with a safe and normalised context and routine. Streets and roads can be attended to as a lower though still important priority, as they may not be badly damaged and can be crossed, or alternative roads can be used. The lake and corniche mentioned are places providing recreation and relaxation; they promote mental health and a feeling of belonging, which relate to a need at the higher levels of the pyramid. Their repair can thus be delayed.

The data showed that a key factor helping to overcome challenges in service delivery and other areas is social media, which is playing an increasingly critical role during disastrous events by facilitating information transfer and resource coordination. Participant 28 (male social worker) mentioned it in his relief work. He asked if anyone in his area had been affected by the disasters but had not been identified and helped, and answered: *"Thanks to Allah, because of social media, everyone knew what was happening, and everyone could communicate with us"*. Recent studies have illustrated the same trend elsewhere (Sum et al., 2008; Kim and Hastak, 2018).

The internet can create and enhance social capital by creating larger online ties. In times of disaster, social media has been used in various ways, from facilitating volunteer recruitment during an earthquake to supporting post-hurricane emotional recovery. It is an effective platform and a wide-ranging tool that can reach out to those affected and respond to their demands (Al-Saggaf and Simmons, 2015; Tim et al., 2017). During Hurricane Sandy in the Caribbean, the US and Canada in 2012, the effective use of social media led to a shift in the disaster response model, with affected communities uploading hurricane-related photos on Instagram. The locations posted served as a critical source of information for disaster response agencies and volunteers, and allowed service provision and the saving of countless lives (Tim et al., 2017). In Oman, too, the data collected showed the benefits of social media. Participant 42 (male NGO worker) said:

*We sometimes receive photos and messages on our social media accounts, so we directly contact the volunteers in that area even late at night; they go directly and without hesitation to the location to provide the needed assistance.*

However, to the researcher's knowledge, no studies have yet included communications networks in Maslow's basic level of needs when discussing disaster assistance, though this has been done in studies on distance education (Milheim, 2012). This links to the criticism of Maslow by Cianci and Gambrel (2003), who noted that his theory had not paid attention to extreme situations such as recession and disasters. This research has highlighted the importance of communication issues and internet connectivity in disaster situations in Oman (see 6.5) and recommends that these be classified as basic needs at Maslow's first level in disaster contexts.

### 7.2.3 What is being missed?

Some service users explained they had received a lot of food but wished that better and more comprehensive services had been provided earlier, not only food. Participant 15 (service user daughter) said:

*We had hoped they would ask affected families how they were affected and how much. We wanted them to look at the condition of people's houses and the damage so they would know what we needed. We need clothes, electrical goods and appliances, rugs, blankets, and psychological support, not just food. Unfortunately, there were no initiatives to look at this.*

Additionally, the data indicated that the problem was not simply in the actual meeting of people's needs, but often in the time taken to provide what they needed. Indeed, it can be argued that services not provided at the time they are required should be categorised as unmet needs or neglected services; issues raised here definitely need more attention. For example, participant 20 (service user daughter) said frankly:

*If they had distributed the electrical appliances directly to us, we would have taken them, and we would not have said no, but they were late in distributing them, and I understand that they were counting and studying matters. So again, thank God, we went and bought the necessary electrical appliances, such as an oven and a washing machine, by ourselves.*

Electrical appliances and electronic gadgets may not usually be classified as basic physiological needs; indeed they are sometimes linked to consumers' desire for status and self-esteem (Cui et al., 2021). Some electrical and electronic appliances can therefore be considered as supplementary goods which provide luxury and comfort, and cannot always be seen as basic needs.

Unmet needs and neglected services include not only delayed services that come too late but also services whose quality is less than satisfactory, and even unsuitable - such issues also need to be taken seriously. A notable example is the failure to provide comfortable housing for those affected, specifically those who resided in temporary homes for several years. Participant 21 (service user mother) said: *"They gave us caravans, praise be to God, and this is a blessing, but the caravans are made of wood, which means they need*



*constant maintenance, and they do not ask and follow up*". Having the shelter of a home is indeed a fundamental need on the first level of Maslow's hierarchy; however, whilst officials were aware of the problem, it was not taken seriously by higher authorities. As participant 30 (male NGO manager) declared: *"We were aware of this issue, but as I told you, it was beyond our capabilities"*. He pointed to the most prominent obstacles, the fact that housing was provided in association with other parties and that the amount of funding needed exceeded the allocated budget.

According to the study data, another issue that was overlooked is the raising of small farm animals. For some individuals and families, it was a source of livelihood on which they depended financially. Participant 22 (service user mother) said, for example: *"I raise these chickens and sheep and sell and trade their products to cover my living expenses"*. Unfortunately, their animals died in the disaster, and they received no compensation: *"Our animals like sheep and hens died and they did not compensate us for them"*. Breeding these animals is a job and source of livelihood for such individuals, and provides them with financial security and safety. It can thus be classified as a second-level need, but it is one that needs consideration and compensation, so that the animals can be replaced and people's economic capital maintained.

The data indicated that other individuals were not compensated for the loss of their animals, though their relationship to them was more complex. Participant 37 (service user father) said: *"We have a small herd of camels and unfortunately, we lost a number of them due to the cyclone"*. When he was asked if they were compensated, he replied: *"No, we were not compensated because we did not even apply for compensation. We go to their enclosure as a hobby; we love to take care of the camels and enjoy them"*. It is clear from this statement that they do not depend on these camels as a source of income, but rather they feel affection and even love for them. Camels are also a key part of their cultural capital and give them a sense of belonging.

Some service users did have complaints about what happened after the initial shock of the disasters. The main issue, a point made by several people, was that nobody from the authorities had come to visit the affected areas and assess the damage for themselves. Instead, it was up to those involved to take the initiative in asking for help. Participant 15 (service user daughter) said: *"When natural disasters occur, many people are affected, so the government's job is to be aware of which areas are affected and visit them"*. Participant 36 (service user father) wished officials had come to the disaster site in person. If they had done so, he felt they would be aware of everything happening without the affected

people needing to proactively contact the authorities and inform them of the damage they had suffered. He said: "*Frankly, I would have liked the specialists to be present, I mean, in the affected areas, they could see the damage on their own rather than us having to contact them*". The data showed that most participants would prefer the damage to be inspected immediately and by the relevant authorities rather than the affected families having to report the damage.

Several participants explained why they wanted this to happen. Participant 19 (service user father), participant 17 (service user son), and participant 36 (service user father), gave their views. First, they felt, individuals were not always well qualified to assess damage, especially to public properties that need repair, whereas specialists sent by the authorities would be better able to assess it comprehensively. Second, relying on individuals reporting the damage was likely to inconvenience and even overwhelm the authorities, due to the significant number of calls they would receive. Third, when specialists report damage, this enhances the speed of appropriate action, while reports by residents may be delayed or need to be checked before action is taken. The fourth, a critical reason, is that the breakdown of communication networks meant that many individuals could not report the damage, but that obstacle would not have affected any authorities visiting the sites.

### **7.3 Financial support**

The provision of financial assistance is often complicated, and the situation caused by Oman's natural disasters is no exception to this rule. Natural disasters leave damage that needs to be repaired and requires money, with the amount of money depending on the extent of the damage. Service users need compensation for damage to their houses and their sources of income, with these often requiring amounts beyond the individual's ability to afford. Participant 15 (service user daughter) said about this issue: "*We did not have enough money to solve all the problems*". Damage to people's sources of income also occurs in disasters, with individuals needing money to repair this damage at a point where they are also suffering from loss of income. One clear example of this was given by participant 37 (service user father), who recounted the experience of the fishermen he knows. He explained that these people's boats were damaged by the cyclone; as a result they could not go to the sea to catch fish and therefore could not earn the money needed to repair their boats.

In these situations, the government and NGOs tend to provide financial aid to those affected to cover at least a part of the costs they will incur in repairing the damage they have suffered. This support is directed toward meeting citizens' basic needs, which come at the base of Maslow's hierarchy. According to the data from the participants, sometimes service users were given the actual items they needed, while others were given financial aid to buy what they needed. In the aftermath of these disasters, people need money to buy foodstuffs and other goods and to repair damage to their property and possessions, including houses, furniture, electrical goods, electronic devices, and vehicles. Some of these things are usually seen as necessities, but at the same time, financial support also needs to be related to the second level, the need for safety and security, which includes financial security. Not all service users can deal with their situation by relying solely on their own resources. A family's ability to afford the costs involved in recovery will depend on the damage inflicted and the strength of their economic capital. Some will be able to pay the costs themselves, while others will need to seek financial support from outside. Financial support, then, should be seen as targeting the needs located in the first and second levels of Maslow's hierarchy.

### **7.3.1 What are service users doing for themselves?**

In the aftermath of the natural disasters, people need finance to repair the damage inflicted on their property and possessions. It is worth noting that the average monthly wage in Oman is around 700 Omani Rial (£1,515/\$1,818) (NCSI, 2021). Where possible, service users did pay for their own repairs and preferred to do so. Some people did not seek financial support as they were able to rely on their own strong economic capital to repair the damage suffered without needing help from other parties. Participant 36 (service user father) said: *"We incurred financial expenses in repairing the house and the damage to the utilities. I also paid to have the house rewired"*. Another example was given by participant 37 (service user father), who said: *"My friend's car was completely damaged by the hurricane, and thank God, he bought himself a new car"*.

When economic capital is not available, social and cultural capital can also help raise the funds needed to counteract the effects of natural disasters. Oman has a society that is highly driven by religious and cultural values (Abuiyada et al., 2016), and these values inform peoples' thoughts, words and actions. These values guide individuals to cooperate and live in solidarity with others in times of both prosperity and distress; they embody and represent the strength of their cultural capital (Al-Awadhi, 2009). When a society also values tolerance and has opportunities for people to come together, such a culture can

enhance the quality of life and can improve the overall well-being of individuals and communities.

In Omani society, the extended family is a valuable form of social capital. The extended family can be relied on as a strong support system; when family members need help, relatives generally do not hesitate to come to their aid. The service users noted the considerable support provided by relatives, with Participant 15 (service user daughter) saying: *"We did not have enough money to solve all our problems. But when the whole family cooperates, you do not need help from outside. You can stand again, solve your problems, and recover from the damage"*. Similarly, participant 43 (service user son) indicated the support provided by their extended family and relatives, saying: *"May God bless us with the family and relatives who stood with us...They would call us several times and ask if we needed anything...so much so that they wanted to transfer money"*. Participant 35 (service user daughter) described a clear example of the usefulness of strong social capital, saying:

*Our neighbours, who are also from our extended family, were affected a lot, and we made a beautiful move in the family... Everyone pays the amount they can, and then we got the money to them, which means help, but in the form of a gift.*

These accounts illustrate the significant role that families play in supporting their affected members, which raises questions about the situation of those who have no contact with their families, such as children in care, who rely solely on government and non-governmental support. Children are among the most vulnerable to disasters, and those without contact with their families should be categorised as doubly vulnerable (Kousky, 2016; Kreuger and Stretch, 2003).

Some of the people affected, then, were able to acquire sufficient money to repair the damage done by a natural disaster, or to buy new products. They could do this without having to rely on official government support, as long as they had sufficient economic, social and cultural capital to rely on.

### 7.3.2 What is being delivered to service users?

Despite several challenges, the Omani government did make an effort to provide financial aid to those affected, aiming to cover at least a part of the cost of repairing the damage they had suffered. When the immediate danger had passed and people returned home, the authorities had a new task. As participant 3 (male social work manager) said: *"One of the most important services provided to those affected by natural disasters is providing them with financial compensation"*.

The data showed that each disaster was dealt with separately according to its severity and to the number of people affected by it. Minor disasters and damage generally come under the Ministry of Social Development, while major disasters are dealt with through the issuance of a royal decree by the head of state. Participant 6 (male social worker) explained how this worked: *"If a royal decree or ministerial decisions are not issued, this means that the task of financial compensation falls to the Ministry of Social Development"*. Participant 4 (male social work manager) said they must: *"prepare special studies and determine the compensation for disasters"*. Participant 2 (male social work manager) also noted that the Ministry of Social Development is sometimes the body responsible and that the expenditure came out of its budget.

All social workers agreed with participant 9 (male social worker) who stated: *"Financial compensation is based on the Social Assistance Act"*. This social assistance law governs compensation and assistance in natural disasters, regulating assistance in cases of damage to housing, furniture and household appliances, as well as compensation for loss of life and for sources of livelihood (MOSD, 2021). There are various conditions governing the disbursement of aid, such as the type of building damaged and the number of people living there. Participant 19 (service user father) said: *"They didn't give us money, because they gave us a new house...but our neighbours, after the specialists visited their house, they paid them about 700 Rial (£1,515/\$1,818)"*. Participant 35 (service user daughter) also said: *"One of our relatives was given compensation of approximately 500 Rial (£1,080/\$1,300)"*. She added: *"They [social workers] told them during the visit that they would compensate them with the appropriate amount, according to the damage"*.

However, when major disasters occur in Oman, financial aid is not only the responsibility of the Ministry of Social Development, but may be governed by a royal decree. Once this is officially issued, it comes into immediate effect. This was confirmed by Participant 30 (male NGO manager), explaining how financial support is provided in the aftermath of natural disasters: *"As for financial compensation, the system is that for every disaster, a*

*royal decree is issued to appoint a ministry that is responsible for the whole matter".* Participant 25 (male social work manager) added: *"According to my experience, in every natural disaster, a royal decree or ministerial decisions are issued specifying the party responsible for considering financial compensation".* Social workers pointed out that financial aid procedures may change with each disaster. Participant 4 (male social work manager) said that in Cyclone Gonu, for example, financial compensation was the responsibility of the Ministry of Finance, and they were the ones who identified and assessed the affected cases and compensated them. Participant 25 (male social work manager) noted that in Cyclone Mekunu, the Ministry of Social Development was asked to conduct a case assessment of the people affected; it was then to send the files to the Oman Charitable Organization, who were tasked with disbursing financial aid.

When the social workers were asked whether all organisations paid compensation based on the Social Assistance Law, they agreed with participant 29 (male social worker), who said:

*We, as social workers in the Ministry of Social Development, study cases and write reports based on the social assistance law, but the final decision is not ours, as the specific party is the one that ultimately decides the amount of compensation.*

The data indicated that there were several issues with financial compensation; these arose despite efforts made by social workers, workers in social development departments and workers in NGOs.

### **7.3.3 What are the problems related to providing financial support?**

There is often a gap between the compensation expected or hoped for and what governments actually provide. Many interviewees, including service users, NGOs and social workers, stated that the financial compensation was insufficient for what people actually needed. Participant 22 (service user mother) said that the financial compensation she received was insufficient and did not cover the damages and the animals she lost. Participant 41 (female social worker) asserted: *"The service provided is insufficient for the citizens' needs and is inadequate to repair the resulting damage".* Participant 27 (male social worker) gave more detail, saying:

*The compensation payments is for the damage to household items such as furniture, electronics, and appliances. If the damage to the structure of the house itself, in that case, there is sometimes cooperation between the Ministry of Social Development and voluntary bodies such as the Oman Charitable Organization, and they also liaise at the same time with the Ministry of Housing to grant housing assistance.*

Participant 25 (male social work manager) said: *"I saw someone who lost furniture that cost 10 to 15 thousand Rial (£21,655 to £32,472 / \$25,995 to \$38,997), but he only received 500 Rial (£1,080/\$1,300) in compensation".* Participant 29 (male social worker) was also upset, saying: *"We in Hurricane Mekunu worked late at night until midnight or one o'clock in the morning recording the damage, but all our efforts were wasted".* When asked why, he said: *"Those who received compensation got very little compared to what they lost, and most people have not received anything yet".* He added emphatically: *"Approximately 60% of people were not properly compensated! Honestly, around 50-60% of the loss is not compensated! People who lost their whole house were only given 1,500 or 2,000 Rial (£3,245 or £4,325 / \$3,896 or \$5,195)! This is totally unreasonable".* Service users themselves also complained. Participant 15 (service user daughter) said: *"We only received a very small amount of money, and it was not helpful".*

Other NGO and social workers sought to provide explanations for this. Participant 34 (male NGO worker) pointed out that: *"This happened because there were so many cases that it was difficult to cover them all".* Participant 4 (male social work manager) gave a broader perspective:

*Look, it is always true that compensation cannot cover the whole amount that has been lost; it is just aid. I mean, it is like social security, which is just intended to be partial help and is not the same as a full pension. So, if all the furniture in the house is damaged, is it possible to cover the total cost of replacing it? Of course not, because it will take a large amount...You only get something to help, not comprehensive compensation like that given by insurance companies and others that compensate for the damage in full.*

His explanation is clear; compensation is not intended to cover the total cost of damage. It is provided as aid to help citizens recover from what they have suffered rather than as a solution to all the problems resulting from the disaster.

A second common complaint about financial aid was that it was often significantly delayed. Both service users and social workers pointed out that financial compensation took a long time to arrive. Participant 41 (female social worker) said: *"Sometimes, the subject of compensation and aid may take some time to be approved, especially financial aid"*. When interviewees at the management level were asked about this, participant 4 (male social work manager) explained: *"Getting financial support is a particularly lengthy process. There is a whole set of procedures that the request must go through before it ends up asking for the approval of the Ministry of Finance"*.

Participant 1 (male social work manager) gave further clarification:

*The length of time to get compensation is affected by several factors. Among other things, it depends on whether the state volunteer team is able to provide the required assistance and information immediately and whether the relevant ministries have a big enough budget to provide the compensation.*

The lengthy administrative procedures that a compensation application must go through is the cause of the delay in people obtaining compensation; indeed, this also discourages some from applying.

A third issue raised regarding financial compensation was that several service users did not receive any compensation at all. The data collected showed that two types of cases received no compensation: the first group comprises people who, for various reasons, failed to apply for help, while the second involves those who applied for help but received none. Participant 3 (male social work manager) explains one reason why people might have failed to apply for assistance, saying:

*The reason they did not receive any help may be that they failed to inform the competent authorities that they were affected by the disaster. It is also possible that they did not know which institutions they should approach for help or how to reach them.*

He continued to describe what could happen: *"I would say the probability is that somebody doesn't know that they are seen as affected, and they could not initiate anything themselves"*. The case of participant 16 (service user mother) is an example of this, when



asked why she had not applied to the social development department for assistance, she said: *"I don't have anyone to take me"*. Her lack of social and human capital creates double vulnerability and an inability to recover from disaster. She and those like her are then even more vulnerable to the next disaster.

Others may have needed help but did not seek it for other reasons. Some wished they could obtain compensation without going to the social development departments themselves and submitting an application; they wanted the authorities to come to them so that the compensation would be done automatically. Others - and this was a frequently-mentioned issue - were discouraged by the complicated procedures involved in submitting paper application forms and the lengthiness of the compensation process. Participant 17 (service user son) said:

*No, frankly, we did not go as you know how the application is, and everything takes a long time. I saw houses with walls that were even more damaged than ours; some took a very long time to get mended, and others are still not fixed today - though I do not know if the owners applied or not.*

Some people do not apply for assistance, although they know it is available, but they are in a somewhat different situation. As participant 6 (male social worker) explained:

*In some cases, it is the people themselves who are reluctant to ask for help. That is, there are some people who say that they are able to deal with their situation themselves. They have the financial ability and know-how to overcome the problems on their own, so they sort things out themselves and do not need our intervention.*

As well as being more capable than others to pay the costs of repairing damage, some people indicated that they were too embarrassed to submit a request for help, especially if they were in the middle- or high-income group. They feared that they might be rejected and told that they should pay for any repairs needed by themselves. When participant 36 (service user father) was asked whether he applied for assistance, he said: *"Honestly, no, I didn't"*. He explained his reasons:

*I don't know. I said to myself, no need to apply for help. Praise be to Allah, I am financially solid and able to bear the costs myself. Also, because their procedures are long and because they might tell me I don't deserve help, I prefer not to apply.*

As mentioned earlier, there was also a second group: people who applied for compensation but received nothing. Participant 28 (male social worker) recounted his experience, saying that around half of the service users whose data was collected by the department received no compensation at all. However, he suggested a reason why this happened: *"With regard to damages, of the people I know personally who were affected, 50% may not have received any compensation due to the country's budget"*.

Others confirmed that this happened. Participant 27 (male social worker) said: *"Some of the service users whose names were sent to the Oman Charitable Organization and who were eligible to receive these donations...honestly speaking, some of these cases did not get help"*. Indeed, no one indicated the reasons clearly and with any certainty but seemed to suggest that the overall budget for assistance was not large enough to help all those in need.

## **7.4 Mental health and psychosocial support**

Another key area of support needed by those affected by natural disasters is psychosocial support. The Inter-Agency Standing Committee (IASC) guidelines on mental health and psychosocial support (MHPSS) in emergency settings define 'MHPSS' as any kind of local or external support aimed at protecting or enhancing psychosocial well-being and/or preventing or treating mental disorders (Seto et al., 2019). Researchers argued that mental health and psychosocial problems are particularly interrelated in disaster situations, and support workers need to see them as closely intertwined. Researchers such as Kane et al. (2018) see mental health and psychosocial problems as overlapping - they include depression, anxiety, PTSD, hazardous alcohol use, suicidal ideation, and suicide attempts. Other researchers, such as Seto et al. (2019), argued that mental health problems include both pre-existing mental disorders and problems specifically caused by the disaster, such as distress, anxiety, grief, depression, and post-traumatic stress disorder (PTSD). Disasters also lead to psychological and social problems such as persistent or newly-created poverty, the separation of families, and the disruption of social networks.

In Maslow's hierarchy of needs, psychological needs come after more basic needs for survival and safety. However, the more an individual lacks their basic needs, the more psychological distress they will experience (Lester et al., 1983). Having adequate food and drink and a safe and comfortable place to stay are necessary if an individual is to begin to look at their psychological issues and meet their psychological needs; this is the transition from the basic level to a higher level in Maslow's pyramid. Psychological needs are, for Maslow, the need for love and a sense of belonging, which can be found in different forms of relationships, such as those with friends, neighbours and communities.

Maslow (1943) also listed esteem needs as his fourth category in the hierarchy, the need for self-esteem that arises from a sense of accomplishment and prestige. When service users settle down well materially, they start to seek a sense of well-being and achievement. For example, the house of participant 19 (service user father) was destroyed by the depression in October 2019. He was given a new house in place of the old one and explained that he then began to plant trees and flowers and make a garden around his home. His economic capital also grew stronger, so he was able to create not only a beautiful place to sit and relax but also a children's playground in the garden. He said: *"When I have a good sum of money, I add something to the house. Recently, I organised my garden, bought toys and planted trees"*. The garden was not only beneficial to his mental health but also gave him a sense of achievement and boosted his self-esteem.

#### **7.4.1 What are the needs of service users?**

When natural disasters damage or destroy property and possessions and injure or even kill family members, these events are overwhelming and have a major psychological impact on those involved. The greatest psychological need, therefore, is the alleviation of stress and help to regain a state of calm. Many interviewees mentioned feelings of fear, shock and exhaustion. Participant 18 (service user mother) said: *"We felt drained and worn out by what had happened, and we were very afraid"*. This view was echoed by participant 15 (service user daughter), who said: *"We were shocked to see the condition of the house...We asked ourselves - How will we live in this house? How will we sleep? How will we get the things we need?"*. These statements echo the findings of Fahm (2019), who - unsurprisingly - found that disasters significantly impact people's emotions and behaviour.

There were fatalities in many of the cyclones, hurricanes and depressions, and people were very aware that some or all of their family might lose their lives. Participant 18 (service user mother) said:

*The house was filling up with water, so I called the police, and the next day the wall and the electricity pillar fell down. If they hadn't taken us to a hotel that night, I think all of the family would have died.*

Whilst maintaining family contact is a key element of psychological well-being, this may be disrupted by disasters. Disruption of the communications network meant that people could not contact family members and did not know if they were safe. Family networks in Oman are generally very strong (Al-Barwani and Albeely, 2007; Alhashemi, 2017), so this was particularly stressful. A number of service users, such as participant 37 and participant 15, noted the considerable support provided by relatives; a natural disaster may indeed strengthen family bonds, with strong social capital being a primary source of love, safety, and security, and even its temporary absence is a major concern.

People seeking assistance can also suffer from a great deal of stress because of the administrative procedures involved in getting that aid, even though assistance is obviously intended to help. Participant 17 (service user son) expressed concern about applying for aid. He said that several affected citizens had not gone to the social development department to ask for help, and he began wishing that the staff would come themselves to see what had happened. When asked why he did not apply for help, he said that it takes a lot of time to follow up the request. It is not only in Oman that the administrative processes involved in assistance have been found to cause a lot of stress; studies of other disaster situations, such as that by Krug et al. (1998), also found this to be the case.

#### **7.4.2 What are service users doing for themselves?**

The ability of service users in Omani disasters to create and strengthen community and neighbourhood relationships is noteworthy here. The strength of human capital varies among the affected individuals, but generally, this strength results in their ability to adapt to a new situation and return to their usual practices. They also enhance their social capital by adjusting speedily to their new situations, for example, by attending informal gatherings with neighbours. Participant 20 (service user daughter) described her experience of being moved to a new neighbourhood:

*After we settled in the new house, we started to build a good relationship with our neighbours. We knew some of them before, but we got to know new women as well because, in the afternoon, women put a mat near our home, gathered, and drank coffee.*

Even in less comfortable accommodation, this happened. Participant 21 (service user mother) recounted her experience while staying in the caravan community: *"In the afternoon, we [neighbour women] usually gather, sit down, have a coffee and talk to each other"*. When she asked about her children's experience and how they dealt with the new neighbourhood, she said: *"my kids go to play football with the neighbours' kids"*.

What is seen clearly here is that having strong human and social capital enhances community resilience, in which individuals respond actively to disasters and facilitate rapid adaptation to changes (Madsen and O'Mullan, 2016). Social connectedness and optimism are key features of community resilience, and developing aspects of social capital is a valuable way to improve community capacity.

Several service users indicated how social media platforms created warm communication with their family and friends. Participant 19 (service user father) said:

*After we evacuated the house, I photographed it and posted it on WhatsApp and Instagram. I only meant to show them the condition of our house and how it was completely destroyed. But I was shocked when I received dozens of calls from relatives and friends asking about our health and what we needed. But, thank God, we went to my wife's parents' house and stayed with them.*

Access to connectivity and technology is important and facilitates social capital. Social media provides a way for people to connect with each other during times of crisis, share important information, and offer support to those in need (Al-Saggaf and Simmons, 2015; Tim et al., 2017). Access to communication and technology is vital to facilitate social capital in times of natural disasters. In many cases, those who are most vulnerable during natural disasters, such as people with low incomes or who live in remote areas, may have limited access to technology and the internet. This can make it difficult for them to access important information and communicate with others for support.

Although the data did not show people receiving any professional psychological help, some of those affected by the disaster did take steps to help them get through their trauma, such as Participant 15 (service user daughter) talking to classmates (see 6.2.3.) Others were fortunate enough to get support from the school or individual teachers. Participant 18 (service user mother) explained:

*As the days went by, they [her daughters] began to adapt. And the teachers, frankly, teacher M.A, contributed a lot, not only financially but also psychologically. She took care of the girls and reassured them that they would feel better and get over what had happened.*

Participant 20 (service user daughter) also said, "My sister at the school told me that some teachers asked her if she was okay or needed something". She added that when the hurricane hit and they had to move from the old house to the new one, her sister was absent from school for some days, so her teachers checked on her and offered her help with anything she needed. It can thus be seen that schools tried to provide a supportive environment for their students, though this may have been largely ad hoc and based on individual efforts, rather than a formalised approach.

Participant 43 (service user son) also recounted the story of the woman whose son died in the cyclone; he said: "The women of the neighbourhood used to gather with her daily, and I think this is a good thing to comfort her and ease the shock of her son's death". He explained that this was the custom in their neighbourhoods; when someone has died, people go to their house and try to console the family.

Some interviewees, particularly social work managers, for example, participant 1 (male social work manager) and participant 4 (male social work manager), suggested that there are two factors that enhanced psychological well-being after the natural disasters in Oman. The first was individuals' respect for and reliance on the core Omani values of patience and endurance, evidence of their high level of cultural capital. Their well-being stemmed secondly from their commitment to the Islamic values that see natural disasters as fated and therefore to be accepted; this is an expression of their strong spiritual capital. The literature also shows that Omani society is highly driven by religious and cultural values (Abuiyada et al., 2016; Al-Rabaani, 2018).

These aspects of cultural capital certainly help to reduce psychological distress and, therefore, the occurrence or severity of mental health problems (Fahm, 2019; Veronese et al., 2021). In short, what can be observed from the data regarding psychosocial effects in the aftermath of Omani disasters is that while, on the one hand, disasters and their consequences affected members of society, the religious and cultural factors inherent in the collective Omani narrative offered sources of resilience both for individuals and for the collective. It is also interesting to acknowledge the stigma surrounding seeking help or even discussing mental health in Oman (Profanter, 2009).

#### **7.4.3 What is being delivered to service users?**

The data did not indicate the existence of any organised efforts to provide psychosocial support in the aftermath of natural disasters. Almost all the psychosocial support revealed by the data is from random individual efforts. Interestingly, and perhaps surprisingly, most of the professionals interviewed showed little interest in the need for psychosocial support for Omanis. Participant 1 (male social work manager) said: *"If there is no reaction in the community, then it means there is no psychological impact"*. However, he and a few others did see a need for psychosocial support for foreigners, and he described one related incident (see 6.2.3).

Participant 27 (male social worker) agreed: *"Frankly, we have not provided any support in the psychosocial aspect to people affected by natural disasters...I think it is possible that foreigners, not Omanis, care more about this aspect"*. These social workers were asked about the reason for this. Most mentioned the conservative nature of Omani society, and the fact that regarding government support, individuals prioritised material and financial support over psychosocial.

Although some social worker interviewees seemed to think that Omanis had no need of psychosocial support after the disasters, this view was not borne out by data collected from the service users. They made it clear that a number of people were psychologically affected by their experiences; Participant 15, for example, described her brothers' reaction (see 6.2.3).

It is therefore clear that service users are impacted psychologically by the disasters but also that no effective or official effort was made to deal with this. Similarly, little attention

was given to the way in which different needs impacted upon each other. Interestingly, some social workers and NGO workers did mention that psychosocial support should be provided, as they believe that individuals deserve everything that can help them maintain their physical, psychological, and social health. For example, participant 29 (male social worker) said: *"Personally, I support the trend towards providing all forms of care, including psychosocial services. We as social workers and concerned entities must take the initiative"*.

#### **7.4.4 What is being missed?**

Some service users stated that they felt great distress and needed psychological support, but it had not been provided. Participant 15 (service user daughter) said: *"We need... psychological support, not just food"*. Those living in the temporary homes, such as participants 21 and 22, also felt a good deal of anxiety and distress, especially as they lived there for an extended time. When questioned further, Participant 21 revealed that they had not been asked about how they found their living conditions and that their comfort and psychological stability had not appeared to be taken into account at all.

Participant 15 (service user daughter) said: *"We had been away from school for several months, and when we came back, no one gave us any psychosocial support, only myself and my classmates; we were talking about the cyclone and how we were affected"*. Participant 35 (service user daughter) described another distressing experience where her sister had to take her final exam immediately after the hurricane, yet emergency leave had only been for the period of the cyclone:

*My sister had an exam, and she told them that she was coming from Dalkout state, and she hadn't studied anything and was not ready due to the hurricane and its effects, but there was no consideration or postponement or anything.*

While this last is only one example, it suggests a general lack of awareness about the physical and psychological condition of affected students and a lack of flexibility in dealing with their situations.

