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EXPLORING THE CONCEPT OF STRATEGY AS PRACTICE IN NATIONAL DISASTER RISK REDUCTION: THE CASE OF BOTSWANA

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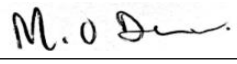
Supervisor: Professor David Coldwell

A Thesis submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Doctor of Philosophy (Business Sciences-Management).

Johannesburg, 2024

DECLARATION

I, Margaret Opelo Dennison (Student number 1597752) hereby declare that this thesis is my unaided and original work (except where explicitly indicated otherwise). It is being submitted for the degree of Doctor of Philosophy (Business Sciences- Management) at the University of the Witwatersrand, Johannesburg and has not been submitted before for any other degree or examination at any other University. I have followed the requirements stipulated when referring to the thoughts and ideas of others. I give permission to the University of the Witwatersrand to reproduce this work for purposes of research.

Signature: 

Date: 07-10-24

DEDICATION

I can do all things through Christ who strengths me (Philippians 4:13).

I dedicate this study to my mother, late father, daughter, partner, siblings, nieces, nephew, friends, and everyone who has and continues to inspire me to reach my greatest potential, I thank you.

ABSTRACT

Many communities in Botswana are prone to disaster threat; natural, man-made and technological, and unfortunately, evidence suggests that there are weaknesses in the Botswana's disaster risk reduction and disaster management system. These weaknesses can have a negative impact on preventative efforts, increasing disaster impacts on societies. The key research question for this study is: How is strategy implementation done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as practice lens? The extant literature does not explore how disaster risk reduction is done from first hand experiences of those on the ground. In contrast to traditional organisational strategic management, strategy in practice considers the process in which individual interactions and interpretations of organisational strategy lead to enactment of strategy on the ground.

The study is qualitative and exploratory. The sample was selected from all three levels of the Botswana disaster risk management institutional framework. A purposive sampling technique was used, and two participants were selected from the National Disaster Management office, 6 District Commissioners and 34 participants from 6 District Disaster Management Committees based on their level of responsibility. 35 Village Development Committee Chairpersons from umbrella committees were also included in the sample as they represent a wider population within their districts. In addition, snowball sampling was used to select 11 Chairpersons from ordinary Village Development Committees. Data collection used document review, semi-structured interviews, focus groups and the nominal group technique.

Findings indicate that there is no extant formal disaster risk management legislation in the country meaning there are no legally required risk management systems in place. As a result, disaster risk reduction in the past has been conducted without effective communication and coordination of disaster risk reduction strategies and systems at national, district and village levels. The study recommends that disaster risk management legislation, sufficient training for implementors at all levels of the disaster risk management institutional framework as well as coordination and communication strategies and systems should be put in place to effectively deal with mitigating disasters that the country may face in the future.

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CHAPTER 1 : INTRODUCTION

This chapter introduces the subject matter to the reader, a background of the sector and research problem is given. It also explores the research question, subsidiary research questions as well as objectives of the study. These objectives guide the direction of the research; the literature review, the data collected as well as recommendations. An overview of the methodology followed is given as well as the significance of the study. Lastly, the structure of the thesis is discussed.

1.1 Background of the Study

1.1.1 What are Disasters?

Many scholars and authors have over the years given their perspectives on what disasters are. Iyer and Mastorakis (2006) explain them to be sudden events that are unforeseen, caused by social, natural, or technological factors and can result in loss of life and dire economic impacts. Cutter (2003) describes that they are high impact events normally on a singular large scale, while Shaluf et al. (2003) are of the neutral view that literature has no commonly acceptable criteria that defines disasters, instead, what it is depends on the discipline using the term. The United Nations International Strategy for Disaster Reduction (UNISDR) defines them as:

> A serious disruption of the functioning of a community or society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope with using its own resources (UNISDR, 2009, p.9).

Similarly, the National Policy on Disaster Management (1996), explains a disaster to be:

> An event that seriously disrupts the normal pattern of activities in a given area as a result of interaction between a hazard and a human population, that results in loss of life and property, injury and economic and social hardships, as well as the possible destruction and damage to government systems, buildings, communications and essential services, that requires exceptional measures to be taken both from within the affected community and outside (PreventionWeb, 1996, p. 6).

Disasters are caused by hazards, and these can be natural, man- made and technological. Natural hazards are linked to environmental phenomena (United Nations, General Assembly, 2016). Examples are volcanic eruptions, earthquakes, floods, tornadoes, storms, drought, and veld fires, among others. Man made hazards are induced predominantly by human choices and could be civil disorder, war, crime etc. Technological hazards are also caused by human activities but originate from industrial conditions including infrastructure failures or dangerous procedures (United Nations, General Assembly, 2016). Examples include mine accidents, industrial pollution, toxic wastes, dam failures, mine accidents, road transport accidents and chemical spillages among others.

1.1.2 The Management of Disasters

Managing disasters deals with the organisation of resources and responsibilities to lessen their impacts on human and animal lives, people's livelihoods as well as the general economy. Disaster management is everybody's responsibility, and it thrives on partnerships and collaborations between governments, the private sector as well as communities. The disaster management cycle generally consists of four statges: prevention/mitigation, preparedness, response, and relief/recovery (Noji, 2005). Shah and Bhat (2015) explain that the cycle may be defined differently however, the flow from prevention to recovery will still stand. According to Chong and Kamarudin (2017), the cycle can be divided into pre- and post-disaster phases, where pre- disaster includes prevention/ mitigation, and preparedness while post-disaster covers response, rehabilitation, and reconstruction/ recovery. Twigg (2004) explains that disaster risk reduction, which this study is focusing on, is heavily embedded under mitigation, and attracts the attention of development agencies whereas the response and recovery stages typically engage emergency responders. Figure 1.1 below illustrates a disaster management cycle.

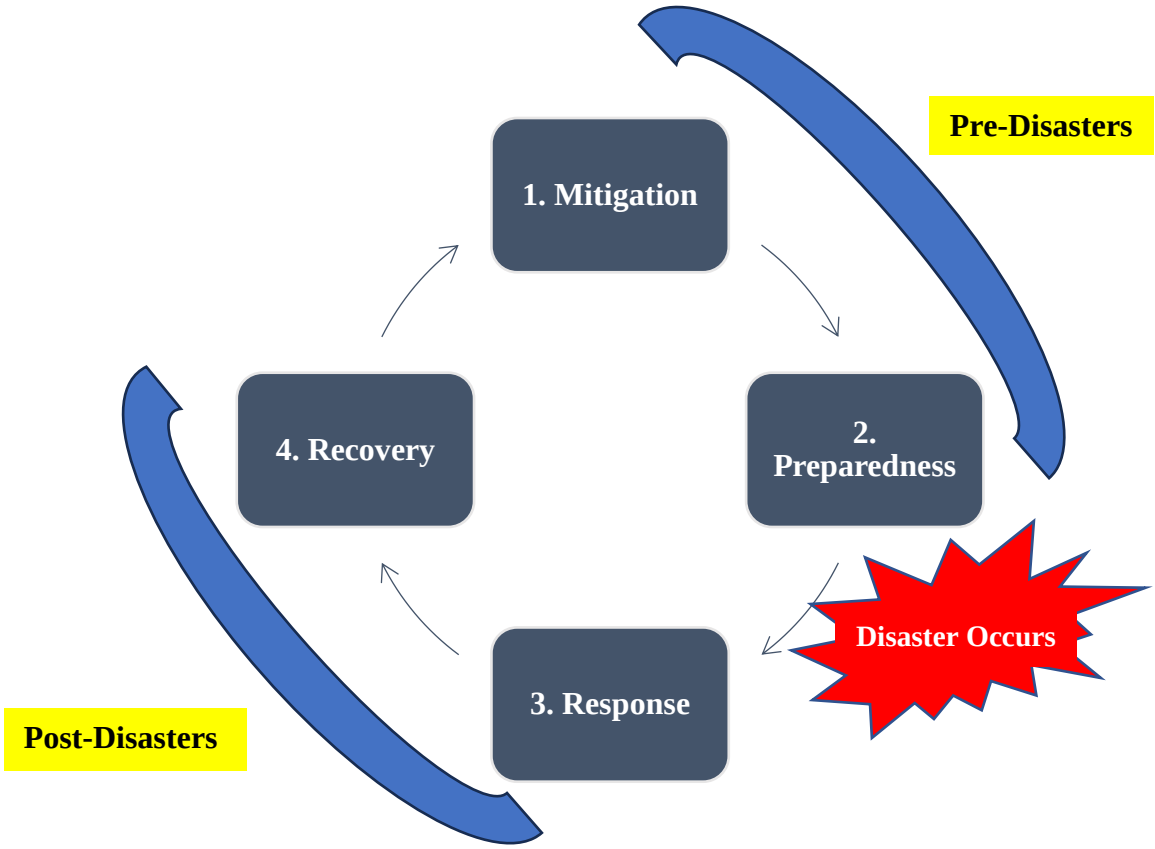


Figure 1.1 Disaster management cycle

Source: Dennison (2024), *developed for this PhD thesis*

Disaster Mitigation *(where disaster risk reduction falls)*

This stage is about plans, strategies and actions taken to reduce community vulnerability to disaster threats. It is all about tackling potential hazards by coming up with various mitigations to lessen or limit impacts. This is where disaster risk reduction falls because in this stage, risks are reduced through systematic efforts to analyse and manage the causal factors of disasters (Balcik et al. 2010). Disaster mitigation includes the reduced exposure and vulnerability of people and property to hazards through the wise management of land and the environment.

Disaster Preparedness

This covers activities done before disasters to prepare communities for what could come. It mainly involves building an effective information base, training in disaster management, stock

piling supplies, introduction of programmes in public awareness, regular simulations, and testing of disaster plans. It also involves a lot of collaboration and coordination among relevant stakeholders (Balcik et al. 2010). The difference between mitigation and preparedness is that the former is about applying measures to prevent disasters and reduce their impacts, while preparedness is about activities that prepare for effectively and efficiently responding to disasters.

Disaster Response

This stage covers implementing knowledge and capacities developed by governments, emergency response organisations and communities to effectively anticipate and respond to disasters. It is the actions taken immediately after a disaster occurrence, to assist and support the affected in satisfying their immediate needs and ease life- threatening situations (Kovacs and Spens, 2009). Relief in this regard includes food, shelter, blankets, water, medical attention, and other essential amenities. Collaboration and coordination between key departments is pertinent for successful relief efforts (Wassenhove, 2006).

Disaster Recovery

Banomyong et al. (2019) explain that disaster recovery is all about reconstructions and rehabilitations following disaster response. It includes assisting disaster victims to return to how they were living pre disasters or ensuring that improvements are made to strengthen and improve their resilience (Balcik et al. 2010). Disaster recovery is closely linked to disaster risk reduction because the restoration, and improvement of livelihoods and living conditions of affected communities include efforts to reduce disaster risk factors for possible future disaster occurrences (Sabouhi, et al. 2019).

1.1.3 An Overview of Disasters in Botswana

The National Disaster Risk Management Plan 2009 states that finances the country could use for development and upliftment of citizens, are often used on disaster response, recovery, and reconstruction (Prevention Web, 2011). The disasters and prevalent risks identified in Botswana include drought, flooding, veldt fires, motor vehicle accidents, human epidemics, animal epidemics and the potential of civil unrest, especially on the back of illegal immigrants

and refugees (PreventionWeb, 2009). Table 1.1 below shows some of the major recorded disasters, their impacts, and expenditures in Botswana in past years:

Table 1.1 Botswana major disasters and their impacts

Disaster	**Impact**	**Expenditure**
Contagious Bovine Pleuropneumonia (CBPP) in Ngamiland in 1995	Eradication of 300,000 cattle	over P270 million
Gaborone floods in 2001	P5 million worth of private and public property was damaged.	Undisclosed
The 2007 and 2008 fires	Approximately 14 million hectares of land were burnt in Central Kgalagadi Game Reserve, Ngamiland, Chobe, Kweneng and Central District, among others.	Undisclosed
Droughts	Loss of income due to the dying of crops and livestock. Shortage in food.	About P978, 423,040 was used in 6,460 projects from 2002 to 2008 to reduce the impacts. Some of the initiatives included primary school feeding and vulnerable group feeding at health facilities.

Source: Dennison (2024), *developed for this PhD thesis*

Below are natural, man-made and technological hazards historical statistics according to districts in Botswana. These statistics span from 2010 to 2019, compiled in the Botswana Environment Statistics: Natural and Technological Disasters Digest (Statistics Botswana, 2019). This is the latest published report.

Veldt Fires

These are explained to be the uncontrolled burning of open grazing areas that mostly occur during dry seasons (Statistics Botswana, 2019). It is said that in Botswana, the main causes are

usually unknown but many of them appear to be started by ignition from lightning (natural), while others are unnatural fires (Statistics Botswana, 2019). Table 1.2 below gives statistics on fire incidences between the years 2014 – 2018. The number of incidences appears to have fluctuated over the specified years with the Ngamiland district being the most prone. Veldt fires mostly impact communities whose livelihoods are based on agricultural activities (PreventionWeb, 2018).

Table 1.2 Fire incidences (2014- 2018)

District	2014	2015	2016	2017	2018
Ngamiland	103	124	90	109	91
Central	48	41	27	79	17
Kgalagadi	11	7	5	34	20
Ghanzi	12	18	8	23	27
Chobe	46	34	22	21	14
Kweneng	11	8	4	11	16
Southern	14	7	2	9	8
North East	3	4	1	7	3
Kgatleng	1	1	0	2	0
South East	0	7	0	0	0
Total	**249**	**247**	**159**	**295**	**196**

Source: Botswana Statistics (2019), p. 7

Floods

Floods are classified as natural hazards and present danger to human and animal lives, they destroy personal property, infrastructure, crop fields and natural vegetation. They can occur in communities that are in flood prone areas or are in developed areas that get flooded because of a lack of proper storm water drainage systems (PreventionWeb, 2018). Table 1.3 below presents the impacts between the years 2015 and 2019. The Ghanzi district appears to have been the most affected district over the years under review, with the highest number of people being displaced.

Table 1.3 Flood impacts (2015- 2019)

Incident	Year	District	Villages	Impact/Damages		Assistance given	
				No. of households affected	Total no. of individuals affected / displaced	Tents	Food Baskets
Floods	2015	Ghanzi	D'kar, Kuke, New Xade, Chobokwane, Ghanzi Township, Grootlaagte, Qabo	139	859	52	136
		Kweneng	Thamaga	25	125	10	14
	2016	Central	Pilikwe	9	9	6	3
		Ghanzi	D'Kar	35	265	14	14
		Kgatleng	Leshibitse	14	68	12	9
		Kweneng	Molepolole, Mmmanoko	5	45	5	3
	2017	Kgatleng	Leshibitse, Mochudi, Bokaa, Pilane	39	98	0	31
		Kweneng	Gabane, Kubung	22	166	1	0
		Ghanzi	West Hanahai, D'kar, East Hanahai,New Xade, Kacqae, Ghanzi Township,Charlehill, Kole, Ncojane	63	282	36	34
		North East	Tatisiding, Siviya, Masingwaneng, Mapoka, Matshelagabedi, Matopi, Matsiloje, Ditladi, Zwenshambe, Nlapkhwane, Senyawe, Letsholathebe, Gulubane, Mambo, Botalaote	44	174	17	12
		Southern	Moshopa, Polokwe	22	34	0	4
		Ngami-land	Khwai, Chanoga, Morutsha	15	40	0	13
	2018	Tsabong Sub	Struizendam	11	15	11	11
		Maun Admin.	Makalamabedi	10	13	7	2
		North East	Kalakamati,Mambo, Letsholathebe,Masingwaneng, Mulambakwena,Gulubane, Sechele,Matshelagabedi	35	63	7	2
	2019	Serowe Admin.	Setshe,Kgosing,Mausu,Moeletsi	44	89	6	8
		Tonota	Shashemooke, Jamataka	2	10	1	1
		North East	Zwenshambe,Gungwe,Kalakamati	41	78	5	8
TOTAL				575	2,433	190	305

Source: Botswana Statistics (2019), p. 14

Storms

Table 1.4 below presents statistics on impacts of both storm and hailstorm incidents. The difference with the two is that storms are usually marked by wind and rain while hailstorms are characterised by the presence of hail. Punge and Kunz (2016), explain that damages caused by hail are a huge contribution to natural hazard losses in many parts of the world. The Central district was the most affected district over the specified years.

Table 1.4 Storm impacts (2016- 2019)

Incident	Year	District	Villages	Impact/Damages		Assistance given	
				No. of households affected	Total no. of individuals affected / displaced	Tents	Food Baskets
Hailstorm	2016	Central	Damochujenaa	5	16	0	3
		Kgatleng	Artesia, Segwagwa, Dikgonnye, Mathubudukwane, Ramonaka, Leshibitse	24	105	12	10
		Southern	Jwaneng	2	5	2	0
		Kgalagadi	Otjiseu, Sunset, Botshabelo, Mogobe	27	55	4	2
		North East	Pole	4	22	2	1
		Kweneng	Mmatseta	8	39	4	4
		North West	Maun	32	192	3	23
	2017	Southern	Kgomokasitwa	17	69	33	23
		Central	Molalatau, Serule, Foley, Gojwane, Jamataka	181	1,012	42	106
		Kweneng	Boatlaname, Letlhakeng, Sorilatholo, Kumakwane	79	375	17	36
		Kgatleng	Ramokana, Mmathubudukwane	39	80	7	12
Storm	2016	Central	Serowe, Mabeleapudi, Matlhako, Kala-mare	163	815	60	83
		Kweneng	Molepolole	1	5	1	1
	2016	Chobe	Kazungula	17	65	5	15
	2018	Tsabong Sub	Struizendam	11	35	11	11
	2019	Ghanzi	New Xade	14	22	0	0
TOTAL				624	2,912	203	330

Source: Botswana Statistics (2019), p. 15

Heavy Rains

The Central district is again here, the most prone to heavy rains with the highest average number of households affected as well as individuals affected/ displaced between 2015 and 2019 (see Table 1.5 below).

Table 1.5 Heavy rains (2015 – 2019)

Incident	Year	District	Villages	Impact/Damages		Assistance given	
				No. of households affected	Total no. of individuals affected / displaced	Tents	Food Baskets
Heavy rains	2015	Thamaga Sub	Thamaga	25	28	10	14
		North West	Bodibeng	11	80	11	9
	2016	Central	Radisele, Lerala, Mabuo, Sehunonu, Motshegaletau, Majwanaadipitse, Tshimoyapula, Malatswai	285	341	65	86
		Kweneng	Sojwe, Shadishadi, Loologane, Lephephe,	78	167	67	28
		Kgatleng	Sanyedi, Boseja	6	15	1	2
		Ngamiland	Disaneng, Botshabelo, Matomo, Kgosing, Moeti, Boseja, Samedupe	11	43	4	6
	2017	Central	Kodibeleng, Mokgenene, Makwati, Moshana, Lorolwana,ruele,Diabo, Tshweneyagae, Maisane, Lotlhakane East, Gasita, Dipotsana, Mokgenene, Otse, Bonwapitse, Mahalapye, Kalamare, Dovedale, Pilikwe, Mosolotshane, Ramokgonami, Mookane, Tumasera, Tewane	178	1,005	88	13
		Southern	Moshana, Lorolwana, Ruele, Diabo, Tshweneyagae, Maisane, lotlhakane East, Gasita, Dipotsana	55	119	41	1
	2019	Mahalapye	Borotsi,Chadibe,Sefhare	4	11	0	3
TOTAL				653	1,809	287	162

Source: Botswana Statistics (2019), p. 16

Drought

Manthe-Tsuaneng (2014) describes drought as a shortage in rainfall considering its timing as well as spatial-temporal distribution. This is very common in Botswana and is characterised by long dry spells which negatively affect livelihoods and food security. Table 1.6 below shows drought occurrences in Botswana between the years 2001 and 2019.

Table 1.6 Occurrences of drought in Botswana (drought declarations) (2001- 2019)

Year	Impact Area
2001-2005	Drought years (Whole Country)
2007-2008	Drought year (Whole Country)
2008-2009	Non-drought year
2009-2010	Drought year (Whole Country)
2010-2011	Drought year (Whole Country)
2011-2012	Drought year (Whole Country)
2012-2013	Drought year (Whole Country)
2013-2014	Non-drought year
2014-2015	Drought year (Whole Country)
2015-2016	Drought year (Whole Country)
2016-2017	Drought year (Partial)
2017-2018	Drought year (Whole Country)
2018-2019	Drought year (Whole Country)

Source: Botswana Statistics (2019), p. 18

Mine Accidents

Presented on table 1.7 below is an analysis of mine accidents for the years 2010 to 2019. The report did not specify where the incidents occurred (according to which mines or districts), it just stated a summary of incidents. However, mines in the country are in the Jwaneng, Central, North- East district and Ghanzi districts. The total number of mine accidents has generally decreased over the years under review.

Table 1.7 Total number of mine accidents in Botswana (including fatal) (2010- 2019*)*

Year	Total no of accidents (including fatal)	No of fatal accidents
2010	60	3
2011	67	1
2012	41	5
2013	35	3
2014	33	5
2015	39	4
2016	29	3
2017	20	2
2018	22	3
2019 (June)	10	0

Source: Botswana Statistics (2019), p. 3

Road Transport Accidents

Table 1.8 below is a presentation of motor vehicle accidents for the years 2010 to 2019. Like mine accidents above, the incidences were not specified according to location. Motor vehicle accidents are reported to be caused by animals on the roads and poor road conditions (PreventionWeb, 2018). The number has fluctuated throughout the years under review.

Table 1.8 Motor vehicle accidents (2010- 2018)

Year	Accidents	Casualties	Fatalities	Estimated Population ('000s)	*Fatalities Per 100,000
2010	18,978	7,970	475	1,800	22
2011	18,001	6,436	483	2,025	24
2012	17,527	6,035	404	2,066	20
2013	17,062	6,157	411	2,107	20
2014	16,641	6,065	377	2,147	18
2015	17,654	6,303	411	2,187	19
2016	18,373	6,687	450	2,226	20
2017	17,786	6,335	444	2,264	20
2018	17,341	6,243	462	2,303	20

Source: Source: Botswana Statistics (2019), p.6

1.1.3.1 Disaster Management in Botswana

To tackle disasters, the Government of Botswana in 1996 formulated a National Policy on Disaster Management. This policy is in place to develop frameworks and systems which facilitate the preparation of plans and development of legislation for effective management of disasters. Then followed the formulation of the National Disaster Risk Management Plan in 2009, which provides a framework for a set of actions related to disaster risk reduction as well as emergency management (Prevention Web, 2011). Botswana does not have specific legislation for disaster management; thus, implementation is supported by various policies and legislation including the Constitution, Emergency Powers Act (Cap 22.04), Agriculture Resource Act 36:06 and the Building Control Act Cap 65:02, among others. The National Disaster Risk Management Plan 2009 highlights that the country takes part in the implementation of some international agreements such as the Hyogo Framework for Action (2005-2015) and the Africa Regional Strategy for Disaster Risk Reduction (2004), which were in place at the time. It is worth noting that the country is now under the guidance of the Sendai Framework for Disaster Risk Reduction 2015-2030, which was adopted by United Nations member states in 2015.

The National Disaster Risk Management Plan further states that there is a Disaster Risk Management institutional framework in place consisting of three levels: the national, district as well as village/ community levels (Prevention Web, 2011), (see Table 1.9 below). At this point the researcher should perhaps highlight that the difference between disaster risk management and disaster management is that disaster risk management is the application of disaster risk reduction strategies while disaster management integrates the whole disaster management Cycle to protect lives and property against disasters (Van Niekerk, 2006).

Table 1.9 Botswana disaster risk management institutional framework

Structure	**Role**
Office of the President	The Office of the President is generally responsible for ensuring security, safety, social and economic well-being of citizens.
National Disaster Management Office	Responsible for overseeing and monitoring disaster risk management and disaster management activities at all

	levels in the country, through the development of tools, structures, and systems.
National Committee on Disaster Management	disaster risk management and disaster management policy formulation and coordination body. Also has a mandate to facilitate disaster risk reduction implementation. Made up of Deputy Permanent Secretaries from the various ministries as well as representation from the Red Cross Society, United Nations, Non- Governmental Institutions, Botswana Defence Force, Botswana Police Service.
National Disaster Management Technical Committee	Technical advisory body made up of specialists from stakeholders represented in the National Committee on Disaster Management/ various development areas. They advise the National Committee on Disaster Management and the National Disaster Management Office on disaster risk reduction.
District Disaster Management Committee	Formed by each district to oversee implementation of disaster risk management and disaster management in the districts. Comprises of all Government departments and organisations in those districts. They develop disaster risk management plans for their districts.
Village/ Ward Development Committee	This is made up of elected community members, working closely with Dikgosi (traditional leaders) to coordinate disaster risk management and disaster management in communities/villages. They develop community/ village disaster risk management plans facilitated by the District Disaster Management Committee.

Source: Dennison (2024), *developed for this PhD thesis*

The National Policy on Disaster Management 1996 and National Disaster Risk Management Plan 2009 guided the formulation of the National Disaster Risk Reduction Strategy 2013-2018. The strategy is discussed further in section 1.1.3.3 below.

1.1.4 Research Problem

Disaster risk reduction strategies and initiatives contribute to the decrease of disaster risks and the negative impacts associated with them (Balcik et al. 2010). According to the National Disaster Risk Reduction Strategy 2013- 2018, the level of disaster risk is determined through assessing identified hazards against the vulnerability and resilience of the affected (PreventionWeb, 2018). Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH (2021) explained that although developments are necessary, those that do not consider the concept of risk informed development can intensify the severity of hazards, resulting in multiple, systemic, and at times unknown risks that expose communities to harm. An example was given in the National Disaster Risk Reduction Strategy 2013- 2018 on the uncontrolled collection of gravel and sand from riverbeds for construction. Although this is necessary for construction of houses (for instance), the unrehabilitated site can alter how water flows, therefore increasing the risk of flooding (Prevention Web, 2018). Development should take place within a sustainable development framework. Major considerations around the intensifying frequency and magnitude of disasters are to an extent within our control for instance, through proper urban planning, considering the risks in land use and paying attention to issues that expatiate climate change (GIZ, 2021).

The situational analysis in the National Disaster Risk Reduction Strategy 2013- 2018, highlights that, Botswana has national and district contingency plans, there is capacity for early warning systems and the strategic location of the National Disaster Management Office in the Office of the President is good for quick decision making. However, there is still inadequate resources at all levels, no disaster risk budget, no dedicated disaster risk management staff in the districts, a lack of sufficient disaster preparedness at community level, no dedicated disaster risk management legislation and there is failure to sufficiently mainstream disaster risk reduction in development plans (PreventionWeb, 2013). Maripe and Setlalentoa (2017) also found that structures such as the District Disaster Management Committee, only function in emergency response while overlooking disaster risk mitigation. Botswana's disaster risk reduction and disaster management system in general still leaves a lot to be desired, considering that prior to the outbreak of the Corona Virus Disease (COVID- 19), the Global Health Security Index (2019) reported that Botswana was among the least prepared countries in the world to deal with epidemics and pandemics. It ranked at 139 out of 195 countries. However, that position has since improved with the 2021 report showing a ranking of 108 out of 195 countries

(Global Health Security Index, 2021). The index categories are prevention, compliance with international norms, risk environment, detection and reporting, rapid response as well as the health system. This was not a surprising finding considering that at the start of the pandemic, it was reported that there were only 70 ventilators at the Sir Ketumile Masire Teaching Hospital (which was Botswana's high-care referral centre for COVID-19 patients) (Masisi, 2020). The limited number of ventilators relative to a population of about 2.5 million people then (World Bank, 2020), pointed to preexisting capacity issues. When COVID-19 hit, the Botswana Government had to execute robust responsive and recovery measures to cushion citizens against the harsh health and economic realities presented by the pandemic. These include setting up of the COVID-19 relief fund to procure national strategic reserves such as grains, financing medical costs for equipment and supplies as well as getting additional medical staff (United Nations, 2020). There was also distribution of general food items following social services assessments (Devereux, 2021), as well as the introduction of a broad COVID-19 wage support scheme to mitigate the economic impacts of the pandemic (KPMG, 2020).

There is no doubt that many countries all over the world were negatively affected by the pandemic in unexpected ways that tested their resource capabilities, however, the impacts experienced in Botswana were possibly worsened by the weaknesses that already exist in the disaster risk reduction/ disaster management system.

1.1.5 Justification of the Problem

Aside from having interest in the country because it is the researcher's country of origin, Botswana was selected for this study based on its past successful experiences with fighting pandemics. This history of successes has always been lauded by the international community, translating to how visionary leadership combined with identifying the right priorities in public health can save lives. For instance, it was the first country in Sub-Saharan Africa to provide universal free anti-retroviral treatment to people infected with the Human Immunodeficiency Virus (HIV) (Farahani et. al, 2013). Furthermore, Botswana has over the years embarked on a programme addressing the prevention of mother to child transmission of HIV and became the first high-burden country certified by the World Health Organisation for achieving a transmission rate of under 5%, looking confidently at raising an HIV/AIDS free generation (World Health Organisation, 2021). This track record sparked interest on whether there could have been similar lessons learnt in tackling the Coronavirus disease (COVID-19) crisis.

The national disaster risk reduction strategy document had specific strategic objectives for disaster risk reduction to be implemented by 2018 (PreventionWeb, 2018, pp. 26 and 27). And they were:

- To improve the legal and institutional basis for efficient disaster risk reduction.
- To mainstream disaster risk reduction and emergency management into development policy, programmes, and projects.
- To build disaster risk reduction capacity at national, district, community, and household levels.
- To increase awareness of disaster risk reduction methods and opportunities through information sharing, strategic partnerships, education, and training.
- To strengthen and implement knowledge, information management and technologies on disaster risk reduction in all sectors.
- To strengthen disaster preparedness and climate change adaptation at all levels.

Through this study the researcher was able to understand the current challenges and ascertain whether there was any progress considering the set objectives. This was done through a Strategy-as-practice lens to fully understand the practical ways that the DRR strategy is being implemented through experiences of the people on the ground.

1.1.6 Key Research Question, Subsidiary Research Questions and Objectives

Key Research Question:

How is strategy implementation done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy- as-practice lens?

Subsidiary Research Questions:

- What are the activities, processes and resources utilised to implement the disaster risk reduction strategy in Botswana?
- How are the current disaster risk reduction implementation structures and initiatives as prescribed by the national strategy, perceived by implementors at all levels of the disaster risk reduction institutional framework?

- How can a strategy-as-practice framework be utilised to modify disaster risk reduction implementation in Botswana, with an aim to encourage proactiveness and efficiency?

Research Objectives:

- To identify the activities, processes and resources used in implementing the Botswana disaster risk reduction strategy.
- To explore perceptions of implementors at all levels of the disaster risk reduction institutional framework on the current disaster risk reduction implementation structures and initiatives prescribed by the national strategy.
- To formulate a strategy-as-practice framework targeted at promoting proactive disaster risk reduction strategy implementation for Botswana, through providing guidance on important issues like resource allocation, development of processes within the implementing institutions as well as guidance on development activities for implementors, among others, taking into consideration the current weaknesses in the system.
- To highlight future researchable propositions on the subject area.

1.1.7 Significance of the Study

The findings of this study are mainly targeted at the Botswana National Disaster Management Office and policy makers to appreciate the status quo of the disaster risk reduction system, from the experiences of staff implementing the disaster risk reduction strategy around the country and to find out what causes those implementation challenges. These challenges seem to be common across the districts that participated. As such, the findings informed the development of a strategy-as-practice based disaster risk reduction implementation framework with an aim to promote proactivity and efficiency within the Botswana disaster risk reduction system. The study highlights the crucial importance of various elements in disaster risk reduction implementation and provides practical recommendations on how these can be improved, for instance, effective and responsible communication, effective cascading of a disaster risk reduction strategy to staff involved in its implementation, adequate financial and technical resources as well training for implementors. Although the findings cannot be generalised to other national contexts, the Strategy-as-practice based framework developed and

its ideologies can be extended to countries facing similar challenges. Furthermore, it can be used by scholars in the fields of strategic management, Strategy-as-practice, disaster management, disaster risk reduction and disaster risk management as a pre-cursor to future studies.

1.2 Overview of Methodology

This is a qualitative and exploratory research, exploring a problem that has no substantial past data especially in a Botswana context. It is based on the interpretivism paradigm because interpretive researchers believe reality is made up of people's subjective experiences of the world. The main theory guiding the study is social constructivism because knowledge was constructed from experiences of staff implementing the disaster risk reduction strategy in Botswana. The study's target population was from the three levels of the disaster risk management institutional framework: national level participants from the National Disaster Management Office, District Commissioners and District Disaster Management Committees at district level and lastly Village Development Committee Chairpersons at village level.

The sampled population at district level was based on districts reported to have adopted and implemented disaster risk reduction strategies at district level, while also having experienced two or more of the main hazards/ disasters, as identified in the 2019 Natural and Technological Disasters Digest (Statistics Botswana, 2019). The villages that participated were those under the sampled districts. Data collection was through document review, semi structured interviews, focus groups, and through using the nominal group technique. Applying various data collection methods counteracts any problems arising from common method variance, but most importantly it helps develop a comprehensive understanding of the issue being studied. The data reviewed was content and thematically analysed while the empirical data was only thematically analysed.

1.3 Structure of Thesis

Chapter one focuses on the background of the study, justification of the problem, key research question, subsidiary research questions and objectives. It goes on to give an overview of the methodology, significance of the study and lastly structure of the thesis.

Chapter two discusses relevant literature guided by the three research questions. The chapter starts off by discussing the theoretical framework guiding the study, with a particular focus on social constructivism. The researcher then goes on to carry out a review of national disaster management structures and systems in various countries internationally. The section coming after that analyses the perceptions on public sector strategic management, which includes the various strategic management stages, how it has evolved, and challenges faced in its implementation. Section 2.6 then addresses the way forward on integrating strategic management into disaster risk reduction. Lastly, Strategy-as-practice as an alternative perspective to traditional strategy is discussed, its background is given, the three research parameters, challenges, and the way forward in its research.

Chapter three focuses on the research methodology guiding this research. It starts off with a summary on the methodology key principles, and then moves on to discuss the research design and method, population and sampling, data collection methods, data analysis, the reflexivity in qualitative research, followed by validity and reliability and lastly, the ethical considerations.

Chapter four is on the presentation of results and discussion. The chapter starts off by reporting on the response rate, then there is a summary of themes that were identified under both the document review and empirical analysis. It then goes on to focus on the results of the document review, followed by those of the empirical analysis. Section 4.6 discusses the validation of findings where the sixth district of the study's population was used to validate the data collected in the other five districts. Lastly there is an evaluation of the research objectives.

Chapter five is the concluding chapter. This is where the recommended framework is presented as well as, where the contributions, limitations and recommendations are discussed.

CHAPTER 2 : LITERATURE REVIEW

2.1 Introduction

The main limitation of the literature review is that studies specifically focused on the practice perspective of disaster risk reduction (both national and organisational) implementation in Botswana and internationally were not found. The researcher therefore collated research in the areas of strategic management in the public sector as well its application in practice, Strategy-as-practice research, research in disasters, as well as national disaster management structures and initiatives to gain understanding and appreciation of these fields of study.

A lot of literature was identified on the general application of strategic management in the public sector (Drumaux and Goethals, 2007; Bryson, 2004; Ferlie, 2003; Johnson and Scholes, 2001; Joyce, 2000). However, in line with the Jarzabkowski and Kaplan (2015) findings, most of the strategic management research still focuses on the macro levels of analysis which does not provide detail necessary for understanding the practical aspect in strategising. Bryson et al. (2010) are among those who have investigated how strategic management in the public sector is applied in practice, several others have investigated the type of tools used for this and how using them affects strategy making (Hansen Rosenberg 2011; Jarzabkowski& Wilson, 2002; Williams and Lewis 2008). Some literature has also detailed the importance of understanding how activities that are performed everyday influence strategic choices and their consequences (Balogun et al. 2007; Jarzabkowski and Fenton 2006; Jarzabkowski and Seidl 2008; Johnson et al. 2007; Whittington 2006).

Several studies in disaster risk reduction and disaster management were identified in a Botswana context including Ngozi (2019), who studied gender vulnerability in national disaster risk reduction structures, Mutasa and Coetzee (2019) who advocated for the integration of disaster risk reduction initiatives into the Botswana primary school curriculum, Maripe and Setlalentoa (2017) who studied community vulnerability to disasters and Samuel et al. (2002) who evaluated the national disaster management strategy and planning for flood management and impact reduction in Gaborone, Botswana. Some studies reviewed national disaster management structures in place in various countries (Bang et al., 2019; Cheema et al., 2016; Chong and Kamarudin, 2017). Others were just in disasters in general Lukamba (2010). The closest studies to this research include Caymaz et al. (2013) who explored strategic planning

in public institution in the Turkish prime ministry of Disaster and Emergency Management, Choi (2008) who investigated the implications from an strategic management perspective of emergency management in the USA and Samuel et al. (2002) as describe above. The literature review was guided by the three research questions shown on Table 2.1 below. The table shows a literature review plan in accordance with which section addresses which research question.

Table 2.1 Structure of literature review according to the research questions

Sections	**Headings**	**Research Questions**
2.3	Theoretical Framework	
2.4	An International Review: National Disaster Management Strategies Implementation	1. What are the activities, processes and resources utilised to implement the disaster risk reduction strategy in Botswana?
2.5	Perceptions on Public Sector Strategic Management *(There is a general discussion on strategic management, as well as a focus on implementation)*	2. How are the current disaster risk reduction implementation structures and initiatives as prescribed by the national strategy, perceived by implementors at all levels of the disaster risk reduction institutional framework?
2.6	Way Forward: Integrating Strategic Management into Disaster Risk Reduction	*Merges research question 1 and 2.*
2.7	Strategy-as-practice as an Alternative Perspective to Traditional Strategy	3. How can a Strategy-as-practice framework be utilised to modify disaster risk reduction implementation in Botswana, with an aim to encourage proactiveness and efficiency?

2.8	Conclusion	

2.2 Literature Sources

The researcher searched for literature extensively, she looked at reliable and up to date reference materials. These materials include paper based and electronic journals from Sage, Science Open, Emerald, Springer, ResearchGate, JSTOR. Peer reviewed journals were sought, books, conference proceedings and websites of international universities and multinational development organisations (for instance the United Nations and GIZ). The bibliographies of journals read were also a good source for related material that the researcher used. Some of the words and sentences used in the web searches include: “types of disasters”, “disaster risk reduction strategy in Botswana”, “national disaster risk reduction strategies internationally”, “disaster risk management in Botswana”, “disaster risk management internationally’, “disaster emergency management strategies”, “implementation of disaster risk reduction strategy”, “practical implementation of disaster management”, “strategy as practice in disaster risk reduction”, “strategy as practice in disaster risk management”, “strategy as practice in the public sector”, “public sector strategic management.”

2.3 Theoretical Framework

Several theories were identified that were aligned to this study including the systematic and classical perspectives of strategy by Whittington (2001), the practice perspective which traces back to Heidegger (1962) as well as the constructivist theory tracing back to Piaget (1896-1980) (Piaget, 1964). The constructivist theory is the one that guided this research process. Below is a general discussion on the theories stated above.

2.3.1 Perspectives of Strategy

According to Whittington (2001) conceptions of strategy can be classified into four approaches (See Table 2.2 below).

Table 2.2 Different perspectives of strategy

Perspectives of Strategy	What is the strategy process like?
Classical Approach	A process of calculation, analysis, and rational decision-making of top managers, followed by implementation (by changing structures).
Evolutionary Approach	Environment defines survival, the question of strategy process of an organisation is irrelevant.
Processual Approach	Instead of formal planning process, strategy process is a pragmatic process of learning and compromise, which can also shape strategy.
Systematic Approach	The process depends on the particular social system in which strategy making takes place.

Source: Adopted from Ikavalko (2005)

From the different perspectives identified by Whittington (2001) above, the systematic approach served as one of the points of reference for this study, because this is interpretive research (Guba and Lincoln, 2005) and hence, it was worthwhile to understand if the participant's subjective experiences of the world have influenced how strategy is being shaped through a process of learning, instead of it being formalised. Are they given the opportunity to influence the disaster risk reduction strategy or its implementation in any way? If not, how would they have liked to do so? The classical approach is also relevant in this study considering the current structural setup of the disaster risk management institutional framework. Strategy is formulated by the National Committee on Disaster Management and the National Disaster Management Technical Committee, and the coordination and implementation carried out by the National Disaster Management Office, District Disaster Management Committees and Village Development Committee's respectively, according to the national disaster risk management plan (Prevention Web, 2011).

So, within the current classical approach is there any space for the incorporation of certain elements of the systematic approach through the experiences of the implementors? Especially because the classical approach, does not consider the possible irrationality of management when making decisions (Ikavalko, 2005). Or is the system purely bureaucratic? Studies such as Balogun and Johnson (2005) have taken a very interesting approach, in micro perspectives,

addressing the implementation of decisions that have been made by others. They show how lateral and informal processes of sense making can lead to intended or unintended change outcomes, hence the developing nature of strategic change.

2.3.2 The Practice Perspective

Strategy implementation integrates all functional parts of management hence a holistic view is essential when coming up with implementation frameworks. Ikavalko (2005) explains that strategy implementation has not received as much attention as strategy formulation in research. Perhaps the reason for this is that it is difficult to ascertain what should be included, where it begins and stops. Strategy implementation literature often concentrates on what it is, its importance and challenges (Flood et al., 2000; Verweire, 2018), but not enough on how to put it into action. This study contributes to the practice perspective, through the development of a Strategy-as-practice based disaster risk reduction implementation framework that will act as a practical tool in disaster risk reduction implementation.

This practice perspective goes back to Heidegger (1962), and over the years there has been a rapid increase in theories of practice so much so that a practice turn in the social sciences can be discussed (Schatzki et al., 2001). The various contributions include those by philosophers and scholars in sociology (Gherardi, 2000; Giddens, 1984), activity theorists (Engestrom, Miettinen and Punama¨ki, 1999; Vygotsky, 1978) and discourse (Fairclough, 2003), among others. Its biggest distinction to the economical and psychological approaches to strategy is that they tend to focus on methodological individualism while practice theorists are more concerned with human activity (Reckwitz,2002).

Lowstedt (2012) explains that a practice approach to strategy depicts strategy to be a socially constructed activity, integral to life within an organisation. A frequent question that may come up may be how the theoretical basis of this research area is in alignment with the many organisational and social theories. However, Jarzabkowski et al. (2007) argue that when it comes to the practice perspective in strategy, the field should focus less on what theory should be adopted and more on what problem exists. They argue that central research around this should concentrate on who strategists are, what they do and how that affects the accomplishing of strategic activity. In line with the argument, Balogun et al (2003) also believes that the practice field does not necessarily require the introduction of new theories per se, but, only,

when need be, can it draw upon existing ones to investigate strategy problems identified, develop new methods and research designs for studies.

Furthermore, Ambrosini et al. (2007); Jarzabkowski (2005) and Johnson et al. (2003) believe that many issues identified in strategy research including those that have to do with the resource- based view, dynamic capabilities, and strategy process theory among others, might just need to be refined by a practice perspective. As alluded to above, by its nature, practice draws from principles of sociology and social psychology among others, to understand how activities are constructed within organisations. For instance, Salvato (2003) investigated how a firm develops capabilities that propel its competitive edge, and this was theoretically guided by dynamic capabilities, and having a social theory basis (Giddens, 1984) to describe how those capabilities are developed. In a similar way Balogun and Johnson (2004) and Rouleau (2005) have also aimed to understand strategic construction, implementation, and its transformation via the daily interactions of practitioners through organisational theories of narrative and sense making. On the other hand, some research examines tools such as budget models and control systems (Jarzabkowski and Wilson, 2002; Jarzabkowski, 2003), utilising social theories of practice to show the procedures behind utilising these tools as carriers of interactions and intentions in organisations. It is evident that there is opportunity in research for the incorporation of organisational theories within practice research.

2.3.3 Social Constructivism in Connection to the Practice Perspective

It makes sense for practice research such as this one, to veer towards organisational theories that adopt a social constructivism approach when it comes to structuring and interpreting empirical data. This is line with the recommendation by Grand et al. (2010), that practice research should have aspects of constructivist epistemologies. This is because all constructivism variants:

- Believe that reality is ‘objectively given’;
- Investigate knowledge and how it is constructed;
- Believe agency in constructing reality is spread among varied actors; and
- They question the prevalent unquestioned contrasts in the social sciences, such as situated activities vs. collective practices.

Practice creates space to investigate the micro level of social activity and how it is constructed within a social context (Jarzabkowski and Seidl, 2008). Hence, one can shift from the general to a more targeted focus of social reality. Golsorkhi et al. (2010) believe that the revelation of micro-level footings in social activity can be done for either empirical or theoretical studies (Golsorkhi et al., 2010). This study also guided by the social constructivism theory because knowledge was constructed from interviewing disaster risk reduction strategy implementors as identified from the national disaster risk management institutional framework. They have lived experiences in disaster risk reduction and interact or are meant to interact with each other. It is important to highlight that constructivists believe that in as much as knowledge can be given, understanding cannot be (Mogashoa, 2014). Thus, the implementors' interpretations are based on their understanding of the information received. Duffy (2006) explains that learning is all about actively constructing as opposed to acquiring knowledge. Furthermore, Hein (2007) explained that under this theory, humans produce knowledge and interpretations from interactions between what they have experienced and their thoughts. This is why this study attempted to bring about understanding on the activities, processes and resources that go into the National Disaster Risk Reduction Strategy practical implementation, from first hand experiences of implementors. The researcher went on to further establish what the perceptions of implementors/ strategic actors at various levels of the disaster risk management institutional framework are, with regards to the current structures and initiatives prescribed by the national strategy and plans. This was all done with an aim to positively influence the design of future strategic processes in disaster risk reduction practice.

2.4 An International Review: National Disaster Management Implementation

2.4.1 Activities, Processes and Resources

All over the world, countries have put in place policies, strategies and dedicated departments solely mandated to addressing disaster risk and its management. Some of the global and regional past instruments include the 2005 -2015 Hyogo Framework for Action (HFA) (United Nations International Strategy for Disaster Reduction (UNISDR), 2005), which was put in place to offer principles and practical ways to aid vulnerable communities in achieving disaster resilience. There was also the 2016- 2021 UNISDR Strategic Framework (UNISDR, 2016) which focused on building disaster resilience through awareness and the 2004 Africa Regional Strategy for Disaster Risk Reduction aimed at promoting political commitment to disaster risk

reduction through discussions (Prevention Web, 2004). Currently, there is the Global Initiative on disaster risk management commissioned by the German Federal Ministry of Economic Development and implemented by GIZ in cooperation with Southern African Development Community (SADC) Secretariat to strengthen their disaster risk reduction unit. It also globally contributes to the implementation of the current 2015- 2030 Sendai Framework for Disaster Risk Reduction which is adopted by United Nations member states as a blueprint on how to make communities safer and more resilient to disasters (GIZ, 2021). There is also the Africa Strategy for Disaster Risk Reduction Extended Program of Action and the SADC Regional Indicative Strategic Development Plan 2020- 2030 (SADC, 2020), which recognises the critical role of disaster risk management as a cross-cutting priority.

According to Lukamba (2010), the increasing frequency and magnitude of hazards and disasters is a threat globally but especially to Africa's economic and sustainable development. These disasters tremendously affect lower- income countries, hence why Sub- Saharan Africa is more disaster-prone. Almost two thirds of the countries in Sub Saharan African have been designated as "fragile" (Baah and Lakner, 2023). The fact that disaster risk is not given due consideration in Africa and not at par with the required international practices in disaster management is a real cause for concern (Bang 2014; Fraser et al. 2017). Section 2.3.2 discusses issues in co-coordination and administration that among others, speak to failure to align national disaster management/ disaster risk reduction plans to international best practice disaster management frameworks. Failure to prepare can cause serious disruptions which can affect the ability of communities to recover, especially the poor (Maripe and Setlalentoa, 2017).

A study in Botswana on the evaluation of the national disaster management strategy and planning for flood management and impact reduction in Gaborone, Botswana, found that the country has a disaster risk management institutional framework in place. It is meant to operate at three levels being the national- headed by the National Disaster Management Office within the Office of the President, as well as district, and community/ village levels (Samuel et al. 2022). Similarly, in Turkey, a study by Caymaz et al., 2013) on disaster and emergency management highlighted that disaster management was governed by three institutions until 2009, being the General Directorate of Disaster Affairs, General Directorate of Civil Defence, and General Directorate of Turkey Emergency Management under Prime Ministry. They thereafter united under the Disaster and Emergency Management Presidency, with central and provincial levels. Chong and Kamarudin (2017) stated that in Malaysia, disaster management

is under the National Disaster Management Agency. Their disaster risk management hierarchy is organised under the federal, state and district levels. In South Africa, the National Disaster Management Centre, is responsible for monitoring the implementation of multidisciplinary disaster risk management in various institutions (National Disaster Management Centre, 2008). Bang et al. (2019) also stated in their study on disaster risk reduction and their disaster management framework in Cameroon that, the Directorate of Civil Protection within the Ministry of Territorial Administration spearheads disaster management initiatives. All these studies found that the stakeholders in disaster management should include over and above government, private institutions, nongovernmental organisations, experts, and the communities among others (Bang et al., 2019; Chong and Kamarudin, 2017; Samuel et al. 2022).

Bang et al. (2019) found that all respondents who worked in agencies and ministries directly involved with disaster management and its implementation, found it difficult to identify any plans or policies relating to disaster risk reduction. They mentioned that there is however various guidelines and legislation within government and the private sector that are used collectively for this purpose. These are however at times disaster driven, such as Law No. 86/016 of 6 December 1986 which was put into place to enhance civil protection following the Lake Nyos disaster. Here, 1746 people were killed by suffocation from a massive release of lethal gases from Lake Nyos (Fogwe, 2010). There is also Decree No. 98/031 of 9 March 1998 which was aimed at strengthening emergency management and relief plans following a train crash which killed several people after the petrol it was carrying ignited in the Nsam neighbourhood.

The compilation of several policies and legislation to implement disaster risk reduction as addressed above, is like that of the Botswana context, where there is no dedicated disaster risk management legislation according to the National Disaster Risk Management Plan 2009 (Prevention Web, 2011). Due to this, implementation of disaster risk management actions is currently supported through related legislations and policies. These include the Constitution of Botswana, the Emergency Powers Act (CAP 22.04), and other national laws such as the Building Control Act Cap (65:02), Agrochemicals Act Cap (35:09) and the Education Act Cap (58:01), among others. Botswana does however have a National Policy on Disaster Management 1996, there is also the National Disaster Risk Reduction Strategy 2023- 2018 as well as the National Disaster Risk Management Plan 2009 (Samuel et al., 2022). It is however noteworthy to mention that the strategy reached its design life in 2018, and the national plan

has not been evaluated and updated since it was developed in 2009. In Malaysia disaster management is regulated by Directive No. 20, which is a national policy and management mechanism (Chong and Kamarudin, 2017) and during publication of their study, it was in the process of amendment. According to Bang et al. (2019), at times, legal instruments are used to enforce certain actions to remedy the effects of disasters. For instance, Law No. 86/ 016 of 1986 prescribed that there should be creation of a national observatory for disasters with local branches to pay close attention to areas that are disaster prone. The prescription of building a national observatory was a good effort by Cameroon in being proactive and enforcing mitigations however, this has not been done more than 30 years later.

In considering the actual practices/ activities carried out by implementors, Ikavalko (2005) found in her study on the practices and logics of action of middle managers in strategy implementation that, the most used practices were informal discussions and networking, followed by meetings and performance appraisals. Due to the dominance of informal discussions in what she termed "enabling experiences", there can easily be a conclusion that many strategic activities occur in the corridors, work, and coffee rooms. In the same light, Balogun (2003) highlights on the pertinence of informal processes of communication when it comes to sensemaking.

According to Jarzabkowski (2003) and Whittington (2003) practices may be routinised in things such as organizational charts, models like the SWOT analysis or even habits. They may be routines prevalent in the organization's formal strategic methods, seen in corporate culture and systems (Whittington, 2002). Suleiman (2018) in relation to their implementation of disaster management strategies in secondary schools in Nairobi, Kenya, explained that elements of structure which include resource allocation, communication, and management controls among others, must be incorporated with behavioural aspects such as leadership and commitment to bring what is on paper to life. The research further explains that a strategic plan needs to be incorporated into an organisation's daily routines such as meetings and development plans. In addressing the first research objective, this study collected data on the activities, processes and resources used in implementing the disaster risk reduction strategy in a Botswana context.

2.4.2 Status Quo: Coordination and Administration

As discussed above, many countries have put into place several initiatives to address disaster risk reduction however, implementation is still not without challenges (Fraser et al., 2017). Most countries in the African continent do not have adequate disaster risk reduction measures in place. The common themes are around the fact that countries do not have national disaster risk reduction budgets and budget monitoring systems, mitigation is not given due consideration in national plans and that information dissemination is not up to scratch, among others (Ashu and Van Nierkerk 2019; World Bank 2018). Achieving goals depends on the effort put into planning and coordination of disaster risk management at different levels in administration.

2.4.2.1 Top-Down vs the Bottom-Up Approach

Coetzee & Van Niekerk (2012) explain that both the top-down and bottom-up approaches can be incorporated into disaster risk management. The researcher believes that a combination of these approaches in disaster risk management would allow for inclusion of the interests of all affected stakeholders equally. Isidor and Sabran (2016) define a top-down approach as that which starts with a decision made by top management and then communicated to the central agencies or implementors to put into action. The bottom-up approach conversely focuses on the engagement and participation of the local community and stakeholders in goal setting and planning (Isidiho and Sabran, 2016). However, Chong and Kamarudin (2017) identified that Malaysia still cannot find a balance between disaster management top-down and bottom-up approaches. They found that perhaps there has over the years been much focus on expertise and less importance placed on the involvement of the community in disaster risk management. All the 79 agencies they identified only apply the top- down approach with only four of those also incorporating the bottom-up approach by engaging local communities. Bang et al. (2019) found that Cameroon also has a challenge in the bottom-up communication among managers before and during crises. Samuel et al. (2022) participants mentioned that the development of strategies and plans involve consultations with sectors at the highest levels and rarely involve the community who are often mostly affected by disasters.

2.4.2.2 Disaster Risk Reduction and Disaster Management Documents Do Not Meet the Required International Standards

Caymaz et al. (2013) found that the National Earthquake Strategy and Action Plan 2012-2023 in Turkey, is not comprehensive, applicable, and sufficient for the management of disasters, in comparison to other plans and actions for instance, the Group of Seven countries individual disaster management plans, the Hyogo Framework for Action 2005-2015, as well as the discussions at the Rio + 20 United Nations Conference in 2012. Likewise, Ashu and Van Nierkerk (2019) explained that Cameroon has had limited success in aligning themselves with disaster management frameworks both regional and international. Samuel et al. (2022) also found that Botswana does not follow the Sendai framework which is the current United Nations guiding framework for disaster risk reduction. Policies and strategies by international development organisations are meant to guide the trajectory of national disaster risk reduction plans put into place by member states. A misalignment between objectives set by these multinational organisations and national strategies can lead to delayed attainment of strategic development goals related to disaster risk reduction.

The preparation and design of mitigation plans is another contentious issue. Caymaz et al. (2013) explain that the National Earthquake Strategy and Action Plan 2012-2023 as its name implies, only focuses on earthquakes although Turkey is known to experience several other disasters in different areas. Furthermore, the existing short-, medium- and long-term objectives are questioned regarding their relevance in line with the current disaster management needs of Turkey. The environment changes, and so should the plans, to adapt and be proactive.

2.4.2.3 No Clear Lines of Communication

Minimal co-ordination between all levels of disaster management implementation prior to disasters, means that there are hardly any/ there are minimal disaster risk reduction or preparatory activities. Bang et al. (2019) report that 70% of the respondents highlighted that this is the situation in Cameroon mainly because disaster management legislation has no guidance and clear communication channels when it comes to stakeholder engagement. Equally so, Chong and Kamarudin (2017) found that there is no evidence in reference to the Directive No.20 and other documents on how often the committee is to meet to address issues of disaster management in Malaysia.

2.4.2.4 Cooperation Among Stakeholders

The issue of cooperation and coordination between the different stakeholders is also not implemented properly, although this is one of the most important aspects in disaster management. Cheema et al. (2016) highlighted, that disaster management is multifaceted as it involves collaboration between various actors to implement strategies throughout its cycle. In Botswana for instance, strategy does not explain how reducing hazard levels and hazard probabilities will be done neither does it identify the relevant stakeholders for each activity (Samuel et al., 2022). The strategy in Botswana is an intended one and thus, should cascade. The lower levels will always look up to the national level for guidance and if nothing is clear, the strategy will fail**.** In line with this, some researchers continue to highlight the importance of minimising bureaucracy and empowering local communities to prepare for and manage potential hazards (Rumbach and Foley, 2014; Westley et al., 2008).

2.4.2.5 Responsive

When it comes to the disaster management cycle, Chong, and Kamarudin (2017) explain that the country is focused more on response as opposed to being proactive. Out of 79 disaster risk management agencies, a majority of 63 was focusing on responsibly providing services such as food and water, medication as well as communication and logistics following a disaster. Only 25 agencies were involved in both preparedness and response in disaster management. Reduction or mitigation efforts often remain theoretical, and this is a very common theme among many countries. Cheema et al. (2016) explain that in Pakistan, before the 2005 earthquake, policies were focused on short-term response and relief goals of response, ignoring planning for mitigation and preparedness, that among other things include capacity building.

2.4.2.6 Lack of Resources

For some countries, a lack of focus on all stages of the disaster management cycle could because of the lack of resources in disaster management. For instance, not mainstreaming disaster risk reduction into national development plans or enshrining its budget into legislation as in the case of Cameroon (Bang et al. 2019), impacts on the budgetary allocations to the relevant ministries and agencies. 70% of the participants in Cameroon stated that relevant

stakeholders do not have much interest in making budgetary provisions for disaster management matters because that is not considered part of their roles. A very interesting twist on this was explained by Van Niekerk et al. (2013) to say, not only are the resources limited but, public leaders often lack the skill to properly allocate resources and funds to disaster mitigation. Similarly, in Botswana most participants explained that it is difficult to implement the disaster risk reduction strategy and initiatives because of the limited political buy-in and financial support (Samuel et al. 2022). As a result of this, most times Governments step in post disasters to provide financial support which is often limited. The lack of resources negatively affects disaster risk reduction planning (Cheema et al., 2016).