Some interviewees, such as participant 19 (service user father) and participant 37 (service user father), explained the indirect psychosocial impact on individuals whose source of income were damaged or destroyed. Participant 37 (service user father) talked about his



fisherman friend, while Participant 22 (service user mother) told a similar story about the grazing livestock she raised, how their deaths affected her source of income and thus had a psychological impact. She said:

*I am frankly upset because I take care of sheep and sell them, and thank God, I managed myself and helped my husband, but when the cyclone struck and all my sheep died, and the financial compensation they gave me was not enough, I was quite upset, but I thank God for everything.*

Interestingly, her distress is tempered by her belief in accepting the will of God, the spiritual capital that was referred to earlier. Researchers such as Cohen et al. (2019) and Susteren and Al-Delaimy (2020) also emphasised what is shown in this last testimony, that disaster damage to economic and residential resources can place a heavy burden on the mental health of the affected population.

#### **7.4.5 Why are mental health and psychosocial support not provided effectively?**

As shown above, the study data from this study showed no evidence of any formalised psychosocial and mental health support system tasked with dealing with this aspect of the aftermath of natural disasters in Oman. This does not mean that the affected population did not experience any mental health problems. Few service users, and most social work and NGO practitioners, seemed to be unaware of the existence of such issues; however, they did not observe, or were perhaps unable to recognise, emotional and behavioural signs of unwellness. This highlights the importance of a greater focus on mental and psychosocial health and on the need for support in this area.

There are number of reasons for this neglect of the mental health and psychosocial impact of disasters. One was that those affected by the disaster prioritised material and financial support over everything else; the challenge came primarily from the service users themselves. When asked, most social workers indicated that the service users made no mention of any psychological or mental health problems. Participant 6 (male social worker) said: *"The service recipients do not always look to us for this type of support, but rather are looking for material support"*.

Some social workers and NGO workers noted that attention to psychosocial well-being is considered an advanced stage of their work, and that their greatest concern is to provide the most essential needs such as food and shelter. For example, participant 3 (male social work manager) said: *"People's focus is on material damage and providing basic needs, their interest in psychosocial aspects is less"*. This relates the levels of Maslow's hierarchy and prime focus on basic physiological needs. Participant 41 (female social worker) explained her view of the relationship between material/ financial support and the need for psychosocial support, and two other social workers agreed with this claim. The participant said:

*Affected people, if you give them sufficient material and financial support, I think all their psychological and social problems will disappear. Psychological problems are often the result of thinking and worrying about the damages that occurred and the amount of money required to repair these damages.*

Another possible reason that service users showed no interest in obtaining psychosocial support is simply that they were unaware of its availability. Indeed, psychosocial support in natural disasters is not publicised as available to everyone, but is only provided if requested. This highlights the need to make these services in future not only available but also visible to all. Participant 1 (male social work manager) also stated: *"There was also a lack of awareness of and attention to the potential psychological and social effects"*. Participant 6 (male social worker) agreed and suggested: *"The solution to this is to intensify awareness"*. People certainly need this service but do not consider it seriously and do not know about its availability in times of crisis, so it is up to the professionals to reach out to them and provide support and assistance. Participant 8 (male social worker) argued that the institutionalisation of support systems was responsible for the problem. He explained:

*Since the beginning of the emergence of social work and during the Second World War, volunteers, specialists, and psychologists used to work in the field and go to widows, the people living in poverty, and those suffering from epidemics and psychological trauma. Their work was not done in institutions and offices. Now, when any information reaches the Ministry of Health about affected areas, the specialists should contact the families and ask if they need any psychological services. If the answer is yes, they should then contact psychologists and social workers for support.*

In his view, then, professionals should get out of their offices and make an effort to reach people, tell them about the support services available and then provide support and help. This is better than just waiting for people to seek help.

A third factor is the lack of a mental health support framework in Oman and a lack of guidelines. Neither have been developed in Oman, but both are unquestionably necessary. Indeed, the literature emphasises the importance of having mental health and psychosocial support guidelines in place for disaster situations, and there are numerous examples of these in other countries. Thordardottir et al. (2018) explain that these plans can enhance people's capacity for both short- and long-term adaptation. They include information and education about common post-disaster symptoms such as anxiety and post-traumatic stress disorder, and, most importantly, they contain information about where people can get help.

Seto et al. (2019) give more information about guidelines for social workers and other service providers, describing activities that can be used for mental health and psychosocial support for people affected and can be conducted in the long-term post-disaster phase. These include support activities for individuals needing help, collective activities, and ways to support living conditions and income and raise public awareness about mental health. There are also guidelines for developing human resources to improve mental health and psychosocial support capabilities, for support for mental health and psychosocial support providers themselves, and suggestions for providing opportunities for collaboration between MHPSS providers in the different communities affected.

In addition, and closely related, Oman has no tools to measure mental health and psychological wellness, though some individual social workers may be aware that they are needed. Participant 1 (male social work manager) highlighted the importance of having measurement tools that can identify the impacts of a disaster. He pointed out: *"The challenge is that because there were no previous incidents of this, we have at present no mechanisms to measure the psychological and social impact of a disaster, as we have not worked on it"*. He also said:

*I believe there is a need for a measure designed by an institution to measure the psychological and social impact. Then if we find any, it should be treated.*

*Whether there is an effect or not, we first need to find ways to measure this effect. And if the disaster has had psychological effects, we need to put the appropriate treatment mechanisms in place.*

Another major reason for the neglect of this area of disaster response is the shortage of professionals. It is important to train and prepare qualified professionals who can diagnose and treat the psychological effects of disasters, no matter how minor or temporary they may be. Interestingly, one social worker referred to having psychologists or psychiatrists available, saying: *"Shelters do not have a psychiatrist, only a general practitioner. Therefore, even if these cases arise, we will not know about them"*. In any case, few people sent to the shelters from ministries communicate directly with the service users; indeed, some are there only to work on data collection or information technology.

The failure to provide a psychosocial support system may also be rooted in the conservative nature of Omani culture. Omani families, and indeed Omani society, tend to be conservative and do not believe in talking openly to others about what they consider private matters, especially those like mental health, which carry some stigma (Profanter, 2009). Two social workers agreed with the perspective of participant 1 (male social work manager), who was aware that they: *"...must take into account the reservations of the Omani family"*. Indeed, although Omanis may have reservations about talking to a non-family member about someone in the family with a mental health issue, that should not prevent those affected from receiving the support they need. Families may also be worried about any such information becoming public and stigma being directed at the family.

## **7.5 Spiritual support**

In this research, the terms spirituality and religion are used interchangeably (see 5.4.6). According to Maslow's hierarchy of needs, spiritual support can be seen as meeting psychological needs. That is because spirituality is concerned with the relationship between the individual and God, so spiritual support will be directed towards activating and strengthening this connectedness and thus increasing psychological well-being. Nejati-Zarnaqi et al. (2022) pointed out that although spiritual health is an important element of human health, it is currently, and unfortunately, a neglected one.

### 7.5.1 What are service users doing for themselves?

Service users have had to deal with a number of adversities, including loss of family members, destruction of their homes and neighbourhoods, inadequate compensation, living in cramped conditions, moving to other areas, and not being able to return to their homes and home areas. The respondents indicated that spiritual support alleviates the suffering they experienced when they saw the destruction and damage inflicted on them in natural disasters. Arguably the key factor in Omani society is that it is largely Muslim. Certainly, in Oman, service users and those assisting them all see disasters from an Islamic perspective and thus as part of divine destiny and the will of God, indicating the possession of spiritual capital. Although disasters are commonly seen as unfavourable and harmful in their impacts, it is not uncommon for religious practitioners to see them somewhat differently, and to emphasise the importance of understanding the religious reasons underlying each disaster. Participant 24 (male religious practitioner) spelt this out: *"It is always said that in our view as Muslims, disasters have two perspectives, the religious and the scientific. Science does not contradict religion, and religion confirms the facts of science"*. He explained that while he believes it is true that natural disasters occur due to environmental factors, he also feels that, at the same time, they also contain messages from God that need to be considered.

Service users found that the dissemination of pictures, audio, and videos with a spiritual message was very helpful and made it easier to accept what they believed they should see as fate. Participant 35 (service user daughter) said:

*I notice that in times of natural disasters, video and audio messages are circulating about the reward for accepting these difficult times. Even if we are harmed, remembering that acceptance is a command from God Almighty makes it easier for us to do this. We are assured that the experience has good messages for us, and this relieves our stress and negative feelings.*

Participant 43 (service user son) also said that he attended the Friday sermon that followed the cyclone; it was about natural disasters and how to accept fate. He stressed the need to hold onto the message of such sermons and religious lectures on the topic. Interestingly, Susteren and Al-Delaimy (2020) argued that how people handle a disaster event is determined partly by their answers to some important questions. Why did this disaster happen, who or what was responsible, and could the disaster have been prevented? It is easier to cope with disasters that are caused by fate or nature because they can then be seen as beyond our control.

Several interviewees presented spiritual perspectives on natural disasters. One is that the world is a temporary place and a pathway to the afterlife, making them accept what happened and overcome it. Participant 22 (service user mother) said: *"when a person thinks about life broadly, he sees that this world is fleeting, and the afterlife is the abode of survival. Everything becomes easier when we put this thing in our mind"*. Several participants highlighted the belief that Muslims have a duty to accept both the good and the bad aspects of fate. Participant 19 (service user father) said: *"We must know that life does not pass according to what we wish for. God is the one who guides it, and we accept all the good and bad in it. Praise be to God always in every situation"*.

Another religious attitude to natural disasters is to see them as bearing important and positive messages from God. The participants emphasised that one of the benefits of these disasters is that God trains and tests people to protect them from evil ways and thus put them in a good position in the afterlife. Take, for example, the interview with Participant 24 (male religious practitioner), who quoted: *"Allah sends these disasters and circumstances not to torture people but to educate them and promote the values of patience, steadfastness and certainty in Allah"*. Participant 20 (service user daughter) expressed a similar view, saying:

*"We may, in the beginning, believe that such disasters are a calamity, but when we think deeply about religion and the love of God, we discover that this may be mercy from the Lord of the worlds, and it is certainly good, and we must accept it."*

Participant 20 (service user daughter) continued her deep dialogue, saying: *"These pains may be a repelling of evil from us in this life, or they may be a reward that raises our position in the afterlife"*. From this perspective, experiencing natural disasters is a significant step towards spiritual growth. People with strong spiritual capital thus believe that their misfortunes are part of a divine destiny, which makes them easier to accept.

Islamic references to disasters often portray them as a punishment from Allah, a warning to sinners, and/or a test for Muslims (Fahm, 2019). Certainly, those with this strong spiritual capital will be better able to see a natural disaster as part of a divine plan, in which all that God predestines arises from wisdom and is for the benefit of individuals.

Participants also indicated that religious practices such as prayers and Friday sermons deepened their connection with God and helped them to perceive the disasters with more calmness. Participant 43 (service user son) also said: *"The Friday sermon that took place after the cyclone was about natural disasters and how to accept fate. I really liked it, and it was like a bandage for people and really came at the proper time"*. Additionally, many participants pointed out that through prayer, supplication, and grief, people established a deeper spiritual relationship with God, creating a sense of peace and support. Participant 18 (service user mother), referring to the fact that Muslims are required to pray at five set times each day, said: *"Despite the difficult circumstances we went through, we did not abandon prayer and supplication. Praise be to God; we were praying our five prayers"*. For the speaker, performing the five prayers is a fundamental need that cannot be ignored, no matter how difficult the individual's circumstances. For religious people, the spiritual need is a basic need.

There was other evidence of widespread religious belief. Participant 35 (service user daughter) explained: *"Whenever we see lightning and hear the sound of thunder, we pray out loud to God to protect us and let the cyclone pass through quickly and smoothly"*. Nejati-Zarnaqi et al. (2022) also argued that prayer strengthens the disaster survivor's mental stability and heals the psychological damage wrought by disaster. Interestingly, religious practices were not only a means of disaster relief and assistance but also a way for people to express their thankfulness to God after natural disasters had passed. Participant 37 (service user father) explained how grateful they were to God for keeping them safe and said: *"Praise be to God, after the cyclone, we gave Sadaqa (donations) because God preserved us and we are all safe"*.

Most participants agreed that God's wisdom and kindness were factors that helped them to accept what was happening and to stand firm. They believe that God manages all the affairs of the universe and has complete power over it, has unlimited mercy and never forsakes human beings in times of trouble or of prosperity. Participant 24 (male religious practitioner) quoted: *"Subhan Allah, Allah is very Gracious and Kind to His servants"*. He added that God's wisdom lies behind everything that happens to humanity, and nothing happens without a divine reason. Participant 18 (service user mother) was badly affected by the weather during the depression, and her house was very severely damaged. However, she still remembered her faith and thanked God for what happened. She said: *"We have to be patient, and what God writes will be. If God provides us with help from any place, we will definitely get it. Praise be to God for everything"*. Despite the difficulties experienced by this woman and her family, she accepted what happened, was patient,

trusted in God, and did not lose hope, an attitude which reflects both the strength of her spiritual capital and its ability to preserve her mental health.

Maslow's hierarchy of needs is relevant to this discussion but requires modification. Maslow believed that spiritual needs come at a higher and later level than people's basic and primary needs, which are entirely material. However, the data in this study indicates that this view is not fully applicable to religious, and particularly to Islamic, societies. Indeed, the data supports the findings of Bouzenita and Boulanouar (2016), who examined religious and specifically Muslim societies and found that Islam teaches individuals that a balance of material and spiritual needs is required in any state of human existence; which would mean at any level of Maslow's pyramid. McLeod (2018) referred to Maslow (1987), explaining that most behaviours are multi-motivated, simultaneously triggered by more than one basic need; they also argued that the order of needs is not rigid but may be flexible, depending on external circumstances or individual differences (McLeod, 2018). Islamic societies are clear examples of exceptions to Maslow's theory; the weakness of Maslow's original and later theories can be overcome by designing a model more consistent with Islamic society and beliefs.

Another key point about the participants' religious faith and activities, or spiritual capital, is that it contributed significantly to their emotional well-being. The limited number of studies examining the effects of religion in the aftermath of natural disasters indicates positive results (Fahm, 2019; Nejati-Zarnaqi et al., 2022). Ekanayake et al. (2013) pointed out that strong religious faith and beliefs are associated with fewer symptoms of emotional distress, while a lack of religious coping strategies is often associated with greater distress. Nejati-Zarnaqi et al. (2022) also emphasised that disaster-affected people who used spiritual tools, such as communing with God, reading scriptures, praying, and assisting others achieved more effective and speedy rehabilitation. Nejati-Zarnaqi et al. (2022) also noted that, in the aftermath of disasters, religion helps individuals to recover by encouraging them to embrace a positive worldview, by promoting motivation and hope, and by empowering individuals, addressing their questions and informing their decision-making. Fahm (2019), in his study on Muslims and their psycho-social-spiritual responses to natural disasters, similarly confirmed that trust in God and appreciation of His blessings improved people's resilience and accelerated their recovery. This points to the importance of recognising and understanding social and religious interpretations of recovery and resilience in different cultures.



Interestingly, one of the customs in Islamic societies is to prepare for the month of Ramadan by buying and storing enough food to last for the whole month. Fortuitously, one of the cyclones happened at the beginning of the month of Ramadan and participant 35 (service user daughter) said: *"Because that period coincided with the month of Ramadhan, praise be to God, we were satisfied, and we did not have a shortage of food, water, and other basic needs"*. This illustrates how spiritual capital may sometimes - albeit coincidentally - contribute to the fulfilment of material needs.

### **7.5.2 What is being delivered to service users?**

Face-to-face spiritual support was widely delivered to service users, but not in response to direct requests nor through an organised system. Instead, perhaps surprisingly, the search for material support sometimes acted as an entry point for spiritual support. Participant 23 (female religious practitioner) reports:

*Often those we communicate with are affected financially, and the material damage is the cord that connects us, but then we can also provide the spiritual connection and the psychological support they need. So, we enter in response to their need for material aid, but our communication about this brings them to talk about the spiritual support they need, so you can help them with their plight and all the things they are affected by.*

From this testimony, people who asked for material support were more likely to also receive spiritual support. While this is consistent with Maslow's hierarchy, which considers the satisfaction of basic physical needs the fundamental priority, it is interesting that when supporting bonds were formed and deepened with those affected, they then expressed their need for spiritual support. In this way, both types of needs were met. This testimony also highlights the interconnection of spiritual and psychological care in Omani disaster relief. Many other service users, such as participant 36 (service user father) and participant 21 (service user mother) stressed that when people entrust their affairs to God and believe that he will not leave his followers helpless and in distress, they are comforted and reassured by their belief.

Other studies revealed that psychological and spiritual health are closely related and that spiritual and religious support effectively reduced survivors' anxiety and depression and

improved their resilience (see Nejati-Zarnaqi et al. 2022, on Hurricane Katrina; and Ekanayake et al. ,2013, on the Asian tsunami of 2004).

Religious practitioners also mentioned that they identified people who might require spiritual support when there was an official announcement about which areas would be vulnerable to climatic disturbances. Participant 23 (female religious practitioner) added: *"We reach some service users through the service users we already knew and are helping".* She explained: *"I mean, we have service users who know other service users; they direct them to us, and the new ones can communicate with us personally".*

The religious practitioners indicated that spiritual support was mainly offered through mosques, where Friday sermons are given and Islamic sessions are held. Participant 38 (male religious practitioner) stated: *"the Friday sermons are at the heart of our religious support".* Participant 24 (male religious practitioner) added: *"The sermon has a special impact on the soul, and it also has its own style, in which the verses of the Qur'an and the hadiths are chanted"* (hadiths are the traditional accounts of the Prophet Mohammed and are sacred texts). Service users like Participant 17 (service user son) also attested to the usefulness of these sermons, noting that they helped to remind Muslims that they should follow Islamic wisdom and accept disasters.

Religious messages are also spread in a much more modern way through social media. Interviewees pointed out that recently developed social media sites have great potential for spreading Islamic messages. They also noted that when Cyclone Gonu occurred in 2007, these communication platforms were relatively new and some did not yet exist. Participant 38 (male religious practitioner) highlighted the usefulness of social media in providing spiritual support:

*Today we have the means to address everybody through social media, as it is easy and free to use and reaches everybody and every home. If we use these platforms to enhance religious discourse in good or bad weather conditions, I believe that we will achieve great results.*

Participant 39 (female religious practitioner) commented: *"There was no online religious guidance before, but now there are lots of messages and advice. I don't know if you have seen them, they are all titled: (For electronic guidance)".* These platforms make it easy to

spread spiritual support much more widely, not only to those physically attending the mosques. This is consistent with the findings of other studies that highlighted the critical role played by social media in facilitating information transfer and the provision of emotional support (Sum et al., 2008; Tim et al., 2017).

### **7.5.3 What is being missed?**

Some groups were less likely to receive spiritual support, notably the elderly and non-Arabic speakers. Participant 38 (male religious practitioner) noted that: *"There are people who do not obtain [spiritual] support, especially the elderly and our Muslim brothers who do not understand Arabic, and anyone else who does not receive our messages"*. To improve services, the faiths of the remaining population, both Omani and foreign, should be considered, and spiritual support provided for people of all religions.

### **7.5.4 What are the obstacles to providing spiritual support?**

The religious practitioners interviewed emphasised the importance of ensuring that support reaches everyone who needs it. Despite the prevalence of mosques and the widespread practice of Islam in the country, there is no unified and coordinated system for providing spiritual support. These services are therefore provided voluntarily and on an ad hoc basis. Participant 24 (male religious practitioner) said: *"As I mentioned at the beginning, all this support is provided through the efforts of individuals, but in fact, we need a system"*. Participant 23 (female religious practitioner) made the same point: *"Since we are in this field and this situation, we volunteer by ourselves to do something that will make a difference to people in difficult circumstances"*. Creating a system that would coordinate efforts would help improve the quality of the spiritual support provided, and could also facilitate access for everybody. At the time the interviews were held, this part of the disaster response was not coordinated in any way, though there was some ad hoc cooperation in non-disaster times. Participant 23 (female religious practitioner) noted:

*What we have discussed is cooperation in matters of lectures and seminars on normal days, but I do not feel that there is any coordination in these times of serious climate events.*

There is also a shortage of spiritual guidance providers. Participant 38 (male religious practitioner) indicated: *"As you know, there are only a few people who provide moral and religious support, and there are many people needing help, so we do not have the number we need"*. Participant 36 (service user father) also mentioned that not all spiritual service

providers have the skills and communication style needed to make their teaching authoritative and inspiring:

*These practitioners need to have the right style of religious teaching. Some of them speak convincingly, and their words are based on Quranic verses and the hadiths of the Prophet, and, God willing, their words really affect you. But others do not have that skill of teaching and persuasion.*

The lack of emphasis on the need for spiritual support in these times of disaster may also be explained by the fact that Omani society is seen as an already deeply religious community. As a result, people's religious faith is often taken for granted, so nobody sees the necessity of taking extra steps to deal with the impact of natural disaster events. Participant 24 (male religious practitioner) said: *"The lack of a specific organisation whose job is to provide spiritual support when these climatic conditions occur may be because people know that Omani society is already innately and deeply religious"*.

## **7.6 Conclusion**

This chapter has addressed the first research question, which asks about the services that have been provided in the aftermath of natural disasters in Oman. It has explored the range of support provided in natural disasters, notably material, financial, psychosocial, and spiritual support. Each subsection attempted to answer five key questions.

People's actions and responses vary depending on their resources and perceptions, so the capital theory was relevant interpreting the data. The data also indicated that the Omani authorities largely adopted Maslow's hierarchy of needs in how they provided services to those affected by the disasters. However, there are different ways to view Maslow's pyramid, and our data suggests that the most effective way to is to treat it largely as a hierarchy, but to be aware that people may well move up and down its different levels.

While the theory of different kinds of capital proved very useful in discussing responses to natural disasters in Oman, the chapter has also suggested that there are weaknesses in Maslow's theory, most notably in the way that he undervalues the centrality of some societies' spiritual needs, as shown by the data regarding the role of Islam in Omani responses to disasters.

## **Chapter 8 :        Social work in the aftermath of natural disasters: responses, knowledge, skills, and values**

### **8.1 Introduction**

Social workers are key stakeholders and valuable resources in disaster management, mitigation, preparedness, intervention and recovery (Hassan and Adnan, 2016). This chapter focuses on the direct practice of social workers in the aftermath of natural disasters and will therefore explore the role they have played, including a discussion of their responses in the immediate, medium and longer time scales. While their focus in the immediate post-disaster phase was to provide the services needed most urgently, the medium and long-term response they implemented can best be analysed primarily in the light of the case management approach. The chapter will then review their knowledge, skills and values, exploring how these verify their commitment to the profession's principles and philosophy and enable them to perform their roles effectively.

### **8.2 Social work practice in the aftermath of disasters**

An understanding of the social work responses to the natural disasters in Oman will be based on the data collected in this study and relates to the two main time-periods involved: first, the immediate aftermath and then the medium and longer time scales. All the social workers interviewed emphasised these stages. In the immediate aftermath of disasters, their focus was on finding the quickest way to supply the necessities to those affected, and only later did this shift towards conducting case assessments and determining appropriate compensation.

#### **8.2.1 Immediate responses of social work**

The data revealed that the priority for disaster management authorities, including social workers, is to address practicalities such as food, bedding and accommodation for affected people. In the immediate aftermath, social workers were involved in two ways. First, on occasions where only a few people were affected, the situation did not require the opening of shelters. Instead, social workers contacted relevant authorities, particularly the Ministry of Housing and the state's volunteer teams (recently renamed the Social Development Committees, see 3.8.2), asking them to provide the material aid that was needed. Most social workers explained that when natural disasters first occur, material aid comes mainly

from the regions' volunteer teams as they are flexible and effective first responders. Participant 1 (male social work manager) explained:

*These teams [the state volunteer teams] are closer to the state's internal support than we are. Our support takes longer to obtain; we have specific procedures for the disbursement of compensatory amounts, including approvals, communication with partners, and then making disbursements. So these teams are therefore asked if they are able to provide the support; we ask them to provide it directly.*

A member of these teams, participant 42 (male NGO worker) also confirmed this cooperation, explaining their perspective: *"When we receive a call from the Department of Social Development, we take the required materials from our stores and deliver support directly and immediately where it is needed"*.

These voluntary teams can best provide essential services because of their proximity to and knowledge of the affected communities. Participant 1 (male social work manager) said: *"The state volunteer teams are part of our activities and are indispensable because they are close to the community and can reach the situation quickly"*. As mentioned earlier (see 3.8.3), Social Development Committees are formed and made up of people in each town. This means that they are local people and know how things work in their region. For example, Participant 12 (male NGO worker) stated:

*We have been working in voluntary work for a long time...We know every inch of the town. For example, we know which roads we can use and which roads to avoid because they are dangerous. And we have people with us in the team from all the villages of the town, so they can quickly contact and reach the affected people and tell us what condition they and their property are in.*

Researchers such as Desai (2007) stressed the importance of working with local groups, as was done here, because they are a valuable resource in social work intervention. Working with them also means that goals will be reached faster, and positive changes implemented more effectively.

Social development committees contributed to rebuilding and repairing property, as well as distributing water and food, and cleaning. Several social workers explained how the collaboration between social development departments and voluntary teams worked in practice, and how they were integrated. Participant 1 (male social work manager) said:

*We worked in coordination with the governors and with the voluntary teams; this happened after 2011, I mean after the voluntary teams were united. Before that, the work, I mean relief and shelter activities, providing direct assistance, visiting cases, studying them, and evaluating their conditions, was carried out by us as social development departments.*

Participant 11 (female NGO manager) also stated: "Yes, we are allowed to do fieldwork like assessment and aid distribution, but all these are recorded for the Social Development Department". She also added that they sometimes sent the reports to be reviewed by the department's social workers and sometimes held meetings with them to discuss the cases and the assessment. These participants made it clear that tasks previously undertaken solely by social workers in social development departments could now be done by voluntary teams and that they regularly held joint meetings.

The data showed that some social workers ensured that traditional service users, especially vulnerable groups, were not neglected. For example, they provided care for orphans who lived in poverty. Participant 31 (female NGO manager) indicated that orphans are the target group of their association and said: "We reached out to all the families looking after orphans and to all those whose homes could not withstand the hurricane. The first step was housing them, and the second step was to distribute food supplies and drinking water".

The only evidence in the data which suggests that social workers' interventions included helping people to manage fear and anxiety, was the case described by participant 1 (male social work manager) involving the foreign family whose breadwinner was out of the country. Here the social workers' role was to calm the family, try to allay their fear and constantly communicate with the embassy to assure them that their citizens were safe.

In disasters where there was only minor damage, social workers focused on receiving the affected people who came to them, and coordinating with the relevant authorities,

particularly the Royal Oman Police and the Ministry of Housing, to try and get assistance. In major disasters where many people were affected, social workers had other roles to play. One vital task was managing shelters, which are usually schools or other public buildings. Social workers are allocated to specific shelters and prepare to take in and look after people who live in high-risk areas. As soon as they are assigned to a shelter, social workers welcome people and assign them a suitable place where they can stay safely. Participant 25 (male social work manager) described the cooperation that happened in the shelters, explaining that the role of the Oman Charitable Organization was to distribute food, drink, and bedding to people there. Many charitable institutions and members of civil society also worked to provide services to those in the shelters and provide for their basic needs. He pointed out that all these efforts needed to be coordinated and supervised by social workers.

Participant 7 (male social worker) explained their role in the shelters in a similar way: *"In shelters, our work is planning, organising and distributing relief and livelihood materials"*. Participant 9 (male social worker) pointed out that the social workers in the shelters also provided direct health support to residents, either through the health staff in the shelter or by arranging for the person to be transferred to the nearest health facility.

The social workers in the shelters were also vital in solving problems. In disasters, families are evacuated from their homes quickly and suddenly and are transferred to shelters that, even if well-equipped, cannot be as clean and comfortable as their homes. Unsurprisingly, this situation affects their emotions and psychological reactions. Participant 6 (male social worker) said: *"There were many skirmishes, verbal altercations, and harmful and violent reactions, and frankly, the presence of a social worker is significant in these situations"*.

Stress reactions and behaviours resulting from stress or grief and confusion led to aggressive behaviour and agitation. Social workers in the shelters then took on calming, mediation and conflict-resolution roles to deal with these situations.

Social workers in shelters also took care to design their responses according to the culture of the persons affected. For example, participant 25 (male social work manager) pointed out that it was important for them to have female social workers in the shelters to assist the women there. This was particularly important because, given the reserved nature of Omani women, it was much better to have women helping with female issues such as sanitary pads and breastfeeding support. Participant 5 (female social worker) made a related point:



*When we divided the people in the school [shelter], we made sure to divide the toilets in an organised way, so we provided separate toilets for women, far from where the men are... so that they could enjoy the facilities in comfort and not be embarrassed.*

These experiences show a consideration for the nature of Omani society, and its specific concern for women's privacy. Indeed, wherever they are, social workers must understand and bear in mind the perspectives and cultures of those they are trying to assist (Mihai, 2017; BASW, 2019).

Mhlanga et al. (2019) argued that in most natural disasters, immediate and short-term problems and needs are practical and technical, and that the role of social welfare officials is thus reduced at this stage of disaster management. However, according to the data in this study, the role of social workers in shelter centres was not limited merely to providing basic material needs. Social workers also had to address psychological and social problems, dealing with disputes and creating a positive environment in the shelter. The importance of the social work role is echoed by Qandil (2011), who similarly claimed that social workers do have an important role when a disaster first occurs, such as carrying out needs assessments and guiding donor interventions.

Overall, then, immediately after an event, the social worker's role is to conduct a basic needs analysis, identifying families and individuals who have been most affected. As the first step, they must assist with procuring the financial and material resources to meet people's practical needs for shelter, food, water, and other necessities. This is consistent with the Chapter 6 discussion about Maslow's hierarchy of needs theory.

### **8.2.2 Medium- and long-term responses of social work**

Later in the aftermath of natural disasters, social workers mainly function as caseworkers. They deal with cases individually, but their focus is not on face-to-face intervention. Instead, their key role is to help people to get their basic needs and involves tasks such as finding and obtaining government resources like housing and financial services. Almost all the social workers agreed with the description by participant 41 (female social worker) of social workers' role after the immediate stage is over. She said: *"After studying the cases of the affected families and assessing the damage and its type, forms are submitted*

*to the competent authorities asking them to disburse funds to help these families fix any of the damage that can be repaired".* Participant 28 (male social worker) confirmed this: *"After identifying the affected persons, we conduct a case study and collect the data we need through a home visit and observation of damage to the house and its outbuildings".* He added, *"Based on our assessment of the damages, the compensation process will take place".*

When social workers were asked if they assessed the psychosocial damage people had suffered, they explained that no one had ever asked them for psychosocial support. Participant 7 (male social worker) said: *"The assessment is only for the material damage, as we have not had cases that require psychological and social support".* For example, participant 27 (male social worker) said: *"We make home visits and meet some family members, we question them, and we also observe the damage to the house, and sometimes we take photos as evidence to support the case".*

Social workers dealing with disasters in Oman, then, used the different tools of the casework approach, such as listening, observation, interview, and home visits as a step to requesting material and financial aid. No attention was paid to the possibility of psychological or social damage, and no consideration was given to the need for services such as counselling, either for adults or for children.

Most social workers made it clear that post-disaster services were not provided randomly. The case is first studied, and all the necessary data collected; only then can the appropriate assistance be determined. Participant 26 (female social work manager) explained: *"The home maintenance process begins when the researcher has done their report, and also the process of determining the entitlement of those affected. This means that assistance is given only after the case study".*

The case management approach is the most appropriate for interpreting how social workers provide post-disaster services (see 5.7). The account presented by Hall et al. (2002) outlined the six functions of the case management approach but emphasised that although these functions are distinct in their activities, they are not linear or strictly sequential. These stages are as follows:

## **Stage 1:** Identifying and communicating with clients

The first stage in the intervention is identifying and communicating with clients. Participant 1 (male social work manager) explained there are three main ways that claims can be made and the evaluation process started, regardless of whether the community is rural or urban. First, the victims can write a letter directly and report the damage and size of the property. Second, the village leader can write a letter about the damage and its extent, gets it approved by the governor, and then sends it to the social development department to take action. Third, the people affected can attend in person to report the case.

Other social workers described another way that cases can be identified. Participant 4 (male social work manager) said: *"We look at any affected person who applies for help and we see if the damage is individual or if the impact of climate events had a general impact on the whole region; if the latter is the case, a team is formed to visit the region"*. The methods of access to and identification of cases may differ from one department to another. Service users preferred that social workers take the initiative in identifying those affected and assessing the damages, instead of those affected having to apply for assistance themselves (see chapter 6).

Participant 7 (male social worker) and several other social workers mentioned another method of identifying those affected:

*In some cases, citizens apply through the ministry or social media as they are not aware of the mechanism for requesting compensation. They post on social media about the damage they suffered and the difficult home conditions, so we follow up on this news and take it into account.*

Participant 7 further explained the process: *"When we receive cases via social media, the field team goes to assess the damages and check what services can be provided to the family"*. Social media can thus assist social workers in performing their roles, and they must therefore understand how it can be utilised as a resource.

However, it is important to be aware of potentially exploitative situations and networks and be willing to identify and challenge them. Participant 41 (female social worker) emphasised the importance of checking out the cases that seek help, saying: *"Coordination takes place between the concerned authorities to report the affected cases and go for a*

*field visit and make sure of the affected people and their conditions*". Participant 29 (male social worker) pointed out that sometimes social media is used to spread rumours and circulate old or fake photos and videos. At times when social workers check these, they discover that they are inaccurate.

The research data did not indicate the use of any household mapping or documents to identify affected people. Vulnerable people, such as the elderly, people with disabilities, families with improper housing, and families with many children, are, like other affected people, identified and accessed based on the data freshly provided to social workers in each specific disaster. However, researchers such as Mihai (2017) and Desai (2007) recommended household mapping as a way to help social workers identify affected people more quickly and especially to locate the vulnerable groups who are their major concern. Indeed, such information is also helpful to the unit responsible for emergency interventions and allows them to deploy forces more efficiently.

**Stage 2:** Impact and needs assessment with the collaboration of a multi-sectoral group of key disaster organisers

One of the most critical roles of social workers is assessing the impact of disasters on individuals, families, and communities. Social workers begin to observe and collect data and understand the lifestyles of the people affected. Participant 26 (female social work manager) confirmed: *"The assistance is done after the case study"*. It is critical in delivering emergency and long-term disaster services that these should respond to the actual needs of people in a disaster-hit area. This can only be achieved if needs are accurately identified Maglajlic (2019).

The process of assessing damage varies from one disaster to another. In Cyclone Gonu, Oman's worst recent natural disaster, a specific body was assigned to provide support after the disaster. Participant 5 (female social worker) said:

*The compensation was not through the Ministry of Social Development. I do not remember exactly who was responsible; several parties were, but most people obtained compensation through field visits carried out by the Statistics Centre and the Ministry of Finance. They were conducting field visits and inspecting the damage.*

Participant 4 (male social work manager) confirmed this: *"In Cyclone Gonu in 2007, the Ministry of Finance was entrusted with case studies, assessment of damages, and distribution of aid. I mean, we did not have a major role in the matter in Cyclone Gonu".* When asked whether those who conducted the assessment were social workers, he answered: *"I'm not sure, honestly, but I don't think they are social workers; they were employees of the Ministry of Finance".*

Now that the roles of different institutions have been clarified, the situation has improved, and tasks are now entrusted to the most relevant institutions, with some data indicating effective cooperation between the parties involved in assessing the damage. Participant 7 (male social worker) described the collaboration between the social development departments and the social development committees, explaining: *"We, in cooperation with the social development committees, counted the damages and distributed aid to those affected according to their needs".* A member of a social development committees, participant 42 (male NGO worker) said: *"In the cyclone that hit the state, we counted the damages and then distributed electrical appliances to the needy".* When asked about social development departments, he explained: *"They do not go to the field with us, but we send them the inventory lists and the appliances that were distributed, so they are aware of the matter".*

Some authorities coordinate well, according to Participant 30 (male NGO manager):

*In Cyclone Mekunu in 2018, the Oman Charitable Organization was assigned to distribute the aid. We asked the social development departments to take an inventory of the affected individuals and collect their data and damages, and then they sent us the reports, and we distributed the aid.*

However, others noted some confusion in the process, like participant 25 (male social work manager): *"As I told you, we did what we had to, counted the affected people, and sent reports to the Oman Charitable Organization, but we do not know how the aid distribution happened, unfortunately".*

Recently, in Cyclone Shaheen in 2021, the Ministry of Social Development visited more than 22,800 cases when the fieldwork team themselves assessed the damage to individuals and property in North and South Al-Batinah (Al-Nassriya, 2021). It appears that the Ministry of Social Development implemented the damage assessment process,

but there is no data on how the assistance process was carried out, nor its effectiveness. Generally, impact assessment is entrusted to social workers and social development committees working together in each region.

When social workers were asked if they had a manual for assessing cases, they referred to the social assistance manual that guides them in determining the damages. Participant 41 (female social worker) said:

*As an assessment and inventory of damages, we use the Social Assistance Law. For example, we determine how many rooms were damaged, the building materials used, and so on, but the compensation will depend a lot on the party that pays the amount.*

Participant 27 (male social worker) said: *"We honestly assess the damage and write all the details because we want the affected people to take all their rights".* He added: *"However, we do not know about the compensation process, how the sums were spent, and how much they actually got, because it is not by us".*

Almost all the data focused on the assessment of physical damages, with no reference to the assessment of psychological or social damage, even by service users. The literature, however, notes that the assessment conversation is a valuable opportunity to hear people's stories, to assess their needs and strengths, learn how they may have coped in past crises and gain insight into the effectiveness of their social networks (Walsh (2007). This requires active listening and the ability to ask the right questions at the right time, validating empathetically and normalising sensitive responses. These, combined with unconditional understanding and acceptance, are crucial elements of effective social work practice (Seden, 2005).

Although some foreign workers were killed by the cyclones, social workers did not deal with these, as the deaths of foreigners are always dealt with by the Ministry of Foreign Affairs, as explained by Participant 4 (male social work manager). He also explained that the families of most foreign workers do not live in Oman, so cannot be helped there. In any case, complex cultural issues are involved, so the practitioner must respond without making assumptions. For example, participant 1 (male social work manager) thinks that foreigners, not Omanis, pay more attention to mental health than do Omanis, and therefore do not hesitate to ask for psychosocial support in times of disaster. Since his

view was based on a single case, it cannot be generalised and there are other possible interpretations.

This stage of intervention involves cooperation among multi-professional teams and service users not only in assessing the damages but also in discussing which services and resources will be most useful in each case. Participant 2 (male social work manager) pointed out that the assessment process involves working together with all parties to find the best solutions possible. Participant 1 (male social work manager) said: *"we have cooperation with other parties, especially the Ministry of Housing, as they are concerned with providing housing. We are in constant contact with them"*.

Participant 26 (female social work manager) also explained their relationship with the social development committees: *"We hold continuous meetings with them because they cooperate with us in distributing furniture and electrical appliances to those affected"*. She added that the committees have resources and collect donations from the community to give to those affected. At this stage, discussions should also focus on the resources and strengths available in the community. Many social workers, such as participant 26 (female social work manager) and participant 28 (male social worker) described their cooperation with various authorities, particularly the municipality, the Ministry of Housing and voluntary teams. Indeed, such coordination and collaboration are essential (Maglajlic, 2019), and the role of social workers here is to observe and collect data on the problems, needs and resources in a community, as well as to collaborate with experts in other professions.

**Stage 3:** Plan with survivors to determine the most appropriate mechanism for meeting their needs.

At this stage, social workers are aware of the potential capabilities and resources of social service organisations and are therefore able to provide survivors with available services. It is crucial that such knowledge is accurate and up-to-date (Maglajlic, 2019). Social workers tend to turn primarily to NGOs as the most valuable sources of aid. Participant 7 (male social worker) said: *"We constantly contact the charitable teams to be aware of their available resources and then be able to direct service users"*.

However, unfortunately, the data indicated that affected people were not involved in these discussions. Rather, control was in the hands of the professionals, who had no discussion with service users and failed to seek their opinions. Many social workers pointed out that

the affected people were directed to the region's charitable team, who studies the cases and determines the services they can be given. Participant 6 (male social worker) said: *"The social development committees are currently our partners; in some situations where the committee has the capacity to provide the support...they assess the cases and provide assistance to the affected people"*. Remarkably, even NGO participants made no reference to any dialogue with service users. Damages are assessed, and assistance provided, without their input. Desai (2007) disputed the validity of this approach, asserting the importance of counselling individuals, informing them of available opportunities and allowing them to negotiate and express their opinions.

**Stage 4:** Benefits from available local support networks where survivors are connected to local networks to help meet their needs.

This is the stage where the actual intervention takes place and support is provided, either directly by social workers or by those they work with. Participant 26 (female social work manager) described the support provided by NGOs and companies:

*Did you see the assistance provided by companies, including equipment and others? Sometimes, voluntary associations benefit us as well. For example, you have the Bahjat Orphans Association in the Governorate of Dhofar, which helps us provide housing and money and make repairs.*

Many social workers agreed with participant 1 (male social work manager), as he explained how long social workers would spend assisting those affected, saying:

*Social services will continue with the affected people after the shelter and until they return home. Then we compensate the deserving people [those whose cases have been assessed and found to be eligible for assistance] and break contact with them. But if it turns out that someone needs other social services, they will certainly be contacted, but so far, it has not.*

A key role of social workers is assisting affected people to obtain financial compensation. Kusmaul et al. (2018) also argued that social workers must help people to manage the financial stress which can affect their emotional well-being during long-term recovery. Participant 41 (female social worker) explained how social workers facilitated financial



support; they conduct case studies, then submit the forms to the relevant authorities, who will disburse funds to help with damage repair. Participant 7 (male social worker) noted that if case studies show that some affected people might not be legally entitled to government aid, they will be directed to charitable teams for possible assistance.

The social work practitioners play a vital role here, as assistance should be allocated based on local needs rather than external expertise. Participant 13 (male NGO worker) said:

*We have resources to provide material support, such as electronic and electrical devices, to those affected by natural disasters. Because we do not know those areas, we coordinate with social development departments and social development committees in the area to cooperate in identifying those actually affected and determining their needs.*

Social workers can ensure that aid goes to those who need it most, specifically those living in poverty, as they have identified the needs and know the requirements of the people affected.

As previously noted, the primary focus was on providing material support; social workers did not offer psychosocial support services because these were not requested. However, Alston et al. (2018) stressed that people may suffer many kinds of loss in disasters, including the loss of livelihood, of a sense of belonging, of cultural identity, and of a sense of community cohesion. Comprehensive support should therefore be provided for individuals experiencing loss and trauma.

Social workers are not involved in the actual rebuilding of physical infrastructure. Participant 1 (male social work manager) explained that each ministry is responsible for repairing the damage to its buildings and facilities, and NGOs may contribute to community facilities. Participant 6 (male social worker) said:

*After disasters, social development committees and other relevant institutions, such as municipalities, try to restore conditions such as by cleaning streets, cleaning buildings, preparing places, and repairing existing damages. The*

*Ministry of Agriculture also contributes to damage to farms, demolishing walls, and the like.*

Participant 12 (male NGO worker) described their effort to reconstruct a non-government school, repairing the roof and building a sand barrier to keep out water from the valley.

The study revealed no evidence of attempts to rebuild of social infrastructure, but the literature stresses that one vital role of social work is to reconstruct communities and social relations (Hang, 2015; Liang and Zhang, 2016). Social workers should appeal to different bodies to reconstruct destroyed social buildings and facilities. They should also track people down after disasters so families can be reunited and internally displaced disaster survivors reintegrated into the community (Mathbor, 2007; Hang, 2015). Social development methods must also be adopted to empower citizens and communities and improve grassroots social development to rebuild social networks and communities (Hang, 2015). Social workers can thus be intermediaries in the process of community development; this is not yet done.

The issue of psychosocial support has been raised earlier (see Chapter 7), and its absence noted and explained. However, its importance has been widely emphasised in the literature (Mihai, 2017; Islam and Wahab, 2020), with Mhlanga et al. (2019) arguing that most disasters have traumatic effects which require crisis psychosocial support and the provision of various services to those affected.

Indeed, the data showed that service users faced many difficult situations during the disasters, with participant 35 (service user daughter) speaking of “doomsday” and “horror”. Participant 43 (service user son) told a story about a father and children whose car was washed away; they were stuck until a man rescued them, but the rescuer then drowned. Participant 18 (service user mother) was in a house that was totally covered by water; her husband had recently had a leg amputated and they had to wait for an ambulance to rescue them. These experiences were undeniably traumatic, but social workers in Oman have not yet taken the notion of psychosocial support seriously, nor have the authorities made any coordinated efforts to provide it. So far, most social workers put the onus on those affected to proactively request it, which is far from satisfactory. For example, participant 28 (male social worker) said: *“In fact, I have not heard of providing psychosocial support because none of the affected people asked for it”*.

In fact, this is not strictly true. The data revealed that some survivors wanted to have someone listen to their disturbing experiences (see Chapters 6 and 7). Participant 15 (service user daughter) was fortunate to be able to talk to her classmates, and Participant 19 (service user father), who has made many positive recovery efforts, described his wife's long-term trauma: *"My wife and I always talk about what happened to us, and how shocked we were when we saw the situation in the house, and she cries immediately"*. Others had no-one to talk to. Participant 35 (service user daughter) said: *"My sister wished that someone had asked her about her circumstances and heard about her suffering with the hurricane when she returned to the university"*.

**Stage 5:** Case managers monitor the effectiveness of interventions provided to clients and assess whether their needs have been fully met.

During the assistance provision stage, communication is supposed to continue and be led by service providers. However, the data showed that it was often service users who initiated communication and complained about ineffective interventions. Participant 21 (service user mother) said the caravan they lived in had many malfunctions, so they contacted the Department of Social Development and asked them to look at the caravan's condition. When asked about visits to check on their situation, she answered that these did not take place.

Participant 30 (male NGO worker) was asked about the reasons for the continual problems with the caravans and the failure of service providers to respond to the users' complaints, he answered:

*The expected life of these houses is five years maximum. Because the project was very large, it was around 800 homes, you could not finish it overnight, it took time. Choosing the appropriate sites and the executing company was the problem. The period in which people stayed was long, but these were procedures and problems beyond our control.*

Whilst he understood the caravan residents' complaints, and the underlying problems, resolving them was beyond the capacity of the social workers. However, more positively,

the data showed that social workers did try to meet the demands of those in caravans that they could deal with. Participant 30 (male NGO manager) said:

*We quickly provided some requests, such as the request to build a mosque. We have a budget called the service's budget. We discussed the request with the committee, and the committee approved it; it took a very short period. When they [those who stayed in caravans] requested the provision of mosques, they were provided within two weeks; this is one of our services.*

The same participant showed how they tried to meet other demands, even those they found strange:

*The second service, which may surprise you, was to create animal pens, but we provided them. They also asked the municipality to distribute garbage containers to every house. The municipality did this because some complained that their sheep died because they ate too much food. Also, some of them were facing problems such as infringing on the sanctity of others, and we discussed and followed up this problem with the police. In some cases, there were house fires, and they were given new houses. Also, some houses were affected by rains and re-maintained, and some people demanded a patio for their houses, and we gave them what they wanted.*

These examples show that social workers did attempt to be flexible and creative during long-term disasters and did try to adapt to the changing service delivery environment, as recommended in the CPD Guidance on Social Work Roles undertaken during Disasters (BASW, 2019), which states the need to develop creative and ethical responses to unique and unexpected challenges and be confident in stepping outside usual practices.

**Stage 6:** Advocating for the unmet needs of survivors at local, national and international levels when necessary.

The data cited several examples of the social worker as advocate. Participant 26 (female social work manager) talked passionately about the need to defend the rights of the highly vulnerable foreign workers in low-level jobs:

*People with abilities usually turn to their families. But there are those who often do not have these capabilities, especially migrant workers, and this drives us to an important issue, which is ensuring that companies provide a safe place for them to minimise the risk of any future disasters.*

She also mentioned another vulnerable group: *"And of course not only those but even Omani citizens, especially those living in marine areas"*. This is an example of advocacy for the rights of those vulnerable or for needs and solutions identified at the local level (Desai (2007)). Not all the attempts to fight for unmet needs were successful. Those fighting for people who received no financial compensation failed. Participant 27 (male social worker) explained:

*Many groups did not get any help. After that, we contacted the cases and communicated with the authority, we got lost in our communication between the authority in Muscat and the authority in Salalah, and we came up with nothing.*

Looking at the case management stages at a whole, it is interesting to note that four social workers did carry out an ongoing evaluation of their experience of dealing with a natural disaster. They each assessed their actions, discussed their findings in meetings, along with the impact and the lessons learned. Participant 2 (male social work manager) said:

*I always say that we are always learning; I mean, we always learn and get a benefit. Planning is very, very important, it is the basis of every need. I mean, what is really supposed to happen is after any situation we have to sit down and discuss everything...and see, we have failed in what? Why did this happen? Why couldn't we control it? What were the existing problems?*

The value of this type of action is described by Al-Shaqsi (2009); those involved show accountability and take responsibility for their personal actions. In the aftermath of each disaster, a meeting is held to discuss the disaster, what actions were performed, and to review both the strengths and the aspects that need improvement. Participant 41 (female social worker) said: *"Honestly, in each disaster, we face something new, but debriefing*

*meetings are very useful. It helps us not to make the same mistake again".* This stage is crucial for social work organisations. When capabilities are reassessed, the team can describe successful approaches and become more aware of what skills they have and what they lack.

### **8.3 Social work knowledge in the aftermath of natural disasters**

The data did not refer specifically to knowledge needed, but did identify three main areas of knowledge: the roles of social workers in disaster management; legislation, policies and resources; and professional development and relevant theories and models. Many participants stressed the need for social workers to know the roles they must play during disasters. Participant 25 (male social work manager) said: *"Social workers need to be ready and aware of their roles during times of disaster, not at that moment asking what we do".* Opinions differed about the extent to which social workers are already aware of these roles. Most interviewees, particularly at management level, claimed that social workers do know them. Participant 2 (male social work manager) said: *"From my observations, I can say that social workers are good at dealing with disaster management situations, and their levels improve with each disaster".* Not everyone agreed. Participant 30 (male NGO manager), said: *"Unfortunately, we have social workers here at the institution, but they don't have a good knowledge of their roles".* Participant 9 (male social worker): *"I cannot tell what they [social workers] should exactly know, but a good social worker should know how to handle these situations and combine their academic knowledge with their field experience".*

Some social workers and NGO workers emphasised the importance of knowing all aspects of social work practice in disaster management; key themes were the need for psychosocial support and the inclusion of social workers in NGOs. Participant 26 (female social work manager) said: *"You made me focus on the importance of psychosocial support in the aftermath of natural disasters".* Participant 33 (female NGO worker) said: *"Our problem is that we do not have psychologists and social workers in our organisation...If we had members specialised in these specialisations, we could definitely provide this service".* This could be readily resolved: NGOs could ask the social development departments for social workers or could ask qualified social workers and psychologists to join them voluntarily.

This was linked to the need for initial and ongoing disaster-focused training that included relevant theories and models. Participant 8 (male social worker) pointed out the

importance of relying on scientific knowledge: *"We need to focus on the importance of knowledge base and what are the theories that interpret the situations and what are the appropriate social work interventions"*. Interestingly, he added: *"Things should not be done randomly, I appreciate these are emergencies, but we should follow the scientific way in managing them"*. Participant 1 (male social work manager) stressed that professional preparation should start in colleges and universities: *"I think this professional preparation of the social worker is very important. Therefore, I hope universities and colleges focus on providing students with sufficient courses in this field"*.

Interestingly, many social workers emphasised that tertiary preparation alone is not enough and that continuing professional development is very important. Participant 27 (male social worker) noted that employees have good knowledge of crisis management and how to deal with affected cases in such times. However, he emphasised the need for more training and development. Interestingly, some social work managers referred to a training course called "My Region Is Ready". Participant 2 (male social work manager) said: *"We organised a training course called "My Region is Ready"; it focused on how we respond to and deal with disasters"*. He added:

*This two-day training session was implemented by the relief and shelter sector in cooperation with The Executive Office of the National Emergency Management Committee. It aimed to prepare trainers in the relief and shelter sector... There were 32 participants from the Ministry of Social Development and the Executive Office of the National Civil Defense Committee, the Oman Charitable Organization and the Public Authority for Food Reserve.*

However, some frontline social workers complained that the training was mainly for those at management level. Participant 28 (male social worker) said: *"Unfortunately, this training session targeted managers like heads of departments. We were not involved"*. Participant 2 (male social work manager), however, claimed that involving every social worker might not be possible and that participants on the course will then train other staff and volunteer in their region. However, some social workers, like participant 29 (male social worker), found this ineffective:

*It is true that whoever attends a workshop returns to the department and presents to us what they learned in this workshop, but I think that it is better*

*to get knowledge from its source and from the person who is able to answer our questions.*

Participant 8 (male social worker) made other valid points: *"I have not attended this training session, but from what I heard, it is mainly focused on the immediate response rather than long-term recovery"*. He added: *"Their focus is on physical and financial aid, not that much on psychosocial and spiritual support"*. Overall, then, initial efforts have been made to offer training in disaster management to relevant people, but key concerns - the involvement of front-line social workers and training in psychosocial support - should be seriously reconsidered.

The second main area of knowledge is legislation and policies. Social workers should be familiar with laws and regulations related to natural disaster assistance. Participant 4 (male social work manager) said: *"The person must be familiar with social security, the Social Security Law and the ministerial decisions regulating it"*. He emphasised that regulations, laws and ministerial decisions govern how they deal with disaster cases, indeed, knowledge of laws and procedures is vital, specifically the Social Assistance Law.

Given the importance of the Social Assistance Law as a reference for case studies and aid provision, the data showed that all social workers at management level are trying to keep front-line social workers well-informed of any changes to the regulations. Participant 25 (male social work manager) said: *"If we receive any changes in legislation, we hold meetings to review the changes and discuss them together to make sure everyone is aware and understands"*. Participant 4 (male social work manager) also added: *"We send hard copies and emails about any instructions and changes in legislation to the relevant people"*.

Social workers also stressed the importance of knowing the resources they could draw on to benefit affected people, whether from government, private, or non-governmental agencies. Participant 3 (male social work manager) said: *"It is very important to have up-to-date information about the available resources. I always encourage my staff to register any resources in the community to benefit the service users"*. Participant 31 (female NGO worker) agreed: *"We try to consider all resources in the community to help our service users; we don't want to miss any available resource"*. Similarly, participant 7 (male social worker) emphasised that for the social worker to connect the beneficiaries with the services available in the community, they should be in constant contact with these bodies



and be aware of their capabilities. This may be a burden on individual social workers, but Participant 41 (female social worker) proposed a useful solution: *"I think we need a database which we can easily access because resources always change"*. Elaborating on this, she said: *"Some new resources may appear, and there may be institutions that reduce or even stop their resources... It depends on their budget and capabilities"*. Indeed, the idea of having a comprehensive, accessible database could help social workers to easily update information by adding or removing resources where applicable.

Many interviewees also showed great interest in this current study, having not formerly been exposed to or involved in such empirical research. Participant 1 (male social work manager) said: *"This research is brilliant. I have not heard of any piece of research on this topic, we are waiting for your findings. Please do not forget to send us a copy of your thesis"*. Similarly, participant 3 (male social work manager) said: *"I think your findings will benefit us a lot...please provide us with a copy of your research"*. Religious practitioners were particularly pleased by the study's attention to the role of spiritual support in these devastating times and pointed out the lack of research in this field. As participant 23 (female religious practitioner) said: *"I think you are the first one who researches this topic"*. Participant 24 (male religious practitioner) also said: *"I am really happy to see someone researching this topic and addressing the spiritual aspect. Unfortunately, this aspect is greatly neglected"*.

The lack of earlier research on this topic indicates that more scientific research is needed to explore and evaluate the state of social work practice in Oman, focusing not only on social work practice generally, but also on a variety of social work interventions.

Two crucial areas of social work knowledge are in fact transferable from everyday social work to disaster management. The first is knowledge about legislation and policies, especially the Social Assistance Law, which is used as a reference for case studies and aid provision in both normal times and natural disasters. The second area involves knowledge of the resources available in the community, which social workers should be aware of in both normal and disaster circumstances.

#### **8.4 Social work skills in the aftermath of natural disasters**

When social workers were asked about the main skills needed to perform their work effectively, most emphasised the ability to communicate and coordinate with different parties, as they cannot benefit their clients without the resources and services others offer

(BASW, 2019). Participant 41 (female social worker) stressed: *"Coordination between multiple bodies and the affected parties"*. On the ground, the data showed both successful and unsuccessful examples. Participant 30 (male NGO manager) faced with chaos in aid distribution, said: *"We made connections with other bodies asking them not to distribute aid individually, but to send their donations to us...we worked together smoothly, and it was a good solution"*.

Participant 7 (male social worker) had a different experience: *"Although we were trying to work closely with the social development committee, some duplicates happened in providing support. The problem is mainly because they do not update us with continuous reporting"*. Interestingly, he added, *"I think an online system instead of paper reports would solve this problem"*.

Other critical skills mentioned were problem-solving, creative thinking and an ability to manage emergencies; these were shown, for example, by Participant 25 (male social work manager) finding diabetes tablets by going door-to-door during the cyclone (see 6.2.1). These are skills that can be improved by continuing professional development; they can also be transferred from regular social work to disaster circumstances, as emergencies may happen at any time and social workers must always act reasonably and quickly in crises.

Social workers also highlighted the importance of warm human skills in dealing with those affected. As participant 41 (female social worker) said: *"They [social workers] have the will to help others and provide a kind of social solidarity"*. Both commitment and willingness to help can be clearly seen in the data. Social workers, regardless of their social and health status, did not hesitate to be involved in times of natural disasters, without hesitation or excuses. Participant 5 (female social worker), for example, was working when pregnant, and participant 27 (male social worker) praised his colleagues for being: *"empathetic, willing to help, compassionate, flexible, and patient."*

Stress management and conflict resolution skills were also identified, particularly in shelters where people feel restless and irritable and are more prone to clashes, as explained by Participant 6 (see 8.2.1). Participant 8 (male social worker) showed similar empathy: *"Honestly, I understand why some people are upset in the shelters because they have lost the comfort they had in their homes and are tense about the situation...Here we*

*need to understand them, accept their situations, and reduce their tension".* The understanding and acceptance shown here are themselves vital qualities.

Many social workers referred to skills in conducting case studies which are linked to a solid knowledge of the rules and regulations related to eligibility for aid. Participant 4 (male social work manager) emphasised this skill, saying: *"The person in these positions should be well experienced in studying cases and developing the appropriate solutions for each case, because the ultimate goal is to produce a result for the service user by the Ministry of Social Development"*. Participant 29 (male social worker) similarly pointed out the need for good assessment skills through collecting accurate and comprehensive data, so that those affected will be treated with justice.

The skill of advocacy, emphasised in the sixth stage of the case management, was evident in several situations mentioned, where social workers did their utmost to defend the rights of those affected. Trevithick (2005) corroborated the need for the skills mentioned above, highlighting particularly communication skills, the ability to build and maintain relationships, and critical thinking and analysis.

Of the skills discussed, the two most transferable from normal circumstances to disaster work are communication and the ability to conduct a case study. In normal circumstances, social workers must conduct case studies to determine who is eligible for social security support and assistance. A disaster case study collects similar data, such as the number of family members and the average income, but with more focus on damage to housing and other property.

## **8.5 Social work values in the aftermath of natural disasters**

According to the data collected, the most significant values guiding the social workers' intervention in the aftermath of a disaster are the belief in equality and equity in service provision, respect for diversity and the right to self-determination. Equality enables social workers to identify those most vulnerable, assist them in the complex challenges of disasters and ensure equity. For example, participant 31 (female NGO manager) indicated that orphans are their organisation's target group: *"We announced all the families of orphans and those whose homes cannot deal with the disaster. The first step was housing them, and in the second step, we distributed food supplies and drinking water"*.

Some social workers also emphasised the need to defend the rights of lower-level migrant workers. Participant 8 (male social worker) said: *"We also need to find a solution for migrant workers because they live in weak homes and in large numbers"*. Social workers noted that they cannot afford better living conditions, even though it makes them particularly vulnerable to natural disasters. Participant 26 (female social work manager) stressed the need for advocacy on their behalf: *"Their [migrant workers'] employers should provide them a safe place to minimise the risk of any future disasters; we should ensure this"*.

Some social workers also tried to ensure social justice by doing their best to target aid services to those most in need. Participant 30 (male NGO manager) described issues with the distribution process, and how these were resolved: *"some people sent aid to specific people who maybe were unaffected, while others were waiting. Also, hundreds of aid items and trucks disappeared"*. However, they took steps to eliminate this problem: *"It was announced that the donations should all go to the Omani Charitable Organization, which is responsible for distributing them. We were keen to distribute donations fairly based on the needs of those affected"*.

This reduced overlap and duplication and ensured that donations were distributed equitably according to people's needs. This is described in the literature, as the "one-door policy" (Melis, 2022), where assistance is provided through a single port, and all non-state support must pass through state institutions. The opposite is the "multiple windows" policy, where different suppliers provide assistance separately. Participant 29 (male social worker) discussed the importance of achieving social justice in providing services, saying:

*I am honest, and this is between my Lord and me, so if I do injustice, I oppress myself, and no one will benefit me...I see the best way to deliver aid properly is to go to the field and see the reality on your own.*

Respect for diversity is also crucial, treating all people with the highest degree of respect regardless of gender, race, religious affiliation and any other factors. This value was evident in several situations in the data. Participant 5 (female social worker) said: *"Shelters are offered to everyone who feels vulnerable in their home, without exception"*. Participant 2 (male social work manager) confirmed this: *"We open the shelters for the Omanis and non-Omanis"*.

Several issues must still be resolved if respect for all is to be more evident. One of these is the need to consider all the languages spoken in the country and to provide translators where necessary. Participant 8 (male social worker) described their difficulties communicating with those Indian and Bangladeshi workers who speak neither Arabic nor English - their problem was solved by finding an Urdu translator. He stressed: *"We are a society in which there is a mixture of nationalities with different languages, so during crises, it is necessary to prepare in advance to deal with them"*. Participant 4 (male social work manager) agreed: *"The languages used to disseminate information and raise the population's awareness should not be limited to Arabic and English"*. Participant 9 (male social worker) made an interesting point about the necessity of institutional translation, saying:

*In order to ensure that rumours do not spread and that the information being transmitted is accurate, we must avoid personal translations, never relying on the translation of individuals themselves. Official bodies must cover all languages used in the country.*

Sometimes rumours are spread that some areas are completely destroyed, or that there are many cases of injuries and deaths. The reality may be highly exaggerated, causing people to panic. Updates and information should thus be published by the authorities in all these languages to enhance respect for all. Al-Zaabi and Al-Zadjali (2022) similarly criticised the use of only Arabic and English in alerts about the Dhofar depression and November 2019. All disaster management phases, then, should include all members of society, particularly in a population that is increasingly diversifying.

Respect for diversity also needed to be respected in the provision of religious support. Participant 23 (female religious practitioner) said: *"We are focusing on Muslim people; I don't know about other religions"*. When participant 24 (male religious practitioner) was asked about non-Islamic support, he replied: *"This is a difficult question; I don't really know if it is allowed to provide support for other religions in the country"*. All spiritual support has so far focused on Islam, with no attention paid to Christians, Hindus and others in the country.