2.4.3 Way Forward

2.4.3.1 Performance Measurement

Akyon and Erenel (2013) explain that studies have found that it is often not clear what objectives are based on and how performance is measured. Hence, they recommended that new strategic plans should have performance-based measures, which are most times missing in action plans. In addition to this, United Nations Development Programme (2022) explains that there is limited evidence with regards to the reducing vulnerability to disasters in Botswana. This could be because of what Samuel et al. (2022) found, that it appears as though strategy goals are not achieved on the ground in Botswana. They could not identify any programmes that spoke to how disaster risk reduction was incorporated into at national, district, community levels. Thus, there needs to be measures in place to gauge success and whether countries are on the right trajectory.

2.4.3.2 Evaluating and Updating Plans

Countries should have pro-active strategies being reviewed regularly by the relevant stakeholders to keep up with current emerging challenges (Caymaz et al., 2013). Some policies and strategies do not fully address today's important and relevant issues in disaster management, including gender, disabled persons, the youth, and issues of climate change. A study in the Chobe region in Botswana by Ngozi (2019) similarly calls for an approach that is gender sensitive when it comes to disaster risk reduction policy implementation. This is because for instance, genders are not affected the same after a disaster, the needs differ and

hence that should be studied carefully. The study goes on to recommend that both genders should be involved in developing and implementing disaster risk reduction strategies, policy, and practice. Caymaz et al (2013) recommended that in Turkey, development of a new strategic plan should be guided by international standards and specifically suited to key issues identified in that country. They advise that the disaster management authority, should come up with a new strategic plan that includes both preparedness and response to the different types of disasters experienced in the country and all institutions must revise their own plans and objectives guided by it.

2.4.3.3 Mobilisation of Resources

Bang et al. (2019) recommend that early warning systems should be enshrined into disaster management legislation, supported by provision of all necessary resources as well as political commitment. Samuel et al. (2022) believe that complex disaster risk reduction work should be given to experts in the field, such that important programmes like early warning systems must be the responsibility of scientific research institutes. Over and above that, they believe that government must invest in more scientific investigations on disasters to stimulate and strengthen disaster mitigation strategies. Lastly, capacitating local communities allows them to own the strategies and perform to the best of their abilities to protect their own (Righi et al. 2021).

2.4.3.4 Long- Term Planning- Recovery (Post-Disaster) Initiatives

Chong and Kamarudin (2017) found that a few of the agencies in their study paid attention to measures needed in the recovery, and reconstruction phase. These were around the reconstruction of critical infrastructure including road and public amenities and none were on the reconstruction of individual assets, such as residences. The recovery/ reconstruction phase is important as it allows for affected individuals to resume to some sort of normalcy and stability (Balcik et al. 2010). They capacitate the most vulnerable and affected to better anticipate and better plan for possible future disasters, hence increasing disaster resilience and reducing the possibility of future losses.

2.4.3.5 Stakeholder Engagement

Bang et al. (2019) recommend that disaster management plans put in place should have clear responsibilities stated for all stakeholders. These stakeholders should be trained at all levels to ensure that all parties concerned are prepared to deal with roles throughout the disaster management cycle. Likewise, Trainor and Subbio (2014) discuss the implementation of a strategy that involves participation from over and above government, non-for-profits, disaster and emergency management businesses and the community. Samuel et al. (2022) also explain that all stakeholders including people at the community level should be involved in strategy, plans and policy formulation because they are in most cases, always the first victims (of floods, which their study was focused on). Government cannot address disaster management alone, there has been acknowledgement on many governments' limited capacity. This will, however, likely not change the expectations citizens have on government's accountability when it comes to implementing actions to protect them, transparency and providing for the affected.

2.5 Perceptions on Public Sector Strategic Management

2.5.1 Strategic Management in the Public Sector

Some of the literature has emphasised the importance of strategic thinking in the public sector over the past decade (Elbanna et al. 2016; Fertile and Ongaro 2015; Hansen Rosenberg and Ferlie 2016). Some authors look specifically into the application of strategic management (Bryson 2004; Drumaux and Goethals 2007; Ferlie 2003). Lynch (2018) defines strategic management as a long-term, rounded approach and strategy for an organisation throughout the various stages of its development. Ferlie and Ongaro (2015) and Hansen et al. (2016) explain that there are various theories pertaining to public sector strategic management. Most of them have however focused on among others Porter's five forces approach (Hansen et al., 2016; Johansson, 2009), the Miles and Snow (1978) approach while others have investigated the resource-based view (RBV) (Bryson et al., 2007; Hansen Rosenberg and Ferlie 2016). Strategic management is an important tool because the environment is always changing, hence organisations need to align their structures and long- term plans with their capabilities and environmental requirements (Joyce, 2015). Choi (2008) also emphases on this and explains that there also needs to be a continuous interaction between an organisation's behavioural features such as its power structure, capabilities, and its type of leadership (Ansoff, 1979). All

these enable organisations to be more proactive, initiating activities that affect control over building for the future.

According to Bryson et al. (2010) and Poister (2010), strategic management and strategic planning are often used interchangeably in public sector strategic management literature, however, strategic planning often refers to formulating strategy while strategic management is concerned with all the stages of formulation, implementation as well as evaluation of strategy (David and Forest, 2017). This is in line with the definition by John and Bert (2020) that public strategic planning is a strategy formulation approach that looks at matters relating to the external and internal analysis of the organisation and coming up with ways to tackle these matters. They further explain that even though strategic management and strategic planning have separate standard approaches, they seem to be hybrid. Bryson (2018) and Poister (2010) discuss that research in the two areas should, however, clearly bring out the situations they are applicable, how they should be applied and why the selection of the chosen approach.

Public sector strategy is not just useful for competitive advantage as in the private sector but is instead useful in improving the provision of services to the public by a government department/ agency. Similarly, Bryson (1999) and Moore (1995) assert that, for businesses, strategic management seeks for a growth in profitability while in the public sector, it is all about increasing organisational value through effective activities and efficiency in performance. Several scholars have however agreed that in essence, strategic management in both the public and private sectors is largely about answering the following questions; where the organisation is, where it wants to go, how it will get there and how it ensures that it gets to where it wants to go (David and Forest, 2017; Denise, 2000; Hoglund, 2015). However, Hassan et al. (2010) concluded that private sector strategic management techniques should not be carelessly applied in the public sector without the necessary adjustments because the two contexts are very different, considering political, social, and cultural aspects.

2.5.1.1 Strategic Management Process in the Public Sector

A lot of tools and procedures are used by public sector organisations to anticipate circumstances that could occur in the future and ways to adapt and interact with them, based on the present knowledge and understanding (Durh and Judh, 2012). The strategic management cycle follows a sequence of steps from determination of the strategy to identifiable outcomes.

Abosede et al., 2016) explain that strategic management is divided into four phases: strategic analysis, selection, implementation, and evaluation. Slightly different from the above in terms of wording, Farid (2022) identifies the different stages as environmental scanning, formulating the strategy, strategy implementation and strategy evaluation. Johnsons et al. (2011) only emphases on three main phases; strategic analysis, strategic choice, and strategy implementation.

There appears to be no universal model of the strategic management process. Although various authors have named the processes differently with a different number of stages, they essentially come down to a similar sequence of steps and principles. David (2009) model, on figure 2.1 below, speaks to strategy formulation, strategy implementation and the strategy evaluation process. The main difference between the David (2009) model and others is that it does not highlight the initial strategic analysis/ environmental scanning/ situational analysis as a main stage, that is included as part of strategy formulation. It, however, covers all the major steps that must be met during the process and shows that the process is a continuous activity. Arrows on the figures show that it is a two-way process meaning that organisations at any point during the process can back track instead of having to complete the whole process to make amendments. For example, if during implementation the organisation realises that the chosen strategy is not feasible, they can back track to the selection point as opposed to advancing to the evaluation stage and having to start the whole process from the beginning.

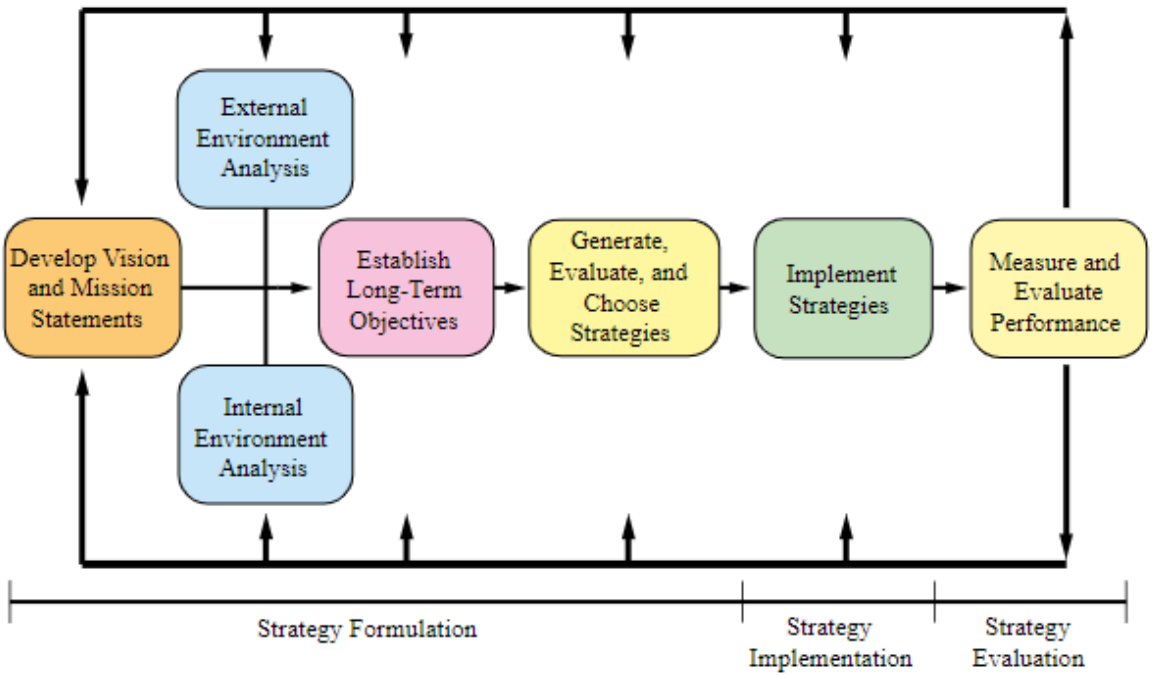


Figure 2.1 Model of the strategic management process

Source: David (2009), p. 46

Below is a detailed explanation of the stages identified on Figure 2.1 above.

- **Strategic Formulation**

According to David (2009); Höglund, et al. (2018) and Kabeyi (2019), this stage entails making long-term plans to manage an organisation's opportunities and threats, in relation to its strengths and weaknesses. Similarly, Mintzberg et al. (1998) mention that it is all about formulating organisational strategies using a combination of long- term thinking, the analysis of goals and organisational priorities. Poister (2010) believes that it is done with an aim to plan for future direction to safeguard viability and efficiency. Well- fitting strategies address the important issue of reaching an intended destination and the means of how to do that. They build on an organisation's resources and abilities and investigate the anticipated changes in the environment. In line with this, Mintzberg (1994) explains that planning is an essential part of strategy, strategic design is largely based on predetermination, that is the idea that the future can be programmed in advance. Quinn (1980) discusses that the basics of a strategic plan should cover the vision, (where?), mission (why?), goals (what?) and primary means (how?)

Following the clearly set out organisational vision and mission, there should be an in-depth strategic analysis which involves an analysis of the organisation's environment.

Strategic planning has its foundations in the examination of the physical environment but most pertinently, in the public sector gives an in-depth perspective on the micro and macro developments within government (Archibugi, 2008). The micro level planning incorporates an assessment into an organisation's internal environment. An organisation or government as in this research, can succeed based on the combination of its unique resources in pursuit of fulfilling its mandate and creating value for society. Barney et al., 2011) explains that in the private sector, inimitable resources and capabilities gives a business a competitive edge over its rivals, however in the public sector, the lack of competition means gathering resources for the purpose of surviving and being relevant in policy processes as prescribed by political bureaucracy (Peters, 2010).

A successful situation analysis is followed by the establishment of long-term objectives which serve as directions for specific strategy formulation and selection. They define what is expected at the end of planned action and what is meant to be achieved and when that attainment of goals should be measured. Bryson (2011) and Thompson and Strickland (1998) explain that the accomplishment of such objectives, should result in the realisation of the organisational mission. The term goal is interchanged with the term objective, however, a goal is often open ended and explains what one aims to achieve without quantification of what is to be accomplished and a time frame of when it is meant to be achieved, while an objective often must be task-oriented and begin with the word 'to' (Wheelen & Hunger, 2012). Following the development of strategies as guided by the set objectives, managers can evaluate and choose between several strategic alternatives. Other organisations have assumed or intuitive strategies that can be identified through observing what management expresses and does, for instance, looking at policies, approved and disapproved programmes and authorised budgets.

- **Strategy Implementation**

Following strategic planning is implementation, which is also a major determinant of a successful strategy (Johnson and Scholes 2001; Joyce 2000; Poister 2010). This is the stage of the strategic management process that this study is focusing on. Some strategies which are termed deliberate are put into action as initially planned, others are realized in other ways, some

never (Mintzberg 1994), while emergent strategies develop along the way (Mintzberg and Waters 1985). Porter (1980) explains that implementation is all about figuring out how best the chosen strategy can be put into action, considering the organisational structure, resources, the processes, and the management of strategic changes. Strategic plans must be converted into operating plans that guide the organisation's daily operations. They must not be on a shelf gathering dust, as even sound strategies can fail if not implemented effectively. Governments are mostly known to fall victim to this. Mwiza and Dinko (2022) explain that communication is also an essential part of the implementation process as it is pertinent that introduced strategies must get support throughout the organisation. The researcher believes that the following implementation steps as adopted from David (2009) are generic and can apply to the various implementation levels of the Botswana disaster risk management institutional framework. They consist of:

1. The setting of yearly objectives.
2. Revision of plans to meet the set objectives.
3. The allocation of resources to areas which are strategically considered important.
4. Organisational structure changes to meet the new strategy.
5. The managing of resistance to change; and
6. The introduction of a new reward system for performance results (if needed).

- **Strategy Evaluation**

Implemented strategies need to be monitored and evaluated for their implementation to be successful (Plant, 2009; Poister, 2010). This is because undergoing the planning process without control does not have much operational value. The strategic process is always changing due to changes in the organisations internal and external environments, and it is never at a constant rate. Hence there must be regular adjustments and fine-tuning as new strengths, weaknesses, opportunities, and threats arise. If there are a new set of circumstances discovered that affect or could affect the organisation, managers must address them as soon as possible. David (2009) explains that evaluation provides feedback on a strategic plan's progress at implementation and thus, organisations can reorient strategies at the strategy formulation phase, based on evidence gathered.

Measuring performance and its reporting is an important aspect of strategic management in the public sector (Weiss 2016), particularly in monitoring and evaluating strategy. Performance must be able to be measured as well as compared, that is, comparing actual results against planned results. It may be a bit tricky to do this in the public sector because there may be less of a direct connection between the effort put in and the outcomes. Measuring performance brings strategic management closer to performance management, which basically focuses on the setting and management of objectives; here strategic management not only occurs at planning but also at the operational level (Poister, 2003). David (2009) explains that if the evaluation reveals that goals are not met, the following corrective actions should be taken:

1. The reward system should be changed; or
2. There should be an introduction of new or revision of existing policies.

2.5.2 How Strategic Management in the Public Sector has Evolved.

Bryson and George (2020) and Choi (2008) highlight that the private sector has long adopted an strategic management approach since the late 1970's, while the public sector appears to have lagged. In line with the above assertion although differing in timelines, Sterib and Poister (1990) declare that strategic planning appears to have been in use from the 1950's, initially in the private sector. It increased in popularity between the years 1960-1970 and finally got the public sector attention after 1980. In contrast, Magrebi, (1999) mentions that the public sector long adopted strategic management in the 1950's, where it was first applied among Western countries and moved to developing countries. In essence, while strategic management seems to have been triggered many years ago, we can safely say that public sector took longer to jump on the bandwagon but has grown in leaps and bounds over the past few years (Johnsen, 2016; Kay et al., 2003). Since the 1980's public strategic management theory has developed gradually from a framework that focused largely on strategic planning to where strategic planning influences budgeting, performance management (Patton, 2008 and Radin, 2006), and improvement initiatives (Moynihan, 2008; Patton, 2008). Now there is emphasiss on Information and Communication Technology (Yang and Melitski, 2007), as well as the development and alignment of an organisation's mission, strategies, and operations with big initiatives such as new projects, policies, or programs. While also paying careful attention to stakeholders who benefit from the organisation's resources and outputs (Bryson, 2004; Poister & Streib, 1999). Other identified management improvements include focusing on customer

satisfaction measures, benchmarking and decentralised decision making among others (Bryson et al. 2010).

This growth of public strategic management was evoked in part by administrative reforms in the USA during the 1990s at all levels of government (Hood, 1991; Light, 1998; Pollitt & Bouckaert, 2004). The researcher identified forms of modifications that were introduced and have contributed to the establishment of the foundations of strategic management in the public sector such as New Public Management, Collaborative Management and E-government and others (Ansell & Gash, 2008). The New Public Management encompasses some business- like elements to strategising in the public sector (David, 2007; Streib and Poister, 1990). However, it is reported to be obstructing strategic management due to its short- term nature and being output oriented as opposed to being long-term with outcome-oriented results (Bevan and Hood 2006; Lapsley 2008; Smith 1995). Aspects such as profits and competitive advantage that are aligned to private sector theories, are not suitable when it comes to the public sector (Bevan and Hood, 2006; Ferlie and Ongaro, 2015; Poister, 2010).

2.5.3 Challenges in Strategy Implementation in the Public Sector

Johanson (2021) explains that there are many challenges in the present day when it comes to applying strategic management in the public sector. According to Faull & Fleming (2005) and Pella et al. (2013), significant challenges are often faced at the strategy implementation stage. In line with this assertion, Hoglund et al. (2018) mention that the public sector often has characteristics that lead to conflicts and tensions when applying strategic management in practice, and this could be because of several external and internal interests that must be met at once. Some of the challenges identified in implementing strategy include failure in communicating the strategy, failure in translating the strategy, implementation taking longer than anticipated, inadequate training as well as the lack of the required management capabilities (Flood et al. 2000; Verweire, 2018). Hakan (2016), in his study on strategic planning in the public sector in Turkey, argued that strategic planning can be ineffective when dedicated practitioners have poor analytical and problem-solving skills. Similarly, a study by Mutasa and Coetzee (2019) in Botswana argued that the integration of disaster risk reduction initiatives into the primary school curriculum is hampered by not being able to identify an appropriate teaching method that addresses this.

On the issue of human resources, Arshad et al. (2021) believes that perceptions that employees have, primarily affect implementation as they guarantee sustainability and success. This is accordance with what Smith (2011) found that there are varying perceptions on the implementation of plans between managers, employees, and owners as well as how they view the incentives that come with successful implementation. The second objective of this study will explore the perceptions of implementors at all levels of the disaster risk reduction institutional framework on the implementation structures and initiatives prescribed by the national disaster risk reduction strategy. Below, some of the other challenges identified in literature are discussed in more detail.

2.5.3.1 Long Term Strategic Plans Against Short Term Management Controls

In their study on strategic management in the public sector- how tools enable and constrain strategy making, Hoglund et al. (2018) participants spoke to the fact that the long-term strategic plan put in place was not in alignment with the management control tools which focus on a short- term perspective. Tools such as the budget, scorecard as well as their operational plan have a one to three years' timeframe, constraining strategy work which is meant to create stability with a more long-term focus. This making the work of strategists difficult to validate due to short term perceptions (Steiss, 2019).

2.5.3.2 Political Interference

Bryson et al. (2010) explain that government organisations are often compromised due to dealing with pressure from those in power, members of political oppositions as well as different interest groups. In as much as public leaders' focus should be on policies and their implementation, and not so much in dealing with political struggles, dealing with matters from a strictly technical point is a fallacy. Some of these pressures are ill-suited and meant to delay/ stop effective action. The bureaucracies are meant to at times make it difficult for political opponents to make policy changes or influence them somehow when gaining power (Moe, 1989). Considering this, Bunning (1992) reckons strategising in the public sector can turn out to be that which meets demands of those with in government power or funding bodies. Based on these, it is pertinent to understand that politics have great influence on whatever decisions are taken in government organisations and many these tend to be predefined.

Greener (2005) asserts that prior legislation can impede a major government change because most actions and how funds should be spent, is most of the time already stipulated in prior legislature. The restructuring and management processes are all influenced by existing legislation, and the fact that public sector managers do not have the power to amend these is an impediment to effective implementation. Bryson et al. (2010) adds that, public sector organisations might not have enough decision-making authority to strategically manage their operations.

2.5.3.3 Short Term Perspectives Due to Government Policy with a Short-Term Focus

Another reason for the short-term perspective is because although government agencies and departments formulate strategic plans and set objectives; they are managed by government policy which generally has a short- term focus due to who is in political power (Jin et al, 2016). Hoglund et al. (2018) explain that in Sweden for instance, elections are held every four years, and the national budget is set for one year at a time, leaving room for only immediate issues and their actions. Tamimi et al. (2018) found that one of the major issues presented when it comes to strategic management application in the Middle East countries, was the lack of effective and appropriate government policies and real commitment, because strategic management implementation requires long periods of time. Thus, the completeness of strategic management implementation is clearly affected by government policy.

2.5.3.4 Lack of Resources

Mutasa and Coetzee (2019) highlighted the lack of policy and resource support from Government as impediments. Tamimi et al. (2018) also identified the human and material resources availability as a major issue in the implementation of strategic management. In addition to this, Boyne et al. (2004) explain that available resources which speak to capacities and capabilities play a very important role in strategic management exercises. Conversely, Berry & Wechsler (1995) found that a lack of resources can at times encourage formulating a plan, embarking on formal planning process to mobilise the available resource and ensure that they are put to the best use.

2.5.3.5 More Theoretical than Practical

Bryson et al. (2010) found that there are many new tools developed for instance, those in place to understand the political aspects of strategic management such as identifying stakeholders and the engagement methods related to that, However, there is no clarity on whether these methods and tools are effective. Perhaps, this is in line with what Naschold (2017) describes that, in as much as there is a growing body of research on strategic management there is not enough practical answers as to what strategic management is in the public sector entails as well as how its effectiveness can be measured.

2.5.3.6 Reactive

In using their tools, government agencies and departments tend to be more reactive than proactive, they wait for government instructions to act (Hoglund et al., 2018). Although leadership often encourages them to be proactive (Lane and Wallis, 2009). According to Hoglund et al. (2018), this remains a problem although governments tend to give extra assignments to stimulate proactive behaviour. The reactiveness could be because of their internally driven perspectives, for instance, using operational plans and scorecards encourages an inward focus as opposed to being proactive and outwardly- focused, in the public sector (Williams and Lewis, 2008).

Lastly, Smircich and Stubbart (1985) as cited by Ikavalko (2005) are of the view that some strategy implementation problems are from the 'Field's inattention to the fundamentally social nature of the strategy formation and organization processes' Ikavalko (2005, p. 11).

Section 2.7 of this write up looks at Strategy-as-practice as an alternative perspective to traditional strategy which considers the social nature of the strategic management process.

2.6 Way Forward: Integrating Strategic Management into Disaster Risk Reduction

Choi (2008) believes that strategic planning in national disaster and emergency management is an important tool that can be utilised to identify areas of capacity improvements, focusing on that which is important for successful implementation. Table 2.5 below classifies the benefits they identified in integrating a strategic management approach into disaster and

emergency management, and the descriptions. In as much as disaster and emergency management is post crisis and on the response phase of the disaster management cycle (not on the pre- crisis and risk reduction), the researcher believes that the guiding principles and lessons learnt by Choi (2008) can be applied in disaster risk reduction as well as generally in public sector organisations. Hence, contents from the table below will be used to discuss the benefits of integrating a strategic management approach into disaster risk reduction.

Table 2.3 Benefits of integrating strategic management into disaster risk reduction

Forward thinking	- Future time orientation - Relies on strategic planning - Long-term perspective - Attempts to link strategic and operational processes
Capacity Building	- Capacity building through organizational learning and adaptation - Changes organizational culture - Emphasizes creativity and promotes choice-making capacity
Goal Identification and Achievement	- Goal identification and achievement through strategic leadership - Long-term commitment required - Senior executive team primarily responsible for implementation
Professionalism and More Funding	- Certified professional training and discipline - More emergency management funding
Increased Public Support and Accountability	- Increased public support and accountability through consequence-interaction management mechanism and feedback systems

Source: Choi, S (2008)

Below is a discussion on each of the benefits:

2.6.1 Forward Thinking

Choi (2008) explains that in disaster and emergency management, connecting the operations of the organisation to strategic initiatives is very important. Strategic management enables organisations to think forward (strategic planning) by identifying opportunities and threats in preparation for the environmental changes that the organisation could have to deal with in future, it is forward looking. Furthermore, in strategy making, certain literature on strategic

management in the public sector brings in the Miles and Snow's (1978) typology which speaks to undertaking a proactive approach to improve performance (Andrews et al. 2008). Strategy in its long-term nature, should be focused on goals "beyond the horizon." Bryson et al. (2010) mention that managers need to find a balance between reaching too far into the future and short-term planning which can prove to be "too short "as it is constraining strategy work which is meant to create stability with a more long-term focus. Planning horizons that are too far into the future can prove difficult to be practically useful, this is because uncertainties in the organisation's environment can also multiply during this time or be completely different from what was originally imagined.

Under challenges in strategy implementation in the public sector, the researcher discussed how the short-term strategic perspective held by public sector organisations is because their strategic plans and objectives are managed by government policy which generally has a short- term focus. This is due to who is in political power (elections are held every couple of years). Hence managers must find a balance, an optimal time horizon when strategising and this is all dependent on the ability to clearly see into the future and come up with responses in preparation for that future. It is evident that a dynamic, more turbulent environment or one that has more constraints will result in a shorter planning horizon.

2.6.2 Capacity Building Through Organisational Learning and Adaptation

As in disaster risk reduction**,** emergency management in different countries is made up of various relevant government departments and agencies for instance the army, the police, the fire department, engineers, among others. It is therefore critical to understand and consider the different organisational cultures as being a determinant to successful strategy implementation. These are a set of shared values and beliefs, among others, developed over time as a mechanism to cope with adaptation and integration within an organisation, hence encouraging new members to perceive and think in relation to what the mandate of their organisation is (Schein, 1984). Acknowledging and understanding the different organisational cultures allows for cultivation of effective lines of communication among the relevant organisations. Effective decision making, teamwork and co-ordination in the various interconnected organisations, adaptation to changing environments and organisational learning are all very valuable to strategic management (Peter and Waterman, 1982; Schneider, 2005; Waugh and Streib, 2006).

2.6.3 Goal Identification and Achievement Through Leadership and Commitment

Strong and effective leadership is required for the effective implementation of strategic plans in disaster risk reduction. Effective leadership can lead and drive the organisational objectives, mission, and vision (Bennis and Nanus, 1985; Drucker, 1988). It is important to raise awareness about the value of the organisation's anticipated results, this can encourage team players/ employees to align their own goals and interests with that of the organisation. Leskaj (2017) in studying the challenges faced in the application of strategic management in public sector organisations, suggested the recruitment, retaining and promotion of competent, motivated employees whose goals are somewhat aligned to those of the organisations. As mentioned earlier under challenges, public sector managers are often compromised due to dealing with pressure from those in power, members of political oppositions as well as different interest groups.

They must integrate public value, political demands as well as their internal operational capabilities. The researcher is of the assumption that public managers have discretion in setting goals which are consistent with their environmental demands, as they change. Bryson et al. (2010), however found that public sector managers might not have enough decision-making authority to strategically manage their operations. Some of these possible goals maybe risker than others and some maybe more valuable in the long term, through all these, the quality of leadership can be seen through the value of the chosen path. Their analytical skills are displayed in the conception of their chosen path and their operational skills are displayed in exploring identified opportunities.

2.6.4 Professionalism and More Funding

Strategic management focuses on the organisational roles of a coordinator/ leader with a duty to foster relations at all levels within the organisation. It encourages leadership strategies that derive their power from effective organisational strategies and a well thought out and suitable vision as opposed to what the hierarchy prescribes and what the standard operating procedures are (Comfort, 2005; Waugh and Streib, 2006). Strategic leaders should be able to effectively plan and project for longer periods which according to Hoglund (2018) can promote fundamental new thinking and experiments in the improvement or development of new products, processes, and services.