Also significant, but not always appreciated by interviewees, is the value of the right to self-determination, the belief that people must participate in decisions that affect their lives, including plans for their recovery and rehabilitation. The right to self-determination

was appreciated in some situations but not fulfilled in others. Individuals were free to take advantage of shelters or rely on their capital to find safe accommodation, but participant 27 (male social worker) said: *"Some people can't stay in the shelters, so they ask to leave. Sometimes we prevent them if the situation is scary and dangerous, but when it is more or less safe, we allow them to leave"*. He explained further: *"I mean, we cannot force them into something they are not comfortable with, and they certainly have other alternatives, such as renting a hotel or going to stay with their families"*. Social workers will do everything to dissuade the person from leaving the shelter, but at the same time understand that alternative options may be more suitable for them. Participant 30 (male NGO manager) made a similar point related to long-term accommodation: *"When we offered caravans to the affected people, some did not accept them and said they would live somewhere else. We told them that is okay; you can do whatever works for you"*.

However, the right to self-determination was not always considered, especially in the matter of the caravans. Participant 21 (service user mother) said: *"We wanted to stay in a rented house instead of a caravan, but they didn't agree"*. Of course, in this case the situation depended on what the authorities were able to offer within their budget. A failure to respect self-determination was clearly evident in the case management stage where social workers are supposed to plan with survivors to determine the most appropriate mechanism for meeting their needs. In the data, there were no dialogues between service providers and service users, and social workers took unilateral, albeit well-intentioned, decisions.

The literature stressed other values not mentioned in the data: people's right to self-worth and dignity, and the belief in their capacity to grow and change (Desai, 2007; Mihai, 2017). Belief in the right to self-worth and dignity is the basis of human rights; people have the right to help restore their ability to function, resulting in recovery and rehabilitation. Belief in people's capacity for growth and change is also key; social workers must support people's own efforts to restore their balance and functioning, on the path to individual, family, and community development. These values underpin an appropriate recovery from disaster, create a more just social-ecological system, and are ideally suited to the process of healing and rehabilitation. However, there is no obvious implementation of recovery programmes following the natural disasters in Oman, so it is unsurprising that social workers did not mention these values. Cleary and Dominelli (2020) emphasise the need to uphold social work values in times of disaster, and to pay particular attention to oppressed and disadvantaged populations. These Omani social work values are valid in

both normal and disaster-related situations (MOSD, 2019); they frame social work practice and ensure the protection of human rights.

## **8.6 Conclusion**

This chapter has addressed the responses of social workers in the aftermath of natural disasters, with the focus in the immediate post-disaster phase being to provide the most urgently needed services to those affected. One of the key findings is that the intervention of social workers in the medium and long-term stages mainly followed the case management approach described by Hall and colleagues (2002); however, this was not followed consistently or thoroughly by all involved. It was also found that effective and professional psychosocial support was not provided, and needs to be seriously considered at all levels of disaster management. The chapter has also reviewed the knowledge, values and skills exhibited by social workers in times of disaster in Oman, confirming their commitment to the principles and philosophy of their profession, but noting areas where improvement is recommended.

## **Chapter 9 : Discussion**

### **9.1 Introduction**

This chapter begins by restating the research problem of the thesis, then highlights and interprets the key findings, discussing where they agree and disagree with existing knowledge. It brings together the conclusions about social work practice in the aftermath of natural disasters, comprehensively exploring the different types of support provided, and how social work is involved. The chapter will address issues about the support currently available, and outline considerations for improving social work practice in disaster aftermaths.

State institutions in Oman often fail to include climate change and risk alleviation in their development planning, focusing on providing relief and implementing emergency measures every time a severe storm hits Oman, rather than on providing sustainable aid and developing resilience (Al-Yaqoubi, 2022). The Ministry of Environment and Climate Affairs' prediction of more frequent storms and cyclones is a wake-up call for policymakers and planners to proactively plan for climate change and to encourage the building of resilient infrastructure (Al-Ruheili, 2017). The data from this research also confirms the need for more organised efforts to improve social work practice in times of natural disasters.

### **9.2 Interviewee accounts of natural disaster impacts**

Research interviewees articulated the impacts of natural disasters, which can be compared with those described in the literature (Botzen et al., 2019; Islam and Abd Wahab, 2020). Three main themes were addressed when exploring the impact on individuals and families: the human, economic, and psychosocial effects. The human and economic impacts, which accord with the literature, are the most obvious, and no differences were found among research groups. However, attention to the psychosocial impact varied among the participants. Affected people mentioned it clearly, while professionals paid it little attention. Affected people mentioned their stress, fear, shock and exhaustion, alongside suffering the trauma of losing a loved one. These impacts sometimes continued, with people suffering sudden crying spells for some time after the event.



Natural disasters affect not only individuals but also communities. All research groups agreed that the impact of disasters on communities could be seen in the destruction of streets and public buildings. Professionals also drew attention to how state agencies could not respond quickly enough or on a sufficient scale because of impacts like blocked roads and breakdowns in management and communication networks. Service providers themselves also suffered disaster-related damage and disruption (Hay et al., 2021). Whilst their accounts revealed their own vulnerability, they seemed completely unaware of the importance of caring for their personal well-being, and of the need for support from their supervisors.

While most of the literature outlines the devastating impacts of natural disasters, there was little focus on the positive effects. Some professionals and affected people did note that suffering multiple natural disasters may give people experience in dealing with these events, increasing their human and cultural capital and enhancing resilience. It may also strengthen social capital, specifically bonding and bridging, through the solidarity and cooperation of relatives in difficult circumstances.

The effects revealed by the data were not, however, similar for all individuals and communities. People's positions on Maslow's hierarchy, combined with their different levels of 'capital', determine the resources they possess and thus significantly affect their vulnerability to natural disasters.

### **9.2.1 Where are different groups of people located in Maslow's hierarchy of needs?**

It is challenging to pinpoint where each group of people is located in the pyramid because it is in fact very individual and people move up and down the pyramid differently based on the amount of capital they possess. Some can be partially allocated based on the experiences and interview responses. The most vulnerable group of people identified in this research (see 6.7) are those with low economic and physical capital, regardless of where they live. These individuals were seriously affected and struggled to manage their basic physiological needs, such as food and shelter, which places them at the first layer of the pyramid. This group includes low-income migrant workers from the Indian subcontinent who are intensely vulnerable to natural disasters, and others living in poverty.

The way that people move up the pyramid varies according to their resources, as does the speed with which they move. For example, participant 16 (service user mother) and her family relied on aid provided by the state and are still at the first layer of the pyramid as their house is still damaged and cannot withstand future disasters. Participant 21 (service user mother) and her family lived for around five years at the basic level of the pyramid. They did not feel safe in the caravan provided as temporary accommodation as it was poorly built and had many defects, but they lacked the resources to get a new safer house themselves and had to wait years to obtain a new home from the state.

In contrast, other participants quickly moved higher up the pyramid. For example, participant 20 (service user daughter) explained how they lost their home in the cyclone but as soon as they got the new house support from the state, they managed to buy furniture and electrical appliances without state aid. They also began to form good relations with their neighbours, thus moving beyond the level of physiological and safety needs, to the level of feeling love for and a sense of belonging to their new neighbourhood.

Participant 19 (service user father) also moved quickly up Maslow's pyramid. Although their house was entirely ruined, their social capital enabled them to manage their situation, as they were welcomed into the home of the wife's parents. After a few days, the state provided them with a new house, and their economic capital allowed them to move up to a higher level. Within a few months, they had created a garden around their home, and even a playground for their children, thus strengthening their mental health and sense of achievement. Although they were initially at the fundamental level of the pyramid, they used social and economic capital to quickly improve their situation.

Other people, despite being in disaster-hit areas, were not affected by the disaster. Participant 37 (service user father) showed how their family remained at the same level in the pyramid. They own a new house built with strong disaster-resistant materials, located in a safe area; all this reflects their strong physical capital. The head of the family is well educated with a prestigious job and high salary that even allows them to save; they are also from a family with high social and economic status, who could be a strong source of support if needed. Their strong physical, economic and social capital allowed them to maintain a higher level on the pyramid despite disaster.

### **9.2.2 Why are individuals and communities differently affected by natural disasters?**

Oman as a whole is vulnerable to the impacts of climate change (AlRuheili, 2022), but certain individuals and communities are especially vulnerable. The concepts of vulnerability, resilience, and capital theory show that people with low capital are particularly vulnerable and are more likely to be affected by natural disasters. Both social workers and affected people noted the particular vulnerability of coastal areas, which can be attributed to flood risk and the significant spread of water in normally dry valleys. As the population in these hazardous areas increases, more people will become exposed to climate-related hazards (Mansour et al., 2021).

Coastal areas also scored high in demographic vulnerability because of the numbers of foreign workers and others living in poverty there; like others with low socio-economic status around the world, they tend to live in sub-standard and disaster-prone housing (SAMHSA, 2017), and are poorly prepared for disasters, unable to afford measures such as the purchase of flood or earthquake insurance or disaster-proofing their homes. This places them in a state of 'double vulnerability', as their exposure to the disaster combines with their difficult pre-disaster circumstances.

The findings from this study indicate that the effects of natural disasters are not limited to the immediate stage of the disaster, but can continue and even worsen with time. Again, people of low socioeconomic status are particularly vulnerable to this. Several such participants mentioned problems due to lack of resources such as not owning a car to go to the authorities or lacking the knowledge needed to defend and demand their rights. Both the literature (Subaiya et al., 2014) and the data indicate that stress associated with a lack of resources may have emotional health and behavioural consequences, such as distress and depression. Conversely, all groups noted that possessing sufficient financial resources to repair the disaster damage had reduced stress and anxiety. However, social workers were limited in their capacity to help all those affected, and efforts to assist could take a long time.

Boetto et al. (2021) emphasised that due to the effects of climate change, natural disasters are becoming more frequent and severe. These catastrophic events have a more significant impact on marginalised groups and communities. Given that social work is a global profession dedicated to fairness and justice, there is a moral obligation for social workers to actively participate in disaster preparedness efforts as an integral part of their standard practice. The disproportionate impact of disasters on marginalised and vulnerable

individuals and communities has been well studied but requires special attention by social workers in frontline practice, policy and management. The extent of these impacts can be mitigated by intentionally focusing a pre-disaster event on building social capital, educating people about disaster preparedness, and establishing a solid local and regional policy framework that can be taken immediately after the event occurs (Harms et al., 2022).

Boetto et al. (2021) offered an extensive overview of the contextual elements that influence the levels of preparedness for disasters. They discussed socio-political influences as moulding the encounters of individuals and communities. They emphasised the relationship between individual experiences and inequalities arising from broader social, economic, and political systems. The socio-political factors examined encompassed population demographics, cultural influences, patriarchal structures and violence, and political and economic dimensions. Many studies – and the new disaster intervention model proposed by Maglajlic (2019) – emphasise the politicised dimensions of crises and long-term responses to disasters and draw attention to the oppressive practices that afflict disaster-affected communities. Likewise, the findings of this study showed that the resources and conditions in which individuals live make them more vulnerable to risk, and the most vulnerable group to disasters in this research are people who live in poverty, whether they live in rural or urban areas.

The disproportionate impact of disasters on vulnerable individuals and communities has been well documented (Enarson, 2000; Howard et al., 2018; Cleary and Dominelli, 2020; Mansour et al., 2021), but frontline practices, policies, management, and research have yet to make sufficient effort to mitigate this impact. Mitigation is indeed possible through a deliberate pre-disaster focus on building social capital, educating people about disaster preparedness, awareness campaigns warning people of imminent danger, and having a robust local and regional policy framework that can be implemented immediately after the event (Mhlanga et al., 2019; Harms et al., 2022). Social workers in this study showed little awareness of these needs, but it is crucial that they take steps to ensure that marginalised and vulnerable communities are advocated for and included in all disaster management strategies, in line with published values and ethical principles (IFSW, 2018).

### **9.3 Interviewee accounts of support:**

#### **9.3.1 How do people benefit differently from formal and informal forms of support?**

People have different positions in Maslow's hierarchy, and possess different resources; these determine the strength of their capital. Those with economic capital can often rely entirely on themselves, but many others described their dependence on support from their social networks, especially extended family, a critical form of social capital that was widely referenced and minimises the need for government support.

Services provided by bridging social capital including material, financial, and psychosocial support, and both affected people and the literature are highly aware of its benefits. During disasters, bonding ties with neighbours, friends, and relatives can be life-saving; these individuals not only know if somebody is missing, but are also motivated to offer assistance to those in danger (Kyne and Aldrich, 2020). Bridging social capital was both useful and evident, as relatives who were geographically distant from the survivors were often able to assist; they took those affected into their homes and later provided them with goods and financial assistance.

In contrast, those without capital showed their dependence on government aid and donations, or linking social capital, linking ordinary people and those in authority. These links facilitate the flow of assistance from well-resourced public or private organisations. Only those with low capital needed to rely on state support for a longer time.

Both the literature and the research data indicate that bonding and bridging social capital are essential for immediate support, while linking social capital is vital for longer-term survival and wider neighbourhood and community revitalisation. Immediately after the disaster, affected communities relied heavily on bonding (family members, relatives) and bridging (neighbours and friends) relationships, with support including emotional care and sharing of food and shelter. As time passes after the disaster, these networks operate less well, as their physical and economic capital is limited. However, disaster victims usually need support for long-term recovery, and this comes through linking social networks such as local government (Hawkins and Maurer, 2010; Islam and Walkerden, 2014); the main need shown here was for housing. Bonding social capital provides a layer of connection and security, but it cannot sustain well-being in challenging times. Bonding helped some families to survive or plan for survival, but a lack of community resources left some

residents struggling to survive or enduring difficult conditions in caravans. Thus, all three types of social capital are necessary to provide the best recovery.

There were three main ways to receive government aid (see 8.2.2). Both the research data and the literature (Zakour and Harrell, 2003) reveal that some service users, especially those from low-income populations, are less likely to receive services from organisations and interventions. Some were undeniably deserving of support but, because of their low human capital, they lacked the ability to communicate their demands to the authorities concerned and thus received no help. This also indicates a failure of the authorities; their record-keeping was inadequate, nor did they engage in proactive and inclusive methods of identifying those in need of support.

Linking social capital cannot work effectively without effective communication, a problem mentioned by both professionals and service users. When these issues affect the procedures of how individuals receive support from state institutions, they may then fail to benefit fully or at all. Interestingly, if linking social capital were enhanced, the case management approach would be better implemented. Critical phases of the CMA involve connecting clients to required services, monitoring the interventions and advocating for unmet services. These phases could not be accomplished effectively without successful communication between social workers, clients, and service providers.

Interestingly, in the literature, social capital may have some negative aspects. At the bonding level, people could be influenced by the bad advice of family and friends to stay at home, despite their having the resources and ability to leave. Fortunately, this type of incident was not mentioned in this study data. Another adverse effect of social capital may arise from strong bonding, where someone avoids asking for help from the state due to fear of stigma. Disaster survivors often need help from the state (Ganapati, 2012), but may fear stigma and feel embarrassed to ask for assistance. There are examples of this in service users' interviews in the data, but professionals seemed unaware of it and therefore failed to take it into account.

The literature shows that this problem may be exacerbated in situations where people rely on their relatives and friends to avoid the stigma of asking for state help, but where relatives lack all the capital needed. Since this study did not explore and evaluate sources of assistance, this cannot be confirmed or denied. What is important is that social workers consider the workings of different types of social capital. Specifically, they need to be

aware that strong bonding social capital may limit people's ability to benefit from bridging and linking social capital, which will slow their recovery (Hawkins and Maurer, 2010).

The literature also argued that linking social capital could adversely affect the provision of services, in that structural inequality can affect individuals' opportunities and life chances. For example, despite the theoretical fairness of the "one-door policy" used to distribute relief items during Nepal's 2015 earthquake, in reality, people close to the government or local political parties had greater access to relief materials (Paul et al., 2017). This situation is incompatible with the social work value of social justice. While similar examples were not found in this study, social workers need to be aware that social capital can be positive or negative depending on how it is used.

### **9.3.2 Considerations on current formal support**

Three sources of support were evident in the data: self-reliance, seeking help from family and neighbours, and reliance on state aid. Versluis (2014) divided these into two categories: formal assistance (received from governments and organisations) and informal assistance (obtained from family, friends, and neighbours). In both methods, the stronger an individual's capital, the less their dependence on government support.

The literature also distinguished between short- and long-term recovery. The short-term recovery phase, response and relief, includes search and rescue, provision of food and temporary shelter, medical assistance, restoration of interrupted basic services and re-establishment of communication. The long-term recovery phase, reconstruction and rehabilitation, includes livelihood support, redevelopment of affected areas, home reconstruction, loan assistance and community planning (Islam and Walkerden, 2014). The data indicated that most efforts focused on providing short-term relief, while long-term recovery may be neglected.

Boetto et al. (2021) argued that there is scope for expanding the concept of social work in the context of disaster preparedness at both professional and intra-professional levels. At a cross-professional level, the active contribution of social workers to disaster preparedness within the government and emergency services sectors can be easily recognised. Maglajlic (2019) examined the organisation and delivery of social services in disaster contexts and found that effective disaster response in social work requires collaboration within the social work profession and with other organisations, such as faith-

based organisations and other non-governmental service providers. This multidisciplinary collaboration enhances the ability to provide comprehensive support during disasters. However, Harms et al. (2022) argued that there is less certainty in the empirical literature about the extent to which social workers are used and how other professionals and community members understand their work. The findings of this study recognise the importance of the role played by social workers. Still, the obstacles mentioned above, such as the lack of their numbers and the lack of training, may be an obstacle to them performing their roles to the fullest extent and as expected.

At the intra-professional level within social work, it is essential to reevaluate and emphasise disaster preparedness as an integral component of disaster-related practice. While existing literature primarily focuses on post-disaster practice, there is a noticeable lack of attention given to the role of social work in pre-disaster practice. Considering that a community's ability to recover from a disaster is intricately linked to its level of preparedness, this facet of practice becomes vital.

Although social workers did not refer to a specific theory underpinning their support, there were significant similarities between the needs of the affected people, the priorities of disaster service delivery and Maslow's theory of the hierarchy of needs, except for issues regarding network connections and spiritual needs. As the literature indicated, Maslow's pyramid can be used in different ways; the most applicable structure for disaster relief in Oman is to treat the pyramid as a hierarchy, but with individuals able to move up and down its different levels. The Omani authorities' primary concern is providing necessities such as food supplies, clothing, and temporary safe housing, with financial, psychosocial and spiritual support being provided only later, if at all.

When natural disasters occur, people have different needs, and each case requires multiple services. Exploring degrees of satisfaction with areas of assistance highlights what improvements are still needed in the fields of material, financial, psychosocial and spiritual support, as discussed below.

### **9.3.3 Material support:**

Interviewees stressed that when disaster strikes, the most immediate and essential needs are transportation to a safe place where food and bedding are available. The most prominent post-disaster support is housing: repairing old homes or providing new ones. As in Maslow's theory, food and shelter are at the most fundamental level of human needs.



Interestingly, several service providers noted that the provision of such services may be disrupted by service users themselves. One explanation is that people are desperate for their essential needs and may behave uncharacteristically when these are threatened. Another explanation, also seen in the literature, is that some people may take the opportunity to gain supplies for free. Policymakers and professionals should consider this, first attempting to understanding these behaviours and then designing and providing services on a structured basis to ensure that they reach those in need, rather than distributing services based on people's requests, as they may not be entitled to them. Some social workers and NGO workers indicated that this challenge could be overcome by raising people's awareness of disaster situations and how to deal with them with justice and equality and without harming themselves or others. Different strategies for achieving equitable distribution are discussed in the literature. Aid distribution could be limited to one item: an equal amount of donated money is given to all disaster survivors. Other researchers, such as Melis (2022), discussed the "blanket approach", which provides humanitarian aid for all populations. After analysing the needs and vulnerabilities of particular groups, a choice must often be made between whether to target the most vulnerable or to provide universal humanitarian coverage. Aiming to help everyone would protect social cohesion, while targeting vulnerable groups acknowledges differences in needs. Ultimately, both the data and the literature illustrated the difficulty of applying any of these policies because of different capital strengths, varying vulnerability levels, different numbers of family members, and different levels of need (Park & Miler, 2006; Howard et al., 2018).

Discussion of problems with material aid was consistent with the literature, which indicated that relief received was often considered inadequate, and was also sometimes delivered late (Versluis, 2014; Paul et al., 2017). Some service users noted delays in obtaining electrical and electronic goods, which prompted some to buy them themselves. Social and NGO workers explained that making inventories and coordinating with supporting agencies took time, hence the delays.

Services provided were sometimes of poor quality, a notable example being the temporary homes; although this accommodation was not comfortable, some had to live there for years. Remarkably, officials were aware of this problem, but lacked the capacity or possibly the motivation to do anything about it. The biggest obstacles came from the Ministry of Housing and the company responsible for constructing the housing; another obstacle was that the funding allocated was inadequate for what was needed.

Another key issue, both in the research data and the literature, is the importance of communication networks (Al-Saggaf and Simmons, 2015; Tim et al., 2017). Internet connectivity in particular and the use of social media it facilitates is an increasingly important and wide-ranging tool for reaching out to those affected and responding to their demands, as shown in the data. Most importantly, the internet can enhance social capital by creating more extensive online ties. Despite the importance of this, the researcher knows only one study recommending its classification as a basic need in Maslow's hierarchy, and that is on distance education (Milheim, 2012). This relates to another criticism of Maslow by Cianci and Gambrel (2003), that his theory did not consider extreme situations such as recession and disasters. The importance of social media is also illustrated by the creation of an app to manage information in times of crisis. It was launched by a group of young people during Cyclone Shaheen in 2021; everyone could register their contact details and location and state their needs, so that relief teams could reach them extremely quickly (Shaheen Oman, 2022). Internet connectivity reflects the community's physical capital and public communication facilities are crucial to facilitate access to resources and support emergency arrangements.

#### **9.3.4 Financial support:**

Natural disasters leave a great deal of damage, with a great deal of money required for repairs. In Oman, there were several issues regarding financial compensation (see 7.3.3.). First, there is often a gap between the compensation expected or hoped for and what government can actually provide. Interestingly, some front-line social and NGO workers alluded to this, some trying to explain that it was hard to provide what was needed when there were so many cases. Some saw compensation as an aid to help citizens recover rather than a solution to all the problems they face. Also, the literature warned against government financial aid, as it runs the risk of creating a so-called "charity hazard", where individuals at risk may not purchase insurance or take precautionary measures because of their reliance on expected charity from the government (Andor et al., 2020). However, this issue was not mentioned in the study.

There were other common complaints highlighted in the literature and pointed out by both service users and social workers (see 7.3.3). Social workers explained that the lengthy administrative procedures involving compensation applications lead to delays, and this may discourage some from applying, as shown below. Another issue was that some service users did not receive any financial compensation. Two types of cases were involved: the

first group comprises people who, for various reasons, failed to apply for help, while the second involves those who applied for help but received none.

One possible reason why people fail to apply for help is that they do not know that they are seen as affected, and thus cannot initiate anything themselves. This reason was mentioned by some social workers, and exemplified in a story shared by one of the affected interviewees. This highlights the way that the lack of social and human capital can lead to double vulnerability in some social groups, who are thus unable to recover from a disaster.

Other affected people indicated that they needed assistance but did not seek it for various reasons. Some wished to obtain compensation without going to the social development departments and submitting a request; they wanted the authorities to come to them so that compensation would be done automatically. Others - and this was a frequently mentioned issue - were discouraged by the lengthiness of the procedures involved in submitting paper application forms and the lengthiness of the compensation process. This point was also emphasised by the social workers. Some people do not apply for assistance, although they know it is available, because they have strong economic capital where they can pay what is needed themselves. Some people also indicated that they were too embarrassed to submit a request for help, especially if they were in the middle- or high-income group. They feared that they might be rejected and told that they should pay themselves for any repairs needed.

Another issue was that some people applied for compensation, and were eligible, but received nothing. Social workers gave no reason, though communication problems and an inadequate aid budget may have been causes. What is important is that the professionals gave no indication that they had tried to find any practical solutions to these unmet needs, although this is a stage in case study process. It is clear that several aspects of financial aid need improvement: the amounts awarded, the number of people not receiving any compensation and the speed of the compensation process.

#### **9.3.5 Psychosocial support:**

In Maslow's hierarchy, psychological needs come after more basic human needs for survival and safety. However, it is also true that the more an individual lacks their basic needs, the more psychologically disordered they will be (Lester et al., 1983). The literature describes disaster events as psychologically overwhelming, with the greatest needs being the alleviation of stress and help to regain a state of calm.

Harms et al. (2022) explored post-disaster social work, and their review highlighted disasters' long-term psychological and social impacts on individuals and communities. It emphasised the importance of trauma-informed care and the need for social workers to address mental health issues and psychosocial support in the aftermath of disasters. In the study data, although some participants clearly showed psychosocial effects, almost all the support came from sporadic individual efforts, and there was no mention of psychosocial and mental health support. The only case mentioned by a social work manager was for an expatriate family and this was seen as exceptional. A few service users, some practitioners, and many senior managers appears to have insufficient awareness of possible mental health problems; they did not observe, or perhaps could not recognise, emotional and behavioural signs of unwellness. This study explored several reasons for this neglect of the mental health and psychosocial impact of disasters (see 7.4.5).

Some professionals did point out that psychosocial and mental health services should be available and visible to all and some felt that it is social workers who should take the lead in this. Interestingly, the literature argues that mental health support following a disaster must differ from traditional psychosocial interventions in other settings. Cleary and Dominelli (2020) noted that many disaster victims do not seek mental health support, which means that micro-level recovery efforts require practitioners to prioritise outreach work in affected communities.

Given the severity of the trauma experienced by some survivors, Abbas and Suleiman (2016) noted that disaster recovery plans must include mental health professionals; both they and social workers can help to provide medical first aid, medication, and psychosocial treatments. Most survivors do not require clinical forms of mental health support, and overstretched healthcare services cannot fully meet survivors' needs. Psychosocial interventions after a disaster should prioritize guidance to communities to adapt to their new realities, to accept their losses and deal with the changes and disruptions common in the immediate recovery period.

Oman also lacks a mental health and psychosocial support framework and guidelines, though the literature contains valuable examples of those found elsewhere (Thordardottir et al., 2018; Seto et al., 2019), and examines the most prominent symptoms, interventions and sources of support. Also lacking in Oman are tools to measure mental health and psychological wellness; these should be available to social workers, many of

whom are unaware that they are needed. Another major reason for the neglect of this area is the shortage of trained mental health professionals, so that the disaster-relief focus is shifted to material needs and administrative procedures. The little literature available also attributes the failure to provide a psychosocial support system to the conservative nature of Omani culture (see 7.4.5).

All these reasons arose from the discussions of professionals, while those affected simply said that no psychosocial services were offered to them. The literature showed that it is common for survivors to suffer from complicated psychosocial effects related to disaster events. However, after psychosocial interventions are implemented, survivors begin to feel better if interventions aid recovery, reduce vulnerability and enhance resilience to future disasters (Harms et al., 2022). Additionally, much research asserted that the psychosocial effects of disasters on affected individuals and entire communities last longer than the physical effects and are often more difficult to mitigate, which means that those affected need to accept that recovery may take years. While social workers cannot change the past, they can influence how someone faces the future if they promote adaptation, resilience-building and ways to find the strength to proceed (Mhlanga et al., 2019; Cleary and Dominelli, 2020).

Despite the importance of psychosocial support, no psychosocial support services are available in Oman, nor is there sufficient awareness of their need. Therefore, particular efforts should be directed toward reviewing the literature regarding social work interventions aimed at the psychosocial impact of natural disasters, examining their appropriateness in the Omani context, and working to establish and staff a tailored psychosocial support service. Interestingly, spiritual support goes hand in hand with psychosocial support, and social work can ensure that psychological counselling and spiritual comfort are continuously available in the various post-disaster stages. In short, almost nothing has been achieved in the area of mental health and psychosocial support in Oman, and this area thus needs urgent and critical attention.

### **9.3.6 Spiritual support:**

The Omani context of this study led to the introduction of what is effectively a new dimension in the theory, the value of spiritual capital in times of natural disasters. Affected people indicated their need for and appreciation of spiritual support in the face of the huge disruption caused by disasters. Both the literature and religious practitioners in the study stated that spiritual support is linked to psychosocial support and improves individuals'

mental health, reducing survivors' anxiety and depression and improving their resilience (Nejati-Zarnaqi et al., 2022).

Experiences of affected people confirmed the perspective of the literature, namely that in times of natural disasters, people's spiritual health should be considered alongside the physical, social and psychological health dimensions. This means that disaster management authorities should develop plans for the post-disaster phase to restore people's spiritual health by delivering a comprehensive spiritual rehabilitation service. The point also arose that the search for material support often acted as an entry point for spiritual support (see 7.5.2). Other important but thus far neglected issues are the importance of the physical capital represented by communication networks and the potential for using social networks in times of disaster.

Interestingly, while the literature referred to those disadvantaged by current methods of spiritual support, only one religious practitioner alluded to problems involving the elderly, non-Arabic speakers, and those from non-Muslim religions (see 7.5.3). Several religious practitioners also pointed out obstacles that may prevent the provision of high-quality spiritual support (see 7.5.4); these must also be addressed.

The literature showed that it is common for survivors to suffer from complicated grief and loss related to disaster events. Spiritual capital can assist people who are grieving or facing death of relatives and friends by providing a sense of purpose and meaning, as well as rituals and practices, a sense of community, and hope and comfort (Fahm, 2019; Badi'ah, Rahayu, et al., 2022; Nejati-Zarnaqi et al., 2022). When someone is facing death or grieving the loss of a loved one, spiritual capital can provide a sense of purpose and meaning to life, helping them find comfort in the belief that there is a higher power or purpose to life. Rituals and practices associated with the spiritual capital, such as rituals of mourning and remembering the deceased, can also provide comfort and solace to those grieving. Spiritual capital can provide a sense of community and belonging, which can be a source of comfort and support during difficult times. This was evident in the data from this research, as people who are grieving or facing death found solace in being surrounded by others who share similar beliefs and values; spiritual capital can also help them find peace in the belief that there is a greater purpose to life which goes beyond death.

The issue of spiritual needs raises a critique of Maslow's needs theory and of the multi-capital approach. For Maslow, spiritual needs are located at the higher levels of the pyramid, while in Omani society they appear at all levels. Maslow was a white western and

atheist scholar whose work was largely confined to Anglocentric societies; he believed that people needed a sense of something bigger than themselves, but that this did not have to be religious. The common multi-capital approach, as described in the literature, also fails to consider spiritual capital; however, this research suggests its major significance in the context of Islamic societies. Within such societies, every aspect of human nature, social, religious, economic, and political, is linked to God and stresses faith and stability. This study thus recommends taking much greater account of the significance of spiritual support and spiritual capital, as well as the need to amend the theoretical approach and make it more appropriate in different cultural contexts.

#### **9.4 Differences in data among different groups of participants**

As mentioned in the methodology chapter (see 4.3), the qualitative approach was seen as most suitable to allow the researcher to explore the behaviour and experiences of several types of people in natural disasters: social workers, NGO workers, religious practitioners and service users. This section presents differences found among the different groups of participants and uncovers differences in descriptions of their situations. The most notable difference appears between most social work managers and the rest of the sample; while some social workers sided with the views of the social work managers, many others did not.

One of the most significant differences was on the psychosocial impacts of the disasters and, thus, the importance of psychological and spiritual support. While religious practitioners and service users stressed these issues, they received little recognition from social work managers and practitioners, who tend to argue, first, that Omani society is already a religious society with strong religious and cultural values, and second, that affected people themselves prioritise material and financial support over all other kinds.