Furthermore, to successfully implement disaster risk reduction, there needs to also be a resources commitment to for instance buy equipment, build emergency hubs as well as provide training and support to people who partake in disaster mitigation activities, among others. Choi (2008) in her study found that after the 9/11 attacks and Hurricane Katrina, funds were availed for procuring protective equipment for local responders however, none was provided for training on the use of the procured equipment, neither was there any funding for the planning nor determining of needs, to ascertain whether any capabilities that can be leveraged. A proper strategic management approach would have determined that there was a poor state of existing capabilities and recommend ways to improve capacity. Furthermore, strategic planning also enables teams to determine anticipated environmental changes that could for instance result in increased spending (for example, projected increases in workload) or an improvement in operations through increased investments.

2.6.5 Increased Public Support and Accountability

Strategic management encourages effective management controls that monitor the effective implementation of strategies and goals within an organisation. It focuses on highlighting that agencies need to be able to adapt to uncertain environments and expectations. This is termed consequence- interaction management orientation (Ramani and Kumar, 2008). These controls include internal control systems, management control systems and performance evaluation which monitor performance and give feedback used to take corrective actions and make necessary modifications in the current and future configuration of organisational resources. These often receive increased public support and government accountability (Choi, 2008)

Perhaps an example that speaks to increased public support and accountability is the Strategic triangle developed by the faculty at the Kennedy School at Harvard (Mark, 2021), is a framework to help managers in public sector organisations evaluate potential and actively pursue identified initiatives. It promotes the integration of politics, values, and operational management within organisations. The first point of the three which is public value, speaks to the importance of producing or delivering products/ services that are publicly valued. In addition to the value attached to it and the impact, it must be able to justify the expenditure of public resources on it. Their efforts must be connected to significant public values. The second point which is legitimacy and support speaks to the fact that what public sector managers

perceive as value must be able to attain support and backing from those in power and oversee operations. Without the required support from elected representatives and executives, the organisations will not have resources needed to continue operations for instance both funding and authority (Mark, 2021).

This support is also needed to reassure public sector managers that their visions of public value are understood. Hussey (2007) also states that political will and stability as well as the participation of stakeholders are very crucial in issues of strategic management accomplishment in the public sector. The last point is labelled operational capacity, and it is about focusing the public sector manager's attention on whether initiatives are administratively and operationally achievable. It addresses issues around available financial resources, human resources, procedures, facilities as well as performance measurement in the implementation of a particular new program. Another important element to public support is the ability of an organisation to maintain good status through making responsible and transparent decisions (Cooper et al., 2008). In the wider disaster management cycle sense, effective leadership is also pertinent, particularly in the face of instabilities caused by the ever-changing operational landscape, for instance, in times of crisis.

> During a negative event or crisis situation, a company needs to ensure that it has effective strategies and resources in place, to deal with it responsibly, efficiently to minimise losses in share price value and public perceptions of corporate reputation (Coldwell et al., 2012, p. 134.).

Coldwell et al. (2012) developed the 'Responsibility Compass' crisis management model and from this model are the 'Ideal Type Responsibility Compass Management Crisis Remedial Steps' as stated below (Coldwell et al., 2012, p. 139.):

1. Disclosing crisis event early and accepting responsibility.
2. Disclosing information openly to the media.
3. Selecting governance leadership to handle the event.
4. Rebuilding confidence.
5. Restructuring for credibility.
6. Demonstrating social concern.
7. Apologising publicly.

How government manages crisis through these steps, and the ethicality in which it does so strongly affects its standing and the trust that the public places on its credibility. These steps emphasise on the importance of timeliness, careful consideration of the resources availed during times of crisis, skills possessed by leadership chosen to communicate with the public, being transparent while avoiding panic, as well as the empathy shown to the affected, among others.

2.6.6 Assessing Performance

The aspect of assessing performance is not part of the factors identified by Choi (2008), however it remains pertinent in the public sector (Weiss 2016). It is difficult to measure the attainment of goals in the public sector in comparison to the cost of achieving them. Whereas in the private sector, seeing whether an entity is profitable can easily be measured by subtracting the costs of the produced goods and services from revenues earned from selling them. This is also difficult because not everything incurred in achieving public sector goals is financial. Moore (1995, p.6) stated that:

> Public sector enterprises often use public authority as well as money to achieve their results. Since there is a real cost (in liberty foregone) when public authority is used, it is important that public enterprises economise on the use of authority as well as money, and that the ends achieved be valued enough to justify these costs.

It is not easy to account for these costs however, the willingness of those in power to fund initiatives and their authority to achieve the goals can be used as a guidance in calculating the net value of a public sector organisation. This is in the same way that in the private sector, the willingness of customers to pay for a particular good or service is guidance of value. It however will not come without judgement on how public sector value might be corrupted or defective because the funds spent in the public sector are public funds. For this reason, Stiglitz (1985) explains that public sector organisations have resolved to using analytic techniques including evaluation of programmes and the cost- benefit analysis to try and get more reliable results. Basically, measuring valuable performance in the public sector remains unclear however, managers remain accountable for the attainment of operational goals, maintaining average costs low and eradicating or minimising waste or abuse in public sector organisations.

Bryson and Roering (1988) suggest that a successful strategic process requires the following: an effective strategic process sponsor, an effective strategic planning team, should be flexible and a willingness to consider different arguments that will pop up during the process. In addition to this, Bryson et al. (2010) state that strategic management in the public sector should give due consideration to the practice aspect and how knowledge develops and is used where practice is concerned. For strategic management to be useful to organisations in the public sector, they must be developed to articulate possible future events and the necessary responses to be applied rationally in practice. However, direction is still needed on ways to classify strategic issues in practice. Section 2.7 below addresses the issue of Strategy-as-practice as an alternative perspective to traditional strategy.

2.7 Strategy-as-Practice as an Alternative Perspective to Traditional Strategy

2.7.1 A Background on Strategy-as-Practice

Research on strategy practice is limited, particularly in the public-sector (Hansen, 2011). The researcher found that it is also especially scarce, if any, when it comes to its application in disaster risk reduction and disaster risk management, a gap that this study and hopefully many others that will come after will address. Johnson et al. (2003) discuss that strategising is linked to what is described as a process view in strategy. Perceiving strategy as a process tracks back to Mintzberg (1994), Mintzberg (1998) as well as Mintzberg and Waters (1985) and focuses on how strategic patterns are prone to changing over a period. As such, strategic management is concerned with routinized thinking, behaviours and actions that involve non-human and human actors and are brought together by sense- making principles that change over a period through how they are performed (Bryson, 2009; Latour, 2005). One can understand that the process of strategic management is a multifaceted one. For instance, Samra-Fredericks (2003) discussed how consequential to a decision, the talk-in-interaction between strategists is while Jarzabkowski and Seidl (2006) concluded on how the way in which a meeting is conducted is important to how strategy issues are brought up and gain momentum The researcher understands that some Strategy-as-practice studies falls into the trap of just simply micro analysing activities that comprise its object of study. But then the next question is so what should be done with that information? Micro level activities are pertinent in shaping the outcomes and the wider social accomplishment of strategic activity over time.

Strategy-as-practice started being prominent in the early 2000s after several influential theoretical (Hendry, 2000; Whittington, 1996) and empirical (Jarzabkowski and Wilson, 2002; Oakes, 1998) publications. Vaara and Whittington (2012) explain that it improves the traditional strategy perspective with the following; firstly, rather than only economic based theories, it recognises contributions from various sociological theories of practice, encouraging a wider engagement of strategic management with the social sciences. Secondly, it goes beyond what strategy research explains, presenting results such as the effects of strategy tools and the engagement of a certain kind of practitioner. Thirdly, it has broadened the types of organisations research is carried on. Strategic management research usually focuses on privately-owned, profit seeking firms (Ronda-Pupo and Guerras-Martin, 2011), however, Strategy-as-practice researchers have gone on to look at government institutions and programmes (such as this research) and not-for-profit organisations among others. Fourth, Strategy-as-practice has greatly managed to shift the methodology used in strategic management. Statistical studies with large sample sizes were preferred (Ketchen, 2008; Phelan et al, 2002). Now there is a shift toward qualitative methods mostly based on interviews at many organizational levels (Mantere, 2005 and Regner, 2003). Other methods used now include participant observation (Samra-Fredericks, 2010) and photography (Molloy & Whittington, 2005), among others.

Strategy-as-practice highlights that strategy should not only be classified as something that organisations have, but also what the various actors within those organisations do (Jarzabkowski and Seidl 2008).
'Strategy research seemed to have lost sight of the human being' (Jarzabkowski, et al., 2007. P. 6). Strategy-as-practice highlights that is important to understand the relations between practitioners and the practices they implement to develop the praxis of strategy.

2.7.2 The Three Research Parameters: Praxis, Practices and Practitioners

One of the major challenges in Strategy-as-practice has been to identify phenomena under investigation, and because of this, Whittington (2006) identified three research perimeters being: praxis, practices, and practitioners (Jarzabkowski, 2005). Below are in-depth discussions of the three:

Praxis

Reckwitz (2002, p.249) defines praxis as 'an emphatic term to describe the whole of human action'. Here the activity within the process is revealed (Brown & Duguid, 2001). It is an interconnection of activities between different individuals and the various institutions within which they act and where they contribute. This for instance means that praxis can be investigated at organisational level as a subtle activity such as mergers and acquisition behaviour in an industry, as well as at the micro level on an individual or a group of people who partake in mergers and acquisitions (Vaara et al, 2004). One of the main themes that studies under praxis have highlighted is strategic sensemaking, which traditional strategy research has been high level in addressing (Gioia &Chittipeddi, 1991).

A study by Balogun and Johnson (2005) studied managers' diaries to present how interacting informally that goes on daily amongst middle managers moulded the sensemaking for a strategic change, in ways beyond senior management control. By looking closely into praxis, studies such as Regner (2003) and Salvato (2003) show the likely importance of micro-level details including resources and capabilities that are often discussed at a high level empirically. Praxis may then be viewed as a pattern of activities that flows over a period, seen through the interactions of people and practices they partake in. The flows of activity are not singular, they may be intersecting, parallel or even competing and impacting one another (Denis et al, 2007). Jarzabkowski and Fenton (2006) for instance, found that deciding to globalise professional service firms allows them to accomplish several, potentially different streams of activity and that the various actors' interactions allow for mutual adjustments between these flows of activity.

Practice

Reckwitz (2002) defines practices as:

> Routinized types of behaviour which consist of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, 'things and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge" (Reckwitz, 2002: 249).

We can generally say that using practices is essentially linked to "doing" because they offer among others, the behavioural, procedural, and physical resources need for actors to relate to socially accomplish a goal. However, according to Schatzki (1996), it would not be sufficient to view practices as just what people do. There is much more that is involved than just doing when it comes to practices. Some early research classified practices as things like making telephone calls and having meetings (Mintzberg, 1973), workshops, frameworks including Porter's Five Forces as well as socio-material practices (Vaara and Whittington, 2012). Some might mention management processes, analytic tools, and rhetorical forms, although, it goes beyond such simplistic classifications. More than what they do, it is also concerned with how they do what they do, focusing on their individual situations and person-specific knowledge, as well as how the doing of those practices' shapes strategy.

Ikavalko (2005) argued that the strategy process in practice is not only about the official strategy, but also a repertoire of practices experienced as enabling by professionals (Ikavalko, 2005). Most of these tools and procedures are used in routinised ways, hence can be used to study the construction of strategic activities. For instance, the way in which practitioners use different forms of language in social practices of interaction can be studied to establish the restructuring of an organisation over a period (e.g., Balogun and Johnson, 2004) or to verbally construct consistency between different strategies (e.g., Jarzabkowski and Sillince, 2007). Other studies have also investigated how meetings are conducted (Jarzabkowski and Seidl, 2006), discursive interactions in that meeting (Samra-Fredericks, 2005), or how people show their interests and intentions within that meeting (Vuorela, 2005). These all mould the social aspect of strategy, more than just simply listing and classifying the various types of practices.

All these studies show that in as much as practices may be routinised as stated above, they can be changed. They are not rigid and connected in the same ways all the time, rather, they are variable and dependent on their use and the way in which they change the flow of activity when used (de Certeau, 1984; Orlikowski, 1996; Seidl, 2007). For instance, the "things" as Reckwitz (2002) refers to them (Gantt charts, whiteboards), may be applied in a routinised way but they contribute differently to different types of strategic activities depending on how and why they are used (Blackler et al, 2000; Sapsed and Salter, 2004). Thus, the type of practices, how they are used, how they change over time and how they shape praxis at different levels may be used in analysing the construction of Strategy-as-practice.

Practitioners

This focuses on the identities and roles of the various actors in strategising. Practitioners derive their influence through using their practices, these display the way they behave, their thinking as well as how much they know to act and influence the society within which they live (Reckwitz, 2002: 250). For this study in particular, practitioners are pertinent as they are meant to be fully involved in the building of activities that are significant in the disaster risk management institutional framework as well as its efficiency and effectiveness. However, Jarzabkowski et al., (2007) explain that classifying appropriate practitioners and conducting an analysis on their actions and how those affect strategic activity is multifaceted. They do this through who they are, how they act and what practices they partake in. Strategic management literature is still dominated by classifying strategy as a predominantly top-down approach where a formulated strategy is formulated by top management and then passed down for implementation, (such as how it currently is in disaster management in Botswana according to background research). Thus, focusing on top managers, their demographics and their processes around decision making (Hambrick and Mason, 1984; Papadakis et al, 1998). Using demographics that include educational background, gender, age, and tenure give off characteristics of a practitioner/ strategist but do not in fact give room to study actual behaviour (Pettigrew, 1992; Priem et al, 1999). They do not innately connect who a person is with how they act and the consequences of their actions.

For instance, Rouleau (2003) highlights on how gender impacts on the actions on practitioners and how they respond/ relate with others' actions. He explains that practitioner's identities that they bring into their work, may bring completely different experiences when it comes to how they shape strategy. Managerial demographic research can reveal that there are a few women holding executive board positions, while a study with a practice focus can show how and why gendered workplace identities, interactions and experiences therein may negatively affect experiences of board membership. That is, focusing on demographics can show a problem in who a practitioner/ strategist is however, practice research can investigate the roots on why there may be a problem. Traditional strategy has not gone beyond just focusing on demographics, to find out who they are and how this helps shape strategy.

Another important point to note is that when it comes to identifying strategists under Strategy-as-practice, strategy is not only considered as a deliberate, top- down approach, hence the

identification of a broader group of people as potential strategists and not just top managers as mainstream strategy typically does (Nag et al., 2007). However, this does not mean that managers are not considered at all. In fact, various research has concluded that there is still much to be investigated when it comes to studying them as participants in strategising than as only those who formulate it (Jarzabkowski, 2003; Samra-Fredericks, 2003; Pye, 1995). However, Strategy-as-practice has progressively identified middle managers and lower-level employees as significant strategic actors (Balogun and Johnson, 2004; Regnér, 2003). This is in line with this study, where the main participants are implementors of the disaster risk reduction strategy at district and village level. They are the middle managers and lower- level implementors on the ground.

Paroutis and Pettigrew (2007) have also found that corporate-level strategic planners have versatile roles in organisations, they are continually training and supporting business unit teams with their own strategies. Furthermore, middle managers have been identified as developers and communicators of strategy within their places of work (Mantere, 2008 and Rouleau, 2005). Because to this point the said actors do not have a formal role in strategy making, practice research focuses on the social, linguistic, interpretative, and personal knowledge aspects in which they may shape strategy (e.g., Balogun, 2006; Balogun and Johnson, 2005; Regner, 2003). Their influence on strategy may be unintended or they may not possess formal strategic authority, however, they are important in considering survival of the firm and competitive advantage. Thus, it is pertinent to identify them as strategic actors. There is budding literature that also considers external actors from the formal structure of the firm such as non- executive directors (McNulty and Pettigrew, 1999), customers (Lowendahl and Revang, 1998) as well as consultants, business gurus (Clark, 2004; Schwartz, 2004; Whittington et al, 2003), as actors who also have an influence in shaping strategy although indirectly. Considering lower-level employees and external parties as strategists may determine a variety of practices, for instance interpretative behaviour (Balogun and Johnson, 2004; Rouleau, 2005) and discourses (Jarzabkowski and Sillince, 2007; Vaara et al, 2004) that practitioners engage in, in strategy making.

2.7.3 Challenges in Strategy-as-Practice Research

Table 2.7 below details issues that were identified in 1968 by Bryson, Freeman, and Roering, that needed to be considered in strategic planning research and practice if strategic thinking

was to become central in public management. There is no denying that there has been progressive empirical work done on Strategy-as-practice as a field, however, based on available literature on the subject matter and it's review in this write up, these are directions that still need to be considered.

Table 2.4 Progressive work on Strategy-as-Practice

Research directions from Bryson, Freeman, and Roering (1986, pp. 79-81)
1. Governments need more experience and knowledge of strategic planning.
2. Most models of strategy are noncontingent in that they clearly do not specify the boundary conditions of the model or how each should be applied in specific circumstances.
3. Most process models of strategic planning do not provide much guidance on how to identify strategic issues.
4. Questions remain about how to formulate specific strategies for dealing with strategic issues once they are identified.
5. Most models of strategic planning are not formally or explicitly political, and yet the public sector typically is explicitly and legitimately a political environment.
6. Questions remain on how to deal with the plural, ambiguous, and often conflicting goals and objectives in the public sector. . . . A related question is whether or not mission statements ought to be prepared for public agencies in all cases.
7. Most models of strategic planning are not clear on how to link tools and processes. Many of the tools are actually antithetical to process.
8. The appropriate unit of analysis or application is unclear for many of the models.
9. The literature is not particularly helpful on how to engage in collaborative efforts at strategy formulation among different public organizations.
10. What is the appropriate role for the strategic planner?
Four new research directions
1. Models of public strategic management should attend more fully to the nature of practice.
2. Increased attention should be focused on the structuring and facilitation of organizational learning and knowledge management as an integral part of strategic management.
3. Greater attention should be devoted to how strategy knowledge develops and is made use of in practice.
4. Information and communication technology should be better integrated into government strategies.

Source: Bryson, Berry, and Yang (2010), p. 5

As mentioned above, considerable progress has been made from the above however:

- There are many tools in place to identify strategic issues but knowing when to apply them and practically how, remains unclear. Guidance is still required on how to apply these in practice.
- There are a lot of public sector strategy typologies identified, however, tests of these in practice are inadequate and mainly limited to work by Boyne and Walker (2004). These typologies show strategy as something an organisation has and not something that humans and non- human actors do (Johnson et al., 2007; Latour, 2005).

- There are tools developed to address the political perspectives in strategic management, such as stakeholder analysis and engagement tools, but just how effective these are in practice remains uncertain.
- There is still little research available on what organisational level it is best to apply and analyse strategic planning and strategic management perspectives and models when it comes to both research and practice.

2.7.4 Way Forward in Strategy-as-Practice Research

The following address what needs to be done to advance public sector strategic management research and practice. It is, however, important to understand that Strategy-as-practice does not prescribe anything that is certain but rather, continuous improvements are because of constant reconstructions by the activities of practitioners involved.

2.7.4.1 The Available Public Sector Strategic Management Models Should Be Further Developed to Fully Include the Nature of Practice

As noted earlier, there are many models and approaches that address strategic management in the public sector, but these seldom have been tested on their applicability and usefulness particularly from a practice perspective. Discussions around these often cover illustrations of applicability as opposed to careful tests. Models today should include an identification and analysis of stakeholders, reasonable practical analysis, an amalgamation of concepts and should be able to be used in a timely manner (Eden et al., 2009).

2.7.4.2 There Should Be Greater Attention on The Development of Strategy Knowledge and Its Application in Practice

Bryson et al. (2010) are of the idea that public sector strategic management research should carefully consider a multifaceted approach in the making of strategy. Johanson (2009)'s three methods of strategic formulation in the public sector, have considered the various processes that go into the formulation of strategy and their interactions with other organisational features. They emphasise on rational planning, the deployment of internal resources, capabilities, and external networks. Although this model has not be extensively tested for validity, the

expectation is that there will be different approaches to the management main roles and social capital within organisations. As discussed earlier, other areas of interest include the control that public sector managers have over organisational strategy against how much of that strategy is imposed on the organisation, for instance Johanson (2009, p. 876) highlights that "Both ex ante and ex post political control bind public managers. There is little room for strategy formation at the top management level within agencies, the choices being carefully restricted in advance and the outcome scrutinized in detail."

Meier et al. (2006) found that school districts that applied a defender strategy (that is, concentrating on accomplishing prescribed mandates) outperformed those that applied the prospector strategy (that is, experiments linked to entrepreneurial approaches). In contrast, Andrews et al. (2006) concluded that English local authorities pursuing the prospector approach did better than the ones applying the defender's approach. These show the pertinence of an analysis into organisational context and the various indicators of organisational goals. It is important to know priorities for specific organisations in specific circumstances and apply what is necessary in practice, because we may be applying strategy typologies that do not fit and in fact, not know what to do with those misfits.

2.7.4.3 There Needs to Be More Focus on The Integration of Information and Communication Technology Into Public Sector Strategic Management Models and Practice

Information and Communication Technology particularly the internet, is changing the way in which things are done in public service, resulting in new organisational arrangements and functions (Zammuto et al., 2007) and hence, strategic management must show this reality. It affects strategic management in relation to its content, focus and implementation. Yang and Melitski (2007) argue that Information and Communication Technology is not only about efficiency and low costs, but it is also pertinent in citizen engagement, knowledge management as well the integration of organisational cultures. Thus, it should be part of organisational strategies, and its performance contribution should be measured and evaluated. There are no models/ frameworks identified to assess its performance contribution and thus, researchers can come up with those that enable the assessment of how Information and Communication Technology strategies can match contingencies, political environments as well as

organisational goals. Bryson et al. (2010) mention that because of technology, new forms of governance structures are developing, it can link government departments and programmes more easily than in the past. The development and maintenance of networks is a major priority, as well as how to improve performance through regular performance monitoring. Technology is indeed a part of practice and not just a "thing" that can be purchased or installed. It can be viewed as a product as well as medium of human actions aided and constrained by conditions within the organisation (Orlikowski, 1992). A practice-oriented understanding of the repeated interaction between people, their actions, and technologies.

2.8 Conclusion

This chapter reviewed literature in terms of the theoretical perspectives related, national disaster management implementation with a special focus on disaster risk reduction, perspectives on public sector strategic management focusing on implementation as well Strategy-as-practice as an alternative perspective to traditional strategy. The literature was investigated in respect of this study's three research questions. Chapter 2.3 discussed the study's theoretical framework. Here, an overview of theories was discussed with a focus on the social constructivism theory that serves as a main theory and guide for this research. Knowledge was constructed from discussions with disaster risk reduction strategy practitioners/ implementors as identified from the national disaster risk management institutional framework, understanding their interpretations of implemented initiatives and structures in place. Through this research there was an investigation into the micro-level of social activity and its construction in a real social context.

Section 2.4 covered an international review: national disaster management strategies implementation. It focused on the activities processes and resources utilised to implement these type of strategies (addressing research question one), coordination and administration in disaster risk reduction/ disaster risk management and lastly the way forward. The researcher discovered that countries have disaster management structures and systems that guide disaster management planning and strategy implementation. However, even with all these things, effective implementation remains a contentious issue. Some of the challenges include that disaster management is often not a national priority and is not given due consideration when it comes to development planning, for instance, there is limited correlation between disaster risk reduction, its policy and the law. This also explains the fact that there is no dedicated disaster

management budget in most countries reviewed. Furthermore, a lot of countries are focused on the response stage in the disaster management cycle- acting only after disasters have occured, giving less consideration to the other stages of the disaster management cycle.

Section 2.5 addresses the second research question and speaks to the perceptions in the public sector strategy implementation. Under the section the researcher has background on strategic management, how it has evolved in the public sector as well as challenges in strategy implementation in the public sector. Strategic management is said to be an important tool as the environment is forever changing, hence organisations need to align their structures and long- term plans with their capabilities and environmental requirements. In the public sector, strategy is not just useful for competitive advantage as in the private sector but is instead useful in improving the provision of services to the public by a government department/ agency. Some of the challenges in strategy implementation in the public sector pertained to the fact that long-term strategic plans put in place are not in alignment with management control tools, which focus on a short- term perspective. There is lack of resources and furthermore, although government departments have strategic plans, they are managed by government policy which generally has a short- term focus due to who is in political power. The issue of politics also leads to public sector organisations being compromised from managing pressure from those in power, members of political oppositions as well as different interest groups among others.

Section 2.6 focuses on the way forward in integrating strategic management into disaster risk reduction and these include forward thinking, capacity building through organisational learning and adaptation, goal identification and achievement through leadership and commitment, professionalism, and more funding, increased public support and accountability and lastly assessing performance. Section 2.7 addresses the third research objective and covers literature on Strategy-as-practice as an alternative perspective- by giving its background. There is an in-depth discussion on the three Strategy-as-practice research parameters identified by Whittington (2006) and lastly the way forward in related research. The three research parameters identified are praxis, practices, and practitioners, which focus on analysing the micro activities in strategising. The challenges in Strategy-as-practice include among others that there are many tools in place to identify strategic issues but knowing when and how to apply them practically, remains unclear. There are many responsibilities for strategists/ strategic planners however, there needs to be a clear explanation on the roles as well as research on how they can collaborate in practice and the lessons extended to others. Lastly, there are a

lot of public sector strategy typologies identified, however, tests of these in practice are inadequate and limited (Boyne and Walker, 2004). The way forward in Strategy-as-practice is that the available public sector strategic management models should be further developed to fully include the nature of practice, there should be greater attention on the development of strategy knowledge and its application in practice and that there needs to be more focus on the integration of Information and Communication Technology into public sector strategic management models and practice.

CHAPTER 3 : RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research process incorporating social constructivism as the main theory. It gives information on the methods applied in addressing the research aim and objectives as well as the justification for the choices. It covers the research design and methods, population and sampling, data collection, data analysis, reflexivity in qualitative research, validity, and reliability as well as a discussion of the study's ethical considerations. It is provided in a way that it can be easily understood and applied in conducting similar studies as recommended by Roberts et al. (2003). Below are the researcher's methodology key principles:

3.2 The Researcher's Methodology Key Principles

Figure 3.1 below shows a summary of the key principles followed by the researcher in conducting this study.

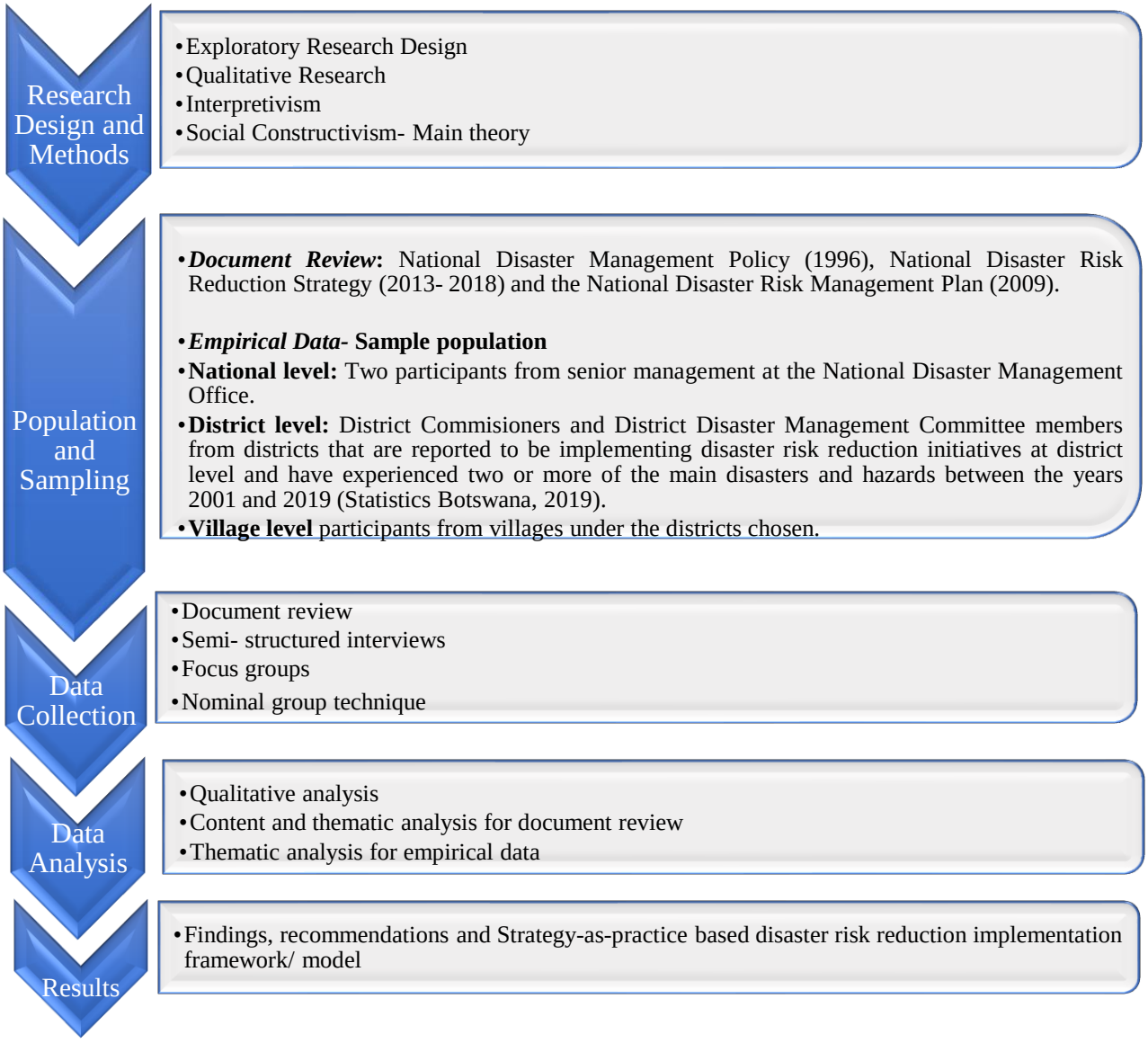


Figure 3.1 The researcher's methodology and key principles

3.3 Research Design and Method

The research paradigm applied for this cross-sectional study is interpretivism. Guba and Lincoln (2005) explain that interpretive researchers believe reality is made up of people's subjective experiences of the world. This being the reason why this is a social constructivist research, to get participants experiences based on their interpretations on disaster risk reduction implementation. The ontological stance is relativist where knowledge was grounded intersubjectively in understandings developed through experiences. Interpretivists believe in socially constructed multiple realities (Cohen and Crabtree, 2006) and are mostly associated

with qualitative data; thus, this study is qualitative as the researcher aimed to get a deep, holistic understanding of non-numeric data. The data collected had to be in-depth and open ended. Positivism was not considered because positivists believe that one can generalise reality and that knowledge can be described systematically (Aliyu, 2015).

A pragmatic approach was also not suitable because according to Creswell (2014), pragmatists encourage integrating various strategies and methods to tackle research objectives. The chosen research strategy is a case study as in Caymaz et al. (2013), Cheema et al. (2016) and Chong and Kamarudin (2017). Siggelkow (2007) believes that a disadvantage with single case studies is that it is difficult to generalise its findings. Nevertheless, one that is well-grounded in previous literature, can help researchers come up with theoretical contributions that go over that one case. As discussed under literature review, there were no past studies found that were like this one, however, the researcher collated several related research fields to gain an understanding on the subject matter.

The study focuses on the "what" and "how" questions hence, suitable for descriptive and exploratory studies (Myers, 2009). It is exploratory, exploring a research problem which has no substantial past data especially in a Botswana context. There was no testing of hypothesis as it is inductive; the researcher analysed and discovered themes in the data with an aim to address the research questions.

3.3.1 Justifications for a qualitative study

The researcher was able to develop a holistic picture of the research area due to the multifaceted nature of qualitative research. The following principles by Denzin and Lincoln (2005) underlie qualitative research:

- It investigates the relationships within a system.
- It aims at understanding social settings and not making predictions.
- It is holistic (searches to understand the whole phenomenon).
- It requires in-depth, time-consuming analysis of data.
- It considers informed consent and other important ethical issues.

The principles mentioned above, were truly at the core of this study. Qualitative research in this case reinforced the interpretation and understanding of meanings behind human interactions and practices of disaster risk reduction strategy implementors as identified from the national disaster risk management institutional framework. It was the most appropriate method as the readers will have a clear understanding of the meanings attached to participant's constructions, the nature of the problem under study as well as its impact (Meyer, 2000). This study is by no means intended on presenting one thing as the ultimate truth but instead aimed at understanding an issue that has not been studied in- depth, particularly in a Botswana context.

3.4 Population and Sampling

Considering the complexity of the research objectives, empirical data was collected from participants at the three different levels of Botswana's disaster risk management institutional framework: the national, district and village/ community levels. The national level was mainly for background purposes as they are the strategy formulators, they also coordinate the implementation of disaster management in the country. The main population are participants at district and village/ community levels because they are responsible for implementation of the disaster risk reduction strategy.

3.4.1 Initial Selection of Participants

At national level, there were two targeted participants in management at the National Disaster Management Office, from an office of around five people. The participants were identified through purposive sampling (Creswell and Plano Clark, 2011), based on their experience and level of responsibility in the coordination of disaster risk reduction implementation across the country. In addition to their general role in disaster risk reduction, the National Disaster Management Office is reported to be responsible for monitoring the national disaster risk management action plan (PreventionWeb, 2018). The district and village level participant selection was guided by the 2019 Natural and technological disasters digest. There was a list in there of local authorities reported to have adopted and implemented local disaster mitigation strategies (Statistics Botswana, 2019). This list included the following areas:

- Chobe
- Charleshill

- Hukuntsi
- Ghanzi
- Masunga
- Jwaneng
- Tutume
- SelibePhikwe

At district level, the researcher targeted District Disaster Management Committees who are responsible for the coordination of disaster management activities in the districts. These committees are made up of representatives from government departments operating within the districts, for instance, the fire department, metrological services, crop production department, the Botswana police, forestry and range department, water utilities department and the health department, among others. These committees are chaired by District Commissioners, who also made part of the research population. Districts have various villages under them, and it is important to highlight that the national disaster management guiding documents all prescribe differently who should spearhead disaster management at village level. The National Policy on Disaster Management 1996 states that it should be spearheaded by traditional leadership in collaboration with organised groups identified by the District Disaster Management Committees.

The National Disaster Risk Reduction Strategy 2013- 2018 states that it should be disaster risk management local committees, while the plan states that it should be Village Development Committees under the leadership of Dikgosi (chiefs). The researcher could not identify who the organised groups are that have been identified by the District Disaster Management Committee. Furthermore, most, except for one of the districts targeted by the researcher do not have local disaster risk management committees. This left the researcher with the option to target Village Development Committees at village level, as prescribed by the National Disaster Risk Management Plan 2009. These are villages that fall under the chosen districts/ local authorities. Village Development Commitees are also responsible for all village development matters (Serema, 2002).

3.4.2 Changes in the Selection of Participants at the District and Village Level

From the initial list of local authorities provided in the list above, four more were added by the National Disaster Management Office and this brought the total areas to 12. Not only were they reported to have adopted and implemented local disaster risk reduction strategies, but they had also submitted their area disaster risk management plans to the National Disaster Management Committee as at June 2022. Thus, my targeted population increased from eight districts to twelve. Please see the Table 3.1 below:

Table 3.1 Local authorities that submitted disaster risk management plans as at June 2022

LOCAL AUTHOURITY	**NAME OF DISASTER RISK REDUCTION PLAN**	**YEAR**
Chobe District	Chobe District Contingency Plan	2009
Jwaneng Township (Has now been upgraded to a fully-fledged District)	Jwaneng District Contingency Plan	2015
Charleshill Sub-District (Has now been upgraded to a fully-fledged district)	Charleshill Disaster Management Plan	2016
Hukuntsi Sub District (Has now been upgraded to a fully-fledged district)	Hukuntsi Disaster Management Plan	2016
Ghanzi East Sub District (Has now been upgraded to a fully- fledged district)	GhanziDistrict Disaster Management Plan	2017
Northeast District	Northeast District Disaster Management Plan	2017
Tutume Sub District (Has now been upgraded to a fully- fledged district)	Tutume Sub District Disaster Contingency Plan	2017
Kgatleng District	Kgatleng District Disaster Contingency Plan	2017

Southern District (Has now been divided into four districts)	Southern District Disaster Management Plan	2018
Gweta Village (Part of the Central District)	Gweta Village Disaster Management Plan	2019
Selebi PhikweDistrict	Selebi Phikwe District Disaster Management Plan	2019
Gaborone District	Gaborone District DistrictDisaster Management Plan	2020

Source: The National Disaster Management Office (2022)

Contact was made with leaders of all these local authorities to arrange for meetings and many of them were unresponsive. It took constant follow ups to get responses and at times the researcher had to go to their offices physically to expedite meetings, because they also hardly responded to telephone/ email communication. The main challenge with physical follow ups was that some districts are as far as 900 kms (one way) from the capital city of Botswana, Gaborone, where the researcher was based. It did not make logistical and administrative sense to make physical follow ups to places that far, and hence, as opposed to collecting data from all twelve districts the researcher had to come up with a new strategy to sample targeted participants. This resulted in a shorter list that allowed her to focus her resources into following up on a select few. The sampled population was now based on those that were reported to have adopted and implemented local disaster risk reduction strategies (also having submitted their area disaster risk management plans to the National Disaster Management Office) and are at the same time prone to two or more disasters common to Botswana, as identified in the Natural Disasters Digest Report 2019 (Statistics Botswana, 2019). The 2019 report is the latest information published and availed to the researcher.

According to the Natural Disasters Digest Report 2019 (Statistics Botswana,2019), the following were the districts most prone to the common natural and man-made hazards and disasters in the country:

- **Veldt fires (2014- 2018)**: Ngamiland, Central, Kgalagadi, Ghanzi, Chobe, Kweneng, Southern (based on number of fire incidences)

- **Floods (2015-2019)**: Ghanzi, Kweneng, Central, Kgatleng, North- East, Southern, and Ngamiland (incidences and impacts)

- **Storms (2016- 2019)**: Central, Kgatleng, Southern, Kgalagadi, Northeast, Kweneng, Northwest, Chobe, Tsabong Sub and Ghanzi (based on individuals affected/ displaced)

- **Heavy Rains (2015- 2019)**: Thamaga Sub, Northwest, Central, Kweneng, Kgatleng, Ngamiland, Southern.

- **Droughts (2001- 2019)**: These have been reported to have affected the whole country.

- **Mine Accidents:** The report did not specify where the mine incidents occurred in Botswana, it just stated a summary of incidents. However, mines in the country are in the Jwaneng district, Central District, North- East district and Ghanzi district.

- **Road Transport Accidents:** (with a focus of motor vehicle accidents) These were also spread throughout the country.

Thus, the final list of participating districts was: Ghanzi, North- East, Kgatleng, Southern, Chobe and the Jwaneng district. It is worth noting that some districts/ local authorities that are more disaster prone such as the Central, Kweneng and Ngamiland, as per the lists above, have not submitted an area disaster risk management plan to the National Disaster Management Office, hence why they are not part of the sampled participants. Figure 3.2 below is the map of Botswana showing the locations of the proposed six districts (highlighted with a red oval):

Map of Botswana with the sampled districts

This is as per the new delimitation (changing of the boundaries of the districts) in Botswana. The only affected district since the commencement of the study from those sampled is the Jwaneng district which is now fully-fledged and has its own administrative structure, separate from the Southern district as it was before.

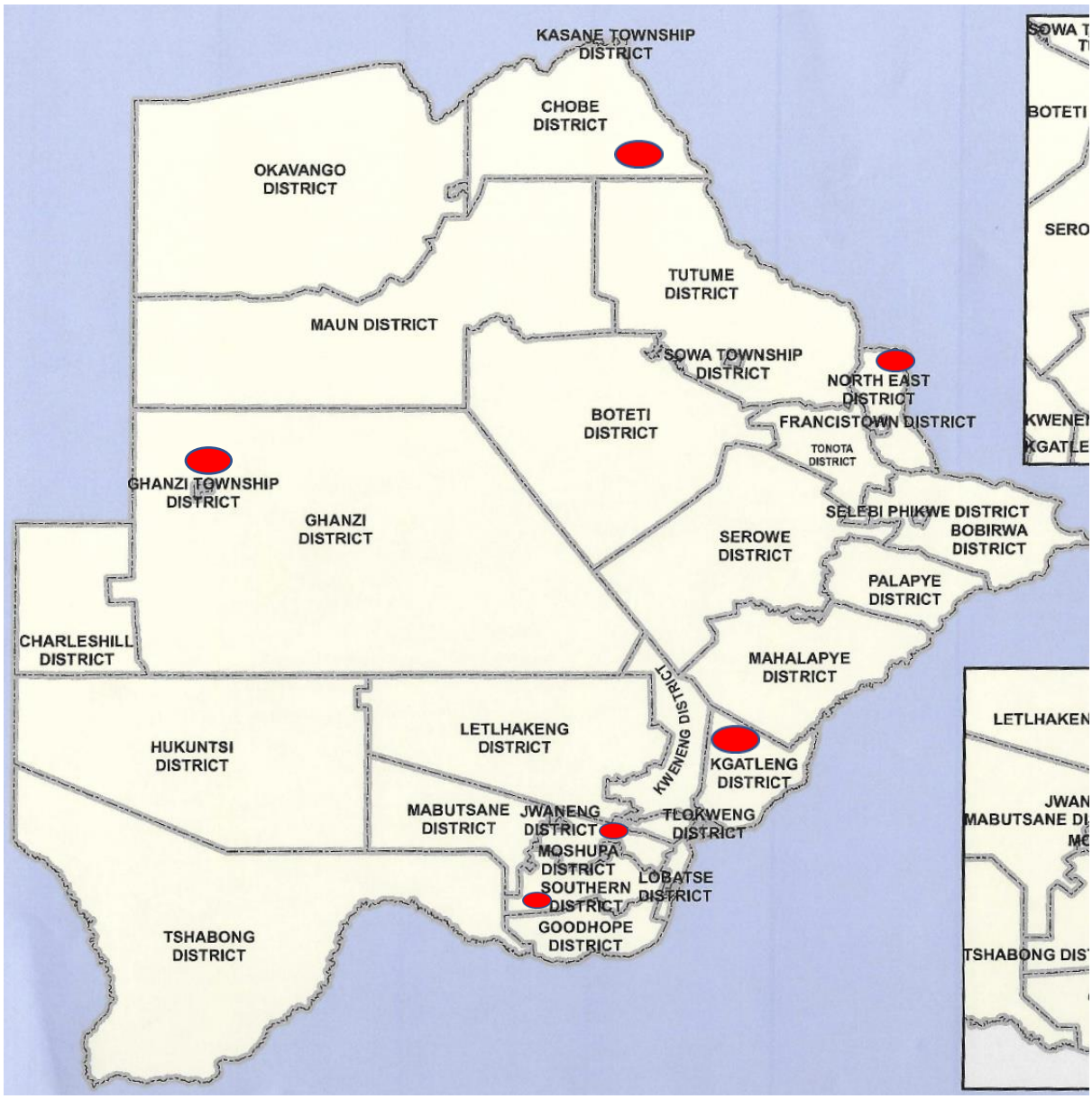


Figure 3.2 Map of Botswana with sampled districts

Source: Independent Electoral Commission (2023)

Purposive sampling was used for the District Commissioners, it was based on seniority and experience in disaster risk reduction implementation. It was anticipated that the chosen sample would likely be able to answer the questions asked with depth, as well as have authority to give out all information necessary for the research. For the District Disaster Management Committees, the sampling method was also purposive, as from about 20 members (on average) that make up the committee, the researcher picked the departments that dealt with the most prevalent disasters in Botswana. Among the participants the following were always invited:

fire department, metrological department, health department, water utilities, forestry and range department, education department, Botswana police service and the crop production department.

The change in districts ultimately affected the villages that were selected to participate as it had to be those that are under the chosen districts. The researcher had initially intended on having both Village Development Committee Chairpersons and Village Development Committee members as research participants. But from engagements with District Commissioners and the District Disaster Management Committees, the researcher found that villages under the targeted districts do not have village specific disaster risk management plans as prescribed by the National Disaster Risk Management Plan 2009 (PreventionWeb, 2011). It was also expressed that the role Village Development Committee's play in DM is mostly on response, after disasters have occurred than in disaster risk reduction.

From these engagements, the researcher further deduced that there seemed to be no clear lines of communication and responsibilities particularly at village level. Communication could be through a councillor, social workers, tribal leadership and so on. The researcher believes that they were not going to provide sufficient information to address the research questions and objectives, so she then decided to limit data collection at village level to only Village Development Committee Chairpersons. This was done to ascertain empirically whether they indeed do not have those plans, what guides implementation in their villages and to what level are the Village Development Committee's involved in disaster risk reduction implementation. Purposive and snowball sampling was used for Village Development Committee chairpersons. The reasons for these two sampling methods are explained in detail under section 3.5.

3.5 Data Collection

The study used multiple data collection methods which according to Yin (2014) is necessary in case studies to develop a comprehensive understanding of the issue being studied. The researcher started with the review of the national disaster management documentation as in Caymaz et al. (2013). It included the National Disaster Risk Management Plan 2009, the National Policy on Disaster Management 1996, the National Disaster Risk Reduction Strategy 2013-2018. Document review was carried out to get a background of disaster management in the country as well as guide the trajectory of the data collected. It was followed by semi

structured interviews, focus groups and the nominal group technique (see research instruments in Appendix D). The need for various data collection methods was also to counteract any problems that could arise from common method variance.

Empirical data collection started with semi structure interviews at the national level with the two participants identified. Semi structured interviews were also conducted at district level with District Commissioners. Then followed the focus groups with members of the District Disaster Management Committees. At village level, the researcher targeted umbrella Village Development Committees made up of Village Development Committee chairpersons from various wards in villages across the districts. These umbrella Village Development Committees are usually found in the largest villages within the districts, thus have a wider representation of the population. The researcher conducted nominal group technique discussions with these umbrella Village Development Committee's. Following that semi structured interviews were conducted with Village Development Committee Chairpersons from villages that do not have/ belong to umbrella committees within Districts.

Maripe and Setlalentoa (2017) study on community vulnerability to disasters in Botswana also had a target population of 10% from the communities represented in their research. Furthermore, according to Mugenda (2003) as cited by Suleiman (2018) to make general conclusions, a sample of between 10% and 30% is adequate. The Village Development Committee chairpersons in two out of six districts were all part of the umbrella committee, due to their villages and district being small. Hence there were no semi structured interviews for those ones. Purposive sampling was used for the nominal group technique because the researcher chose participants who collectively represent interests of a wider group from different areas within the districts. Snowball sampling was used for semi structured interviews at village level, with participants for those ones being recommended by nominal group technique participants. Dyadic interviews were not used as initially planned at research proposal stage due to a change in the study's targeted districts, which changed the make-up of the research population. None of the districts that participated were represented by less than three Village Development Committee's, as would be fitting for a dyadic interview.

Below is a summary showing the chosen data collection methods against the sampled population:

Table 3.2 Data collection methods against sampled population

Disaster risk management institutional framework (levels)	*National*	*District*	*Village/ Community*
Data Collection Method			
Semi- Structured Interviews	Two participants in management at the National Disaster Management Office.	Six District Commissioners from the six local authorities.	10% of Village Development Committee Chairperson's from villages that do not have/ belong to umbrella Village Development Committees. (11 Chairpersons)
Focus Groups		Six District Disaster Management Committees from the six local authorities (with a total of 34 people).	
Nominal Group Technique			Village Development Committee Chairpersons in the umbrella committees. (A total of 35 Chairpersons across all villages.)

Table 3.3 below, shows studies with similar methodological approaches to the study at hand. These studies assisted in gaining familiarity with knowledge in this field as well as aided in identifying possible boundaries that could come up in data collection. These studies are discussed in this research's literature review and as a backdrop to compare against the new findings.

Table 3.3 Empirical studies in national disaster management with similar methodological approaches to those used in the current study

Author and year	Title	Type of Research	Research Methodology
Samuel et al. (2022)	Evaluation Of National Disaster Management Strategy and Planning for Flood Management and Impact Reduction in Gaborone, Botswana	Qualitative research- Case study	Document review, semi- structured interviews
Bang, Miles, and Gordon (2019)	Disaster Risk Reduction in Cameroon: Are Contemporary Disaster Management Frameworks Accommodating the Sendai Framework Agenda 2030?	Qualitative research- Case study	Document review, open and semi-structured interviews
Chong and Kamarudin (2017)	Issues And Challenges in Disaster Risk Management in Malaysia: From the Perspective of Agencies.	Qualitative research- Case study	Document review
Caymaz, Akyonand Erenel (2013)	Exploratory Research on Strategic Planning in Public Institutions: Turkish Prime Ministry Disaster and Emergency Management Presidency Case.	Qualitative research- Case study	Document review

Cheema et al. (2016)	Learning From the Past: Analysis of Disaster Management Structures, Policies, And Institutions in Pakistan	Qualitative research- Case Study	Semi- Structured Interviews

3.5.1 Justification for Document Review

Yin (1994) explains that document analysis is suitable for qualitative case studies such as this one. This strategy was also used in disaster management studies like Bang et al. (2019); Chong and Kamarudin (2017) as well as Samuel et al. (2022). The researcher used documents that produced rich descriptions of disaster risk reduction and the overall disaster management system in Botswana. They gave a background of the strategic objectives, the activities involved as well as the participants involved in the implementation of the intended strategy. This is in line with Merriam (1988, p. 118) who highlighted that "documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem."

The combination of document review findings with empirical evidence from this research, helped track change and development in the subject area. The document review also guided the trajectory of the questions to be asked, for example, Goldstein and Reiboldt (2004) used document review to assist them in generating interview questions in their longitudinal study. According to Denzin (1970) document review is often combined with qualitative research methods as a means of triangulation. The researcher was looking for convergence and corroboration through using the different data collection methods. Yin (1994) states that other techniques that can be used with this one could include interviews (as in this study), participant or non-participant observation, and physical artifacts, among others. Furthermore, the use of document analysis is cost effective as it only requires selection of data as opposed to its collection. However, it could only cover research question one as the documents were developed for some purpose other than this current study. It could not address all the research questions as they are. According to the researcher, the benefits in this regard, outweigh the limitations.

3.5.2 Justifications for Semi- Structured Interviews

Semi structured interviews are a valuable way to collect data in qualitative research as they allow for interaction and observation of non- verbal communication. This was a dialogue between the researcher and one participant at a time. Dunne et al. (2005) argue that interviews are the most flexible research method, perhaps it is in the way that they are versatile, especially semi structured interviews in comparison to structured interviews which have a formalised set of questions. Disaster risk reduction and disaster management are multifaceted and have no single truth, hence, semi structured interviews used for this study encouraged flexibility and allowed for probing and restructuring of questions as the interviews progressed. They had a good balance of main questions, probes, and follow-ups for in-depth explanations from participants. Magaldi and Berler (2020) explain semi structured interviews to be exploratory in nature. The researcher provided a safe environment for participants to express themselves freely and share their perceptions on disaster risk reduction. The semi structured interviews in the validation section (district six) were conducted online (for District Commissioners) and over the telephone (for Village Development Committee chairpersons) due to circumstances beyond the researcher's control.

Through this data collection method, the researcher aimed at gaining a deeper understanding of the participant's constructions and meanings of their lived experiences as in Bang et al., (2019); Cheema et al. (2016); Hoglund et al. (2018) and Samuel et al. (2022). Kvale (1996) highlights that interviews are utilised to understand issues in line with the subject matter from the point of view of participants. Meanings were picked up from dialogues between participants and the researcher in the expressions used when explaining and describing their disaster management experiences. Thus, the data analysed reflects the true spoken words and views of the participants. On the contrary, Powney and Watts (1987) explained that qualitative research usually tells very little about the analysis process, about the analysts and who they are, what perspectives they have adopted, the resolution of disagreements, if whole transcripts were used, levels of tolerance when it comes to unsortable data and what determines the methods used for filtering.

This essentially explains that there is no clear and cut out method for conducting qualitative research. Its analysis is most of the time drawn out in comparison to quantitative research. Arksey and Knight (1999) argued that qualitative analysis can take researchers both

experienced and new, a longer time than planned before the finalisation and presentation of the report. Furthermore, it is important to cross check the validity of findings to ensure that the researcher's judgement did not influence interpretation of data. Chapter 3.8.1 address how validity was addressed in this study.

3.5.3 Justifications for Focus Groups

The main reason for selecting focus groups for this study was that the researcher required a discussion yielding various (or potentially similar) views from groups responsible for implementing disaster risk reduction in Botswana. Thus, allowed for debates and participants could add on to each other's views. The study's focus groups consisted of between five to eight participants with the researcher moderating/ facilitating the discussions. Robson (2002) suggests that participants between eight and 12 are appropriate for focus groups, while Krueger (1994) argues that smaller groups made up of around five to seven participants are more appropriate for in-depth discussions. The focus group in the validation section (district six) was conducted online due to circumstances beyond the researcher's control.

Harrison et al. (2015) explain that this type of data collection method should not be considered if participants are uneasy with each other and cannot express themselves freely and openly. This is where group biases are normally anticipated, however, there were none anticipated and experienced for this study. Participants received the Participant Information Sheet (PIS) that explained what the research was about, how it was to be conducted and with who (see Appendix E). They were also informed of their rights as participants; thus, they were at liberty to choose whether to participate or not. Focus groups are a cost-effective method of in-depth data collection (Morgan, 1996) because more ground (with more participants) was covered across districts in Botswana with limited resources. Furthermore, considering the possibility of low participation in group activities due to time commitments and participants having to convene at specified locations, the focus groups were well attended.

The researcher discovered that at certain points during the focus groups, one or more participants would appear to dominate the discussions. The researcher was well prepared to moderate the discussion, she kept encouraging all participants to voice out their opinions, creating space for those who were less active to have an opportunity to speak. According to Parker and Tritter (2006) focus groups are at times viewed to be synonymous with semi-

structured one-on-one interviews. This is due to their ability to reveal perceptions and values (Skeggs, 1997). Smithson (2000) however, pointed to the fact that the relationship of the researcher and participant (s) highlights a major key difference between the two data collection methods. That is, in an interview the researcher is an "investigator" and controls the direction of the one-on-one engagement, while in a focus group the researcher is more of a moderator and facilitates the group discussion.

3.5.4 Justifications for the Nominal Group Technique

According to Van de Ven and Delbecq (1971) the nominal group technique should be made up of between five to nine participants. Horton (1980)'s preference is for the groups to range from seven to 10 participants, whilst Steward (2001) believes in groups of between five and eight participants. Allen et al (2004) prefers a slightly higher number of participants, between 9 and 12, because while the numbers are still manageable, they allow for receiving a range of views. For this study, the participants ranged between six and ten per session. The researcher would say that they were successful because relevant and sufficient data addressing the research objectives was collected.

As opposed to focus groups where one or certain participants can dominate discussions, the nominal group technique has procedural rules set out in the beginning of the session, some of which offers all participants an equal chance to voice out their views/ answers. However, the fact that all participants are required to participate here can also be uncomfortable for others. Participants were able to express their ideas in writing and then verbally communicate them to the group to be discussed. The researcher was able to collate various answers, as each participant answered individually. She was able to identify the priorities of each participant. The nominal group technique was very cost and time effective as more was done with various participants at the same time as opposed to one-on-one interviews.

3.5.5 The Data Collection Process

3.5.4.1 Document Review

In document review, the researcher searched online typing "Botswana national disaster risk reduction strategy" and with that came different links that led to the three national disaster

management guiding documents. The researcher then confirmed with the National Disaster Management Office if there were any other important guiding documents and whether those were indeed the latest versions of the documents available. Some of the studies in disaster management that have used the document review method include Bang et al. (2019) and Chong and Kamarudin (2017).

3.5.4.2 Empirical Data

Prior to data collection, the researcher was required to seek for permission to carry out research in Botswana from the Ministry of State President which the National Disaster Management Office falls under. On approval, the researcher was given a key contact at the National Disaster Management Office that she liaised with to arrange for national level meetings. The contact also provided the researcher with contacts of all the District Commissioners and their assistants for district level data collection arrangements. The researcher contacted district council personnel, and they aided in arranging for district level engagements with District Commissioners and District Disaster Management Committees. The office of the District Commissioner personnel then provided the researcher with contacts of the Chairperson's of the Village Development Committee's that the researcher also contacted to arrange for village level meetings.

Initial contact was made with all participants at national and district levels via emails with the permission letter from the Ministry of State President and PIS attached. These would then be followed up with calls. For districts that were unresponsive but close to the researcher's residence, there were physical follow ups. On confirmation of meetings and agreement of times, the researcher would send out emails prior to the appointment as a reminder. The consent forms requesting for participant's permission to partake in the study (see Appendix F), and the PIS's would be attached again on that email. The last call would be on the day before the exercise to confirm the appointment. Initial contact with Village Development Committee participants was through phone calls, as well as successive follow ups because most of them do not have access to computers and the internet.

The data collection exercises took place at various geographical locations across the country where participants are based. Physical copies of the PIS and consent form would be distributed prior to the data collection exercises, as most participants would request for this. Data

collection was guided by semi-structured questionnaires with a Likert scale (rating) question. All data collection methods addressed all the research questions, using a similar questionnaire which had some differences determined by the type of participants and size of the groups. However, the general sections remained the same (see Appendix D). Table 3.4 below shows research questions against the semi- structured questionnaire sections.

Table 3.4 Research questions against semi- structured questionnaire sections

Research Questions	**Sections**
Main research question: How is strategy implementation done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as-practice lens?	All Sections
Subsidiary research question one: What are the activities, processes and resources utilised to implement the disaster risk reduction strategy in Botswana?	Section A
Subsidiary research question two: How are the current disaster risk reduction implementation structures and initiatives as prescribed by the national strategy, perceived by implementors at all levels of the disaster risk management institutional framework?	Section B
Subsidiary research question three: How can a Strategy-as-practice framework be utilised to modify disaster risk reduction implementation in	All sections

Botswana, with an aim to encourage proactiveness and efficiency?	

How the questions were asked was based on the trajectory of the answers given, the researcher could switch them around a bit depending on whether there was need for probing for further clarity and elaboration on answers given. The demographic question on the level of education at the beginning national and district level questions, was to identify on a high level the educational demographic of the people on the ground, considering how complex and sensitive disaster risk reduction matters are. All data collection was recorded by means of a digital voice recorder to ensure that responses are captured accurately with field notes being taken down. In as much as most of the guidelines were stated in the PIS, they were also very clearly articulated prior to the commencement of all data collection exercises. Before starting, the researcher would introduce herself, there would be signing of consent forms (for those who would not have already done that at the time), introduction of the research- highlighting its purpose, key and subsidiary questions as well as providing general interview/ focus group guidelines.