Another issue where interviewees were divided was that of inadequate financial compensation for disaster damage. Some social workers and most service users believe that the state should compensate people fully for the damage suffered, while social work managers and other social workers are convinced that financial support should be viewed as a contribution intended to cover only a small part of the damage caused by the disaster. From this perspective, those affected must take most responsibility for restoring their lives.

There was another significant difference in attitudes to the provision of services, with groups similarly divided. Again, most social work managers and some social workers agreed that the priority was to deliver the required service as soon as possible. By contrast, most service users and some social workers were most concerned with the quality of the services, particularly regarding temporary and new accommodation. For example, the caravans provided had many shortcomings, but complaints were not taken seriously. The location of some new houses was also an issue, as they were not built in safe locations, thus locating individuals in homes that were likely to be destroyed again in future disasters and not providing long-term solutions.

Another difference was between the social workers and managers on one hand, and service users on the other; they differed in describing how to apply for assistance. Social work managers followed official policy in stating that an affected person should proactively and personally apply for help if the damage has only occurred to a few people in an area; in the case of a large-scale impact, they stated that the area would be visited by a team who would assess damage and conduct case studies. However, almost all service users disputed this, arguing that they always had to go in person to ask for aid, regardless of the extent of the damage in their area.

One issue not mentioned by any group is the personal safety and psychological well-being of service providers. Their contribution to disaster management is invaluable (Mihai, 2017; Barney, 2020) but it is essential to realise that they too may be immediately affected by a disaster (see 6.4.2). Harms et al. (2022) argued that recognising that social workers may be immediately affected by a disaster is necessary and supports the focus on initial and continuing social work education about self-care and stress management. Perhaps one of the most prominent findings of this study is the absence of self-support and continuous supervision for practitioners, and thus the need to focus on this matter in policies and practices. It is crucial that Oman learns to support social workers and educates them about the need for self-care and stress management, thus enabling them to help others more successfully (Harms et al., 2020). Agencies also need to provide care for those of their workers who are suffering bereavement, confusion or property loss (BASW, 2019).



## **9.5 Considerations on the current roles, knowledge, skills, and values of social work practice**

Harms et al. (2022) emphasised that the elements that would create a solid organisational infrastructure, including clear policies and procedures around immediate response to a disaster, are crucial within social worker organisations. Social worker's understanding of their roles and responsibilities supports the maintenance of personal and professional boundaries, ensuring that social workers themselves are protected. International conversations on best practices in preparing for social work organisations can significantly push disaster preparedness in the social work community. These conversations are important for the social work profession and all those involved in disaster management work, a context described in the Sendai Framework for Disaster Risk Reduction as typically interdisciplinary and multilayered, from local to international initiatives.

### **9.5.1 Social work roles**

Discussions by social workers of their roles in the aftermath of natural disasters in Oman need to be examined in terms of two stages: the immediate response, and the medium and longer time scales.

In the immediate aftermath of events, social workers were involved in two ways. First, when only a few people were affected, and the opening of shelters was not required, their job was to contact the relevant authorities, particularly the Ministry of Housing and the Social Development Committee for their area, liaising with them to provide the basic material support needed, primarily food and safe housing. Notably, no psychosocial support was mentioned, apart from that to one foreign family. However, the literature places a lot of emphasis on this, and its absence here needs scrutiny.

A key point at this stage was cooperation between social workers and NGO workers. This is advantageous because of the speed with which NGOs can provide support; their administrative procedures are much less cumbersome than those of the ministries. They also have proximity to and knowledge of affected communities. The literature supports the value of this collaboration, but its strong emphasis on attention to traditionally vulnerable groups was not in evidence in the data. These groups were mentioned by a few NGO workers, probably because they tend to specialise in providing care for particular groups, such as orphans living in poverty, but not at all by social workers.

When the aftermath of disasters is more devastating and requires the opening of shelters, social workers are allocated to specific shelters in high-risk areas. Their roles here were to distribute basic needs, consider health issues, and solve problems, always paying attention to the culture of those affected (see 8.2.1). Also critical was cooperation with such parties as the Oman Charitable Organization and the Ministry of Health.

While social work intervention immediately following a disaster can best be related to Maslow's theory, the medium to long term intervention relies more on use of the case management approach. Data from both social workers and service users portrayed social workers as caseworkers at this stage (8.2.2). Here they used the casework tools of listening, observation, interview, relationship, and home visits, as detailed in the literature, but solely to enable the provision of material and financial aid. It is worth noting that although there is no formal policy directing social workers to act according to the case management approach, this research found that this was what happened in practice. However, the effectiveness of social workers' intervention levels varied, with not all following the six recommended stages.

The first step is the identification of and communication with clients, with the most significant issue being the best ways to reach out to those affected. There were also disparities between the explanations of social workers on how claims should be made, and the experiences of service users (see 8.2.2). This also meant that some service users, often the highly vulnerable, did not receive the services they deserved. The literature indicates that this problem could be avoided if social workers used household mapping to identify affected people more quickly, especially vulnerable groups. Social workers made no reference to this method, but did mention the value of social media and emphasised the need to be aware of possible unmet needs and to be willing to identify and challenge potentially exploitative situations and networks.

The second stage of the case management approach involves assessment of the disaster impact and consequent needs; this is done with the collaboration of a multi-sectoral group of key disaster organisers. Since the early disasters faced, Oman has clarified the institutional roles, with these tasks now being entrusted specifically to the Ministry of Social Development and the Oman Charitable Association. This has greatly improved the situation.

The third stage is planning with survivors to find the most appropriate mechanism for meeting their needs. It demands good communication skills and the possession of accurate

and up-to-date knowledge of the potential capabilities and resources of social service organisations. Here, social workers did feel that their communication and knowledge were satisfactory.

The fourth stage was less successfully implemented; here, social workers are expected to discuss the local support available with survivors and then to connect survivors to the most appropriate networks. However, neither social workers nor service users reported any mutual discussion or dialogue, and social workers merely gave orders, violating the key right of clients to self-determination. This is also the stage where the actual intervention takes place, and different types of support are provided depending on the needs of those affected. Here again, however, most support was focused on material and financial aid, and psychosocial support was neglected. Another of the critical findings in this study was that most support was directed towards individuals and families, with very little attention paid to community-based interventions, though the literature has vital suggestions for their implementation. It is also suggested by this study that an extra stage, dedicated to the actual intervention, be added to the case management approach; it could be known as service implementation.

In the fifth stage, the case manager is expected to frequently monitor the effectiveness of the interventions provided and assess whether needs have been fully met. Unfortunately, no social workers mentioned communicating with clients to evaluate the services; rather, it was the service users who proactively communicated their needs. The literature stresses the need for social workers to adapt to the changing service delivery environment and ensure that social services remain flexible and creative during long-term disasters; this, however, was not satisfactorily done. Very few professionals noted attempts to respond to any new and unexpected requirements; an exception was the response to the request for animal pens and garbage containers by those living in caravans (see 8.2.2).

The sixth stage of the approach, advocating for unmet needs, was mentioned by very few of the social workers. Some did say that they felt all their clients' needs were met, others described trying but failing to obtain services not provided. This reinforces the importance of having an additional, subsequent stage, the evaluation stage, which will also give feedback on further cases.

### **9.5.2 Social work knowledge**

Social work managers explained that practitioners have different knowledge levels based on their qualifications and enthusiasm to develop their knowledge base. Social workers themselves identified three main areas of knowledge they needed, which are confirmed by the literature. First, almost all of them pointed out that they should know the roles they were expected to play in disaster situations. Interestingly, several also highlighted the importance of considering all aspects of normal social work practice in disaster management, including psychosocial support. Although they did not deal closely with non-Omanis, they also need to be competent to work with such cases, paying attention to cultural diversity, spiritual needs, and ethical concerns (BASW, 2019). Social workers should understand the perspectives of all those affected by disasters, including their cultural beliefs and practices around death, funerals, burial, bereavement and grief.

Sim and He (2022) emphasised the importance of cultural competence, as disasters often affect diverse populations differently. Social workers must be attuned to these cultural nuances to provide effective support. Maglajlic (2019) added that the focus on community social work has diminished throughout the Western world for several decades, but it is crucial to social work in disaster settings. Learning about such approaches should include experiences and practices from the Asia-Pacific region, where they are actively promoted. The findings of this research recognise the value of applying Maslow's theory of needs but also believe that this theory should be adapted to be suitable for strongly religious societies like Oman, which is predominantly Muslim. Additionally, as described in the literature, the common multi-capital approach fails to consider spiritual capital; however, this research suggests its central significance in Islamic societies. Within such societies, every aspect of human nature, social, religious, economic, and political, is linked to God and stresses faith and stability.

All this means that universities' social work curriculum should involve preparedness for disaster work, and that, as most social workers agree, continuing professional development is also vital. The main issue raised was that most training programs were directed at social work managers, while social workers on the front lines did not receive enough opportunities. It was also noted that training sessions focused mainly on the immediate response rather than on long-term recovery. They also emphasised physical and financial aid rather than psychosocial and spiritual support. The review by Boetto et al. (2021) also emphasised the necessity of integrating disaster management into the professional sphere, including its incorporation into educational curricula, establishing standards for professional practice, and providing ongoing opportunities for professional

development. Harms et al. (2022) similarly argued that there is a need to examine further what is taught, learned and then applied by students because it will add value to current practice and research.

The second area of knowledge needed, mentioned by almost all social workers, involves legislation and policies, familiarity with the laws and regulations related to natural disaster assistance, specifically the social assistance law. The third area, referred to by a good number of social workers, and also part of the case management approach, requires the practitioner to know the resources available when disasters strike. Given that these are constantly affected by changing budgets and capabilities, it would highly beneficial to create a comprehensive and constantly updated central database.

The British Association of Social Work (BASW) commissioned a systematic review of all the relevant literature relating to social work during disasters (BASW, 2019). This produced a set of guidelines designed for social workers providing emergency support and interventions. The guidelines identified the main areas of knowledge required for social workers to perform effectively. The first area relates to their role in the different phases of disaster management; preparedness, response, and recovery. The second stresses the need for social workers to know their country's legislation, policies and procedures relevant to a disaster context. The third area involves their awareness of the social work theories and models relevant to the disaster context, with the fourth being knowledge of research practices in the field. It can be said that this study emphasises the first three areas above, but does not explicitly mention the fourth.

### **9.5.3 Social work skills**

The literature presents a wide range of necessary social work skills, with a number also being identified by social workers in the study. One of the most essential is the ability to communicate and coordinate with different parties; the social worker's success depends on communicating with clients and all those parties who can provide the services needed. The study indicated that although much of the teamwork and communication was successful, some did not achieve the desired result.

Two other valuable skills are problem-solving and managing emergencies in crises. Professionals often needed to use their solid human capital to act intelligently and quickly in times of crisis. Several also mentioned the importance of stress management and conflict resolution skills. This was especially needed in shelters, where people had suddenly

had to leave their comfortable homes. The worry and inconvenience they experienced could understandably lead to conflicts, verbal altercations, harmful and at times violent reactions.

Another key skill was needed when people had left the shelters and social workers needed to carry out case assessment. The literature similarly stresses the importance of the ability to assess damage and collect accurate and comprehensive data. This ability is dependent on a solid knowledge of the rules and regulations regarding eligibility for aid. The literature also stresses the skill of advocacy, which is essential in defending the rights of those affected, notably in the last stage of case management, where social workers need to advocate for survivors' unmet needs at the local, national and even international levels. Although assessment and advocacy are largely transferable skills, they can be improved by continuing professional development training.

Interestingly, although the literature referred widely to the skill of listening in disaster relief work (Harms et al., 2022), it was not mentioned explicitly by either social workers or service users, possibly due to the absence of focus on psychosocial support. Newburn (1993) stressed that listening to the painfully detailed accounts of relatives and survivors is a critical aspect of the work in the aftermath of the disaster, while Fothergill and Peek (2015) saw listening as a way to support survivors to perceive their experience positively and overcome post-traumatic stress.

#### **9.5.4 Social work values**

Both the literature and professionals in the study highlighted three significant values needed to guide social work intervention in the aftermath of a disaster: a belief in equality and equity in service provision, social justice and a respect for diversity. The first of these enables social workers to identify the most vulnerable, assist them in the complex challenges of disasters, and ensure equity. This was stressed more by NGOs caring for a specific vulnerable group than by workers in social development departments. These social workers put more emphasis on defending the rights of lower-level migrant workers, who are conspicuously vulnerable to disasters, and need advocacy if they are to live in better conditions.

The professionals attempted to ensure social justice by organising the delivery of services as best they could, to reduce overlap and duplication and ensure that donations are distributed equitably according to people's needs, in line with the "one-door policy" (see

8.5). Respect for diversity, the third value noted, was evident in the stress by professionals on the provision of shelter and basic needs for all individuals without discrimination. However, some other issues regarding diversity need more attention: languages used, and the provision of appropriate religious support to non-Muslims, such as Christians and Hindus (see 8.5).

One value that was only occasionally mentioned by professionals is the right of clients to self-determination. In some cases this was respected, as when individuals were free to choose where they stayed after a disaster, either taking advantage of shelters or relying on their capital. In other situations, the principle was ignored, as when service users wanted to be accommodated in a rented house instead of a caravan. In addition, when social workers were meant to plan with survivors in the third stage of the case management approach the best way to meet their needs, this dialogue simply did not take place.

There are several other values seen in the literature as critical for social workers in the aftermath of a disaster, but never mentioned by interviewees. These are the right to self-worth, dignity, and a belief in the capacity of people to grow and change. They are probably not referred to because they are related to healing and rehabilitation, and recovery programmes that would include these were not implemented after disasters in Oman.

## **9.6 Conclusion**

This chapter has addressed the research problem of this thesis and has brought together and analysed key issues in the findings. It has explored the impacts of natural disasters, identified how far different types of support are provided, and examined the actual practice of social work in these situations. It has also addressed the conceptual and theoretical implications of the findings in order to better develop effective social work practices in the aftermath of natural disasters in Oman, exploring the range of theories and concepts used to interpret the data, such as notions of capital, vulnerability, and resilience, Maslow's theory of needs, and the case management approach. It has also paid attention to the current roles, knowledge, skills, and values of social workers' practice and the issues needing attention. The challenges standing in the way of effective practice have potential solutions, such as activating different social work interventions, strengthening cooperation with other parties, understanding long-term recovery and providing sustainable aid.

## **Chapter 10 : Conclusion**

This final chapter concludes this PhD thesis by referring to what has been achieved and highlighting what might happen in the future. This thesis sought to explore social work practice in the aftermath of natural disasters in Oman. There are two central findings resulting from this research. First, social work practice here needs more attention to be carried out effectively. Second, key challenges limit social workers from practising their roles effectively: the shortage of professionals, obstacles related to social work education, and the lack of support provided to social workers. Given the number of interviews and variety of perspectives provided, these could serve as a useful basis for the development of recommendations with implications for education, research, practice and policy. The chapter will conclude by acknowledging the thesis limitations and proposing future areas of research.

### **10.1 Implications for policy and practice**

There are several implications for practice that emerge from this study. The notion that natural disasters have only human, physical and economic impacts is incorrect. Disasters in Oman also have psychosocial effects, but these may not be clearly recognised and thus not dealt with adequately. Although a tailored psychosocial support service is needed in Oman in these times, none is available. Among the most prominent obstacles to the provision of such support is the lack of recognition of its importance. Various strategies are needed: psychological support services must be made visible, creative ways must be found to deal with the society's reservations about such services, specialists must be trained in sufficient numbers, diagnostic tools must be localized, and clear and comprehensive guidelines and frameworks must be developed. It is also vital to study and implement effective social work interventions discussed in the literature, such as psychosocial care and therapy (Cooper et al., 2018), group work (Huang and Wong, 2013) and community work (Tudor et al., 2015).

People affected by natural disasters need not only material and financial support in the aftermath of natural disasters, but also spiritual support. While Omani society is deeply committed to religious values, spiritual support needs to be better framed and better organised to reach everyone adequately. The spiritual support provided should be inclusive of all groups, women and men, old and young, and not limited to those who go to mosques or who use social media. The support should be provided in all the languages spoken in the country, not only in Arabic. It should also be provided for those of minority religions,



not only for Muslims. Spiritual support goes hand in hand with psychosocial support, and social work can ensure that psychological counselling and spiritual comfort are continuously available in the various post-disaster stages (Liang and Zhang, 2016; Nejati-Zarnaqi et al., 2022). Social workers and religious practitioners must collaborate in providing reassurance, a sense of security, rest and recovery, moral and psychological support for survivors, a process enhanced by the inclusion of religious practitioners in psychosocial support provision.

Although people living in coastal areas are among the most vulnerable to natural disasters, the policies for transferring them to safer places need immediate consideration. Those living there have a profound relationship with the sea, both as an income source and as part of their lifestyle, so need to be well prepared for any transfer, with intense efforts made to raise their awareness of the vulnerability of their areas, and the need to move to a safer place. Transfer policies and procedures must respect their preferences about how and where they might move, and they may need to be helped to secure a livelihood elsewhere.

In the aftermath of natural disasters, social workers mainly work as caseworkers, dealing with cases individually but not through face-to-face intervention, and focusing on obtaining resources like housing and finance. However, interventions at group and community levels have been neglected, so that now a comprehensive framework of interventions should be designed to work at all levels: micro, mezzo, and macro.

There is no formal policy directing social work in Oman in the aftermath of natural disasters, but in practice the case management approach is used. However, there has been no consistency in following the six main stages outlined by Hall et al. (2002), and it is essential to emphasise that social workers must implement all these stages if the intervention is to be effective. Another significant issue that needs attention is how social workers identify and communicate with those affected. They must be aware of what stops people seeking help, such as the fear of stigma and the lengthiness of the assistance procedures. In the second stage, when they engage with multi-agency teams, they should initiate contact with relevant authorities, communities and organisations, but they must be aware of communication problems seen thus far that prevented or delayed service provision. They need to enhance their communication skills, flexibility, accountability, and professional responsibility. In the third stage of the case management approach, social workers failed to discuss and plan the way forward in liaison with the client - it is vital that decision-making be done jointly, rather than through unilateral decisions. Two issues need

attention in the fourth casework approach stage, where survivors are connected to local support networks to help meet their needs. As Maglajlic (2019) explained, it is vital that disaster workers have accurate and up-to-date knowledge of the potential capabilities and resources of social service organisations. While social workers indicated a knowledge of charitable teams and their available resources, this data needs to be collated, available in a single platform, and constantly updated. Social workers also need to direct more support to communities, designing and updating a community-focused list of resources. They must also pay more attention to psychosocial support, particularly at community level. Also inadequate has been the fifth and much-neglected stage; here, social workers and service users must work together to monitor the effectiveness of the interventions provided and assess whether clients' needs have been fully met. The sixth stage, advocating for unmet needs (Desai, 2007), was sometimes ignored because of limited opportunities for implementation, but needs to be more widely attempted. This study also recommends the addition of two further stages: a service implementation stage, which clarifies where the actual intervention occurs, and an evaluation stage towards the end, where interventions are measured and feedback for improvements is given. Also recommended is the development of an integrated guide for the case management approach in Oman, which includes the points in this section. This should be followed by training courses for social workers on practical implementation of the approach.

Given that social work in Oman still in its infancy (see 3.7) and there are few official descriptions of social work in the country, the interviews with social workers in this study contribute significantly to our knowledge about what improvements can be made. First, social work education in universities needs to add a module about the role, knowledge, skills and values of social workers in times of natural disasters. This should be reinforced by continuing professional development training carried out by social work academics and managers, with advanced certificates in disaster management awarded.

Within NEMS, the National Emergency Management System, disaster management policies need to be updated to clarify the role of social workers, especially in the relief and shelter sector, along with the values that must frame their practice.

The provision of services in disasters is not based on a specific theory, though the study data showed significant similarities between what affected people need and Maslow's theory, leading the state to provide services based on this hierarchy. However, the theory needs to be modified in two key ways. First, in an Islamic society like Oman, spiritual needs are not limited to the higher levels of the hierarchy but need to be met at all levels

of the pyramid. In practical terms, this means that religious practitioners should be integrated into relief efforts from the onset of the disaster and throughout the recovery process. Another significant implication of the findings is the importance of maintaining good communications networks, which should be viewed as a basic need. Some studies described alternative plans to maintain communications in times of crisis, such as the study by Ramanathan et al. (2012), which suggested the possibility of using an Adaptive Communication Agent for a Crisis Management System. This autonomic Communication Agent is embedded in participant devices, can collaborate with other devices and thus creates a network between participants that facilitates the process of searching, identifying victims, etc.

The restructuring and renaming of social development committees has made their work more organised, and their cooperation with other parties has been effective. However, the responsibilities of volunteers, untrained in the social work profession, must be clearly distinguished from those of actual social workers.

The study revealed no evidence of the rebuilding of social infrastructure; however, social work plays a vital role in reconstructing communities and social relations (Mathbor, 2007; Hang, 2015; Liang and Zhang, 2016). Social workers should appeal to different bodies to reconstruct destroyed social buildings and facilities. They should also track people down after disasters so internally displaced disaster survivors are reintegrated into their communities. Social development methods must also be adopted to empower citizens and communities and improve grassroots social development to rebuild social networks and communities. Social workers can thus be intermediaries in the process of community development.

Although social workers are themselves vulnerable to disaster-related damage and disruption, no support is available to them in Oman. Social workers need not only self-support, but also welfare and therapeutic support, provided by their agencies and institutions. Training courses are therefore recommended, both for social workers on how to care for themselves, and also for social work managers on how to care for their employees.

## **10.2 Research limitations**

Every effort was made to make the research as rigorous as possible. However, some limitations need to be addressed. The limited research knowledge available about the

study topic made the use of qualitative research and semi-structured interviews the appropriate methodological choice. However, these choices do affect knowledge production and limit its transferability to other contexts. Most qualitative research aims not to generalise but to provide deep contextual understanding of human experience through the intensive study of specific cases (Polit and Beck, 2010) and, in any case, social behaviour may by its nature not be suitable for generalisation (McLaughlin, 2012). Even when referring to “transferability” rather than “generalisability”, qualitative researchers need to provide a detailed description of research settings so that further researchers can determine whether they could apply to another context (Creswell, 2009; Becker et al., 2012; Bryman, 2012). This study has explained the nature of Omani society and social work practice in Oman, but cannot make generalised assertions from this. Findings from other countries would be affected by issues such as the age of the social work profession in that country, the type of society exposed to the disaster, including its religion and culture, the strength of its members’ capital and the state’s social policy.

The limited availability of resources created another limitation as this was research conducted by a single doctoral student. More researchers could involve a larger sample and collect additional experiences and perceptions. Here, data saturation was reached with some groups and not others. Interviewing additional social and NGO workers would bring little or no new information, but a larger sample of affected people, especially from the more vulnerable groups such as children and lower-level migrant workers, would provide more understanding, and enhance knowledge of their specific vulnerabilities and how to develop their capacities and promote resilience. A more intense focus and more comprehensive understanding would also suggest more practical implications.

Indeed, the researcher did attempt to include low-income foreign workers in the research sample (see statistics and vulnerability factors in 2.3.2 and 6.7), but this was not possible (see reasons in 4.4.3). Inclusion of their voices might well generate additional or different findings, considering the weakness of their various forms of capital and their lack of a social support system. Further studies could also explore their economic capital, especially for those with low wages and no insurance, and consider their different religions and spiritual capital. Exploring how they behave in disasters and their ability to understand the main languages of communication would also reveal more about their human capital. Cultural capital would be shown by long they have been in Oman and whether they experienced previous disasters. Since social workers need to defend the rights of the most vulnerable groups, they could, for example, ensure that employers provide them with safe dwellings in safe locations.

With the frequency and intensity of disasters increasing worldwide, children are among those most vulnerable to their devastating effects. There are many calls (Peek, 2008; Nikku, 2013; Powell and Holleran-Steiker, 2017) for further research into children's vulnerability; this could inform new policies and practices that could better meet their specific needs in the aftermath of disasters. In Oman, children account for over a quarter of the total population and their experiences and needs in disasters should not be overlooked. Interviewing children can provide a valuable understanding of their unique vulnerabilities and special capacities; it would also encourage their participation, provide better support, and facilitate access to resources that would enhance their resilience to disasters.

Children are physically vulnerable and may develop various psychological, behavioural, and emotional issues in the aftermath of a disaster. Many researchers such as Kreuger and Stretch (2003), Peek (2008), Kousky (2016), and Mhlanga et al. (2019) stressed the devastating effects that disasters may have on children, such as hunger, stress, dropping out of school, trauma, abuse, disease and death. Without a particular focus on children, their unique needs may be overlooked. Meeting parents' needs does not necessarily mean that children's needs are met. Children may have additional needs and therefore require different physical, social, mental and spiritual support than adults.

Most importantly, research data indicated that that some children were exposed to disturbing situations ranging from losing their school supplies to panic and even a child seeing a dead body in his room after the cyclone. Recognising the different forms of vulnerability and how disasters have impacted children would advance knowledge that could guide policies and programmes that will help alleviate child suffering in disasters.

There have already been programmes outlining how best social workers can assist children after disasters, like the school social work programmes that provide post-disaster therapeutic recreational services aimed at reducing post-traumatic stress in children. Interviewing children themselves would explore the current existence and effectiveness of any school-based programmes, and offer further suggestions for policy and practice with children in post-disaster contexts. As well as being vulnerable to disasters, children can also contribute to disaster preparedness, response, and recovery actions, providing creative and valuable ideas for helping their families and communities to recover from disasters (Peek, 2008). Disasters destroy places used by children, such as homes, schools, parks and neighbourhoods, but adults rarely ask them how they would like to rebuild these

spaces. Recovery programmes should include children's voices in decision-making, contributing to more wide-ranging community-based disaster recovery planning.

Understanding the nature and scope of children's vulnerabilities in disasters requires learning more about their experiences from the children themselves. Much of the currently available research about children in disaster contexts is based on parent and teacher reports and pre-coded research tools created for both children and adults. There is value in learning as much as possible about children's experiences from the adults in their lives. However, adults do not consistently report or may underestimate children's levels of distress and emotional problems (Peek, 2008). Also, in investigating children's views, there is a necessity to use interviews and open-ended questions that allow children to express their thoughts and interpretations of events freely, rather than relying on closed questionnaires. These may focus intensely on concepts and situations that are not central from the children's point of view and may ignore those that are (Boyden, 2003). Participatory child-centred research methods such as picture drawing, storytelling and interviewing will allow researchers to discover the key issues in children's experiences of disasters.

As argued earlier, the impacts of natural disasters are not distributed evenly, so that a particular hazard may lead to disaster in one society, but in another it will produce only a limited interruption to people's everyday lives. The structure of a community determines how the hazard is likely to affect it. Social work is based on helping individuals regardless of their social, demographic, or economic characteristics, and the profession is committed to serving vulnerable populations who are at a social and economic disadvantage, including in exposure to natural disasters. Focused consideration of these categories will help clarify people's risk of disasters and will contribute to a discussion regarding social and economic justice. Including these disadvantaged groups in this research would help disaster managers to understand their vulnerabilities, develop their capacities, and promote their resilience in the face of natural disasters. Moreover, it is essential to build a knowledge base on vulnerable groups from a social science perspective in order to create a more robust theoretical framework that explains the full range of human experiences in disasters in Oman.

Another research limitation involves honesty and a sense of security in providing information. All participants were motivated to tell their experiences freely, though some vital data was withdrawn by request (see 4.5 for details), regarding the provision of financial aid and housing, which might have had implications for policymakers.

One event that was occurred after the data collection deadline for this study was Cyclone Shaheen in October 2021. It was the strongest tropical cyclone in Al-Batinah after that of 1890 (AlRuheili, 2022). Although data about it was not included, it could have been a valuable addition to this research: the cyclone affected a vulnerable coastal area, it struck a large population and it had a devastating impact. Most significantly, a clear sense of community cohesion and cooperation appeared.

Cyclone Shaheen caused such severe damage that many coastal areas were evacuated (Al-Habsi, 2021). There was strong societal cohesion in response to the cyclone, reflecting the strength of all the types of social capital: bonding, bridging, and linking. Several major companies, small and medium enterprises, and voluntary teams played a significant role in standing with the affected people and assisting the competent authorities in managing this event. Aid convoys and voluntary campaigns from all over Oman were evidence of the solidarity among Omanis and residents.

Another key aspect to note is the service delivery process. After Shaheen, the Ministry of Social Development themselves visited the affected families and assessed the damage to their property (Al-Nassriya, 2021). The Ministry of Housing and Urban Planning was assigned to develop plans for the construction of 328 houses to replace those entirely destroyed by the cyclone. As Shaheen happened after this research, the consequences of this multi-agency work were not explored. However, an evaluation of their effectiveness could contribute to recommendations for future practice and could help to assess whether disaster management in Oman in general, and social work involvement specifically, are beginning to improve.

Despite these limitations, the research represents a valuable step toward understanding the experiences of practising social workers in the aftermath of natural disasters, highlighting critical issues, and suggesting how best to improve this practice, especially given the lack of studies in this field.

### **10.3 Future research**

The limitations above suggest areas that could benefit from further research. To begin with, a larger and more diverse sample should be recruited, including especially low-income foreign workers. Much more attention should be paid to children and their own

voices heard, with participatory child-centred research methods providing unique opportunities for this.

Future research could also construct a comprehensive social work framework that would fit the specific cultural context and guide the intervention processes in the aftermath of natural disasters. Building on foreign experiences is valuable, but it is more crucial to understand the local, regional and national context when providing services to a target population. This research discussed the Omani context and outlined several relevant concepts and theories: the multi-capital approach, vulnerability, resilience, Maslow's hierarchy of needs, and the case management approach. This, with discussion of the limitations of the various theories, could be used as a basis for a valuable reference tool for social work practitioners in disaster contexts.

At present, no psychosocial support services are available in Oman, nor is there sufficient awareness of the need for them. Future research needs to review the literature regarding social work interventions aimed at the psychosocial impact of natural disasters, examine their appropriateness in the Omani context, and work to establish and staff a tailored psychosocial support service.

Another potentially fruitful future research area is the conducting of similar research in other contexts, different cultures and other types of disasters. The similarities with and differences from our findings could be used to clarify specific issues, such as the recognition of spiritual needs and the relevance of capital theory.

Even after the conduct of this research, Oman was exposed to the devastating impact of the disasters in May and October 2021; these events highlight the importance of continually reviewing and evaluating the effectiveness of the disaster management framework. More specifically, there is a need for constant research to examine social work practice, highlight potential improvements, and inform policies, practices and social work education.

## **10.4 Conclusion**

This thesis has sought to explore social work practice in the aftermath of natural disasters in Oman. It began as an area of interest motivated by my heart-break at seeing those affected by disasters and concluded as a PhD thesis which explored the diverse perspectives of social workers, NGO workers, religious practitioners and service users and



their experience of the impact of natural disasters. It has examined what services were provided, and how, as well as highlighting actual social work practice and suggesting how it could be improved.

Disaster-oriented social work is relatively unknown in Oman but in recent times natural disasters have taken a heavy toll on the country. This exploration has presented the damage they caused and discussed ways of confronting and recovering from them, emphasising the need for the participation of social workers in effective disaster management and for the search to enhance social work practice in the aftermath of natural disasters in Oman. This exploration is not to be seen as a list of "do's and don'ts", but rather as a contribution to empirical and theoretical knowledge, a call for ongoing debate, in the hope that it will deepen our understanding of what this area of social work has been and what it could become.