The nominal group technique was perhaps the most distinct from all the data collection methods, here the researcher distributed papers where participants were requested to write down ideas and responses prior to presenting them to the group. According to McMillan et al. (2014), clarification for the nominal group technique is structured and procedural as interactions between group members is not recommended during the presentation of ideas and clarity can only be sought at a certain point. A flip chart was used to write down these contributions as they were presented. There was then clarification of these contributions by the researcher with an option to either group or eliminate some of them, followed by ranking and the compilation of results. There was a rating question for all the data collection exercises and this required participants to circle answers on a Likert scale. Pages with the Likert scale were printed out and pens provided to participants to complete. Fortunately, all participants could read and write.

The researcher increased her chances of obtaining in-depth and relevant data to address the research questions, by translating the research instruments, consent form and PIS into Setswana, only at village level participation. This was to give a language preference option for individuals/ groups that are uncomfortable with using the English language. This decision was

influenced by findings from Serema (2002) in an unrelated study in Botswana about community information structures. On that study, Village Development Committee members expressed that they do not use libraries as they are for students who can read and write. Moreover, a Village Development Committee chairperson mentioned that sometimes it is hard to read and comprehend certain documentation written in English. However, this goes against the village/ ward development committee regulations under the Local Government Act 18 of 2012, one of the conditions of the Village Development Committee membership is that one should be able to read and write in both English and Setswana (Government of Botswana, 2014).

The language preference was established prior to travelling for data collection exercises as this entailed printing out PIS's, consent forms and the appropriate data collection instrument. Interviews and focus groups at national and district levels did not need to be translated as roles that participants hold at those levels, require certain level of qualifications and a full comprehension of the English language. However, some participants who would choose the English option at village level would often end up using a combination of both Setswana and English to answer questions. Thus, this required translation into the English language prior to data analysis.

3.6 Data Analysis

3.6.1 Document Review

Document analysis involved working through selected documents, thorough reading, and interpretation of the data (Bowen, 2009). The process covered both content and thematic analysis. With content analysis, the researcher organised information identified according to the subsidiary research questions. Silverman (2000) however, objects to content analysis stating that it has the potential to obscure the process of turning talk into text. However, it is important to highlight that a document review is more than just producing transcriptions, it encompasses reviewing the document and identifying meaningful and relevant text to the research questions. The researcher showed capacity to identify important information that addressed the research questions, separating it from the non- important things (Corbin and Strauss, 2008). Following this, a thematic analysis was carried out, recognising patterns within the data, identifying emerging themes which became categories for analysis (Fereday & Muir-

Cochrane, 2006). This involved careful reading and review of documents and it was done prior to empirical data collection.

3.6.2 Empirical Data

All the interviews and focus groups were thematically analysed, and this involved identifying themes and concepts in the data collected (Hayes, 2000). The researcher followed a process explained by Nowell et al. (2017). Analysis started with the recorded interviews and focus groups being transcribed verbatim with the help of a software application, within 24 hours of the data collection process. This was done to fully understand and become familiar with the data collected quickly. As explained in section 3.5.4 above, some participants at district and village levels used a mixture of English and Setswana in their responses, some used only Setswana. Following transcription, the data had to be cleaned where the transcribing software application could not make sense of the Setswana language. The ones that were predominantly in Setswana had to be manually transcribed. It is worth noting that data analysis and literature review were done concurrently, and this was because the literature review guided the main aspects/ points that the researcher should pay attention to in data analysis. Data analysis also guided the researcher to the relevant literature that needed to be studied. In this phase of the research, the researcher constantly referred to the research questions so at to not veer off from objectives of the study. The three stages below describe the data analysis process followed:

3.6.1.1 Stage 1

During this stage, the transcribed data together with the field notes and flip chart notes (where applicable) were read together to understand the data and the different frames of reference from participants. These were read several times to ensure that the concepts constructed were fully captured. It was done until the researcher was satisfied that no new constructions emerged from the text.

3.6.1.2 Stage 2

In this second stage, the researcher identified patterns in the construction of concepts/ ideas from the data collected. These were further broken down or deconstructed, for the researcher to examine the text for similarities, differences, and ambiguities. The researcher drew on the

environment in which the participants were operating from to gain a better understanding of their constructions. Then to create order from the patterns and commonalities identified, a process of coding was followed using the Atlas.ti software. There was sorting and organising of coded data into themes/ categories (Feldman et al., 2004). The categories were closely linked to the research questions and objectives. Coded data extracts were reviewed against each theme to check whether they are coherent. The researcher then integrated the different constructions to create a comprehensive view of the different frames of reference. The researcher read these over again to ensure that they made sense.

3.6.1.3 Stage 3

Lastly, key theme summary statements were developed giving a detailed analysis and finally incorporated into the research write up.

3.7 Reflexivity in Qualitative Research

This study is subjective and hence was expected that the researcher's perspectives will be embedded within the research process, as opposed to being fully detached from it. This is in line with Parker (1994)'s argument that research in all fairness is conducted by subjective individuals and their subjectivity should be acknowledged. This is especially important in that in acknowledging the subjectivity, the researcher can defend what led him or her to investigating the subject matter.

The researcher's life experiences, and context had an influence on the conception of this study. This is particularly because.

- The country being studied, is the researcher's country of origin; and
- The gaps/ issues that the researcher identified in Botswana's disaster management system, during and after the outbreak of COVID-19, either directly affected the researcher or by extension through family and friends.

Given the reasons stated above, it was very easy for the researcher to connect with the disaster risk reduction strategy implementors and understand the different constructions and thoughts on the subject matter. Seroka (1999) argues that the ideal qualitative researcher immerses

themselves in the subject matter and their bias should be transparent. The researcher drew on her experiences and observations to help her identify with and understand what was being discussed. This is in line with Burns (2006) who argues that reflexivity enables the researcher to have in-depth understanding of the subject matter. However, while the researcher could identify with the participant's constructions, she ensured that she did not impose her views on them during data collection. The focus of the research remained on understanding disaster mitigation and its strategy implementation from the participants' perspectives.

3.8 Validity and Reliability

Healy and Perry (2000) believe that research quality and trustworthiness should be assessed differently considering the different research types. Horsburgh (2003) is of the view that qualitative research in particular lacks rigour and credibility in comparison to quantitative research. Quantitative data is concerned with the accuracy and generalisability of data. It is concerned with the consistency of results over time (reliability) and whether the research measured what it was intended to (validity) (Denzin and Lincoln, 2005). Indeed, these make it easier to assess the dependability of quantitative data in comparison to qualitative studies which argues that no two people can experience the same things in the same way and hence research results cannot be generalised (Denzin and Lincoln, 2005). This is the reason why some scholars such as Nowell et al. (2017) argue that parameters including credibility (internal validity), transferability (external validity), dependability (reliability) and confirmability (objectivity) are more suitable for evaluating trustworthiness of qualitative studies. However, for this study the researcher chose to use validity and reliability and the following are the ways in which the researcher ensured that the two were met.

3.8.1 Validity

Qualitative research is concerned with the extent to which data is consistently checked to the point at which the analysis process becomes self-correcting (Gibbs, 2002), and thus, the researcher can 'identify when to continue, stop, or modify the research process' (Morse et al., 2002, p.17). Data saturation was reached at the fifth district, as no new themes and constructions were coming up. Hence, the sixth district was used for validation (see section 4.6). Most findings from the five districts were in line with the validation section, except for a

few examples under the themes. The data collected can be said to be stable, as no new constructions were identified in the additional data collected.

Since qualitative studies are all about understanding the subject matter from what participants say or what can be seen happening, one of the ways that validity in this study was determined was through how analysis accurately reflected participants views as opposed to seeking one ultimate truth. This study is not concerned with what may be seen as truth but rather understanding and analysing what was said at a particular point by the different participants (Babbie and Mouton, 2001). The researcher has included a context description and not just behaviour and experiences, so that the research is meaningful and understood by an outsider. This is in line with Popay et al. (1998) argument that validity in such a study can be seen through provision of sufficient detail for the reader to interpret the context and meanings attached to what is being presented. Furthermore, during data collection, participants were continuously guided to remain within addressing the objectives of the study, to not collect irrelevant information. This same principle applied in data analysis where the researcher had to continuously reflect on the study's objectives.

3.8.2 Reliability

Reliability in quantitative studies means that findings remain consistent with repeated investigations on the same subject matter in different circumstances. The qualitative nature of this research prescribes that there are multiple realities and people have different experiences at different times. Hence the findings cannot remain consistent with repeated investigations There were common themes identified under this study, however, the explanations under those themes varied according to the different experiences. As per Nowell et al. (2017), the appropriate word when it comes to qualitative research is dependability as opposed to reliability.

To ensure this study's reliability, desk research was conducted on how other sources addressing subject areas close to this one, came to their conclusion and accounted for similar findings. There were no similar studies identified, as indicated previously, however the researcher believes that studies from the subject areas collated guided this aspect of dependability. Records of the research path were also kept throughout the study and are explained in this write up.

3.9 Ethical Considerations

Universities take ethics very seriously and do all that is possible to protect the safety and rights of all participants (Silverman, 2009). Prior to commencement of the research, the researcher underwent ethics training offered by the University which was required for ethical clearance application. There was a written assessment which the researcher passed to get the ethics training certificate. The researcher then sought ethical approval online from the University's Human Research Ethics Committee (Non-Medical) (see Appendix B), through submitting an ethics application with various attachments required including the research proposal, research instruments for each data collection method, PIS for each different sample group, consent forms for each different sample group and the permission letter from the Ministry of State President.

Consent was sought from all participants prior to data collection. The researcher ensured that PIS's, consent forms as well as the permission letter from the Ministry of State Presidency attached where distributed to all participants. The PIS's and consent forms were customised to the different sample groups. The PIS explained the topic, the purpose of the research and method of data collection. It also detailed several issues including that, participants had an option to withdraw from the study should they wish. The participant(s) were allowed to take a break, refuse to answer any question(s), and pull out at any point should they feel uncomfortable. The consent form was signed by participants to confirm that they agree to participate in the research and that they understand what it is about. The researcher also sought for permission to audio record the data collection exercises with a digital device. Participants were informed that they and the locations of their institutions would be assigned codes and pseudonyms in the research report to maintain their anonymity and confidentiality, however, complete confidentiality and anonymity could not be guaranteed for group activities that involved more than one participant.

Bryman and Bell (2015) explain the importance of proper management of research data, the participants were informed that the recordings obtained were transferred to a password-protected file, on the researcher's password protected laptop. The transcribed data was and is kept in a file stored in a locked drawer at the researcher's home. Only the researcher has access to the data collected which will not be released to any third party, except as part of the

supervisory or assessment processes of the University. Data collected will be safely kept for five years and thereafter be permanently deleted (recordings) and shredded (transcripts).

At the end of each data collection exercise, there was a debriefing on what participant's thoughts were and what they learnt. This was done to ensure that they were in no way left distressed. A distress protocol was described in the PIS, should the participants show any signs of being uncomfortable during data collection. However, participants stated that they enjoyed the data collection exercises, and they spoke about the improvements they would like to see in future. They hope that their concerns on their current situation would reach the relevant authorities through the research findings. The participants engaged freely indicating that the process offered them a safe and open environment.

3.10 Conclusion

This chapter discussed how research was conducted through describing the research design and method, process for participant selection, data collection, data analysis, reflexivity, reliability, and validity as well as ethical considerations. The next chapter is on the presentation of results and discussion.

CHAPTER 4 : PRESENTATION OF RESULTS AND DISCUSSION

4.1 Introduction

This is a qualitative study, with data collected using document review, semi structured interviews, focus groups, and the nominal group technique. This chapter reviews the results and discusses the analysis of the qualitative data. Most questions were open ended except for one Likert scale question. The chapter starts off with a section on response rates, moving on to document review and lastly, empirical data analysis. Participants' voices are prominent in the description of identified themes.

4.2 Response Rate

The response rate was fairly encouraging considering the sampled population. When it came to group activities, that is, the District Disaster Management Committee focus groups and the Village Development Committee Chairperson's nominal group technique discussions, the numbers per session fluctuated between eight and four participants. All semi structured interviews attained a 100% response rate. The research in total managed to attain a 76.5% response rate. Table 4.1 below shows the response rates according to groups.

Table 4.1 Response rates

Level	**Data Collection Technique**	**Fraction (participants)**	**Percentage**
National- Director and Programme Leader	Semi structured interviews	2/2	100%
District- District Commissioners	Semi structured interviews	6/6	100%
District- District Disaster Management Committees	Focus groups	34/48	70.8%
Village- Village Development	Semi structured interviews	11/11	100%

Committee Chairpersons	Nominal group technique	35/ 48	72.9%
TOTAL		**88/115**	**76.5%**

4.3 Summary of Themes

The main themes identified from the document review and participant's narratives are as summarised on Figure 4.1 below. They are divided according to the research questions. They were picked up from in-depth analysis of the documents as well as participant's narrations based on their interpretations and experiences in disaster risk reduction. Some descriptions under themes also include direct quotations from participants. In some instances, a description of a theme will reference what is discussed in another. The researcher found that participant's experiences could not be easily put into boxes, what they thought of a particular aspect could influence another's outcome. In this presentation of results, participants are called by pseudonyms, that is for instance, participant A of national semi structured interview session 1 at national level or participant A of district focus group session 1 from the district level, and so on.

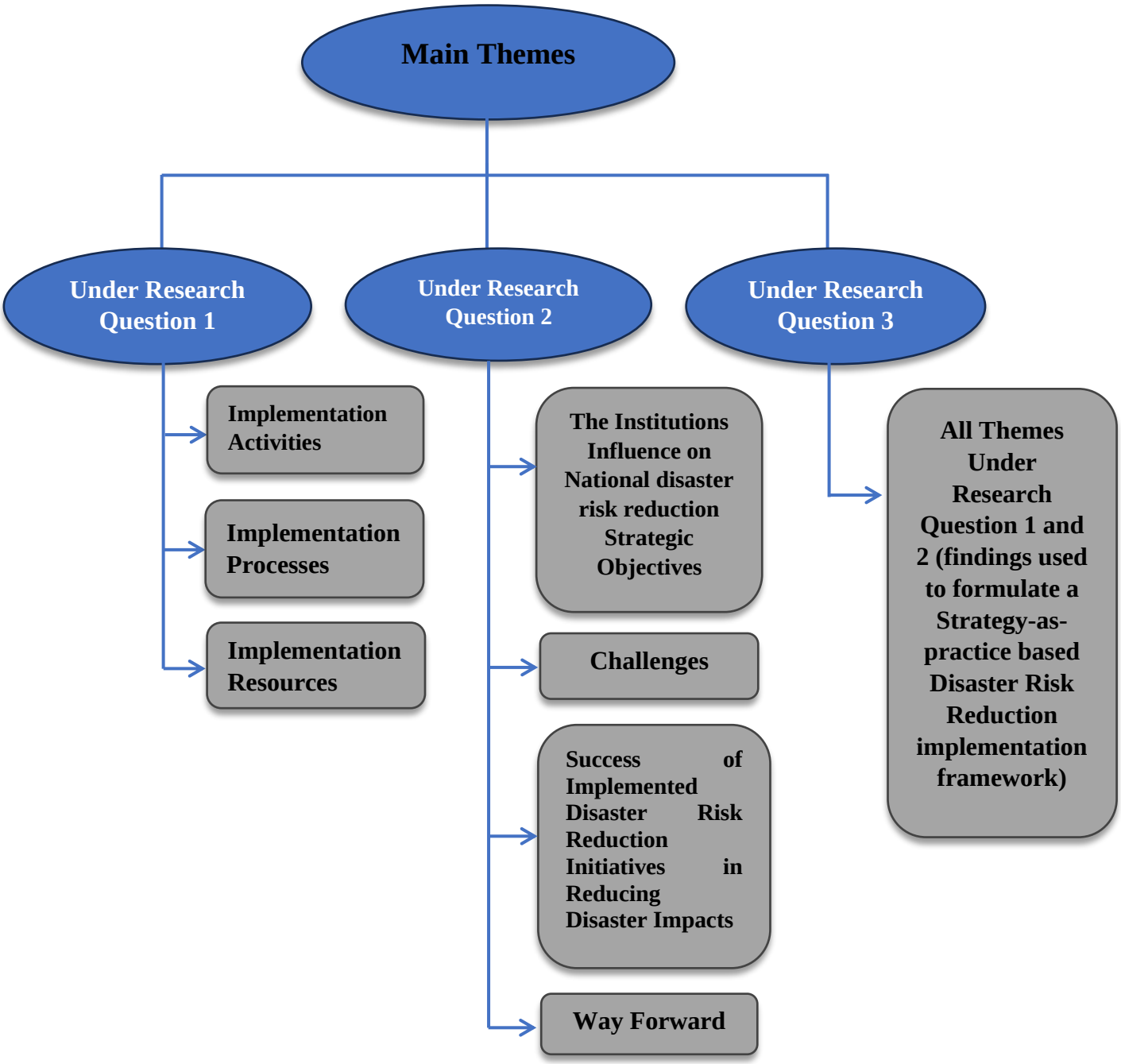


Figure 4.1 Summary of themes

4.4 Document Review

Analysis here was guided by the methodology identified under Chapter 3. This review was done to get a background on Botswana's disaster risk reduction such that, the researcher is knowledgeable on the various structures and instruments in place, as well to help shape the type of questions to ask implementors (Yin, 1994). The document review provided sufficient information to only address the first research question which is: What are the activities, processes and resources utilised to implement the disaster risk reduction strategy in Botswana?

The documents used were the National Policy on Disaster Management 1996, National Disaster Risk Reduction Strategy 2013- 2018 and the National Disaster Risk Management Plan 2009. A special focus was on disaster risk reduction and not the whole disaster management cycle.

4.4.1 Botswana National Policy on Disaster Management 1996

The background of this policy states that since 1981 Botswana had been experiencing recurrent drought periods, some being more severe than others. In response to this, government developed activities aimed at providing effective early warning and response measures (PreventionWeb, 2013). These activities proved to be successful in ensuring that the vulnerable can sustain themselves during such periods without falling destitute. However, before 1996 when the policy was developed, no other disasters were properly taken into consideration. Little had been done to include them in national development plans and associated programmes.

4.4.1.1 Research Question 1:

a) **Main Theme 1: Implementation Activities**

i. **Sub Theme 1: Co- ordination of Disaster Management**

The overall disaster management coordination in the country is handled in the Office of the President. The Permanent Secretary within the Office of the President ensures that the national committees convene at regular intervals to oversee implementation of disaster management in the country. This policy made no mention of the current National Disaster Management Office as it was only established in 1998. However, it did highlight that there was a National Committee on Disaster Preparedness to address disaster management needs. It was also established to provide a channel for the country to actively participate in the United Nation's International Decade for Natural Disaster Reduction.

At district level, the responsibility for coordination rests with the District Commissioners, alongside the council secretary/ town clerk. Each district is to have a District Disaster Management Committee that is responsible for overseeing disaster management implementation. At village level, disaster management rests with traditional leadership/ tribal leaders and organised groups identified by each District Disaster Management Committee.

Village levels are perceived to be in a better position to partner with non-governmental organisations because that is where they are seen to have a strong presence.

b) Main Theme 2: Implementation Processes

i. Sub Theme 1: Disaster Management Cycle

The policy highlighted that it relates to all stages of the disaster management cycle, labelling them as mitigation (prevention), preparedness, response, recovery as well as development.

ii. Sub Theme 2: Raising Awareness

The policy states that it is important to continuously raise disaster management awareness to citizens and those in disaster management roles- particularly at district and village level. It states that disaster management awareness programmes should be on the radio, television, and print. Cheema et al. (2016) and Fraser et al. (2017) found that countries have plans in place to address disaster risk reduction, but the fact that people on the ground do not have enough knowledge on the subject matter deters implementation.

c) Main Theme 3: Implementation Resources

i. Sub Theme 1: Disaster Management Guiding Documentation

The policy made mention of a special legislation in disaster management which among others, gives power to the National Disaster Risk Management Plan 2009. It is supposed to deliver the requirements of disaster management in the country and cement structures and collaborations that promote its effectiveness. A certain national disaster plan was also discussed in the policy, to provide guidance to all levels of society in disaster management and mitigation. The National Disaster Risk Management Plan was indeed put in place in 2009. Over and above the national disaster plan, the policy prescribed that there should be development of district, town and city plans which reflect on the implementation requirements at the different levels (PreventionWeb, 2013).

ii. Sub Theme 2: Mobilisation of Resources

The policy states that disaster management in the country should be conducted in a cost-effective way, where existing resources and capacities in individual departments should be used efficiently. There is a lack of technical and financial resources across various countries, mainly attributable to disaster risk reduction not being mainstreamed into national development plans (Bang et al., 2019 and Van Niekerk et al., 2013). The policy also discusses the National Disaster Contingency Fund that disburses funds for disaster requirements at short notice. This fund is said to be used alongside similar funds at district level. The policy, however, calls upon participation of the commercial sector and individuals in disaster risk reduction funding (PreventionWeb, 2013)

Within each Ministry, there should be a focal point who ensures that personnel are aware of their responsibilities in disaster management. The focal persons are meant to be competent and capable of carrying out such duties. Furthermore, the responsibility of disaster management implementation lies with line ministries at national and district levels because they are thought of to have necessary sectoral skills. The policy also calls for collaboration between government structures, non-governmental organisations, and the private sector in disaster management activities (PreventionWeb, 2013).

iii. Sub Theme 3: Training

The policy states that disaster management training for government employees, non-governmental organisations through programmes will be through training and educational institutions. There is also an emphasis on the acquisition of ‘specific skills’ for those with sectoral responsibilities (PreventionWeb, 2013).

4.4.1.2 Key Findings

Table 4.2 Key findings- National policy on disaster management 1996

	Research Question	**Main Themes**	**Sub- Themes**	**Key Points**
Type of Document				
National Policy on Disaster Management (1996)	1	a) Implementation Activities	i. Coordination of Disaster Management	<u>National Level</u> • Office of the President responsible for coordination in the country. • No mention of the National Disaster Management Office as it was established in 1998. However, the National Committee on Disaster Preparedness was set up then to address disaster management needs. • The National Committee on Disaster Preparedness also provided a channel for the country to actively participate in the United Nations International Decade for Natural Disaster Reduction. <u>District Level</u> • District Commissioners, council secretary/ town clerk responsible for disaster management coordination in the districts.

				• District Disaster Management Committees oversee district disaster management implementation. <u>Village Level</u> • Spearheaded by traditional leadership in collaboration with organised groups identified by the District Disaster Management Committees. • There is potential to partner with non- governmental organisations at this level as they are perceived to have a strong presence in villages.
		b) Implementation Processes	i. Disaster Management Cycle	• There is a focus on all stages of the disaster management cycle.
			ii. Raising Awareness	• This should be ongoing for citizens and implementors. • Disaster management awareness through the radio, television and print media.
		c) Implementation Resources	i. Disaster Management Guiding Documentation	• There needs to be disaster management legislation meant to cement structures, plans and collaborations. • Over and above the national disaster plan, there should be district, town, and city plan implementation plans.
			ii. Mobilisation of Resources	• Cost effective: existing resources and capabilities in each department must be used optimally. • National Disaster Contingency Fund- for disaster requirements at short notice, used along similar funds at

				district level. There is a call for private sector and individuals' participation. • There should be a disaster management focal person in each Ministry.
			iii. Stakeholder Collaboration	• Calls for collaboration between government structures, non-governmental organisations, and the private sector.
			iv. Training	• Disaster management training for government workers and non- governmental organisations through training and educational institutions. • Acquisition of 'specific skills' for those with sectoral responsibilities.

Source: Dennison (2024), *developed for this PhD thesis*

4.4.2 Botswana National Disaster Risk Management Plan 2009

This is the central disaster risk management Plan for Botswana, formulated in 2009. The plan provides a framework and direction for plans prepared by all ministries and organisations, as well as contingency plans for hazard specific preparedness and response at district and village levels. It includes all guiding principles established by the National Policy on Disaster Management 1996. However, to meet the global standards of disaster management, the plan goes beyond the old policy (PreventionWeb, 2011). It adopted multi-sectoral and multiple level methods for assessing disaster risks and response in line with the Hyogo Framework of Action (HFA) 2005-2015 (which was the United Nations framework in place at the time).

4.4.2.1 Research Question 1:

a) Main Theme 1: Implementation Activities

i. Sub Theme 1: Coordination of Disaster Management

The National Disaster Risk Management Plan 2009 states that the President of the Republic of Botswana has the overall responsibility for ensuring security, safety, as well as the social and economic well-being of citizens. Under him are two committees at national level; the National Committee on Disaster Management and the National Disaster Management Technical Committee responsible for policy formulation and coordination as well as technical advice, respectively (PreventionWeb, 2011) (these committees were discussed in section 1.1.3.2). The National Disaster Management Office is responsible for coordination of disaster management in the country and hence is strategically positioned in the Office of the President. The National Policy on Disaster Management 1996 made no mention of the National Committee on Disaster Management, National Disaster Management Technical Committee and the National Disaster Management Office because at the time, these were not yet in place.

As with the policy, the plan explains how each district has a District Disaster Management Committee which is made up of multi-sectoral members of government departments operating in those districts. These committees are chaired by the District Commissioner. The Village Development Committee's assume responsibility for coordinating disaster risk management activities in villages under the leadership of DiKgosi (traditional leaders) and the Village

Development Committee chairpersons. The Village Development Committee is responsible for reporting to the District Commissioner on matters related to disaster risk management (PreventionWeb, 2011).

b) Main Theme 2: Implementation Processes

i. Sub Theme 1: Disaster Management Cycle

The plan focuses on all stages of the disaster management cycle, like the policy. The major goal of the National Disaster Risk Management Plan 2009 is to enable achievement of sustainable development. The plan states that disaster risk reduction reduces vulnerability and increases resilience to disasters, affecting sustainable development. Thus, it should be made an integral part of all the planning processes (Balcik et al. 2010).

ii. Sub Theme 2: Stakeholder Engagements

The plan highlights that there should be preparatory meetings prior to disaster prone seasons. It however does not state what exactly should be discussed and addressed with regards to disaster risk reduction. It also states that the national platforms must facilitate coordination across the various sectors, through the maintenance of a broad-based dialogue at national and regional levels to promote disaster awareness. But how often and how this should be carried out is not discussed. There is no communication and stakeholder engagement plan in place.

iii. Sub Theme 3: Raising Awareness

The plan emphasises the importance of public education and awareness on disaster risk reduction. It mentions that the following will disseminate disaster related information and promote communication among stakeholders: mass messaging systems, radio, television, print media, official websites, community gatherings and meetings among others (PreventionWeb, 2011). This list is a lot more exhaustive than the measures that were mentioned in the policy. The National Disaster Risk Management Plan 2009 further highlights that village and district level involvement and awareness in programme development and implementation is pertinent to the success of disaster risk reduction plans because they are the main victims of disasters in

Botswana (PreventionWeb, 2011). This in line with studies by Bang et. al (2019); Chong and Kamarudin (2017) and Samuel et al. (2022).

iv. Sub Theme 4: Alignment of Plans with International Frameworks and Agreements

Disaster risk management is a multi-sectoral and global issue, and thus government has always aimed to align its disaster management activities with international agreements related to vulnerability reduction and sustainable development. When the plan was developed, the country was a signatory to the Hyogo Framework for Action (HFA) (2005-2015) which focused on the relevant strategic action points against which disaster risk reduction should be measured. It was aligned with the Africa Regional Strategy for Disaster Risk Reduction and the SADC Regional Water Policy. Similar efforts were mentioned in the policy, where the National Committee on Disaster Preparedness was described to have been established to provide a channel for the country to actively participate in the United Nations International Decade for Natural Disaster Reduction (PreventionWeb, 2013).

c) Main Theme 3: Implementation Resources

i. Sub Theme 1: Disaster Management Guiding Documentation

The National Disaster Risk Management Plan 2009 makes mention of the National Policy on Disaster Mananagement 1996 and highlights that there is no specific disaster risk management legislation in Botswana. Currently, implementation of disaster risk management is supported by several legislations and policies. However, there is a need for a comprehensive legislation dedicated to disaster risk management to reinforce existing structures for disaster risk reduction and disaster response. Below is a discussion of key legislative and policy frameworks currently used to support disaster risk reduction and response:

- The constitution of Botswana because it has an overall framework for the provision of safety and security from all disasters.
- The declaration of disasters is currently backed by the Emergency Power Act. Although the Act does not contain guidelines specific to disaster induced emergency, it however, empowers the President to make emergency regulations.
- The National Policy on Disaster Management (1996) has to date been the key instrument for guiding disaster risk management.

- There are other existing policies and legal instruments relevant to disaster management and these are the Agrochemicals Act Cap 35:09, Agriculture Resource Act 36:06, Building Control Act Cap 65:02, among others.