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## Appendix 1: Ethical approval



**University of  
Nottingham**  
UK CHINA | MALAYSIA

**Faculty of Social Sciences  
School of Sociology & Social**

**Policy**

University of Nottingham  
University Park  
Nottingham  
NG7 2RD

10/09/2019

**Reference: 1920-005-PGR**

Dear Raya

**Your application for ethical approval from the School of Sociology and Social Policy**

On behalf of the Research Ethics Sub-Committee, I am pleased to confirm that your project "Social Work Practice in the Aftermath of Natural Disasters: A Qualitative Inquiry in the Sultanate of Oman" has been reviewed and approved and you are now welcome to begin your data collection.

If you propose to make any amendments to the approved project or supporting documentation, you must first send details of the amendment along with any supporting documents to the Research Ethics generic email address, [LQ-ResearchethicSSP@exmail.nottingham.ac.uk](mailto:LQ-ResearchethicSSP@exmail.nottingham.ac.uk) for approval. Please do not use any unapproved or amended documents or procedures before these have been reviewed and approved by the Ethics Sub-Committee.

If you have any queries during your project, please contact the Research Ethics administration team or your academic supervisor.

Good luck with your project!

Kind regards

**Dr Alison Mohr  
Research Ethics Sub-Committee Officer**

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[LQ-researchethicSSP@exmail.nottingham.ac.uk](mailto:LQ-researchethicSSP@exmail.nottingham.ac.uk) [nottingham.ac.uk/sociology](http://nottingham.ac.uk/sociology)

## **Appendix 2: Participant Information Sheet of Affected People (In English)**



### **Participant Information Sheet of Affected People (In English)**

Date: 07.05.2019

**Title of Study:** Social Work Practice in the Aftermath of Natural Disasters:  
A Qualitative Inquiry in the Sultanate of Oman

**Name of Researcher(s):** Raya Hamed Al Maamari

I would like to invite you to take part in my research study. Before you decide, I would like you to understand why the research is being done and what it would involve for you. I will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish, and please feel free to ask any questions if there is anything that is not clear.

#### **What is the purpose of the study?**

This study forms part of my doctoral research in the Department of Sociology and Social Policy at the University of Nottingham. This research study aims to contribute to the current gap in research knowledge by exploring social work practice in the aftermath of natural disasters in Oman to provide a response framework. This research, therefore, will describe social service provision in the aftermath of natural disasters in Oman. Also, it will explore the current social work practice in the aftermath of natural disasters in Oman and how best to be improved. Then, its focus will be directed to construct a clear response framework for social work practice in the aftermath of natural disasters.

#### **Why have I been invited?**

You are invited to participate because you have been affected by the latest natural disaster in Oman. I am inviting approximately 12 participants like you to participate as I am interested in hearing about various affected people's experiences. I also hope to find out how they think social work practice could be improved by asking them what was most helpful and what would have been helpful to them in the aftermath of the disaster. This group will be recruited through personal networks. Particular efforts will be made to locate and reach people affected by the disasters who did not receive the services they needed, as the perspective of this marginalised population is likely to add dimension to the research findings.

**Do I have to take part?**

It is up to you to decide whether or not to take part. If you decide to participate, you will be given this information sheet to keep and asked to sign a consent form. If you decide to participate, you are free to withdraw at any time and without a reason. This would not affect your legal rights.

**What will happen to me if I take part?**

If you agree to participate, I will interview you at a convenient time in an agreed location suitable to you. During the interview, I will ask questions about your experiences of natural disasters and their impacts and how these were managed or resolved. I have prepared some questions to ask you, but you can choose not to answer any you do not feel comfortable with and can add anything which you think is relevant. It is anticipated that interviews will take approximately 30 minutes to one hour. The interviews will be recorded using audio and then transcribed as text. After every interview, perhaps even whilst I am with you, I will download the interview on 'OneDrive' and then delete the audio file of the Dictaphone, so you should not worry about what will happen if the audio recorded is dropped or stolen. All identifying details will be removed during transcription so participants cannot be identified.

**Expenses and payments:**

Participants will not be paid an allowance to participate in the study. However, travel expenses for your travel to the interview site will be offered. Additionally, a gift voucher will be offered for completion of your interview.

**What are the possible disadvantages and risks of taking part?**

You may be asked questions about unpleasant experiences you have had in times of natural disasters. If this causes you distress, please feel free to ask me to move on to the next question, or you can choose to pause or terminate the interview. Given that recalling traumatic events might be distressful, participants will be given handouts with appropriate support resources, such as voluntary societies and Imams (worship leaders).

**What are the possible benefits of taking part?**

I cannot promise the study will help you personally, but the information I get from this study may lead to a greater public understanding of the importance of paying attention to the services needed in the aftermath of natural disasters. I hope it may also help improve social work practice in the aftermath of natural disasters by providing a clear response framework.

**What if there is a problem?**

If you are concerned about any aspect of this study, you should ask to speak to the researcher, and I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting the School Research Ethics Officer. All contact details are given at the end of this information sheet.

**Will my taking part in the study be kept confidential?**

I will follow ethical and legal practice, and all information about you will be handled in confidence.

If you join the study, the data collected will be looked at by authorised persons from the University of Nottingham who are organising the research. Authorised people may also look at them to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant, and we will do our best to meet this duty.

All information collected about you during the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password-protected database. Any information about you which leaves the University will have your name and address removed (anonymised), and a unique code will be used so that you cannot be recognised from it. Anonymised data may also be stored in data archives for future researchers interested in this area.

Your personal data (address, telephone number) will be kept for a year after the study's end so that we can contact you about the study's findings *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All research data will be kept securely for 7 years. After this time, your data will be disposed of securely. During this time, all those involved will take all precautions to maintain your confidentiality; only research team members will have access to your personal data.

Although what you say in the interview is confidential, should you disclose anything that puts you or anyone else at risk, we may feel it necessary to report this to the appropriate persons.

**What will happen if I don't want to carry on with the study?**

Your participation is voluntary, and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw, the information collected so far may not be possible to extract and erase after 31st December 2020, which may still be used in the project analysis.

**What will happen to the results of the research study?**

The results of this study will be presented in my PhD thesis and may be printed in academic journals from 2021 onwards. If you want me to inform you where the findings are published, I can do so. You will not be identifiable in any report or publication that results from this study.

**Who is organising and funding the research?**

The University of Nottingham is organising this research and is funded by the Ministry of Higher Education in Oman.

**Who has reviewed the study?**

A group of people looks at all research at the University of Nottingham, called a Research Ethics Committee, to protect your interests. This study has been reviewed and approved by the School of Sociology and Social Policy Research Ethics Committee.

**Further information and contact details**

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## Appendix 3: Participant Information Sheet of Affected People (In Arabic)



University of  
Nottingham  
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### ورقة معلومات المشارك للأشخاص المتضررون

التاريخ: 7 مايو 2019

عنوان الدراسة: ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية: تساؤل نوعي في سلطنة عمان  
اسم الباحث: ريا بنت حمد المعمرية

أود ان أدعوك للمشاركة في بحثي ولكن قبل أن تقرر المشاركة، أود منك أن تفهم وتعي ما الغرض من هذا البحث وما سيتضمنه البحث. سنمر معاً على ورقة المعلومات وسوف أقوم بالاجابة على جميع أسئلتك. بإمكانك التحدث مع من تشاء عن دراسي إذا وددت ذلك وأيضاً يمكنك سؤالي في أي وقت إن كان هناك أي غموض.

ما الغرض من هذه الدراسة؟

هذه الدراسة تشكل جزء من بحثي في مرحلة الدكتوراه في كلية علم الاجتماع والسياسة الاجتماعية في جامعة نوتنجهام. تهدف هذه الدراسة للمشاركة في ملء الفراغ الحالي الموجود في المعرفة البحثية باستكشاف دور الخدمة الاجتماعية بعد وقوع الكوارث الطبيعية في سلطنة عمان والذي سوف يتأتى من بعده تشكيل نموذج استجابة لمثل هذه الكوارث. هذا البحث سيقوم باستكشاف دور الخدمة الاجتماعية الحالي بعد وقوع الكوارث الطبيعية في سلطنة عمان وكيف يمكن تحسينه بشكل أفضل. لاحقاً هذا البحث سيركز على تشكيل نموذج عمل لمهنة الخدمة الاجتماعية في أعقاب الكوارث الطبيعية في سلطنة عمان.

لماذا تم استدعائي؟

تم استدعائك للمشاركة في هذا البحث لأنك كنت من المتأثرين بأواخر الكوارث الطبيعية في سلطنة عمان. لقد قمت باستدعاء حوالي 12 شخصاً مثل حالتك للمشاركة في بحثي لأن لدي اهتمام بالاستماع لتجارب مختلفة للأشخاص المتأثرين. أتمنى أن أجد إجابة من المتأثرين حول إمكانية تحسين العمل الاجتماعي بسؤالهم عما إذا كانت أدوار العمل الاجتماعي بعد وقوع الكارثة ذات فائدة لهم، وما الأدوار التي كان يتوجب القيام بها لتحقيق فوائد أكثر. هذه المجموعة من المتأثرين ستتشكل من خلال شبكة معارف شخصية. سيبدل مجهود خاص لتحديد ومقابلة الأشخاص المتأثرين بهذه الكوارث الذين لم يحصلوا على الخدمة المرجوة، ذلك وأن منظور هؤلاء الناس المهمشة سوف يضيف أبعاداً أخرى في نتائج البحث.

هل يجب عليّ المشاركة؟

يرجع القرار تماماً لك في تأكيد المشاركة من عدمها. إذا قررت المشاركة سيمكنك الاحتفاظ بورقة المعلومات هذه وسيطلب عليك التوقيع على نموذج موافقة المشارك. إذا قررت المشاركة يمكنك أيضاً الانسحاب في أي وقت ومن دون تقديم أي سبب للانسحاب، حيث لن يؤثر ذلك على حقوقك القانونية. ماذا سيحدث لي لو قمت بالمشاركة؟

إذا قررت المشاركة، سأقوم بعمل مقابلة لك في الوقت والمكان المناسب لك والذي سيتم الإتفاق عليه معاً. خلال المقابلة؛ سوف أسألك عن خبرتك حول الكوارث الطبيعية وتأثيراتها وأيضاً كيف يتم احتوائها ووضع حلول لها. لقد قمت بتجهيز بعض الاسئلة لك ولكن يمكنك اختيار عدم الاجابة عن أي سؤال إذا كنت تشعر بعدم الارتياح للسؤال كما يمكنك إضافة أي شيء ترى بأن له ارتباط بالسؤال. من المتوقع أن يتراوح وقت المقابلات بين 30 دقيقة إلى ساعة. سيتم تسجيل المقابلات صوتياً وسيتم تدوينها كتابياً. بعد كل مقابلة وربما خلال تواجدي معك، سأقوم بتحميل المقابلة على OneDrive ومن ثم سيتم حذف المقابلة من جهاز التسجيل الصوتي، لذلك لا ينبغي عليك القلق تجاه ما سيحدث في حالة سقوط المسجل الصوتي أو سرقته. جميع تفاصيل الهوية ستحذف خلال التدوين بحيث لا يمكن تحديد هوية المشاركين.

#### النفقات والمدفوعات

لن يحصل المشاركين على مقابل مالي للمشاركة في هذه الدراسة. ولكن نفقات الوصول إلى موقع المقابلة سوف يتم تعويضها. بالإضافة إلى ذلك ستحصل على هدية بسيطة بعد الانتهاء من المقابلة.

ما هي السلبيات والمخاطر المحتملة للمشاركة؟

قد يُطرح عليك أسئلة حول التجارب غير السارة التي مررت بها في أوقات الكوارث الطبيعية. إذا تسبب هذا في إزعاجك، فلا تتردد في أن تطلب مني الانتقال إلى السؤال التالي أو يمكنك اختيار إيقاف المقابلة مؤقتاً أو إنهاؤها تماماً. نظراً لأن استدعاء الأحداث الصادمة قد يكون مؤلماً، فسيتم تزويد المشاركين بنشرات عن مراكز الدعم المناسبة. على سبيل المثال، الفرق التطوعية وأئمة الدين.

ما هي الفوائد الممكنة من المشاركة؟

لا أستطيع أن أعدك بأن الدراسة سوف تساعدك شخصياً، لكن المعلومات التي أحصل عليها من هذه الدراسة قد تؤدي إلى زيادة فهم الجمهور لأهمية الاهتمام بالخدمات اللازمة لما بعد وقوع الكوارث الطبيعية. أتمنى أن يساعد ذلك أيضاً في تحسين ممارسات العمل الاجتماعي في أعقاب الكوارث الطبيعية من خلال توفير نموذج استجابة محكم.

ما إذا كانت هناك مشكلة؟

إذا كانت لديك مخاوف بشأن أي جانب من جوانب هذه الدراسة، يجب عليك أن تطلب التحدث إلى الباحث، وسأبذل قصارى جهدي للإجابة على أسئلتك. إذا كنت لا تزال غير سعيد وترغب في تقديم شكوى رسمية، يمكنك القيام بذلك عن طريق الاتصال بمسؤول أخلاقيات البحث في الكلية. جميع تفاصيل الاتصال توجد في نهاية هذه الاستمارة. هل تبقى مشاركتي في الدراسة سرية؟

سوف أتبع الممارسات الأخلاقية والقانونية المعتمدة وسيتم التعامل مع جميع المعلومات المتعلقة بك بسرية تامة. إذا انضمت إلى الدراسة، فسيتم النظر في البيانات التي تم جمعها من قبل أشخاص مفوضين لتنظيم البحث من جامعة نوتنجهام. قد يتم النظر في البيانات أيضاً من قبل أشخاص مفوضين للتحقق من إجراء الدراسة بشكل صحيح. سيكون على الجميع التزام بالسرية تجاهك كمشارك في هذا البحث وسنبذل قصارى جهدنا للوفاء بهذا الواجب.

سيتم الاحتفاظ بجميع المعلومات التي يتم تجميعها عنك أثناء البحث في سرية تامة وتخزينها في مكتب آمن ومغلق وفي قاعدة بيانات محمية بكلمة مرور. أي معلومات عنك تخرج من الجامعة ستتم إزالة اسمك وعنوانك (مجهول الهوية) وسيتم استخدام رمز فريد بحيث لا يمكن من خلاله التعرف عليك. يمكن أيضاً تخزين بياناتك كمجهول الهوية في أرشيفات البيانات للباحثين المهتمين بهذا المجال في المستقبل.

سيتم الاحتفاظ ببياناتك الشخصية (العنوان، رقم الهاتف) لمدة عام بعد نهاية الدراسة حتى تتمكن من الاتصال بك بشأن نتائج الدراسة ودراسات المتابعة الممكنة (إلا إذا أخبرتنا بأنك لا تود أن يتم الاتصال بك). سيتم الاحتفاظ بجميع البيانات البحثية بشكل آمن لمدة 7 سنوات. بعد هذا الوقت، سيتم التخلص من بياناتك بأمان. خلال هذا الوقت، سيتم اتخاذ جميع الاحتياطات من قبل المعنيين للحفاظ على سريتك، ولن يتمكن سوى أعضاء فريق البحث من الوصول إلى بياناتك الشخصية.

على الرغم من أن ما تقوله في المقابلة سري، إلا أن عند الإفصاح عن شيئاً ما يعرضك أنت أو أي شخص آخر للخطر، سنضطر للإبلاغ عنه لدى الأشخاص المعنيين.

ماذا سيحدث إذا لم أكن أرغب في متابعة الدراسة؟

مشاركتك تطوعية ولديك الحرية في الانسحاب في أي وقت دون الإدلاء بأي سبب ودون أن تتأثر حقوقك القانونية. إذا قمت بالانسحاب فأن المعلومات التي تم جمعها لا يمكن استبعادها وحذفها بعد 31 ديسمبر 2020، وقد تظل هذه المعلومات مستخدمة في تحليل البحث.

ماذا سيحدث لنتائج الدراسة البحثية؟

سيتم تقديم نتائج هذه الدراسة في رسالة الدكتوراه الخاصة بي وربما يتم طباعتها في المجلات الأكاديمية من عام 2021 فصاعدًا. إذا كنت ترغب في اطلاعك على مكان نشر النتائج، يمكنني القيام بذلك. لن يتم الفصح عن هويتك في أي تقرير أو منشور ينتج من هذه الدراسة.

من يقوم بتنظيم وتمويل البحث؟

يتم تنظيم هذا البحث من قبل جامعة نوتنجهام وتموله وزارة التعليم العالي في سلطنة عمان.

من قام بمراجعة هذه الدراسة؟

يتم النظر في جميع البحوث في جامعة نوتنجهام من قبل مجموعة من الأعضاء في لجنة تدعى لجنة أخلاقيات البحوث، للتأكد والحفاظ على حقوقك. وقد تمت مراجعة هذه الدراسة والموافقة عليها من قبل لجنة أخلاقيات بحوث علم الاجتماع والسياسة الاجتماعية.

للمزيد من المعلومات وتفاصيل الاتصال:

#### الباحث:

ريا بنت حمد المعمرية

البريد الإلكتروني: [raya.almaamari@nottingham.ac.uk](mailto:raya.almaamari@nottingham.ac.uk)

رقم الهاتف (بريطانيا): 0044 7482028055

رقم الهاتف (عمان): 00968 94441741

#### المشرفون:

الدكتورة شيفان ليرد

أستاذ مشارك في العمل الاجتماعي

مكتب 8B

كلية علم الاجتماع والسياسة الاجتماعية

مبنى القانون والعلوم الاجتماعية

جامعة نوتنجهام

حرم حديقة الجامعة

نوتنجهام، المملكة المتحدة

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رقم الهاتف: 0044 115 84 66394

البريد الإلكتروني: [siobhan.laird@nottingham.ac.uk](mailto:siobhan.laird@nottingham.ac.uk)

الدكتورة ليزا وريك

أستاذ مساعد في العمل الاجتماعي

مكتب 6B

كلية علم الاجتماع والسياسة الاجتماعية

مبنى القانون والعلوم الاجتماعية

جامعة نوتنجهام

حرم حديقة الجامعة  
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مبنى القانون والعلوم الاجتماعية  
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## **Appendix 4: Participant Information Sheet of Social Workers in Social Development Departments (In English)**



### **Participant Information Sheet of Social Workers in Social Development Departments (In English)**

Date: 07.05.2019

**Title of Study:** Social Work Practice in the Aftermath of Natural Disasters:  
A Qualitative Inquiry in the Sultanate of Oman

**Name of Researcher(s):** Raya Hamed Al Maamari

I would like to invite you to take part in my research study. Before you decide, I would like you to understand why the research is being done and what it would involve for you. I will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish, and please feel free to ask any questions if anything needs to be clarified.

#### **What is the purpose of the study?**

This study forms part of my doctoral research in the Department of Sociology and Social Policy at the University of Nottingham. This research study aims to contribute to the current gap in research knowledge by exploring social work practice in the aftermath of natural disasters in Oman to provide a response framework. This research, therefore, will describe social service provision in the aftermath of natural disasters in Oman. Also, it will explore the current social work practice in the aftermath of natural disasters in Oman and how best to be improved. Then, its focus will be on constructing a clear response framework for social work practice in the aftermath of natural disasters.

#### **Why have I been invited?**

You are invited to participate because you are a social worker in one of Oman's Social Development departments involved in disaster management. I am interested in hearing about the provision of social services in the aftermath of natural disasters in Oman with more focus on social work practice. I am inviting approximately 12 participants like you to participate, as I am interested in hearing about various social workers' perspectives. I also hope to discover the roles and relevant knowledge and skills social workers need to practice more effectively in the aftermath of natural disasters in Oman. This group of my sample will

be recruited through contacting the Ministry of Social Development in Oman, particularly the Relief and Shelter sector in the National Emergency Management System.

**Do I have to take part?**

It is up to you to decide whether or not to take part. If you decide to participate, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to participate, you are free to withdraw at any time and without giving a reason. This would not affect your legal rights.

**What will happen to me if I take part?**

If you agree to participate, I will interview you at a convenient time in an agreed location suitable to you. During the interview, I will ask questions about your experiences of natural disasters and their impacts and how they were managed or resolved. I have prepared some questions to ask you, but you can choose not to answer any you do not feel comfortable with and can add anything which you think is relevant. It is anticipated that interviews will take approximately 30 minutes to one hour. The interviews will be recorded using audio and then transcribed as text. After every interview, perhaps even whilst I am with you, I will download the interview on 'OneDrive' and then delete the audio file of the Dictaphone, so you should not worry about what would happen if the audio recorded is dropped or stolen. All identifying details will be removed during transcription so participants cannot be identified.

**Expenses and payments:**

Participants will not be paid an allowance to participate in the study. However, travel expenses to the interview site will be offered. Additionally, a gift voucher will be offered for completion of your interview.

**What are the possible disadvantages and risks of taking part?**

You may be asked questions about unpleasant experiences you have had in times of natural disasters. If this causes you distress, please feel free to ask me to move on to the next question, or you can choose to pause or terminate the interview. Given that recalling traumatic events might be distressful, participants will be given handouts with appropriate support resources, such as voluntary societies and Imams (worship leaders).

**What are the possible benefits of taking part?**

I cannot promise the study will help you personally. Still, the information I get from this study may lead to a greater public understanding of the importance of paying attention to the services needed in the aftermath of natural disasters. I hope it may also help improve social work practice in the aftermath of natural disasters by providing a clear response framework.

**What if there is a problem?**

If you are concerned about any aspect of this study, you should ask to speak to the researcher, and I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting the School Research Ethics Officer. All contact details are given at the end of this information sheet.

**Will my taking part in the study be kept confidential?**

I will follow ethical and legal practice, and all information about you will be handled in confidence.

If you join the study, the data collected will be looked at by authorised persons from the University of Nottingham who are organising the research. Authorised people may also look at them to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant, and we will do our best to meet this duty.

All information collected about you during the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password-protected database. Any information about you which leaves the University will have your name and address removed (anonymised), and a unique code will be used so that you cannot be recognised from it. Anonymised data may also be stored in data archives for future researchers interested in this area.

Your personal data (address, telephone number) will be kept for a year after the study's end so that we can contact you about the study's findings *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All research data will be kept securely for seven years. After this time, your data will be disposed of securely. During this time, all precautions will be taken to maintain your confidentiality; only research team members will have access to your personal data.

Although what you say in the interview is confidential, should you disclose anything that we feel puts you or anyone else at risk, we may need to report this to the appropriate persons.

**What will happen if I don't want to continue the study?**

Your participation is voluntary, and you are free to withdraw at any time without giving any reason and without your legal rights being affected. If you withdraw, the information collected so far may not be possible to extract and erase after 31st December 2020, which may still be used in the project analysis.

**What will happen to the results of the research study?**

The results of this study will be presented in my PhD thesis and may be printed in academic journals from 2021 onwards. If you want me to inform you where the findings are published, I can do so. You will not be identifiable in any report or publication that results from this study.

**Who is organising and funding the research?**

The University of Nottingham is organising this research and is funded by the Ministry of Higher Education in Oman.

**Who has reviewed the study?**

A group of people looks at all research at the University of Nottingham, called a Research Ethics Committee, to protect your interests. This study has been reviewed and approved by the School of Sociology and Social Policy Research Ethics Committee.



## Further information and contact details

### Researcher:

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### Supervisors/PI:

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- **Dr Lisa Warwick**

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### Research Ethics Officer:

**Dr Alison Mohr**

- Room A18
- School of Sociology and Social Policy
- Law and Social Sciences Building
- University of Nottingham
- University Park Campus

- Nottingham
- United Kingdom
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**\*Note:** If any participant is unable to read English, this sheet will be translated into Arabic.

## Appendix 5: Participant Information Sheet of Social Workers in Social Development Departments (In Arabic)



University of  
Nottingham  
UK | CHINA | MALAYSIA

### ورقة معلومات المشارك للأخصائيين الاجتماعيين في مديريات التنمية الاجتماعية التاريخ: 7 مايو 2019

عنوان الدراسة: ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية: تساؤل نوعي في سلطنة عمان  
اسم الباحث: ريا بنت حمد المعمرية

أود ان أدعوك للمشاركة في بحثي ولكن قبل أن تقرر المشاركة، أود منك أن تفهم وتعي ما الغرض من هذا البحث وما سيتضمنه البحث. سنمر معاً على ورقة المعلومات وسوف أقوم بالإجابة على جميع أسئلتك. بإمكانك التحدث مع من تشاء عن دراسي إذا وددت ذلك وأيضاً يمكنك سؤالي في أي وقت إن كان هناك أي غموض.

ما الغرض من هذه الدراسة؟

هذه الدراسة تشكل جزء من بحثي في مرحلة الدكتوراه في كلية علم الاجتماع والسياسة الاجتماعية في جامعة نوتنجهام. تهدف هذه الدراسة للمشاركة في ملء الفجوات الموجودة في المعرفة البحثية باستكشاف دور الخدمة الاجتماعية بعد وقوع الكوارث الطبيعية في سلطنة عمان والذي سوف يتأتى من بعده تشكيل نموذج استجابة لمثل هذه الكوارث. هذا البحث سيقوم باستكشاف دور الخدمة الاجتماعية الحالي بعد وقوع الكوارث الطبيعية في سلطنة عمان وكيف يمكن تحسينه بشكل أفضل. لاحقاً هذا البحث سيركز على تشكيل نموذج عمل لمهنة الخدمة الاجتماعية في أعقاب الكوارث الطبيعية في سلطنة عمان.

لماذا تم استدعائي؟

تم استدعائك للمشاركة في هذا البحث لأنك أحد ممارسي العمل الاجتماعي في أحد مديريات التنمية الاجتماعية بسلطنة عمان والذي شارك في عمليات إدارة الكوارث. لقد قمت باستدعاء حوالي 13 شخصاً مثل حالتك للمشاركة في بحثي لأن لدي اهتمام بمعرفة مجموعة متنوعة من وجهات نظر ممارسي العمل الاجتماعي. أأمل أيضاً أن استكشف الأدوار والمعارف والمهارات التي يحتاجها الاخصائيون الاجتماعيون لتحقيق ممارسة أكثر فعالية في أعقاب الكوارث الطبيعية في سلطنة عمان. سيتم تعيين هذه المجموعة من خلال التواصل مع وزارة التنمية الاجتماعية في عُمان، وتحديد قطاع الإغاثة والإيواء في المنظومة الوطنية لإدارة الأزمات والطوارئ.

هل يجب عليّ المشاركة؟

يرجع القرار تماماً لك في تأكيد المشاركة من عدمها. إذا قررت المشاركة سيمكنك الاحتفاظ بورقة المعلومات هذه وسيطلب عليك التوقيع على نموذج موافقة المشارك. إذا قررت المشاركة يمكنك أيضاً الانسحاب في أي وقت ومن دون تقديم أي سبب للانسحاب، حيث لن يؤثر ذلك على حقوقك القانونية.

ماذا سيحدث لي لو قمت بالمشاركة؟

إذا قررت المشاركة، سأقوم بعمل مقابلة لك في الوقت والمكان المناسب لك والذي سيتم الاتفاق عليه معاً. خلال المقابلة؛ سوف أسألك عن خبرتك حول الكوارث الطبيعية وتأثيراتها وأيضاً كيف يتم احتواؤها ووضع حلول لها. لقد قمت بتجهيز بعض الاسئلة لك، ولكن يمكنك اختيار عدم الإجابة عن أي سؤال إذا كنت تشعر بعدم الارتياح للسؤال كما يمكنك

إضافة أي شيء ترى بأن له ارتباط بالسؤال. من المتوقع أن يتراوح وقت المقابلات بين 30 دقيقة إلى ساعة. سيتم تسجيل المقابلات صوتياً وسيتم تدوينها كتابياً. بعد كل مقابلة وربما خلال تواجدي معك، سأقوم بتحميل المقابلة على OneDrive ومن ثم سيتم حذف المقابلة من جهاز التسجيل الصوتي، لذلك لا ينبغي عليك القلق تجاه ما سيحدث في حالة سقوط المسجل الصوتي أو سرقة. جميع تفاصيل الهوية ستحذف خلال التدوين بحيث لا يمكن تحديد هوية المشاركين.

#### النفقات والمدفوعات

لن يحصل المشاركين على مقابل مالي للمشاركة في هذه الدراسة. ولكن نفقات الوصول إلى موقع المقابلة سوف يتم تعويضها. بالإضافة إلى ذلك ستحصل على هدية بسيطة بعد الانتهاء من المقابلة.

ما هي السلبات والمخاطر المحتملة للمشاركة؟

قد يُطرح عليك أسئلة حول التجارب غير السارة التي مررت بها في أوقات الكوارث الطبيعية. إذا تسبب هذا في إزعاجك، فلا تتردد في أن تطلب مني الانتقال إلى السؤال التالي أو يمكنك اختيار إيقاف المقابلة مؤقتاً أو إنهاؤها تماماً. نظراً لأن استدعاء الأحداث الصادمة قد يكون مؤلماً، فسيتم تزويد المشاركين بنشرات عن مراكز الدعم المناسبة. على سبيل المثال، الفرق التطوعية وأئمة الدين.

ما هي الفوائد الممكنة من المشاركة؟

لا أستطيع أن أعدك بأن الدراسة سوف تساعدك شخصياً، لكن المعلومات التي أحصل عليها من هذه الدراسة قد تؤدي إلى زيادة فهم الجمهور لأهمية الاهتمام بالخدمات اللازمة لما بعد وقوع الكوارث الطبيعية. أتمنى أن يساعد ذلك أيضاً في تحسين ممارسات العمل الاجتماعي في أعقاب الكوارث الطبيعية من خلال توفير نموذج استجابة محكم. ما إذا كانت هناك مشكلة؟

إذا كانت لديك مخاوف بشأن أي جانب من جوانب هذه الدراسة، يجب عليك أن تطلب التحدث إلى الباحث، وسأبذل قصارى جهدي للإجابة على أسئلتك. إذا كنت لا تزال غير سعيد وترغب في تقديم شكوى رسمية، يمكنك القيام بذلك عن طريق الاتصال بمسؤول أخلاقيات البحث في الكلية. جميع تفاصيل الاتصال توجد في نهاية هذه الاستمارة. هل تبقى مشاركتي في الدراسة سرية؟

سوف أتبع الممارسات الأخلاقية والقانونية المعتمدة وسيتم التعامل مع جميع المعلومات المتعلقة بك بسرية تامة. إذا انضمت إلى الدراسة، فسيتم النظر في البيانات التي تم جمعها من قبل أشخاص مفوضين لتنظيم البحث من جامعة نوتنجهام. قد يتم النظر في البيانات أيضاً من قبل أشخاص مفوضين للتحقق من إجراء الدراسة بشكل صحيح. سيكون على الجميع التزام بالسرية تجاهك كمشارك في هذا البحث وسنبذل قصارى جهدنا للوفاء بهذا الواجب. سيتم الاحتفاظ بجميع المعلومات التي يتم تجميعها عنك أثناء البحث في سرية تامة وتخزينها في مكتب آمن ومغلق وفي قاعدة بيانات محمية بكلمة مرور. أي معلومات عنك تخرج من الجامعة ستتم إزالة اسمك وعنوانك (مجهول الهوية) وسيتم استخدام رمز فريد بحيث لا يمكن من خلاله التعرف عليك. يمكن أيضاً تخزين بياناتك كمجهول الهوية في أرشيفات البيانات للباحثين المهتمين بهذا المجال في المستقبل.

سيتم الاحتفاظ ببياناتك الشخصية (العنوان، رقم الهاتف) لمدة عام بعد نهاية الدراسة حتى نتمكن من الاتصال بك بشأن نتائج الدراسة ودراسات المتابعة الممكنة (إلا إذا أخبرتنا بأنك لا تود أن يتم الاتصال بك). سيتم الاحتفاظ بجميع البيانات البحثية بشكل آمن لمدة 7 سنوات. بعد هذا الوقت، سيتم التخلص من بياناتك بأمان. خلال هذا الوقت، سيتم اتخاذ جميع الاحتياطات من قبل المعنيين للحفاظ على سريتك، ولن يتمكن سوى أعضاء فريق البحث من الوصول إلى بياناتك الشخصية.

على الرغم من أن ما تقوله في المقابلة سري، إلا أن عند الإفصاح عن شيئاً ما يعرضك أنت أو أي شخص آخر للخطر، سنضطر للإبلاغ عنه لدى الأشخاص المعنيين.

ماذا سيحدث إذا لم أكن أرغب في متابعة الدراسة؟

مشاركتك تطوعية ولديك الحرية في الانسحاب في أي وقت دون الإضرار بأي سبب ودون أن تتأثر حقوقك القانونية. إذا قمت بالانسحاب فإن المعلومات التي تم جمعها لا يمكن استبعادها وحذفها بعد 31 ديسمبر 2020، وقد تظل هذه المعلومات مستخدمة في تحليل البحث.

ماذا سيحدث لنتائج الدراسة البحثية؟  
سيتم تقديم نتائج هذه الدراسة في رسالة الدكتوراه الخاصة بي وربما يتم طباعتها في المجلات الأكاديمية من عام 2021 فصاعدًا. إذا كنت ترغب في اطلاعك على مكان نشر النتائج، يمكنني القيام بذلك. لن يتم الفصح عن هويتك في أي تقرير أو منشور ينتج من هذه الدراسة.  
من يقوم بتنظيم وتمويل البحث؟  
يتم تنظيم هذا البحث من قبل جامعة نوتنجهام وتموله وزارة التعليم العالي في سلطنة عمان.  
من قام بمراجعة هذه الدراسة؟  
يتم النظر في جميع البحوث في جامعة نوتنجهام من قبل مجموعة من الأعضاء في لجنة تدعى لجنة أخلاقيات البحوث، للتأكد والحفاظ على حقوقك. وقد تمت مراجعة هذه الدراسة والموافقة عليها من قبل لجنة أخلاقيات بحوث علم الاجتماع والسياسة الاجتماعية.

للمزيد من المعلومات وتفاصيل الاتصال:

#### الباحث:

ريا بنت حمد المعمرية  
البريد الإلكتروني: [raya.almaamari@nottingham.ac.uk](mailto:raya.almaamari@nottingham.ac.uk)  
رقم الهاتف (بريطانيا): 0044 7482028055  
رقم الهاتف (عمان): 00968 94441741

#### المشرفون:

الدكتورة شيفان ليرد  
أستاذ مشارك في العمل الاجتماعي  
مكتب 8B  
كلية علم الاجتماع والسياسة الاجتماعية  
مبنى القانون والعلوم الاجتماعية  
جامعة نوتنجهام  
حرم حديقة الجامعة  
نوتنجهام، المملكة المتحدة  
الرمز البريدي: NG7 2RD  
رقم الهاتف: 0044 115 84 66394  
البريد الإلكتروني: [siobhan.laird@nottingham.ac.uk](mailto:siobhan.laird@nottingham.ac.uk)  
الدكتورة ليزا وريك  
أستاذ مساعد في العمل الاجتماعي  
مكتب 6B  
كلية علم الاجتماع والسياسة الاجتماعية  
مبنى القانون والعلوم الاجتماعية  
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حرم حديقة الجامعة  
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الرمز البريدي: NG7 2RD  
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البريد الإلكتروني: [lisa.warwick@nottingham.ac.uk](mailto:lisa.warwick@nottingham.ac.uk)

مسؤول أخلاقيات البحث:

الدكتورة أليسون مور

مكتب 18A

كلية علم الاجتماع والسياسة الاجتماعية

مبنى القانون والعلوم الاجتماعية

جامعة نوتنجهام

حرم حديقة الجامعة

نوتنجهام, المملكة المتحدة

الرمز البريدي: NG7 2RD

رقم الهاتف: 00441158468515

البريد الإلكتروني: [alison.mohr@nottingham.ac.uk](mailto:alison.mohr@nottingham.ac.uk)

## **Appendix 6: Participant Information Sheet of NGO workers (In English)**



### **Participant Information Sheet of NGO workers (In English)**

Date: 07.05.2019

**Title of Study:** Social Work Practice in the Aftermath of Natural Disasters:  
A Qualitative Inquiry in the Sultanate of Oman

**Name of Researcher(s):** Raya Hamed Al Maamari

I would like to invite you to take part in my research study. Before you decide, I would like you to understand why the research is being done and what it would involve for you. I will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish, and please feel free to ask any questions if anything is unclear.

#### **What is the purpose of the study?**

This study forms part of my doctoral research in the Department of Sociology and Social Policy at the University of Nottingham. This research study aims to contribute to the current gap in research knowledge by exploring social work practice in the aftermath of natural disasters in Oman to provide a response framework. This research, therefore, will describe social service provision in the aftermath of natural disasters in Oman. Also, it will explore the current social work practice in the aftermath of natural disasters in Oman and how best to be improved. Then, its focus will be on constructing a clear response framework for social work practice in the aftermath of natural disasters.

#### **Why have I been invited?**

You are invited to participate because you are a social work practitioner in one of the registered NGOs involved in disaster management in Oman. I am interested in hearing about the provision of social services in the aftermath of natural disasters in Oman with more focus on social work practice. I am inviting approximately 12 participants like you to participate, as I am interested in hearing about various non-governmental organisations' perspectives. I also hope to discover the roles and relevant knowledge and skills social workers need to practice more effectively in the aftermath of natural disasters in Oman. This group will be recruited through contacting the Ministry of Social Development in Oman, particularly the Relief and Shelter sector in the National Emergency Management System.

#### **Do I have to take part?**

It is up to you to decide whether or not to take part. If you decide to participate, you will be given this information sheet to keep and asked to sign a consent form. If you decide to participate, you are free to withdraw at any time and without a reason. This would not affect your legal rights.

**What will happen to me if I take part?**

If you agree to participate, I will interview you at a convenient time in an agreed location suitable to you. During the interview, I will ask questions about your experiences of natural disasters, their impacts, and how they were managed or resolved. I have prepared some questions to ask you, but you can choose not to answer any you do not feel comfortable with and can add anything which you think is relevant. It is anticipated that interviews will take approximately 30 minutes to one hour. The interviews will be recorded using audio and then transcribed as text. After every interview, perhaps even whilst I am with you, I will download the interview on 'OneDrive' and then delete the audio file of the Dictaphone, so you should not worry about what will happen if the audio recorded is dropped or stolen. All identifying details will be removed during transcription so participants cannot be identified.

**Expenses and payments:**

Participants will not be paid an allowance to participate in the study. However, travel expenses to the interview site will be offered. Additionally, a gift voucher will be offered for completion of your interview.

**What are the possible disadvantages and risks of taking part?**

You may be asked questions about unpleasant experiences you have had in times of natural disasters. If this causes you distress, please feel free to ask me to move on to the next question, or you can choose to pause or terminate the interview. Given that recalling traumatic events might be distressful, participants will be given handouts with appropriate support resources, such as voluntary societies and Imams (worship leaders).

**What are the possible benefits of taking part?**

I cannot promise the study will help you personally, but the information I get from this study may lead to a greater public understanding of the importance of paying attention to the services needed in the aftermath of natural disasters. I hope it may also help improve social work practice in the aftermath of natural disasters by providing a clear response framework.

**What if there is a problem?**

If you are concerned about any aspect of this study, you should ask to speak to the researcher, and I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting the School Research Ethics Officer. All contact details are given at the end of this information sheet.

**Will my taking part in the study be kept confidential?**

I will follow ethical and legal practice, and all information about you will be handled confidently.

If you join the study, the data collected will be looked at by authorised persons from the University of Nottingham who are organising the research. Authorised people may also look



at them to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant, and we will do our best to meet this duty.

All information collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password-protected database. Any information about you which leaves the University will have your name and address removed (anonymised), and a unique code will be used so that you cannot be recognised from it. Anonymised data may also be stored in data archives for future researchers interested in this area.

Your personal data (address, telephone number) will be kept for a year after the study's end so that we can contact you about the study's findings *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All research data will be kept securely for 7 years. After this time, your data will be disposed of securely. During this time, all those involved will take all precautions to maintain your confidentiality; only research team members will have access to your personal data.

Although what you say in the interview is confidential, should you disclose anything that puts you or anyone else at risk, we may feel it necessary to report this to the appropriate persons.

**What will happen if I don't want to continue the study?**

Your participation is voluntary, and you are free to withdraw at any time without giving any reason and without your legal rights being affected. If you withdraw, the information collected so far may not be possible to extract and erase after 31st December 2020, which may still be used in the project analysis.

**What will happen to the results of the research study?**

The results of this study will be presented in my PhD thesis and may be printed in academic journals from 2021 onwards. If you want me to inform you where the findings are published, I can do so. You will not be identifiable in any report or publication that results from this study.

**Who is organising and funding the research?**

The University of Nottingham is organising this research and is funded by the Ministry of Higher Education in Oman.

**Who has reviewed the study?**

A group of people looks at all research at the University of Nottingham, called a Research Ethics Committee, to protect your interests. This study has been reviewed and approved by the School of Sociology and Social Policy Research Ethics Committee.

**Further information and contact details**

Researcher:

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**\*Note:** If any participant is unable to read English, this sheet will be translated into Arabic.

## Appendix 7: Participant Information Sheet of NGO Workers (In Arabic)



University of  
Nottingham  
UK | CHINA | MALAYSIA

### ورقة معلومات المشارك للعاملين في المنظمات غير الحكومية التاريخ: 7 مايو 2019

عنوان الدراسة: ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية: تساؤل نوعي في سلطنة عمان  
اسم الباحث: ريا بنت حمد المعمرية

أود ان أدعوك للمشاركة في بحثي ولكن قبل أن تقرر المشاركة، أود منك أن تفهم وتعي ما الغرض من هذا البحث وما سيتضمنه البحث. سنمر معاً على ورقة المعلومات وسوف أقوم بالإجابة على جميع أسئلتك. بإمكانك التحدث مع من تشاء عن دراستي إذا وددت ذلك وأيضاً يمكنك سؤالي في أي وقت إن كان هناك أي غموض.

ما الغرض من هذه الدراسة؟

هذه الدراسة تشكل جزء من بحثي في مرحلة الدكتوراه في كلية علم الاجتماع والسياسة الاجتماعية في جامعة نوتنجهام. تهدف هذه الدراسة للمشاركة في ملء الفجوات الموجودة في المعرفة البحثية باستكشاف دور الخدمة الاجتماعية بعد وقوع الكوارث الطبيعية في سلطنة عمان والذي سوف يتأتى من بعده تشكيل نموذج استجابة لمثل هذه الكوارث. هذا البحث سيقوم باستكشاف دور الخدمة الاجتماعية الحالي بعد وقوع الكوارث الطبيعية في سلطنة عمان وكيف يمكن تحسينه بشكل أفضل. لاحقاً هذا البحث سيركز على تشكيل نموذج عمل لمهنة الخدمة الاجتماعية في أعقاب الكوارث الطبيعية في سلطنة عمان.

لماذا تم استدعائي؟

تم استدعائك للمشاركة في هذا البحث لأنك أحد ممارسي العمل الاجتماعي في أحد المنظمات غير الحكومية بسلطنة عمان والذي شارك في عمليات إدارة الكوارث. لقد قمت باستدعاء حوالي 12 شخصاً مثل حالتك للمشاركة في بحثي لأن لدي اهتمام بمعرفة مجموعة متنوعة من وجهات نظر ممارسي العمل الاجتماعي في المنظمات غير الحكومية. أمل أيضاً أن استكشف الأدوار والمعارف والمهارات التي يحتاجها الممارسون الاجتماعيون للقيام بممارسة أكثر فعالية في أعقاب الكوارث الطبيعية في سلطنة عمان. سيتم تعيين هذه المجموعة من خلال التواصل مع وزارة التنمية الاجتماعية في عُمان، وتحديد قطاع الإغاثة والإيواء في المنظومة الوطنية لإدارة الأزمات والطوارئ.

هل يجب عليّ المشاركة؟

يرجع القرار تماماً لك في تأكيد المشاركة من عدمها. إذا قررت المشاركة سيمكنك الاحتفاظ بورقة المعلومات هذه وسيطلب عليك التوقيع على نموذج موافقة المشارك. إذا قررت المشاركة يمكنك أيضاً الانسحاب في أي وقت ومن دون تقديم أي سبب للانسحاب، حيث لن يؤثر ذلك على حقوقك القانونية.

ماذا سيحدث لي لو قمت بالمشاركة؟

إذا قررت المشاركة، سأقوم بعمل مقابلة لك في الوقت والمكان المناسب لك والذي سيتم الاتفاق عليه معاً. خلال المقابلة؛ سوف أسألك عن خبرتك حول الكوارث الطبيعية وتأثيراتها وأيضاً كيف يتم احتوائها ووضع حلول لها. لقد قمت بتجهيز بعض الاسئلة لك ولكن يمكنك اختيار عدم الاجابة عن أي سؤال إذا كنت تشعر بعدم الارتياح للسؤال كما يمكنك

إضافة أي شيء ترى بأن له ارتباط بالسؤال. من المتوقع أن يتراوح وقت المقابلات بين 30 دقيقة إلى ساعة. سيتم تسجيل المقابلات صوتياً وسيتم تدوينها كتابياً. بعد كل مقابلة وربما خلال تواجدي معك، سأقوم بتحميل المقابلة على OneDrive ومن ثم سيتم حذف المقابلة من جهاز التسجيل الصوتي، لذلك لا ينبغي عليك القلق تجاه ما سيحدث في حالة سقوط المسجل الصوتي أو سرقة. جميع تفاصيل الهوية ستحذف خلال التدوين بحيث لا يمكن تحديد هوية المشاركين.

#### النفقات والمدفوعات

لن يحصل المشاركين على مقابل مالي للمشاركة في هذه الدراسة. ولكن نفقات الوصول إلى موقع المقابلة سوف يتم تعويضها. بالإضافة إلى ذلك ستحصل على هدية بسيطة بعد الانتهاء من المقابلة.

ما هي السلبيات والمخاطر المحتملة للمشاركة؟

قد يُطرح عليك أسئلة حول التجارب غير السارة التي مررت بها في أوقات الكوارث الطبيعية. إذا تسبب هذا في إزعاجك، فلا تتردد في أن تطلب مني الانتقال إلى السؤال التالي أو يمكنك اختيار إيقاف المقابلة مؤقتاً أو إنهاؤها تماماً. نظراً لأن استدعاء الأحداث الصادمة قد يكون مؤلماً، فسيتم تزويد المشاركين بنشرات عن مراكز الدعم المناسبة. على سبيل المثال، الفرق التطوعية وأئمة الدين.

ما هي الفوائد الممكنة من المشاركة؟

لا أستطيع أن أعدك بأن الدراسة سوف تساعدك شخصياً، لكن المعلومات التي أحصل عليها من هذه الدراسة قد تؤدي إلى زيادة فهم الجمهور لأهمية الاهتمام بالخدمات اللازمة لما بعد وقوع الكوارث الطبيعية. أتمنى أن يساعد ذلك أيضاً في تحسين ممارسات العمل الاجتماعي في أعقاب الكوارث الطبيعية من خلال توفير نموذج استجابة محكم. ما إذا كانت هناك مشكلة؟

إذا كانت لديك مخاوف بشأن أي جانب من جوانب هذه الدراسة، يجب عليك أن تطلب التحدث إلى الباحث، وسأبذل قصارى جهدي للإجابة على أسئلتك. إذا كنت لا تزال غير سعيد وترغب في تقديم شكوى رسمية، يمكنك القيام بذلك عن طريق الاتصال بمسؤول أخلاقيات البحث في الكلية. جميع تفاصيل الاتصال توجد في نهاية هذه الاستمارة. هل تبقى مشاركتي في الدراسة سرية؟

سوف أتبع الممارسات الأخلاقية والقانونية المعتمدة وسيتم التعامل مع جميع المعلومات المتعلقة بك بسرية تامة. إذا انضمت إلى الدراسة، فسيتم النظر في البيانات التي تم جمعها من قبل أشخاص مفوضين لتنظيم البحث من جامعة نوتنجهام. قد يتم النظر في البيانات أيضاً من قبل أشخاص مفوضين للتحقق من إجراء الدراسة بشكل صحيح. سيكون على الجميع التزام بالسرية تجاهك كمشارك في هذا البحث وسنبذل قصارى جهدنا للوفاء بهذا الواجب. سيتم الاحتفاظ بجميع المعلومات التي يتم تجميعها عنك أثناء البحث في سرية تامة وتخزينها في مكتب آمن ومغلق وفي قاعدة بيانات محمية بكلمة مرور. أي معلومات عنك تخرج من الجامعة ستتم إزالة اسمك وعنوانك (مجهول الهوية) وسيتم استخدام رمز فريد بحيث لا يمكن من خلاله التعرف عليك. يمكن أيضاً تخزين بياناتك كمجهول الهوية في أرشيفات البيانات للباحثين المهتمين بهذا المجال في المستقبل.

سيتم الاحتفاظ ببياناتك الشخصية (العنوان، رقم الهاتف) لمدة عام بعد نهاية الدراسة حتى نتمكن من الاتصال بك بشأن نتائج الدراسة ودراسات المتابعة الممكنة (إلا إذا أخبرتنا بأنك لا تود أن يتم الاتصال بك). سيتم الاحتفاظ بجميع البيانات البحثية بشكل آمن لمدة 7 سنوات. بعد هذا الوقت، سيتم التخلص من بياناتك بأمان. خلال هذا الوقت، سيتم اتخاذ جميع الاحتياطات من قبل المعنيين للحفاظ على سريتك، ولن يتمكن سوى أعضاء فريق البحث من الوصول إلى بياناتك الشخصية.

على الرغم من أن ما تقوله في المقابلة سري، إلا أن عند الإفصاح عن شيئاً ما يعرضك أنت أو أي شخص آخر للخطر، سنضطر للإبلاغ عنه لدى الأشخاص المعنيين.

ماذا سيحدث إذا لم أكن أرغب في متابعة الدراسة؟

مشاركتك تطوعية ولديك الحرية في الانسحاب في أي وقت دون الإضرار بأي سبب ودون أن تتأثر حقوقك القانونية. إذا قمت بالانسحاب فإن المعلومات التي تم جمعها لا يمكن استبعادها وحذفها بعد 31 ديسمبر 2020، وقد تظل هذه المعلومات مستخدمة في تحليل البحث.

ماذا سيحدث لنتائج الدراسة البحثية؟  
سيتم تقديم نتائج هذه الدراسة في رسالة الدكتوراه الخاصة بي وربما يتم طباعتها في المجلات الأكاديمية من عام 2021 فصاعدًا. إذا كنت ترغب في إطلاعك على مكان نشر النتائج، يمكنني القيام بذلك. لن يتم الفصح عن هويتك في أي تقرير أو منشور ينتج من هذه الدراسة.  
من يقوم بتنظيم وتمويل البحث؟  
يتم تنظيم هذا البحث من قبل جامعة نوتنجهام وتموله وزارة التعليم العالي في سلطنة عمان.  
من قام بمراجعة هذه الدراسة؟  
يتم النظر في جميع البحوث في جامعة نوتنجهام من قبل مجموعة من الأعضاء في لجنة تدعى لجنة أخلاقيات البحوث، للتأكد والحفاظ على حقوقك. وقد تمت مراجعة هذه الدراسة والموافقة عليها من قبل لجنة أخلاقيات بحوث علم الاجتماع والسياسة الاجتماعية.

للمزيد من المعلومات وتفاصيل الاتصال:

#### الباحث:

ريا بنت حمد المعمرية

البريد الإلكتروني: [raya.almaamari@nottingham.ac.uk](mailto:raya.almaamari@nottingham.ac.uk)

رقم الهاتف (بريطانيا): 0044 7482028055

رقم الهاتف (عمان): 00968 94441741

#### المشرفون:

• الدكتورة شيفان ليرد

أستاذ مشارك في العمل الاجتماعي

مكتب 8B

كلية علم الاجتماع والسياسة الاجتماعية

مبنى القانون والعلوم الاجتماعية

جامعة نوتنجهام

حرم حديقة الجامعة

نوتنجهام، المملكة المتحدة

الرمز البريدي: NG7 2RD

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• الدكتورة ليزا وريك

أستاذ مساعد في العمل الاجتماعي

مكتب 6B

كلية علم الاجتماع والسياسة الاجتماعية

مبنى القانون والعلوم الاجتماعية

جامعة نوتنجهام

حرم حديقة الجامعة

نوتنجهام، المملكة المتحدة

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• مسؤول أخلاقيات البحث:

الدكتورة أليسون مور  
مكتب 18A  
كلية علم الاجتماع والسياسة الاجتماعية  
مبنى القانون والعلوم الاجتماعية  
جامعة نوتنجهام  
حرم حديقة الجامعة  
نوتنجهام, المملكة المتحدة  
الرمز البريدي: NG7 2RD  
رقم الهاتف: 00441158468515  
البريد الإلكتروني: [alison.mohr@nottingham.ac.uk](mailto:alison.mohr@nottingham.ac.uk)

## Appendix 8: Participant Consent Form (In English)

### School of Sociology and Social Policy

#### Participant Consent Form

**Name of Study:** Social Work Practice in the Aftermath of Natural Disasters:

A Qualitative Inquiry in the Sultanate of Oman

**Name of Researcher(s):** Raya Hamed Al Maamari

**Name of Participant:**

By signing this form I confirm that (please initial the appropriate boxes):	Initials
I have read and understood the Participant Information Sheet, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	
I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.	
Taking part in this study involves an interview that will be recorded using audio. These recordings will be transcribed as text and then will be destroyed.	
Personal information collected about me that can identify me, such as my name or where I live, will not be shared beyond the study team.	
My words can be quoted in publications, reports, web pages and other research outputs.	
I give permission for the de-identified (anonymised) data that I provide to be used for future research and learning.	

**I agree to take part in the study**

_____	_____	_____
Name of Participant	Signature	Date
<div style="border: 1px solid black; width: 40px; height: 30px; margin: 10px 0;"></div>		

For participants unable to sign their name, mark the box instead of signing

I have witnessed the accurate reading of the consent form with the potential participant and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

_____	_____	_____
Name of Witness	Signature	Date

_____	_____	_____
Researcher's name	Signature	Date

\*Note: If any participant is unable to read English, this form will be translated into Arabic.

*2 copies: 1 for the participant, 1 for the project file.*



## Appendix 9: Participant Consent Form (In Arabic)

جامعة نوتنجهام  
كلية علم الاجتماع والسياسة الاجتماعية  
استمارة موافقة مشارك

عنوان الدراسة: ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية؛ تساؤل كيفي في سلطنة عمان  
اسم الباحث: ريا بنت حمد المعمرية  
اسم المشارك:

بتوقيعي لهذه الاستمارة، فأني أؤكد على الآتي /	(لطفاً ضع علامة بجانب الخانة)
لقد قرأت وفهمت ورقة معلومات المشارك أو تمت قراءتها لي. كما أنني تمكنت من طرح استفسارات حول الدراسة وتم الرد عليها.	
أوافق طوعاً على أن أكون مشاركاً في هذه الدراسة، وأدرك أنه يمكنني رفض الإجابة عن أي سؤال أو الانسحاب من الدراسة في أي وقت دون الحاجة إلى إبداء السبب.	
تتضمن المشاركة في هذه الدراسة مقابلة مسجلة صوتياً، وسيتم نقل هذه التسجيلات إلى نص ثم إتلافها.	
المعلومات الشخصية التي يتم جمعها عني والتي يمكن أن تحدد هويتي مثل الاسم ومكان الإقامة لن يتم مشاركتها خارج نطاق فريق الدراسة.	
يمكن وبدون ذكر بيانات هويتي اقتباس عبارات من مقابلي وتضمينها في مخرجات البحث.	
أسمح باستخدام البيانات التي تم جمعها لأغراض البحث والتعلم في المستقبل.	

أوافق على المشاركة في هذه الدراسة:

التاريخ

التوقيع

اسم المشارك

بالنسبة للمشاركين غير القادرين على التوقيع باسمهم، لطفاً ضع علامة داخل المربع بدلاً من التوقيع

☐

لقد شهدت على قراءة دقيقة لإستمارة الموافقة مع المشارك المحتمل، وأتيحت له الفرصة لطرح أية استفسارات لديه. كما أؤكد أنه قد وافق بحرية دون أية ضغوط.

---

التاريخ

---

التوقيع

---

اسم الشاهد

---

التاريخ

---

التوقيع

---

اسم الباحث

## **Appendix 10: Interview Schedule for Affected People (In English)**

### Introductory questions:

- Name:
- Gender:
- Age:
- City/Town:
- Please can you specify which natural disaster, cyclone or depression affected you within the last 10 years? and when did it happen exactly?

### ***In order to answer the first objective: Describe social service provision and service omission in the aftermath of natural disasters in Oman.***

1. How did the natural disaster impact you and your families?
2. What was your experience of receiving help after the disaster? Tell me:
  - What help did you need?
  - What did you get?
  - Who helped you?
  - How long did it take for this to be delivered?
  - What help would you have wished you had?
  - What was the impact of the disaster on you and your family at the time and now?
  - Did the relevant authorities contact you after the disaster? if yes, for how long?
  - Were you in need of assistance, but communication with the relevant authorities was interrupted?
  - Do you know any affected people who have not received social services?
    - What is their location, gender, age, vulnerability, ethnicity, immigration status. etc.?
    - Are there any groups of people less likely to receive services than others?
    - Why do certain people not receive services?
3. What are your experiences of social work practice in the aftermath of natural disasters in Oman? Tell me:
  - Did social workers have a significant role in providing assistance in the aftermath of natural disasters? if yes, what did they do?
  - To what extent is social work practice visible in the aftermath of natural disasters?
  - Were social workers knowledgeable and qualified?
  - When comparing governmental and non-governmental sectors, which sector provides the most social services needed in the aftermath of natural disasters?
4. As Oman has gone through constant cyclones, especially since 2007, is there any obvious improvement in providing social services in the aftermath of natural disasters?

### ***In order to answer the third objective: Explore how best to improve social work practice in Oman in the aftermath of natural disasters***

1. What do you think is the expected role of social work in the aftermath of natural disasters?

2. What do you think the roles and tasks could or should social workers be undertaking in the aftermath of natural disasters in Oman?
3. What do you think social workers need to know when supporting people after a natural disaster?
4. What skills do social workers need to know when supporting people after a natural disaster?
5. What aptitudes or qualities do you think it's most important for social workers to have when supporting people after a natural disaster?

#### Closing statements

- Were there any questions you wanted to ask or anything you wanted to add before I stopped the recording?
- Thank you for participating; a reminder about data being anonymised and originals stored securely. Reminder about withdrawal and contact details.

## Appendix 11: Interview Schedule for Affected People (In Arabic)

### جدول مقابلة الأشخاص المتضررين من الكوارث الطبيعية

#### البيانات الأساسية:

الاسم:

الجنس:

العمر:

الولاية:

ما هي الكارثة الطبيعية التي تعرضت لها خلال السنوات العشر الماضية؟ ومتى حدثت الكارثة تحديداً؟

(وصف الخدمات الاجتماعية المقدمة والمهملة في أعقاب الكوارث الطبيعية في عمان.)

1. ما هو تأثير الكارثة الطبيعية عليك وعلى أسرتك؟

2. ما هي تجربتك في تلقي المساعدة بعد الكارثة؟ أخبرني عن الآتي:

• ما المساعدة التي احتجت إليها؟

• على ماذا حصلت؟

من الذي قام بمساعدتك؟

كم من الوقت استغرقت في انتظار الحصول على الخدمة؟

• ما المساعدة التي كنت تتمنى لو أنك حصلت عليها؟

• ما هو تأثير الكارثة عليك وعلى عائلتك منذ ذلك الوقت وحتى الوقت الحالي؟

هل اتصلت بك الجهات المختصة بعد الكارثة؟ إذا كانت الإجابة بنعم؛ كم المدة التي ظل بها هذا التواصل تقريباً؟

هل كنت بحاجة إلى المساعدة ولكن انقطع التواصل مع جهات المساعدة؟

3. هل تعرف أي أشخاص متضررين لم يتلقوا خدمات اجتماعية؟ إذا كانت الإجابة بنعم؛

- ما هو مكان إقامتهم؟ والجنس؟ والعمر؟ والجنسية؟ ... إلخ؟

- هل هناك أي جماعات من الناس لديهم فرص أقل من الآخرين في تلقي الخدمات؟

- من وجهة نظرك؛ لماذا لا يمكن لبعض الأشخاص تلقي هذه الخدمات؟

4. ما هي تجاربك في ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية في عمان؟ تحدث عن الآتي:

• هل للأخصائيين الاجتماعيين دور مهم في تقديم المساعدة في أعقاب الكوارث الطبيعية؟ إذا كان الجواب نعم، ماذا فعلوا؟

• إلى أي مدى تظهر ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية في عمان؟

هل كان الاخصائيون الاجتماعيون على دراية وكفاءة بعملهم؟

- عند مقارنة القطاعات الحكومية وغير الحكومية، ما هو القطاع الذي يوفر أغلب الخدمات الاجتماعية اللازمة في أعقاب الكوارث الطبيعية؟

(5) بما أن عمان مرت بأعاصير مستمرة - تحديداً منذ عام 2007- هل هناك تحسن في تقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية؟

(استكشف أفضل السبل لتحسين ممارسة العمل الاجتماعي في عمان في أعقاب الكوارث الطبيعية.)

1. من رأيك؛ ما هو الدور المتوقع للعمل الاجتماعي في أعقاب الكوارث الطبيعية؟
2. ماهي المهام التي يمكن أو يجب أن يقوم بها الأخصائيون الاجتماعيون في أعقاب الكوارث الطبيعية في عمان؟
3. ما هي المعارف التي يجب أن يمتلكها الأخصائيين الاجتماعيين عند دعم الأشخاص بعد وقوع كارثة طبيعية؟
4. ما هي المهارات التي تعتقد أن الأخصائيين الاجتماعيين بحاجة إلى معرفتها عند دعم الأشخاص بعد وقوع كارثة طبيعية؟
5. ما هو الاستعداد والكفاءة التي يجب أن يحصل عليها الأخصائيين الاجتماعيين عند دعم الأشخاص بعد وقوع كارثة طبيعية؟

#### البيانات الختامية

- هل لديك أي أسئلة تريد طرحها أو شيئاً ما تريد إضافته؟
- شكراً لك على المشاركة، ونذكرك بأن البيانات ستكون مجهولة الهوية وسيتم حفظ البيانات بأمان.

## **Appendix 12: Interview Schedule for Social Workers in the Social Development Departments (In English)**

### Introductory questions:

- What is your name?
- Do you have a qualification? If yes, what is your specialisation?
- What is your job title?
- What does your job entail?
- How long have you worked in your current role?

Note: This research concerns cyclones and depressions that hit Oman within the last ten years, so please, your responses should focus on these events and the specified period.

### ***To answer the first objective: Describe social service provision and service omission in the aftermath of natural disasters in Oman.***

1. What is the impact of natural disasters on those directly affected and their families?
2. What services are provided in the aftermath of natural disasters in Oman, and how are they coordinated or integrated?
3. Who provides social services in the aftermath of natural disasters?
4. How do you reach and identify affected people who need support in the aftermath of natural disasters?
5. For how long did you work with the affected people?
6. Do you know any affected people who have not received social services?
  - What is their location, gender, age, vulnerability, ethnicity, immigration status, etc.?
  - Are there any groups of people less likely to receive services than others?
  - Why do certain people not receive services?
  - How can they be better supported?
7. What gaps are there in social service provision in the aftermath of natural disasters in Oman?
8. What support do the governmental and non-governmental sectors provide in the aftermath of natural disasters?
9. When comparing governmental and non-governmental sectors, which sector provides the most support in the aftermath of natural disasters?
10. As Oman has gone through constant cyclones, especially since 2007, is there any obvious development in providing social services in the aftermath of natural disasters?