The National Disaster Risk Management Plan 2009 specified that it must be reviewed every 5 years by the National Disaster Management Office supported by national level committees, considering the increasing magnitude of disasters and emerging threats attributable to climate change (PreventionWeb, 2011). The plan prescribes that District Disaster Management Committee's should develop and implement district disaster risk management plans, which consider all hazards, mitigations and the resources required to reduce disaster risks. Equally so, the Village Development Committee's should prepare village disaster risk management plans involving community members, and this should be facilitated by the District Disaster Management Committees.

ii. Sub Theme 2: Mobilisation of Resources

The plan advocates for disaster risk reduction resource mobilisation. This presents challenges for African governments who already have dire financial burdens they are faced with (Lukamba, 2010). There is mention of the National Disaster Relief Fund which is meant to assist disaster victims with shelter, food, and other necessary amenities. This fund was called the National Disaster Contingency Fund in the policy; however, its objective is still the same. As with the policy, the plan discusses focal persons within various ministries who take the lead in making sure that there is an integration of disaster risk reduction in their respective ministries' planning procedures and operations (PreventionWeb, 2011).

iii. Sub Theme 3: Stakeholder Collaboration

The plan specifies the roles and responsibilities of various key stakeholders in disaster risk reduction across all government ministries, the private sector, the United Nations system in Botswana, SADC, and academia among others. It explains that proper stakeholder collaboration would promote efficiency and effectiveness of disaster risk reduction in the country. The plan also details responsibilities of key government and non-government organisations for implementing disaster risk reduction.

iv. Sub Theme 4: Training

The pertinence of training and educating staff and communities on disaster mitigation is emphasized. Lukamba (2010) speaks to the importance of appointing public managers with expertise in disaster risk reduction, those who are skilled and well capacitated.

4.4.2.2 Key Findings

Table 4.3 Key findings- National disaster risk management plan 2009

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Type of Document				
National Disaster Risk Management Plan 2009	1	a) Implementation Activities	i. Coordination of Disaster Management	<u>National Level</u> • The president is responsible for ensuring security, safety, and social and economic well-being of the citizens. • Two committees at national level; For policy formulation and coordination as well as technical advice (National Committee on Disaster Management and National Disaster Management Technical Committee, respectively.) • National Disaster Management Office monitors the implementation of disaster management in the country. <u>District Level</u> • District Disaster Management Committee's chaired by the District Commissioner, oversees disaster management implementation at district level. <u>Village Level</u>

				• Village Development Committees are responsible for coordinating disaster management at village level under the leadership of DiKgosj (traditional leadership) and the Village Development Committee chairpersons. • These Chairpersons are responsible for reporting to the District Commissioner on matters of disaster risk management.
		b) Implementation Processes	i. Disaster Management Cycle	• The focus is on all stages of the disaster management cycle.
			ii. Stakeholder Engagements	• It encourages dialogues between stakeholders but does not clearly explain how often there should be engagements and what should be discussed. Aside for measures stated below to raise awareness. • No communication and stakeholder engagement plan.
			iii. Raising Awareness	• Public education and awareness on disaster risk reduction through mass messaging systems, radio, television, and meetings among others.
			iv. Alignment of Plans to International Frameworks and Agreements	• The plan was aligned to the Hyogo Framework for Action 2005- 2015 (which was a United Nations framework in place at the time), the

				Africa Regional Strategy for disaster risk reduction and the SADC Regional Water Policy.
		c) Implementation Resources	i. Disaster Management Guiding Documentation	• There is a disaster management policy. • There is no disaster risk management legislation. Implementation is supported by various other legislation and policy e.g., Emergency Powers Act and the Constitution of Botswana, among others. • The National Disaster Risk Management Plan must be reviewed every 5 years. • District Disaster Management Committee's should develop district disaster risk management plans and Village Development Committees should develop village disaster risk management plans, facilitated by districts.
			ii. Mobilisation of Resources	• The plan calls for disaster risk reduction resource mobilisation. • National Disaster Relief Fund- assist disaster victims with food, shelter, and other amenities. • There should be disaster risk management focal persons within Ministries ensuring there is integration of disaster risk reduction in planning processes and operations.

			iii. Stakeholder Collaboration	• The plan details roles and responsibilities of various key stakeholders in disaster risk reduction; Botswana ministries, United Nations system, SADC, and the academia among others.
			iv. Training	• The National Disaster Risk Management Plan 2009 emphasises the importance of training and educating staff and the community on disaster risk reduction.

Source: Dennison (2024), *developed for this PhD thesis*

4.4.3 Botswana National Disaster Risk Reduction Strategy 2013- 2018

The strategy was put into place in 2013, for a period of five years. It reached its design life in 2018. Its mandate was to establish and incorporate the guiding arrangements for disaster risk reduction in the country, across various sectors, increasing awareness and knowledge of available methods and opportunities.

4.4.3.1 Research Question 1:

a) Main Theme 1: Implementation Activities

i. Sub Theme 1: Coordination of Disaster Management

The custodianship of the National Disaster Risk Reduction Strategy lies with the Office of the President, and the implementation is coordinated by the National Disaster Management Office. At district level, District Disaster Management Committees are responsible for the planning and implementation of disaster risk reduction, while at village level the plan states that local disaster risk management committees should coordinate disaster risk reduction (PreventionWeb, 2018).

b) Main Theme 2: Implementation Process

i. Sub Theme 1: Disaster Management Cycle

The strategy is dedicated to disaster risk reduction, unlike the policy and national plan that consider the whole disaster management cycle. It is all about reducing the risks of disasters, emphasising and providing measurable indicators for the achievement of disaster risk reduction components and objectives (PreventionWeb, 2018).

ii. Sub Theme 2: Stakeholder Engagements

Elements of co-operation, communication, reporting, alignment, and constant information dissemination are pertinent in the implementation of disaster risk reduction. The strategy advocates for continuous communication between stakeholders and implementors through meetings, information dissemination through flyers/brochures and posters, as well as capacity building sessions (PreventionWeb, 2018). The strategy, however, explains that a detailed

communication and awareness strategy will be drafted for the country. Similarly, the policy and national plan did not have a detailed communication and engagement plan. The strategy also strongly emphasizes the importance of a bottom-up approach for effective disaster risk reduction. Bang et al. (2019) found that Cameroon has a challenge in exploring bottom-up communication particularly before and during crises, while Chong and Kamarudin (2017) reported that Malaysia, cannot find a balance between the top-down and bottom-up approaches in disaster risk management. The importance of information management and communication was also highlighted, with a specific reference to using appropriate systems and technologies. Some of the requirements crucial to the strategy implementation included that every six months, all the ministries and national stakeholders are to be given a standard format for disaster risk reduction progress reporting. District Commissioners were also meant provide updates to the National Disaster Management Office with clear challenges and recommendations (PreventionWeb, 2018).

iii. Sub Theme 3: Raising Awareness

It is stated that public awareness and education is pivotal in disaster risk reduction initiatives (PreventionWeb, 2018). There are several campaigns that have been implemented over the years that promote individual and community resilience to disasters. For instance, the National Disaster Management Office has taken part in the Trade Fair, Vision 2016, United Nations Day among others. Over and above that, there have been press releases on impending disasters, as well as radio and TV programs. There is also a yearly commemoration of the international disaster risk reduction day to raise awareness on the subject matter and its related initiatives. The strategy further calls for disaster mitigation related information and guides to be disseminated at schools, community meetings as well as organised business meetings (PreventionWeb, 2018).

iv. Sub Theme 4: Alignment of Plans to International Frameworks and Agreements

The National Disaster Risk Reduction Strategy 2013- 2018 takes into consideration disaster risk reduction and disaster management international agreements and guidelines. At the time the strategy was formulated, there was guidance from the Hyogo Framework for Action: 2005-2015, which focused on the relevant strategic action points against which disaster risk reduction should be measured. In 2005, the United Nations General Assembly encouraged Governments

to establish national focal points for disaster risk reduction. Strengthening of platforms was encouraged for those that already existed. Over and above that, the United Nations systems was encouraged to provide support to those structures. At regional and sub-regional level, the strategy was guided by the Africa Regional Strategy for Disaster Risk Reduction 2004 as well as the draft SADC Disaster Risk Reduction Strategy and Plan of Action 2010 – 2015. Ashu and Van Nierkerk (2019), Caymaz et al. (2013) and Samuel et al. (2022) found in their studies that the countries under their investigations were failing to align their implementation with international guiding frameworks.

v. Sub Theme 5: Inclusion of Cross- Cutting Issues

Marginalised groups such as the elderly, disabled persons and the poor have special needs that should be considered and integrated into disaster risk reduction planning projects and programmes. The strategy also states that feedback from community representatives highlighted that issues including unemployment, poverty, alcoholism, and other health problems negatively impact resilience of communities (PreventionWeb, 2018). Policies and strategies should pay attention to today's important and relevant issues in disaster management, including gender matters, issues concerning disabled persons, and the youth. A study by Ngozi (2019) in Botswana similarly calls for an approach that is gender sensitive in disaster risk reduction policy implementation.

c) Main Theme 3: Implementation Resources

i. Sub Theme 1: Disaster Management Guiding Documents

The strategy document highlighted that it should be read together with the National Disaster Risk Management Plan 2009, National Policy on Disaster Management 1996, as well as other related documents and legislation (in the absence of a dedicated disaster management legal instrument). Each sector and district are expected to develop their own risk reduction plans that are designed specifically for their areas. However, the same standards must be maintained across the country. The strategy was meant to be assessed annually and updated as required, with quarterly assessments of the status of implementation by the National Disaster Management Office. It was stated that the first review should have been in 2016, following its

inception. Furthermore, every six months all the Ministries were meant to provide feedback on disaster risk reduction matters.

ii. Sub Theme 2: Mobilisation of Resources

The strategy speaks to the importance of resource mobilisation and funding, be it so, it also explains that it is important to use fewer resources to achieve more. Like what was expressed in the National Policy on Disaster Management 1996. One of the funding mechanisms is the National Disaster Relief Fund which provides basic needs for the affected during disasters, it is said that this fund is administered by the National Disaster Management Office. Furthermore, the strategy states that each Ministry and district should include disaster risk reduction in its budget. It continues to highlight that the Ministry of Finance and Development Planning will ensure that departments make provision for disaster management cycle programmes in National Development Plans and budgets. External funding should also constantly be sourced including funding for disaster risk reduction capacity and initiatives by United Nations Agencies, the SADC and international humanitarian and relief organisations. There should be development of disaster management Information and Communication Technology systems to assist with disaster risk reduction implementation. Lastly, it recommends that there should be capacitated, dedicated disaster risk management focal points who must be appointed in each District Commissioner's Office, reporting directly to the District Commissioner and the National Disaster Management Office (PreventionWeb, 2018).

iii. Sub Theme 3: Stakeholder Collaboration

Disaster risk reduction planning is the responsibility of all institutions, stakeholders, and role players in the country. This includes non- governmental organisations and specialists, the inclusion of indigenous information and knowledge relevant to disaster hazards and the private sector. There should be establishment of memoranda of understanding, mutual aid agreements and public-private partnerships on disaster risk reduction (PreventionWeb, 2018). Cheema et al. (2016) and Chong and Kamarudin (2017) argue that disaster management is multifaceted and needs collaboration between implementors and other stakeholders to be successful. International and trans-boundary co-operation should be also implemented.

iv. Sub Theme 4: Training

The pertinence of training and capacity building in disaster matters also came up in the document. It was stated that this will be done regularly by all stakeholders and role players. All parties involved in disaster risk reduction will partake in research and get all the required technical advice and inputs required for implementation. An example of a training initiative was where the National Disaster Management Office partnered with the United Nations Development Programme for training on community-based disaster risk reduction, building capacity and awareness at district level (PreventionWeb, 2018).

4.4.3.2 Key Findings

Table 4.4 Key findings- National disaster risk reduction strategy 2013- 2018

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Type of Document				
National Disaster Risk Reduction Strategy 2013-2018	1	a) Implementation Activities	i. Coordination of Disaster Management	<u>National Level</u> • Custodianship of National Disaster Risk Reduction Strategy is with the office of the President. • National Disaster Management Office is responsible for disaster coordination in the country. <u>District Level</u> • District Disaster Management Committees are responsible for disaster management coordination at district level. <u>Village Level</u> • Local disaster risk management committees are responsible at village/ community level.
		b) Implementation Processes	i. Disaster Management Cycle	• Focused on disaster risk reduction not the whole disaster management cycle.

			ii. Stakeholder Engagements	• Advocates for continuous engagements between all implementors. However, there is no detailed communication and stakeholder management plan. • Advocates for a bottom-up approach for effective disaster risk reduction. • Some of the requirements crucial to its implementation included that every six months, all the ministries and District Commissioners were meant to provide progress on disaster risk reduction activities to the National Disaster Management Office (incorporating challenges and recommendations).
			iii. Raising Awareness	• Public awareness and education are pivotal. • Raise awareness through radio and television programmes, the yearly commemoration of the disaster risk reduction day among others. • Disaster risk reduction related information to also be disseminated at schools, community meetings as well as organised business meetings.
			iv. Alignment of Plans to International Frameworks and Agreements	• The plan was aligned to the Hyogo Framework for Action 2005-2015, the Africa Regional Strategy for disaster risk reduction and the draft SADC Disaster Risk Reduction Strategy and Plan of Action 2010 – 2015. • In 2005, the United Nations General Assembly encouraged the establishment of national focal points for disaster risk reduction and strengthening already existing platforms

			v. Inclusion of cross cutting issues	• Consideration of cross cutting issues in disaster risk reduction. Impact of disasters on the elderly, disabled persons, the poor. Must be incorporated into projects and planning. • Unemployment, poverty, alcoholism, and health related problems can negatively impact the resilience of communities.
		c) Implementation Resources	i. Disaster Management Guiding Documentation	• The strategy should be read in conjunction with the National Disaster Risk Management Plan 2009, National Policy on Disaster Management 1996 as well as other related documents and legislation (in the absence of a dedicated legal instrument). • Sectors and districts are expected to develop their own area specific strategies. However, similar standards must be maintained. • Meant to be assessed annually and updated as required, with quarterly assessments of the status of implementation by the National Disaster Management Office. The first review was meant to be in 2016, following its inception. • Furthermore, every six months all the Ministries are meant to provide feedback on disaster risk reduction matters.
			ii. Mobilisation of Resources	• The strategy calls for resource mobilisation and funding, however it highlights that fewer resources must be used to achieve more. • National Disaster Relief Fund- provides basic needs for the affected during disasters. It is administered by the National Disaster Management Office. • Each ministry and district to include disaster risk reduction in their budget. • Should continually seek external funding for disaster risk reduction.

				• There should be development of disaster management Information and Communication Technology systems. • There should be capacitated, dedicated disaster risk management focal points appointed in each District Commissioner's Office, reporting to the District Commissioner and the National Disaster Management Office.
			iii. Stakeholder Collaboration	• Disaster Risk Reduction is the responsibility of all stakeholders, institutions, and role players in the country. This includes non-governmental organisations and specialists, the inclusion of indigenous information and knowledge and the private sector. • Exploration on mutual aid agreements and public-private partnerships on disaster risk reduction.
			iv. Training	• Continuous training and capacity building for implementors is pertinent to implementation.

Source: Dennison (2024), *developed for this PhD thesis*

4.5 Empirical Data Analysis

This data analysis is guided by the methodology detailed in Chapter 3 of this study. Table xx in the methodology section gives a breakdown of which sections addressed which research question.

4.5.1 National Level Data Analysis- Semi structured interviews

These interviews were conducted with two participants in the management of disasters at national level. For purposes of this analysis, the participants will be called Participant A of national level semi structured interview session one and Participant A of national level semi structured interview session two. They were asked what their educational qualifications were considering the pertinence and sensitivity of their roles and they both had post graduate degrees.

4.5.1.1 Research Question 1:

a) **Main Theme 1: Implementation Activities**

i. **Sub- Theme 1: National Coordination Disaster Management**

Both participants indicated that the National Disaster Management Office is the coordinating office of disaster management in the country. The national office is responsible for coordinating activities and initiatives covering the whole disaster management cycle, with an aim to reduce their impacts on lives, property, and the environment. They explained that they are the point of call where there is a hazard or disaster. This is in line with the reviewed national disaster management guiding documents. The National Disaster Management Office has a similar mandate as the Directorate of Civil Protection within the Ministry of Territorial Administration in Cameroon as identified by Bang et al. (2019) as well the National Disaster Management Agency in Malaysia (Chong and Kamarudin, 2017). These coordinating bodies also oversee implementation through the various levels of their national disaster management institutional frameworks. When talking about their coordination role, participant A of national level semi structured interview session one mentioned that:

> Well, the national disaster management office is a coordinator. Basically, to deal with strategies, plans that aim to reduce the effect of disasters in the country. That basically means that you put in place plans that aim to prepare and respond to disasters, to ultimately reduce the impact when it does occur.

As part of his personal role within the national office, participant A of national level semi structured interview session two explained that, over and above doing office work, he is out there interacting with people from different sectors concerning matters of disaster risk reduction. He said, "We try and help our colleagues, especially from other sectors to understand and be on board in terms of how to ensure we put in place measures to deal with disaster risk reduction."

ii. Sub- Theme 2: Top Rated Practices

The researcher asked the two participants to rate the importance of implementation practices on a Likert scale, from a compilation developed by Ikavalko (2005). The rating scale was from one to seven, one being not important and seven being very important. Following the rating exercise, the researcher asked them to choose their best five and explain why they believe that those work best. The two participants had different top five's and hence the researcher collated the results to have an average top five from their highest ratings. A follow up question was on whether they had used most of those practices in their disaster risk reduction implementation. They both explained that they have indeed or do apply most of those practices in their disaster risk reduction operations. Below are the top five practices as chosen by the participants:

- **Projects**

Both participants agreed on the importance of projects in implementing the disaster risk reduction strategic objectives. They explained that projects are a tool used to deliver on set objectives. In line with this, Bryson (2004) highlighted that strategic management theory now advocates for the alignment of an organisation's mission, strategies, and operations with major strategic initiatives such as new policies, programs, or projects. Participant A of national level semi structured interview session two further emphasised on the importance of projects and gave an example encompassing one of their current big projects saying:

> Projects are important because we work on major projects in the office. Currently we are dealing with a project of serious moneys, an emergency operations center. It is a massive building, massive infrastructure that we are doing as an office and hopefully it is going to be able to help the country because it will ensure effective coordination during disaster response, bringing all the different sectors together.

It is worth noting that this is a progressive development for the country where disasters are concerned. Bringing the different sectors together in a timely manner when a disaster occurs, as it will lead to minimal destruction of property and a loss of lives. However, the researcher would highlight that this is a response development, not a risk reduction/ mitigation initiative.

- **Emails**

Both participants rated emails highly. They explained that we are living in a technological era, and this is the fastest way to share information and communicate in a timely manner. However, some findings in Ikavalko (2005) brought a different perspective emphasising on the importance of physical and informal discussions in strategising. To say that, if the intention is change, communication via email is not best. Face to face interactions allow for solving problems as they arise because people might have counterarguments where strategic choices might have to be justified.

- **Networks and Partnerships**

Collaborations are important in disaster risk reduction because different sectors and different levels of the disaster risk management institutional framework can bring in different skills and resources, to reduce disaster risk. Bang et al. (2019) and Trainor and Subbio (2014) emphasise on the importance of participation from various disaster risk management/ disaster risk reduction stakeholders within a country and not just government. They state that not-for-profit organisations, businesses, the community, and individuals must play a role as well because government cannot address disaster risk reduction alone, there is limited capacity. On explaining the importance of networks and partnerships, participant A of national level semi structured interview session two spoke of experience in his personal role in disaster risk reduction. He discussed that when he started at his current position, he realised that they did

not have strong linkages with neighbouring countries in the region and because of that, there was no crucial information sharing. He said:

> We try and see how we provide information, especially for external colleagues that are outside the country, be it through SADC or neighbouring countries. There would be times when we wouldn't even know things that were coming into this country, coming from other countries. And then they impacted, I'll give you an example… some years ago, I think 2010, there were some floods that we had in this country. The bulk of the flood waters were coming from outside. And we didn't even know about that until it occurred, and even the journalists were trying to say, so you guys didn't know anything? Ha! but we couldn't say that you see. I think that was an eye opener because then it motivated us to ensure that we really reach out not just within, outwards as well.

- **Training**

According to Flood et al. (2000) and Verweire (2018), some of the major challenges identified in implementing strategy include failure in communicating and translating a strategy, as well as inadequate training. Training enhances skills, capabilities, and knowledge of implementors to action the objectives. To cement the point above, participant A of national level semi structured interview session one stated that, "Training is very critical because of the ever-changing landscape that we have. You cannot only rely on what you learnt in school. Sometimes you learn some of the skills through training."

- **Budget Monitoring and Reporting**

This aspect is important as it ensures resource availability to meet objectives, however how budgets are developed can at times constrain strategy work and attainment of long-term goals. For instance, Hoglund et al. (2018) stated that like Sweden, most countries' national budgets are set for a short period at a time, that is, one year, leaving room for only immediate issues and their actions. In emphasising on the importance of budget monitoring and reporting. Participant A of national semi structured interview, session one said that "Budget monitoring ensures that the resources particularly money… the funds that we have allocated are optimally used, for whatever objective that we want to achieve."

b) Main Theme 2: Implementation Processes

i. Sub Theme 1: Disaster Management Cycle: Responsive

Answers received at various stages of both interviews reflected that the national level was very much active in disaster response after disasters have occurred as well as some aspects of disaster preparedness, as opposed to disaster risk mitigation. This is contrary to recommendations in the NDRSS 2013- 2018, which call for active participation in disaster risk reduction. Chong and Kamarudin (2017) and Samuel et al. (2022) found that in Malaysia and Botswana respectively, most of the disaster management agencies focus on disaster response and recovery stages by providing services such as food and water, medication as well as communication and logistics to assist disaster victims. Some of the major developments and country investments that were highlighted during data collection had to do with disaster response measures, for instance the emergency operations centre which will be in place to coordinate disaster response.

ii. Sub- Theme 2: Stakeholder Engagements

As a national disaster management coordinating office, the National Disaster Management Office deals with implementors at different levels of the national disaster risk management institutional framework. The participants similarly indicated that their engagements with national level committees (National Committee on Disaster Management and the National Disaster Management Technical Committee) on issues of disaster risk reduction are physical meetings on a quarterly basis or, as and when there is a need. For instance, during a disaster emergency where timely response is needed. It was stated that those meetings have not occurred since COVID-19. Despite the ravages of COVID-19, the pandemic encouraged Information and Communication Technology innovation and thus, this would have been the perfect opportunity for government to advance themselves in this regard. For example, using online meeting platforms (Zammuto et al., 2007). Participant A of national level semi structured interview session two stated that:

> If need be, and we need guidance on certain issues, we would often engage aside from the quarterly physical meetings. When disasters occur, especially ones that are much more impactful, we need guidance through them and approval. Once they take a

> decision on certain issues, we as an office, make the recommendation to Cabinet so that they can then approve the decision that was taken.

Over and above the National Disaster Management Office's coordination function, they also provide secretarial services to these national committees. Both participants agreed that engagements with co-workers within their office on issues of disaster risk reduction are regular, in the form of physical meetings. They explain that it is once or twice a week, depending on the magnitude of work they must do. They both alluded to the fact that this is not a very big mission considering that their office has a very small number of people. Contrarily, their communication with co- workers in other sectors outside their office, seems to not be often, although Participant A of national level semi structured interview session one mentioned the importance of dealing with disaster risk reduction daily as it is a very critical matter. He however did mention that each ministry has a disaster management/ disaster risk reduction focal person (in line with the National Disaster Risk Reduction Strategy 2013- 2018 recommendations). Both participants also agreed that communication with subordinates (implementors at the district and village levels) is also mostly as and when there is a need to. They have no regular scheduled engagements.

Participant A of national level semi structured interview session one explained that at times, they interact with districts through physical meetings/ workshops, email and using their government Facebook page. He further mentioned that they are intending on opening a Twitter account where they can share information publicly. But overall, they communicate mostly during disaster hazard season or when there has been an occurrence that needs to be dealt with. This is done through the telephone or physical meetings. Participant A of national level semi structured interview session two stated that:

> I think that one (engagements), are probably on an ad hoc basis because it is not that regular. Except when it comes to now, certain periods of the year where they would be more engaged in dealing with certain hazards. For example, during either the rainy season or the wild land fire season. So, it depends on that, we can communicate with them maybe once or twice a week (during hazard/disaster prone periods).

When answering the question of how they communicate the strategy with the various institutions they advise, participant A of national level semi structured interview session one

explained that they consult with the various sectors and disaster risk management institutional framework levels in the formulation of strategies and plans. He said:

> Remember that any strategies that we do, are part and parcel of the consultation process. So, there are no strategies that we do alone. Also, remember our strength is with the sectors as we know that the sectors are the ones that are implementing. So, when we do a strategy we bring them together, we consult them, we produce a draft, we go back to them, and it's finally approved. Once it is approved, we take it back to them. Normally we share with them, like if you know the nation disaster risk management plan, we share it with everybody else.

Participant A of national level semi structured interview session two indicated that prior to COVID-19 they used to have annual national preparedness conferences/ forums which brought all disaster risk management players together; disaster management strategy implementors and the academia among others. Here they communicated updates and plans. The researcher then asked them how they ensure that implementors fully understand the disaster risk reduction strategic objectives. Participant A of national semi structured interview session two indicated that when it comes to conferences, most people who attend are already versed in matters of disaster risk reduction and are usually very eager to learn. Furthermore, at these conferences they would develop district contingency plans with implementors, as a way of cascading the strategy.

iii. Sub- Theme 3: Evaluation and Updating of Disaster Risk Reduction Objectives and Plans

Both participants revealed that, the National Disaster Risk Reduction Strategy 2013- 2018 and National Disaster Risk Management Plan 2009 have never been updated. In fact, the national disaster risk reduction strategy is outdated, as the design life was from 2013- 2018. The National Disaster Risk Management Plan (2009) has also not been updated since its formulation, although it specified that it must be reviewed every five years. Samuel et al. (2022) also found that Botswana's national disaster management guiding documents are outdated and are not aligned with the Sendai framework for Disaster Risk Reduction 2015- 2030, which the country is signatory to. However, participant A of national level semi structured interview

session one explained that there has been a recent review of the National Policy on Disaster Management 1996 which is yet to be presented to parliament for approval. They as an office decided that they should get approval for that first from before proceeding with reviewing the strategy and plan. He said:

> What is happening right now is because we were reviewing the 1996 policy, we decided that we are not going to come up with a strategy. Remember that our strategy was from 2013 to 2018, but if you look at that strategy, we are still implementing it the way it is. We said let us put on hold the review of the specific documents so that we get approval of the policy.

He mentioned that with these kinds of reviews, district structures such as the District Disaster Management Committees and certain villages (especially the ones that are prone to hazards and disasters) are usually involved. However, this is contrary to what participants in the (Samuel et al., 2022) study indicated that, the development of strategies and plans involve consultations with sectors at the highest levels and rarely involve the community who are often, mostly affected by disasters.

Participant A of national level semi structured interview session two also stated that the evaluation and updating of the strategy has not been done, but it has been a matter of discussion in the office. Some of the pertinent things he said about this issue were:

> We as an office, tend to talk a lot about the evaluation of, especially the strategy. But now with this policy that has been updated, there is a component there that talks to the reviewing of activities that would have been implemented. The only issue if I may add, is just how to practically ensure that the objectives are achieved. I mean it would be up to the higher power to say, but you've done well here, or you really need to do a bit more on this. So, for me, there isn't that oversight in terms of evaluation. I hope it makes sense.
>
> But hopefully, in terms of going forward, it will be clear as and when there will be a need for such reviews to be done, you know, because if it's periodic or if it's quarterly or whichever, it will be clearly stated.

He further mentioned that they anticipate that the evaluation and updating will also be done by various stakeholders because disaster risk reduction cuts across the different governmental sectors and non-governmental organisations. However, he highlighted that even though disaster mitigation is a cross- cutting issue and applies to different people, you will find that some do not have much interest until they are affected.

iv. Sub- Theme 4: Organisational Restructuring

To empower local authorities in dealing with disasters, participant A of national level semi structured interview session one elaborated on that government has now decided to separate disaster management activities. The districts and villages will be actively left to deal with the preparation and response of disasters at local level. He however emphasised that as the National Disaster Management Office, they will still be working closely with district and village levels to monitor the new structure. He said:

> But what government or the reset agenda has done is to separate disaster management operations. In the actual implementation from now, we have strategic emergency management meaning that we (the National Disaster Management Office), now remain with basically the coordination at national level of what they call emergencies and just deal with policy issues. Like right now we have been reviewing the 1996 policy. So that is what we are basically doing and managing the response really at national level when it is now a national disaster. So, they have separated that aspect of policy issues from the actual implementation, they have taken it to the Ministry of Local Government. For me it is still a good strategy in terms of decentralising the response and preparation of disasters down to local level.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Disaster Management Guiding Documentation

Participants highlighted that the National Policy on Disaster Management 1996, the National Disaster Risk Management Plan 2009 and the National Disaster Risk Reduction Strategy 2013-2018 are the backbone of all their operations, prescribing actions, stakeholder roles and responsibilities throughout the whole disaster management cycle. However, Samuel et al.