### ***To answer the second objective: Explore the current social work practice in the aftermath of natural disasters in Oman.***

1. Can you describe how significant social workers' role is in the aftermath of natural disasters?
2. How is social work currently understood and regarded in Oman concerning activity during the aftermath of natural disasters?
3. What is the expected role of social work in the aftermath of natural disasters?
4. What is the actual role of social work in the aftermath of natural disasters?
5. Who is responsible for recruiting people to practice social work in times of natural disasters?
6. Who is practising social work in the aftermath of natural disasters?
7. To what extent is social work practice visible in the aftermath of natural disasters?

8. What difficulties do social workers face in practising social work in the aftermath of natural disasters?
9. What roles and tasks did other non-social work qualified personnel carry out during the aftermath of the natural disaster? What kinds of knowledge and skills were they using?
10. What knowledge, skills, and qualifications do social workers have relevant to working in the aftermath of natural disasters, and what knowledge, skills and qualifications do they need if any?
11. What cooperation, if any, do you have with NGOs in practising social work?

***To answer the third objective: Explore how best to improve social work practice in Oman in the aftermath of natural disasters***

1. To what extent are the skills set of current workers compatible with the skills set of social workers?
2. What roles and tasks could or should social workers be undertaking in the aftermath of natural disasters in Oman?
3. What knowledge, skills and aptitudes would social workers need to practice most effectively in the aftermath of natural disasters in Oman?
4. Should social workers in Oman obtain more training in the context of natural disasters?
5. Which organisations could or should recruit and deploy social workers in the aftermath of natural disasters in Oman to optimise their effectiveness?
6. What could or should be the role and tasks of social workers concerning multi-agency cooperation during the aftermath of natural disasters in Oman?
7. What are suggested solutions to overcome the difficulties that face social workers in practising social work in the aftermath of natural disasters?

Closing statements

- Were there any questions you wanted to ask or anything you wanted to add before I stopped the recording?
- Thank you for participating; reminder about anonymised data and originals stored securely. Reminder about withdrawal and contact details.



## Appendix 13: Interview Schedule for Social Workers in the Social Development Departments (In Arabic)

### جدول مقابلة الاخصائيين الاجتماعيين في مديريات التنمية الاجتماعية

#### البيانات الأولية:

- ما اسمك؟
- هل لديك مؤهل؟
- ما هو تخصصك؟
- ما هو المسمى الوظيفي الخاص بك؟
- ما هي متطلبات واشتراطات وظيفتك؟
- منذ متى وأنت تعمل في منصبك الحالي؟

ملاحظة: يهتم هذا البحث بالأعاصير والمنخفضات التي ضربت عُمان خلال السنوات العشر الماضية، لذا يرجى أن تركز إجاباتك على الكوارث خلال هذه الفترة الزمنية.

(وصف الخدمات الاجتماعية المقدمة والمهملة في أعقاب الكوارث الطبيعية في عمان.)

1. ما هو تأثير الكوارث الطبيعية على المتضررين وعائلاتهم؟

2. ما هي الخدمات المقدمة في أعقاب الكوارث الطبيعية في عمان وكيف يتم تنسيقها؟

3. من الذي يقوم بتقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية؟

4. كيف يمكنك الوصول وتحديد الأشخاص المتضررين الذين يحتاجون إلى الدعم في أعقاب الكوارث الطبيعية؟

إلى متى ظل التواصل والعمل مع الأشخاص المتضررين؟

6. هل تعرف أي أشخاص متضررين لم يتلقوا خدمات اجتماعية؟ إذا كانت الإجابة بنعم؛  
- ما هو مكان إقامتهم؟ والجنس؟ والعمر؟ والجنسية؟ ... إلخ؟

- هل هناك أي جماعات من الناس لديهم فرص أقل من الآخرين في تلقي الخدمات؟

- من وجهة نظرك؛ لماذا لا يمكن لبعض الأشخاص تلقي هذه الخدمات؟

- كيف يمكن باعتقادك مساعدة وتقديم الدعم لهؤلاء الأشخاص؟

7. ما الخلل والثغرات الموجودة في تقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية في عمان؟

8. عند مقارنة القطاعات الحكومية وغير الحكومية، ما هو القطاع الذي يوفر أكبر قدر من الدعم في أعقاب الكوارث الطبيعية؟

9. ما هو الدعم الذي يقدمه كل من القطاع الحكومي وغير الحكومي في أعقاب الكوارث الطبيعية؟

10. بما أن عمان مرت بأعاصير مستمرة - تحديداً منذ عام 2007- هل هناك تحسن في تقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية؟

- (استكشاف ممارسة العمل الاجتماعي الحالية في أعقاب الكوارث الطبيعية في عمان)
1. هل يمكنك وصف مدى أهمية دور الأخصائيين الاجتماعيين في أعقاب الكوارث الطبيعية؟
  2. كيف يتم فهم العمل الاجتماعي في عمان حالياً فيما يتعلق بجهوده في أعقاب الكوارث الطبيعية؟
  3. ما هو الدور المتوقع للعمل الاجتماعي في أعقاب الكوارث الطبيعية؟
  - ما هو الدور الفعلي للعمل الاجتماعي في أعقاب الكوارث الطبيعية؟
  - من المسؤول عن تجنيد الناس لممارسة العمل الاجتماعي في أوقات الكوارث الطبيعية؟
  6. من الذي يمارس العمل الاجتماعي في أعقاب الكوارث الطبيعية؟
  7. إلى أي مدى تعد ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية واضحة في عمان؟
  8. ما الصعوبات التي تواجه الأخصائيين الاجتماعيين في ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية؟
  9. ما الأدوار والمهام التي قام بها العاملون الآخرون -غير الأخصائيين الاجتماعيين- في أعقاب الكوارث الطبيعية؟ وما أنواع المعارف والمهارات التي كانوا يستخدمونها؟
  10. ما هي المعارف والمهارات والمؤهلات التي يتمتع بها الأخصائيون الاجتماعيون والتي لها صلة بالعمل في أعقاب الكوارث الطبيعية؟
  11. وضح التعاون الذي لديكم مع المنظمات غير الحكومية في ممارسة العمل الاجتماعي، إن وجد.
- (استكشاف أفضل السبل لتحسين ممارسة العمل الاجتماعي في عمان في أعقاب الكوارث الطبيعية)
1. إلى أي مدى تتوافق مجموعة مهارات أولئك العاملين حالياً في تقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية مع مهارات الأخصائيين الاجتماعيين؟
  2. ما هي الأدوار والمهام التي يمكن أو يجب على الأخصائيين الاجتماعيين القيام بها في أعقاب الكوارث الطبيعية في عمان؟
  3. ما هي المعارف والمهارات والكفاءات التي يحتاجها الأخصائيون الاجتماعيون لممارسة أكثر فاعلية في أعقاب الكوارث الطبيعية في عمان؟
  4. هل يجب على الأخصائيين الاجتماعيين في عمان الحصول على المزيد من التدريب في سياق الكوارث الطبيعية؟
  5. ما هي المنظمات التي يجب عليها تجنيد ونشر الأخصائيين الاجتماعيين في أعقاب الكوارث الطبيعية في عمان من أجل تحسين فعالية المهنة؟
  6. ما دور الأخصائيين الاجتماعيين فيما يتعلق بالتعاون مع الهيئات المتعددة في أعقاب الكوارث الطبيعية في عمان؟
  7. ما هي الحلول المقترحة للتغلب على الصعوبات التي تواجه الأخصائيين الاجتماعيين في ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية؟

## البيانات الختامية

- هل لديك أي أسئلة تريد طرحها أو شيئاً ما تريد إضافته؟
- شكراً لك على المشاركة، ونذكرك بأن البيانات ستكون مجهولة الهوية وسيتم حفظ البيانات بأمان.

## **Appendix 14: Interview Schedule for NGO Workers (In English)**

### Introductory questions:

- What is your name?
- Do you have a qualification? if yes, what is your specialisation?
- What is your position in the NGO (job title)?
- What does your job entail day to day?
- How long have you worked in NGOs?
- Is your NGO dedicated to a specific group of people or a specific field?
- Do you serve in specific geographical areas? If yes, where?

Note: This research is concerned about cyclones and depressions that hit Oman within the last 10 years, so please, your responses should focus on these events and the specified time period.

### ***In order to answer the first objective: Describe social service provision and service omission in the aftermath of natural disasters in Oman.***

1. What is the impact of natural disasters on those directly affected and their families?
2. What services are provided in the aftermath of natural disasters in Oman, and how are they coordinated or integrated?
3. Who provides social services in the aftermath of natural disasters?
4. How do you reach and identify affected people who need support in the aftermath of natural disasters?
5. For how long did you work with the affected people?
6. Do you know any affected people who have not received social services?
  - What is their location, gender, age, vulnerability, ethnicity, immigration status. etc.?
  - Are there any groups of people less likely to receive services than others?
  - Why do certain people not receive services?
  - How can they better be supported?
7. Why do certain people not receive services? How can they better be supported?
8. What gaps are there in social service provision in the aftermath of natural disasters in Oman?
9. What support do the governmental and non-governmental sectors provide in the aftermath of natural disasters?
10. When comparing governmental and non-governmental sectors, which sector provides the most support in the aftermath of natural disasters?
11. Is NGO support provided in the aftermath of natural disasters in Oman sufficient?
12. To what extent are NGOs able and qualified to provide the support needed?
13. What kind of skills do current workers in this area have?
14. What roles and tasks do non-social work qualified personnel carry out during the aftermath of the natural disaster? What kinds of knowledge and skills are they using?
15. As Oman has gone through constant cyclones, especially since 2007, is there any obvious improvement in providing social services in the aftermath of natural disasters?

### ***In order to answer the second objective: Explore the current social work practice in the aftermath of natural disasters in Oman.***

1. What is your experience of social work practice in the aftermath of natural disasters in Oman?  
Tell me:

- How is social work currently understood and regarded in Oman in relation to activity during the aftermath of natural disasters?
- Did social workers have a significant role in providing assistance in the aftermath of natural disasters? if yes, what did they do?
- To what extent is social work practice visible in the aftermath of natural disasters?
- Were social workers knowledgeable and qualified?
- From your perspective, how well do you think social workers work with NGOs?

***In order to answer the third objective: Explore how best to improve social work practice in Oman in the aftermath of natural disasters***

1. What do you think is the expected role of social work in the aftermath of natural disasters?
2. What do you think the roles and tasks could or should social workers be undertaking in the aftermath of natural disasters in Oman?
3. What do you think social workers need to know when supporting people after a natural disaster?
4. What skills do social workers need to know when supporting people after a natural disaster?
5. What aptitudes or qualities do you think it's most important for social workers to have when supporting people after a natural disaster?

***The spiritual aspect and the services provided in this aspect:***

1. What intangible/spiritual services are provided in the aftermath of natural disasters in Oman?
  - How is it coordinated?
  - Who provides these services in the aftermath of natural disasters?
2. What skills and knowledge should current practitioners have in providing spiritual support?
3. Since Oman has experienced continuous hurricanes - specifically since 2007 - is there an improvement in the provision of spiritual services in the aftermath of natural disasters?
4. What weather-related events did you work in?
5. How did you come up with the idea to contribute in these exceptional times?
6. How do you reach and identify affected people who need spiritual/religious support in the aftermath of natural disasters?
7. Talk about your role during this weather:
  - Have you coordinated with other individuals or entities to make these contributions?
  - What are your contributions in detail?
  - What are the difficulties that you encountered in providing this assistance?
8. How long have you been communicating and working with affected people?
9. Do you know any affected people who have not received spiritual support? If yes;
  - Where do they live? and sex? and age? And nationality? ...etc?

- Are there groups of people with less access to services than others?
- From your point of view, why can't some people receive these services?
- How do you think you can help and support these people?

10. Is the spiritual support provided in the aftermath of natural disasters in Oman adequate? And why?

11. What are the deficiencies and gaps in the provision of spiritual services following natural disasters in Oman?

12. What are your suggestions for improving the service you provide?

13. Is there cooperation between you and the social development departments?

14. Talk about the impact your assistance has had on affected families.

#### **Closing statements**

- Were there any questions you wanted to ask or anything you wanted to add before I stop the recording?
- Thank you for participating, reminder about data being anonymised and originals stored securely. Reminder about withdrawal and contact details.

## Appendix 15: Interview Schedule for NGO workers (In Arabic)

### جدول مقابلة الممارسين في المنظمات غير الحكومية

#### البيانات الأولية:

- ما اسمك؟
- هل لديك مؤهل؟
- ما هو تخصصك؟
- ما هو المسمى الوظيفي الخاص بك في المنظمة؟
- على ماذا تنطوي وظيفتك؟
- منذ متى وأنت تعمل في المنظمة؟
- هل المنظمة مكرسة لمجموعة معينة من الناس أو مجال معين؟
- هل تخدم في مناطق جغرافية محددة؟ إذا كانت الإجابة بنعم؛ أين؟

ملاحظة: يهتم هذا البحث بالأعاصير والمنخفضات التي ضربت عُمان خلال السنوات العشر الماضية، لذا يرجى أن تركز إجابتك على الكوارث خلال هذه الفترة الزمنية.

(وصف الخدمات الاجتماعية المقدمة والمهملة في أعقاب الكوارث الطبيعية في عمان.)

1. ما هو تأثير الكوارث الطبيعية على المتضررين وعائلاتهم؟
2. ما هي الخدمات المقدمة في أعقاب الكوارث الطبيعية في عمان وكيف يتم تنسيقها؟
3. من الذي يقوم بتقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية؟
4. كيف يمكنك الوصول وتحديد الأشخاص المتضررين الذين يحتاجون إلى الدعم في أعقاب الكوارث الطبيعية؟
5. إلى متى ظل التواصل والعمل مع الأشخاص المتضررين؟
6. هل تعرف أي أشخاص متضررين لم يتلقوا خدمات اجتماعية؟ إذا كانت الإجابة بنعم؛
  - ما هو مكان إقامتهم؟ والجنس؟ والعمر؟ والجنسية؟ ... إلخ؟
  - هل هناك أي جماعات من الناس لديهم فرص أقل من الآخرين في تلقي الخدمات؟
  - من وجهة نظرك؛ لماذا لا يمكن لبعض الأشخاص تلقي هذه الخدمات؟
  - كيف يمكن باعتقادك مساعدة وتقديم الدعم لهؤلاء الأشخاص؟
7. ما الخلل والثغرات الموجودة في تقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية في عمان؟
8. عند مقارنة القطاعات الحكومية وغير الحكومية، ما هو القطاع الذي يوفر أكبر قدر من الدعم في أعقاب الكوارث الطبيعية؟
9. ما هو الدعم الذي يقدمه كل من القطاع الحكومي وغير الحكومي في أعقاب الكوارث الطبيعية؟
10. هل الدعم المقدم في أعقاب الكوارث الطبيعية في عمان من قبل المنظمات غير الحكومية كافٍ؛ ولماذا؟
11. إلى أي مدى تعتبر المنظمات غير الحكومية قادرة ومؤهلة على تقديم الدعم اللازم؟

12. ما نوع المهارات التي يتمتع بها الممارسون الحاليون في هذا المجال؟

13. ما الأدوار والمهام التي يؤديها الموظفون-غير المتخصصون في العمل الاجتماعي- في أعقاب الكارثة الطبيعية؟ وما أنواع المعارف والمهارات التي يستخدمونها؟

14. بما أن عمان مرت بأعاصير مستمرة - تحديداً منذ عام 2007- هل هناك تحسن في تقديم الخدمات الاجتماعية في أعقاب الكوارث الطبيعية؟

(استكشاف ممارسة العمل الاجتماعي الحالية في أعقاب الكوارث الطبيعية في عمان)

1. كيف يتم فهم العمل الاجتماعي في عمان حالياً فيما يتعلق بجهوده في أعقاب الكوارث الطبيعية؟
2. إلى أي مدى تعد ممارسة العمل الاجتماعي في أعقاب الكوارث الطبيعية واضحة في عمان؟
3. هل للأخصائيين الاجتماعيين دور مهم في تقديم المساعدة في أعقاب الكوارث الطبيعية؟ إذا كان الجواب نعم؛ ماذا فعلوا؟
4. هل كان الاخصائيون الاجتماعيون على دراية ومؤهلين؟
5. من وجهة نظرك، إلى أي مدى تعتقد أن الأخصائيين الاجتماعيين يعملون بانسجام وتعاون مع المنظمات غير الحكومية؟

(استكشاف أفضل السبل لتحسين ممارسة العمل الاجتماعي في عمان في أعقاب الكوارث الطبيعية.)

1. ما هو الدور المتوقع للعمل الاجتماعي في أعقاب الكوارث الطبيعية؟
2. ما هي الأدوار والمهام التي يمكن أو يجب على الاخصائيين الاجتماعيين القيام بها في أعقاب الكوارث الطبيعية في عمان؟
3. ما هي المعارف التي يحتاجها الاخصائيون الاجتماعيون لممارسة أكثر فاعلية في أعقاب الكوارث الطبيعية في عمان؟
4. ما هي المهارات التي يحتاجها الاخصائيون الاجتماعيون لممارسة أكثر فاعلية في أعقاب الكوارث الطبيعية في عمان؟
5. ما هي المؤهلات والصفات التي تعتقد أنه من المهم للأخصائيين الاجتماعيين أن يحصلوا عليها من أجل دعم الأشخاص بعد وقوع أي كارثة طبيعية؟

(الجانب المعنوي والخدمات المقدمة في هذا المجال)

1. ما هي الخدمات المعنوية/ الروحية المقدمة في أعقاب الأتواء المناخية في عمان.
  - وكيف يتم تنسيقها؟
  - ومن الذي يقوم بتقديم هذه الخدمات في أعقاب الكوارث الطبيعية؟
2. ما المهارات والمعارف التي يجب أن يتمتع بها الممارسون الحاليون في تقديم الدعم الروحي؟



3. بما أن عمان مرت بأعاصير مستمرة - تحديداً منذ عام 2007- هل هناك تحسن في تقديم الخدمات الروحية في أعقاب الكوارث الطبيعية؟

4. ما هي الأنواء المناخية التي عملت بها؟

5. كيف أتتكم الفكرة للمساهمة في هذه الأوقات الاستثنائية؟

6. كيف يمكنكم الوصول وتحديد الأشخاص المتضررين الذين يحتاجون إلى الدعم الروحي/المعنوي في أعقاب الكوارث الطبيعية؟

7. تحدث عن دورك خلال هذه الأنواء المناخية:

- هل قمت بالتنسيق مع أفراد أو جهات أخرى للقيام بهذه المساهمات؟
- وما هي مساهماتك بالتفصيل؟
- ما هي الصعوبات التي واجهتكم في تقديم هذه المساعدات؟

8. إلى متى ظل التواصل والعمل مع الأشخاص المتضررين؟

9. هل تعرف أي أشخاص متضررين لم يتلقوا دعم روعي؟ إذا كانت الإجابة بنعم؛

- ما هو مكان إقامتهم؟ والجنس؟ والعمر؟ والجنسية؟ ... إلخ؟
- هل هناك أي جماعات من الناس لديهم فرص أقل من الآخرين في تلقي الخدمات؟
- من وجهة نظرك؛ لماذا لا يمكن لبعض الأشخاص تلقي هذه الخدمات؟
- كيف يمكن باعتقادك مساعدة وتقديم الدعم لهؤلاء الأشخاص؟

10. هل الدعم الروحي المقدم في أعقاب الكوارث الطبيعية في عمان كافٍ؛ ولماذا؟

11. ما الخلل والثغرات الموجودة في تقديم الخدمات الروحية في أعقاب الكوارث الطبيعية في عمان؟

12. ماهي مقترحاتكم نحو تحسين الخدمة التي تقدمونها؟

13. هل هناك تعاون بينكم وبين دوائر التنمية الاجتماعية؟

14. تحدث عن الأثر الذي أحدثته مساعدتكم على الأسر المتضررة.

#### البيانات الختامية

- هل لديك أي أسئلة تريد طرحها أو شيئاً ما تريد إضافته؟
- شكراً لك على المشاركة، ونذكرك بأن البيانات ستكون مجهولة الهوية وسيتم حفظ البيانات بأمان.

## Appendix 15: Analysis Notebook

Six main stages of thematic analysis have been followed. **The first** involves familiarisation with the data, which was achieved through a line-by-line review of the transcriptions. This was easier because the researcher herself conducted the interviews and delved into the data during the process of transcribing and translating.

**The second stage** is the systematic generation of initial descriptive codes. Descriptive coding means summarising the primary topic of a passage of qualitative data in a short word or phrase, often as a noun. These initial codes were very broad, unorganised, and formulated based on the researcher's initial impression of the data. Interview data, including those that initially appeared unrelated to the research questions, were coded, as their relevance might become significant at a later stage. Some extracts could be effectively summarised with a single code, while others required more than one. Codes are continuously developed as more data is analysed, and researchers are advised to generate as many codes as possible during this phase. The generation of initial codes was of great importance because it helped collapse a large amount of data into purposeful labels. It is also important to note that coding helps to find more possibilities for analysis; it can relate to existing theory or generate new theoretical frameworks from the collected data.

### Examples of extracts and codes

Extracts	Codes
<i>"One problem is the small number of social workers"</i>	- Small number of practitioners
<i>"I am honest and do the case study based on what I see in reality because I am accountable for it."</i>	- Honesty in practice
<i>"Living in caravans was tiring and difficult"</i>	- Living in caravans
<i>"You live between two fires, your work and your children. You don't know what their fate is, and this is very tiring work"</i>	- Practitioners' work is stressful
<i>"Omani society is a conservative and religious society and views such events from a completely different angle, seeing them as a fate that must be accepted"</i>	- Conservative Omani society - Religious society

	- Disasters are the acceptable fate
<i>"They provided us with three basic meals a day because we were not able to cook at home."</i>	- Food distribution
<i>"Unfortunately, the hurricane destroyed our crops and uprooted many of them"</i>	- Damage to farms and crops

**The third stage** is searching for appropriate themes into which the codes can be grouped.

### Examples of initial themes and relevant codes

Example number	Initial themes	Relevant codes
<b>Example 1</b>	<b>Impacts of natural disasters</b>	<ul style="list-style-type: none"> <li>- Death and injuries</li> <li>- Buildings demolished</li> <li>- Street damage</li> <li>- Animal death</li> <li>- Damage to farms and crops</li> <li>- Deteriorating health condition</li> <li>- Fear and anxiety</li> <li>- Damage to household belongings</li> <li>- Communication interruption</li> <li>- Cutting off family contact</li> <li>- Vehicle damage</li> <li>- Cut off electricity and water supply</li> <li>- Screaming and shouting</li> </ul>
<b>Example 2</b>	<b>Challenges of social work in disasters</b>	<ul style="list-style-type: none"> <li>- Communication challenges</li> <li>- Lack of honesty with affected people</li> <li>- Inadequate forecasts of disasters</li> <li>- Lack of cooperation with other institutions</li> <li>- The small number of social work practitioners</li> <li>- Failure to appreciate the duties of the profession</li> <li>- Lack of training provided</li> </ul>

**The next stage** involved reviewing the themes to ensure their coherence. This stage involved rereading each code's extracts and ensuring they were coded correctly. During this process, the researcher considered each code's relationships to other codes and considered how they could be combined under potential themes. As a result, some codes were renamed, similar codes were combined, and some codes were linked to other codes by making families of codes: Impacts (theme) on individuals and families (sub-themes) regarding the human aspect (sub-sub-themes). It is important to highlight that in the initial stages of analysis, the initial codes were very broad and unstructured. However, the final themes and sub-themes were more specific, linked to each other and the research questions, and written in complete and understandable sentences. For example, the code 'living in caravans', a broad and vague term, was transformed into the fully specific and formulated theme 'uncomfortable living conditions in caravans'. These themes were modified after re-reading and reflecting on the data during the analysis and writing process.

**Fifthly**, the themes must be defined and named in a comprehensive analysis of how they contribute to understanding the data. One of the aims of this step is to see if the researcher can describe the scope and content of each theme and sub-themes in a few sentences.

**The last stage** is to produce a final description of the results by selecting themes that contribute meaningfully to answering the research questions. These themes are manifested in the finding chapters. Themes that appeared to be unrelated to the research questions were ignored. However, they were kept in a folder labelled "For Future Studies" to preserve them for future research. For example, themes like "Tsunami IOWave exercises" and "Omani Sociological Association" were not included in this research and were kept for future research.

## Selected themes, sub-themes, and sub-sub-themes

Name of findings chapter	Themes	Sub-themes	Sub-sub-themes
Impacts of natural disasters	- Impacts of natural disasters on individuals and families	- Human impact	<ul style="list-style-type: none"> <li>- Fatalities</li> <li>- Injuries and health issues</li> <li>- Move to new areas</li> <li>- Interruption of school</li> </ul>
		- Economic impact	<ul style="list-style-type: none"> <li>- Destruction of homes</li> <li>- Damage to household belongings</li> <li>- Power outages</li> <li>- Loss of livestock and crops</li> <li>- Time off work</li> </ul>
		- Psychological impact	<ul style="list-style-type: none"> <li>- Distress and overwhelm</li> <li>- Fear and shock</li> <li>- Stress</li> </ul>
		- Impacts of disasters based on vulnerability	<ul style="list-style-type: none"> <li>- Coastal areas</li> <li>- Rural areas</li> <li>- People living in poverty</li> <li>- Children</li> <li>- Foreign workers</li> <li>- Women</li> <li>- Disable people</li> </ul>
	- Impacts of natural disasters on communities	- Damage to streets and roads	-
		- Damage to public buildings	<ul style="list-style-type: none"> <li>- Damage to schools</li> <li>- Damage to health institutions</li> <li>- Damage to parks and cornice</li> </ul>

	- Impacts of natural disasters on the provision of state services	- Impact on management systems	- Street damage - Damage to government buildings - Chaos resulting from disasters
		- Impact on service employees	- Death or injuries of a family member - Being exposed to physical harm - Thinking about both family and work
	- Communication issues	- Public information dissemination disrupted - Family disconnection - Service provision interruption	-
	- Positive impacts of natural disasters	- Strengthen social bonds - Raising disaster-awareness	-
Support in the aftermath of natural disasters	- Material support	- What are the needs of service users? - What are service users doing for themselves? - What is being delivered to service users?	- Food - Safe housing - School uniforms and supplies - Work uniforms - Repairing damaged houses - Repairing the source of income - Repairing damaged public utilities

		<ul style="list-style-type: none"> <li>- What is being missed?</li> </ul>	<ul style="list-style-type: none"> <li>- Maintaining network communications</li> <li>- Expediting the provision of support</li> <li>- Providing satisfactory services</li> <li>- Practitioners' initiative to provide service</li> </ul>
	<ul style="list-style-type: none"> <li>- Financial support</li> </ul>	<ul style="list-style-type: none"> <li>- What are the needs of service users?</li> <li>- What are service users doing for themselves?</li> <li>- What is being delivered to service users?</li> </ul>	<ul style="list-style-type: none"> <li>- Relying on themselves only</li> <li>- Relying on family and relatives</li> <li>- Relying on government support</li> </ul>
		<ul style="list-style-type: none"> <li>- What are the problems of financial support?</li> </ul>	<ul style="list-style-type: none"> <li>- Financial support is less than expected</li> <li>- Delayed financial support</li> <li>- Not applying for compensation</li> <li>- Applying but not receiving any compensation</li> </ul>

	- Psychosocial support	- What are the needs of service users?	<ul style="list-style-type: none"> <li>- Alleviation of stress, fear, shock and exhaustion</li> <li>- Modifying administrative procedures</li> </ul>
		- What are service users doing for themselves?	<ul style="list-style-type: none"> <li>- Benefiting from their social capital</li> <li>- Relying on the core Omani values of patience and endurance</li> <li>- Commitment to the Islamic values</li> </ul>
		<ul style="list-style-type: none"> <li>- What is being delivered to service users?</li> <li>- What is being missed?</li> </ul>	- No professional service delivered
		- What are the problems of psychosocial support?	<ul style="list-style-type: none"> <li>- Prioritising material and financial support</li> <li>- Showing no interest in obtaining psychological support</li> <li>- Lack of frameworks and guidelines</li> <li>- No tools for measurement</li> </ul>



			<ul style="list-style-type: none"> <li>- Shortage of professionals</li> <li>- Conservative nature of Omani culture</li> </ul>
	- Spiritual/religious support	<ul style="list-style-type: none"> <li>- What are the needs of service users?</li> <li>- What are service users doing for themselves?</li> </ul>	<ul style="list-style-type: none"> <li>- See disasters from an Islamic perspective</li> <li>- Dissemination of pictures and videos</li> <li>- Religious practices such as prayers and Friday sermons</li> </ul>
		<ul style="list-style-type: none"> <li>- What is being delivered to service users?</li> </ul>	<ul style="list-style-type: none"> <li>- Search for material support was the entry point for spiritual support.</li> <li>- Spiritual support provided through Mosques</li> <li>- Spiritual support provided through social media</li> </ul>
		<ul style="list-style-type: none"> <li>- What is being missed?</li> </ul>	<ul style="list-style-type: none"> <li>- Support for those who do not go to mosques, such as the elderly and women</li> <li>- Support for Non-Arabic speakers</li> <li>- Support for other faiths</li> </ul>

		<ul style="list-style-type: none"> <li>- What are the problems of psychosocial support?</li> </ul>	<ul style="list-style-type: none"> <li>- Shortage of spiritual guidance providers</li> <li>- Omani society is an already deeply religious community.</li> </ul>
<b>Social work in the aftermath of natural disasters</b>	- Practice	<ul style="list-style-type: none"> <li>- Immediate response</li> </ul>	<ul style="list-style-type: none"> <li>- Ways of receiving the cases</li> <li>- Cooperation with voluntary teams.</li> <li>- Provide accommodation, food, and bedding.</li> <li>- Shelters</li> </ul>
		<ul style="list-style-type: none"> <li>- Medium- and long-term response</li> </ul>	<ul style="list-style-type: none"> <li>- Reaching clients</li> <li>- Impact and need assessment</li> <li>- Connecting clients with available resources</li> <li>- Advocating for unmet needs</li> <li>- Providing caravans and their issues</li> </ul>
	- Knowledge	<ul style="list-style-type: none"> <li>- Roles of social workers</li> <li>- Legislation, policies, and resources</li> <li>- Professional development</li> <li>- Relevant theories and models</li> </ul>	<ul style="list-style-type: none"> <li>-</li> </ul>

	- Skills	<ul style="list-style-type: none"> <li>- Communication</li> <li>- Problem-solving</li> <li>- Managing emergencies</li> <li>- Stress management</li> <li>- Conducting case studies</li> <li>- Advocacy</li> </ul>	-
	- Values	<ul style="list-style-type: none"> <li>- Equality and equity</li> <li>- Respect for diversity</li> <li>- Right to self-determination</li> </ul>	-
	- Challenges of social work practice in disasters	<ul style="list-style-type: none"> <li>- Communication challenges</li> <li>- Lack of honesty with affected people</li> <li>- Inadequate forecasts of disasters</li> <li>- Lack of cooperation with other institutions</li> <li>- The small number of social work practitioners</li> <li>- Failure to appreciate the duties of the profession</li> <li>- lack of the subject of disasters in social work</li> </ul>	-

		education programs - Lack of training provided	
	- Suggestions for improvement	- Overcome communication challenges with other institutions - Performing the required roles to the fullest extent - Allocate a separate department to work with disasters - Increasing the number of social work practitioners - Improve the training and support provided to social workers - Develop social work education programs.	-

It is important to mention that the analysis was significantly supported by including examples and quotations from the interview dialogues. For example, the following quote has been included, Participant 18 (service user mother) said: *"If they hadn't taken us to the hotel that night, I think all of the family would have died"*.