(2022), found that in Botswana there is limited correlation between disaster risk reduction, law and policy. Botswana currently has no disaster risk management legislation, as also stated in the National Disaster Risk Reduction Strategy 2013- 2018 and the National Disaster Risk Management Plan 2009 (PreventionWeb, 2018; PreventionWeb, 2011). One of the participants mentioned that the development of this legislation was especially highlighted by COVID-19, as law could have guided many processes. Both participants mentioned, fortunately Cabinet has approved that the bill gets drafted.

ii. Sub- Theme 2: Disaster Management Funding

The policy states that there ought to be a National Disaster Contingency Fund, while the national plan and strategy call it the National Disaster Relief Fund. This fund makes resources available at short notice to deal with specific disaster requirements. There does not seem to be a budget that is specifically for risk mitigation, although the national strategy recommended that each ministry and district should include disaster risk reduction in their budget (PreventionWeb, 2018). Bang et al. (2019) explains that not enshrining disaster risk reduction budget into legislation in Cameroon affects the budgetary allocations to the relevant ministries and agencies. They mention that about 70% of the participants in their study say because there is no legal obligation, the relevant stakeholders do not have much interest in making budgetary provisions for disaster management.

Participant A of national level semi structured interview session one however, made no mention of the fund, instead explaining that during a disaster, government can pull resources from various governmental departments. Perhaps it is in line with what was stated in the policy that resources may be obtained from similar funds at district level (PreventionWeb, 2013). However, this all relates to post disaster initiatives than risk mitigation.

iii. Sub- Theme 3: Stakeholder Collaboration

Both participants highlighted the importance of engaging and involving all stakeholders; the government and private sectors, district, and community levels in disaster risk reduction activities and initiatives because disaster risk reduction is multifaceted thus requires various sectoral efforts and participation (Cheema et al., 2016; Choi, 2008; Samuel et al., 2022). They emphasised that everything starts and ends with the community, because what they are doing

is mainly for them, saving lives and their property. Their answers are also in line with the stipulations on stakeholder collaborations in all the national disaster management guiding documents.

Participant A of national level semi structured interview session two highlighted collaboration as important in ensuring effective implementation of disaster risk reduction in the country, because it is pivotal to identify potential alliances. He gave an example of collaboration with the insurance industry because it can help curb disaster risk by among other things providing premium discounts for hazard mitigation/ disaster preparedness investments. He stated that:

> I will probably throw in the collaboration component there, because I think there needs to be a lot of that. Right now, there is a big issue on insurance. Insurance companies feel it is a nonstarter for them to provide insurance on disasters. So really this is a give and take because in the US, if you lived in a certain state that is prone to tornadoes or hurricanes, you must take out insurance specific to that in addition to your normal insurance. Why can't there also be thinking along those lines if we have businesses that are in that space. It is not just government that can always be there to aid.

iv. Sub- Theme 4: Skills and Competencies of Implementors

The participants had varying answers citing the importance of both organisational and technical skills. These ranged from communication, project management as well as departmental technical skills. To elaborate on this point participant A of national level semi structured interview session one explained that:

> Well, obviously communication skills. I don’t know whether it is a skill but the ability to communicate with the public. So, to me, it is critical because you are dealing with the public. We deal with the public at times when they are at their lowest. So, you should be able to respond and to be able to analyse what is happening on the ground. How can you deal with those? And cater to everybody? women, children, and so on and so forth.

Participant A of national semi structured interview session two highlighted that, “There are certain skills that we require especially around the environmental aspect. There must be an

element of that because most of the work that we do involves the environment and is on issues of climate change."

4.5.1.2 Research Question 2:

a) Main Theme 1: The Institution's Influence on National Disaster Risk Reduction Strategic Objectives

Both participants believe that their institution has had an influence on national objectives related to disaster risk reduction. They both bring this up by giving explanations using the two instruments to be put in place, that is, the reviewed policy as well as the anticipated disaster risk management law. When talking about their influence where legislation is concerned, participant A of national level semi structured interview session two said:

> If you were to ask me this last year, I would probably say no, but now I'd say yes, we have had influence. By elaborating I will also give an example on COVID, the moment COVID occurred, that is when everyone including the principals realised that it is not just elsewhere this thing can happen to us. We need to now know what needs to be done or what needs to be in place. And mind you, as an office back in the day with my boss, we have been trying to say to our principals that we needed to have a disaster risk management law, but it is only now that we are getting to push it. And it is because of COVID.

b) Main Theme 2: Challenges

i. Sub- Theme 1: Unwillingness of Implementors to be Active in disaster risk reduction

National level participants explained that one of the challenges they face is the lack of willingness from implementors to participate in disaster risk reduction and its initiatives. They explained that they are not coming to the party when it comes to deliverables. Participant A of national level semi structured interview session two mentioned that the other reason why they look forward to the disaster risk management legislation is that it will compel implementors particularly at sectoral and district level, to deliver. They can be taken to task and held

accountable for poor or even non-performance. He further went on to give an example, elaborating on the fact that there are some districts that have not submitted their district disaster risk management plan although they were handheld, facilitated and trained at the beginning of that process. According to Arshad et al. (2021) the perceptions employees hold, have a big impact on strategy implementation because those perceptions affect sustainability and success. When elaborating on the implementors unwillingness to participate, participant A from national level semi structured interview session two stated that:

ii. Sub- Theme 2: Unwillingness of the Community to Participate in Disaster Risk Reduction

The participants also went on to explain that the lack of willingness is not only from implementors within the disaster risk management institutional framework. The community is also unwilling to participate/ volunteer because if people are not affected by anything or they don't see something happen, is it on back burner. Participant A from national level semi structured interview session one stated that while benchmarking at the Emergency Operations Centre in the United States of America, he realised that American's seemed to be generally well prepared for disasters. The reason for this being that they have had various catastrophes such as Hurricane Katrina and the September 11th attacks. He said:

> They were well prepared for disasters. And largely, they were attributing that to the fact that they have had catastrophes like September 11th. They were saying that it was very difficult to get funding to prepare for disasters before these. Now with perceptions like you say, people respond, and they understand when something bad has happened. In Botswana they would think, well, we don't have disasters in the country, and they think that our job (as the National Disaster Management Office) is to deal with flooding or to be responsive. But when you talk about risk for instance, as an example, we have so many earthquakes that happen in Botswana, but because they are of low intensity, people think we don't have them. When you try to teach them about what are you supposed to do when there's an earthquake, they have no interest but wait until it strikes one day.

iii. Sub- Theme 3: No Due Consideration for Risk Informed Development

Risk informed development is concerned with the ability to consider systemic risks. These can be dynamic, interdependent and at times simultaneous (GIZ, 2021). Risks can cascade from just affecting one aspect to a multiple of things. In addressing risk informed development participant A of national level semi structured interview session one said:

> Just imagine if we could allocate the best use to a piece of land, then chances are you would reduce the risks within there. So, the only way you can reduce flooding is... you cannot stop the rain from coming, it will come anytime but you can deal with your planning. If you decide as a Land Board to go and allocate people in a low-lying area, then you must do the needful. That is why we are talking about standards within the new policy, that you must then put in place a system that will allow you to manage the flooding within an area. You cannot stop developments. What you need to do is to plan for those developments to ensure that you deal with the risk of disasters that may come.

The national strategy also prescribes responsibilities for all disaster risk reduction stakeholders, among them being the maintenance of codes and standards in government service provision (PreventionWeb, 2018).

c) Main Theme 3: Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts

The national level participants have two contrasting views when it comes to their measure on how successful implementation of disaster risk reduction initiatives has been in reducing the effects of disasters. Participant A of national level semi structured interview session one believes that it has indeed been very successful considering the preservation of lives. While participant A of national level semi structured interview session two is of the view that a lot can still be done in the disaster risk reduction/ disaster risk management space. It is however important to note that the preservation of lives, or not having as many reported deaths and impacts can also be attributed to the fact that Botswana is sparsely populated (Botswana Statistics, 2022). Increased population density and urbanisation increases vulnerability to disasters (Donner and Rodríguez, 2008). This is due to congestion, limited escape routes and

dense infrastructure among others. Furthermore, the country generally has not had as many huge catastrophes.

The participants indicated that at this point, the country responds well and can deal with the yearly or regular disasters such as floods and drought. The researcher then probed further to ascertain whether this then means that the success they are speaking of is based on disaster response measures more than risk reduction. Participant A of national level semi structured interview session one responded by saying that:

> For you to be able to measure preparedness is by the way you respond. You would know you are prepared once you know that your response is going on well, so I would say we are prepared, when you prepare you can reduce impacts.

Within the disaster management cycle, the preparedness phase follows risk mitigation (where disaster risk reduction falls). These are completely different concepts although related. The difference between mitigation and preparedness is that the former is about applying measures to prevent disasters and reduce their impacts, while preparedness is about activities that prepare for effectively and efficiently responding to disasters (Balcik et al., 2010).

d) Main Theme 4: Way Forward

i. Sub- Theme 1: Capacity Building within the Disaster Risk Management Institutional Framework

Participants touched on the importance of training for implementors across all levels of the disaster risk management institutional framework. This is in line with all the national disaster management guiding documents. It has a direct impact on organisational productivity and performance (Walters et al., 2017), because implementors will have a better understanding of their responsibilities and the skills required for their work.

ii. Sub- Theme 2: Development of a Disaster Management Legislation

Participants believe that one of the main reasons why disaster management legislation is important is because of the current lack of stringent terms. As it stands, implementors cannot

be held accountable for poor or even non- performance across all phases of the disaster management cycle. They do not feel compelled to do most things because they cannot be taken to task. The legislation will prescribe what needs to be done or what needs to be in place and by who. Participant A of national level semi structured interview session two said, “When you want a report from a sector, it would probably take you a while to get that report, whereas it should be standard. They (implementors) will now be compelled to be more efficient and more responsive.”

4.5.1.3 Key Findings

Table 4.5 Key findings- National level semi structured interviews

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Data Collection Method				
Semi Structures Interviews- National Level	1	a) Implementation Activities	i. National Coordination of Disaster Management	• Responsible for coordinating activities and initiatives covering the disaster management cycle in the country. • Has mostly been active on the disaster response stage of the disaster management cycle.
			ii. Top Rated Practices	• Projects, emails, networks and partnerships, training, budget monitoring and reporting. • They do apply most of those practices in their disaster risk reduction operations.
		b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Most of the disaster risk management initiatives are on the response stage of the disaster management cycle.
			ii. Stakeholder Engagements	<u>National Level:</u> • Quarterly scheduled physical meetings (discussing general disaster risk management issues). Have not had these meetings since COVID-19.

				• Engagements area as and when necessary (particularly in disaster response), through emails, physical meetings, telephone calls. • The National Disaster Management Office also provides secretarial services to the two the national committees (National Committee on Disaster Management and the National Disaster Management Technical Committee). <u>District Level</u> • Mostly as and when necessary (responding to disasters or hazardous events), through physical meetings, site inspections. • Working on disaster risk management plans and inductions through physical meetings/ workshops – as and when necessary • Checking of disaster response inventory such as tents, fire beaters- as and when necessary • Annual national preparedness conferences with various stakeholders (prior to COVID-19)- to cascade the strategy and facilitate the development of district disaster risk management plans. • No regular and scheduled engagements especially on disaster risk reduction matters. <u>Village Level</u>

				• As and when necessary, especially on disaster response. It would be physical meetings. <u>Other Matters</u> • They at times have stakeholder consultations with the various sectors and levels they advise- for planning and strategising. • Dissemination of disaster risk reduction and disaster management information through emails and social media e.g., Facebook.
			iii. Evaluation and Updating of Disaster Risk Reduction Objectives and Plans	• The plan needs to be reviewed and updated. • The strategy has gone past its design life. • They mentioned that the review of the other national disaster management guiding documents will follow approval of the policy.
			iv. Organisational Restructuring	• Government has decided to separate disaster risk management roles: the National Disaster Management Office will now only be responsible for policy issues and coordinating emergency disaster response at national level. The districts and villages will be responsible for disaster preparation and response at district and village level.
		c) Implementation Resources	i. Disaster Management	• No disaster risk management legislation. • Policy has just been reviewed.

			Guiding Documentation	• Plan and strategy will be reviewed following policy approval.
			ii. Disaster Management Funding	• No dedicated disaster risk reduction budget. • The available fund deal with disaster relief activities. • Government can pull resources from different government departments in disaster response.
			iii. Stakeholder Collaboration	• They stated that they involve all implementors and stakeholders on matters of disaster risk reduction (Government, non-for-profits, and disaster and emergency management businesses, the community, and individuals.)
			iv. Skills and Competencies of Implementors	• They believe that implementors should/ possess organisational and departmental technical skills.
	2	a) The Institutions Influence on National Disaster Risk Reduction Strategic Objectives		• They believe that they have had influence especially through the reviewed policy and have also advocated for a disaster management legal instrument (parliament has approved drafting of the bill).
		b) Challenges	i. Unwillingness of Implementors to	• They do not perform tasks as required, as it is not their core mandate.

			be Active in Disaster Risk Reduction	
			ii. Unwillingness of the Community to Participate in Disaster Risk Reduction	• If not affected, they do not see the importance.
			iii. No Due Consideration for Risk Informed Development	• The various government departments do not maintain standards required in service provision.
		c) Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts		• One believes that their disaster risk reduction implementation has been successful at reducing the impact of disasters, the other believes that more can still be done.
		d) Way Forward	i. Capacity Building Within the Disaster Risk Management Institutional Framework	• Training is pertinent across all levels of the disaster risk management institutional framework; national, district and community/ village levels.

			ii. Development of a Disaster Management Legislation	• Mainly important to hold implementors accountable for poor or even non- performance across all phases of the disaster management cycle.

Source: Dennison (2024), *developed for this PhD thesis*

4.5.2 District Level Data Analysis- Semi structured interviews

The semi structured interviews at district level were conducted with District Commissioners who chair the District Disaster Management Committees. There were six different sessions carried out in six different districts, however in this section the researcher will only analyse five districts. The sixth one is under section 4.6- validation of findings. For purposes of this analysis, the participants will be referred to as participant A of district level semi structured interview session one, Participant A of district level semi structured interview session two, Participant A of district level semi structured interview session three, and so on. They were asked what their educational qualifications were considering their seniority and responsibility in disaster risk reduction implementation, and they all had a minimum of a bachelor's degree.

4.5.2.1 Research Question 1

a) **Main Theme 1: Implementation Activities**

i. **Sub- Theme 1: District Coordination of Disaster Management**

All District Commissioners alluded to the fact that the District Disaster Management Committees key mandate is to first assess the environment with a goal to identify the possible hazards that may occur in their respective areas and come up with a strategy to address or mitigate against those potential hazards. The District Disaster Management Committee is also the first point of contact in post disaster assistance at district level. They also emphasised these committees ensure that government's disaster management goals are implemented, achieved and services are rendered to all communities across the district. When it came to their roles as chairpersons of the District Disaster Management Committees, they all stated that it is to coordinate disaster management activities in districts, particularly around resource mobilisation and stakeholder participation. They stated that disaster management activities are meant to cover disaster mitigation right up until disaster response. They all stated that their district disaster risk management plans are aligned to the National Disaster Risk Reduction Strategy 2013- 2018.

ii. Sub- Theme 2: Top rated practices

Following the rating exercise (alluded to previously), the researcher asked participants to choose their best five implementation practices and explain why they believe that those work best. The researcher compiled their average top five based off their answers. A follow up question was on whether they had used most of those practices in their disaster risk reduction implementation. Most of them explained that they apply the practices in their general work more than in disaster risk reduction. Again, the researcher highlights that District Commissioners have other core job responsibilities within government and aside from matters of disaster risk reduction. Below are the top five practices as chosen by the participants:

- **Meetings**

Participants all agreed that meetings are very important because they are the centre for their communication. They strategise and plan, with different units and people from different areas of expertise. Disaster risk reduction is a multisectoral discipline so it is important to meet and be on the same page, otherwise you may end up having uncoordinated plans that do not address what is happening on the ground. One participant indicated that, that is where they bring all the tools and resources available in their districts and come up with an effective way of putting them into use. Their quarterly engagements are in the form of physical meetings. Suleiman (2018) highlighted that for successful implementation, a strategic plan needs to be incorporated into an organisation's daily routines such as meetings and development plans to be kept visible. Participant A of district level semi structured interview session three said:

> I have picked meetings. Because that is the easiest mode of communication that we practice. In a meeting set up, you will be able to explain to those that you are addressing to a level where they would understand what it is that you mean and what you require.

- **Training**

All participants highlighted training personnel as important because to see results, an individual must be aware of what is expected of them. Participant A of semi structured interview session one highlighted that:

> Training is very key. As much as we are saying Village Development Committees are the ones we expect to be doing the job at village level, because of lack of knowledge they cannot fully deliver on what is expected of them. They have not been trained. We only tell them that you must be part of the disaster management at the village level, and then they sit together and call the District Commissioner. It is all because they have never been given that knowledge.

- **Organisational Planning**

According to Joyce (2015), the environment is always changing and hence organisations need to align their structures and long- term plans with their capabilities and the ever- changing environmental demands. An organisation must plan and have a guide detailing what they want to achieve, so that their operations are not haphazard. The participants all indicated that they currently do not have organisational plan that fully address disaster risk reduction or disaster management.

- **Budget Monitoring and Reporting**

Participants mentioned that when it comes to disaster preparedness and risk reduction, budgeting is a pertinent issue. They mentioned that at some point in future, they need to have a proper disaster risk reduction/ disaster management budget that they can have control over and use as they see fit for their district. They need funds for disaster risk reduction education and training among implementors, as well as funds to procure equipment among others (Ashu and Van Niekerk, 2018). This appeared to be a challenge throughout all the districts. The other point highlighted by participant A of district level semi structured interview's session five was that funds are needed to empower communities and resource them.

- **Unofficial Discussions with Co-workers**

The data from Ikavalko (2005) study shows dominance of backstage activities in strategy implementation of middle managers. These activities support unofficial intensive communication at any given time, as opposed to those with defined settings that are scheduled and have norms. The participants here believe that unofficial discussions with co-workers are important as they encourage team members to communicate freely and find spontaneous

solutions to some of the organisational challenges. For instance, participant A of district level semi structured interview's session three explained that these are important to him because districts do not have enough resources specifically for disasters, they rely on resources various departments have. So, for instance, for him these discussions can gauge in a timely manner the availability of resources in other departments that they could approach for funding prior to formal requests.

a) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsive

Like national level participants, the District Commissioners spoke about the response phase of the disaster management cycle more than any other when it came to disaster operations in the districts. This was followed by disaster preparedness and some elements of disaster recovery, with little mention of mitigation/ risk reduction measures. They highlight that they mainly communicate on disaster management issues with other levels of the disaster risk management institutional framework, as and when necessary and that it is mostly when it is a response to a hazard or disaster. They do not pay much attention to regular, disaster risk reduction focused engagements as recommended by the national strategy (PreventionWeb, 2013). Disaster risks that are not being analysed and monitored can have dire consequences for the specific areas and cumulatively, the country. Findings by Bang et al. (2019) also found that in Cameroon, there is very minimal engagements in disaster management implementation prior to disasters.

ii. Sub- Theme 2: Stakeholder Engagements

As already stated above, the District Commissioners explained that they communicate with the National Disaster Management Office on an as and when necessary, basis. This communication is through telephone calls and emails. Some participants however highlighted that the communication can at times encompass the National Disaster Management Office checking the disaster management status quo or, how prepared they are especially during seasons where districts are hazard prone, such as rainy months of the year. At times, they get in contact with the National Disaster Management Office on issues of induction of new members, however, these engagements are few and far between with no record of how often stakeholders should

meet (Chong and Kamarudin, 2017). Participant A of district level semi structured interview session two stated that:

> Well, honestly it is just when we have a problem, but normally when there is nothing we hardly communicate. When there is a disaster that is when it happens because we are expected to produce reports within 24 hours of anything that has occurred. If we have a need that has to be provided by them, that is when we talk to them but if we don't, we just do our job and assist whoever is affected and then send the report later to say we had a situation, this is how we addressed it. They don't talk to us often unless there is something, any change, only then they would write to us and say these are the changes.

Participant A of district level semi structured interview session four added that:

> Some of the committee members have been working maybe in Gaborone and they are transferred into the district, they don't even know what the District Disaster Management Committee is, so you must induct them. During those times, when we need their assistance, we communicate that we would like to have an induction, can you come and assist.

Based on the point above on induction of new District Disaster Management Committee members, the researcher then probed further to find out what the selection criteria for new members is. Is it the individual departments who just choose a representative for the District Disaster Management Committee? Or are there certain requirements that a person who is chosen must have? From explanations, it appears as if there is no continuity in membership for these committees, they do not necessarily consider whether one has previous District Disaster Management Committee experience when transferred into their district, neither is it considered that a person who was previously part of such a committee in a district they have been transferred from, continues the work when they get to a new district. Each department appoints its own representation based on seniority. Lukamba (2010) recommends that governments should employ skilled administrators on disaster risk management at all levels of government.

When it comes to communication within the district level, they explained that engagements among District Disaster Management Committees is through quarterly scheduled physical

meetings. They explain that on a normal basis when there is no disaster occurrence or alarming hazards, there is nothing to report on but in cases of emergency, communication can be at any time of the day. In the scheduled meetings, they discuss issues around potential hazards and how to mitigate them, checking inventories of equipment, and encouraging member departments to always prepare for disasters. If there is a shortage of equipment, they make sure that those things are sourced and are always available. One participant mentioned that the District Disaster Management Committees also mostly discuss the drought situation in the districts (the most prominent disaster in the country). However, participant A of district level semi structured interview session four expressed that more can be done to address disaster matters, the quarterly meetings are just not sufficient especially where risk reduction is concerned. He said:

> I do not think much is being done along those lines (disaster risk reduction), it seems like we are paying lip service to disaster management. It is like we do something and then we put it away and wait until something happens, that is when we start again.

The District Commissioners had varying answers when it came to their engagements with subordinates at village level, particularly the Village Development Committee. Most participants highlighted that there have not been any engagements in a while, the communication is as and when there is an emergency. Contrarily, participant A of semi structured interview session five spoke about the engagements being quarterly and physical, because the village level reports to them on various issues other than just disasters. Hence the engagements do not always necessarily include disaster risk reduction/ disaster management. Participant A of district level semi structured interview session five highlighted that:

> We have what we call District Disaster Management Committee pairs, these are district headquarters-based officers, who go out to villages, we have 43 villages here. We have assigned maybe be three- four villages a team, who we expect that at least once in three months or so, they should have visited their villages and discussed issues of disaster risk reduction and others, providing guidance. They also in turn report to us once in three months, we get the report at a particular meeting, once on a quarterly basis.

iii. Sub- Theme 3: Evaluation and updating of Disaster Risk Reduction Objectives and Plans

Some District Commissioners explained that their district disaster risk management plans have been evaluated in the past, while most contrarily stated that they do not or have not evaluated and updated their district disaster risk management plans submitted to the National Disaster Management Office since they were developed. Implemented strategies need to be monitored and evaluated for their implementation to be successful (Plant 2009; Poister 2010). The strategic process is always changing because of changes in the organisations' internal and external environments, and never at a constant rate. Hence there must be regular adjustments and fine-tuning as new strengths, weaknesses, opportunities, and threats arise. They all however acknowledged that they know the evaluation and updating is supposed to take place. They also all indicated that they are aware of the national disaster management guiding documentation but have never gone through them.

iv. Sub- Theme 4: Organisational Restructuring

Some District Commissioners expressed that the current disaster risk management institutional framework is not functioning as well as it should particularly at district and village level. They had two main suggestions, firstly, most believe in having a focal person within the districts that concentrates on disaster risk reduction issues because it is not their core mandate as District Commissioners. As things stand, they are not able to give disaster risk reduction the attention it requires because they have primary job roles. The National Disaster Risk Reduction Strategy 2013- 2018 recommended the appointment of disaster risk management focal points within districts, reporting to the District Commissioners and the National Disaster Management Office (Prevention web, 2018). Participant A of district level semi structured interview session one mentioned that:

> We do not have a focal person, an officer dedicated to dealing with disaster mitigation issues on a day-to-day. At the national level we have the National Disaster Management Office, they are focusing on DM only, but here in the district it is me and other officers. All of us have got other responsibilities, so we focus more on the core mandate as opposed to disasters.

Participant A of district level semi structured interview session five recommended that the Village Extension Teams, which is a body of extension workers from different governmental departments based at village level, could be merged with the Village Development Committee's, to form a local disaster risk management committee. He established that the Village Development Committee cannot function effectively alone to spearhead disaster risk management activities at village level in their district. He believes they are not capacitated to do so, and he also explained that Village Development Committee members are volunteers, and they would not be hands on all the time. On the other hand, the Village Extension Team is a government structure, and thus, if he gives an instruction for them to do something, it will be done. Hence, he decided to merge them to form a local disaster risk management committee. This is the only district from those participating that also had a disaster risk management committee at village level. He gave an example saying that:

> When the Village Development Committee works alone and there is a problem such as the collapse of a house, they alone do not have the means to assist the victims. It would mean that they must go back to a government officer to say there is a problem.

v. Sub- Theme 5: Bottom-Up Approach

Participant A of district level semi structured interview one believes that more can be done to involve them at district level as well as lower level implementors at village level, in policy decision making. The National Disaster Risk Reduction Strategy 2013- 2018 calls for a bottom-up approach for effective disaster risk reduction (Prevention web, 2018). However, according to Hendrick (2003) and Kissler et al. (1998), some research comparing the bottom up and top-down approaches reveal that the bottom-up approach is considered important when it comes to setting goals, but it however complicates implementation. Participant A of district level semi structured interview one stated that:

> I do not remember maybe being called to be asked what I think should be in the policy, what are the pressing issues in the districts? What do you find missing in the policy that we should correct? I hope they do call us in the process of reviewing the policy.

b) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

In line with the findings from Cheema et. al (2016), all participants highlighted the importance of wider stakeholder participation in matters of disaster risk reduction, which they all agree is not how things are currently. They mentioned the pertinence of having the District Commissioner, the District Disaster Management Committees, village structures and tribal administration, businesses, community, as well as other district specific stakeholders such as mining authorities (where there are mines), as part of the disaster risk reduction processes. There should be open lines of communication among all stakeholders, which is currently not the case. It is notable that most participants did not really acknowledge any one party as spearheading disaster management at village level. There was mention of various parties including councillors, the Village Extension Team, social workers, and tribal leadership as being the first point of contact in village disaster matters.

ii. Sub- Theme 2: Skills and Competencies of Implementors

Participant A of district level semi structured interview session two mentioned that implementors should be equipped with skills to be able to assess disaster matters. This training should be ongoing. He gave a disaster response example saying, there are situations where for instance, there is a report received about strong winds destroying houses. People on the ground are unable to assess those situations, they instead relay the message to the District Commissioner's office. Only for the District Commissioner's office to find out when they get to the scene, that it is not a disaster but an isolated incident. Other skills mentioned as important were basic disaster response skills such as first aid, swimming, and fire suppression techniques.

4.5.2.2 Research Question 2

a) Main Theme 1: The institution's Influence on National Disaster Risk Reduction Strategic Objectives

The District Commissioners all mentioned that they do not believe that they have had influence on national disaster risk reduction strategic objectives because there are hardly any interactions

with the National Disaster Management Office or structures at national level on issues related to that.

Participant A of district level semi structured interview session three highlighted that:

> We will only have influence when there is a review (of national strategic objectives). That is when they will probably expect our input. But for now, what we can do is just recommend, saying that we think this can be done better this way. The problem is that we only do it when something has come. Like now, you see everything is okay, we wouldn't do anything, but we know there are things that must be done. Usually, we just casually say we need to have this in place, or we write it as a recommendation, It is not that we can really change things, some are taken on board, some are not.

b) Main Theme 2: Challenges

i. Sub- Theme 1: Unwillingness of Stakeholders to Cooperate in Disaster Risk Reduction

Participant A of district level semi structured interview's session two highlighted that the community is most times still reluctant to volunteer in disaster matters, they only play a part when they feel like it. But it is something that she says they keep on encouraging through different platforms. Over and above that, participant A of district level semi structured interview session five, explains that the different government departments at district level are not as cooperative as they should be resulting in a struggle when it comes to disaster risk reduction service delivery. He said:

> I believe that the other one is that stakeholder participation is not up to scratch. When we have for instance, realised that the trenches or storm water drainage channels need to be cleared and we advise as such because we are approaching the rainy season. People will come up with all excuses saying, we don't have resources, our crews are still focusing on this and that. Most of the time we survive through begging stakeholders.

ii. Sub- Theme 2: No Disaster Management Legislation

As discussed under national level analysis, there is currently no disaster management legislation. As such, without legislation there is no clear basis for plans and organisation in disaster risk reduction. Furthermore, the issue of not being able to hold implementors accountable for poor or non-performance was highlighted again here. Participant A of district level semi structured interview session five mentioned that, if responsible parties are to be asked to do something now, they can choose to not do it because they are not compelled to do anything.

iii. Sub- Theme 3: Lack of Resources

All participants spoke of a lack of resources within their districts as in Ashu and Van Niekerk, (2019). They acknowledge that despite government efforts to provide the necessary resources whenever there are disasters, the truth of the matter is a lot can still be done for disaster risk reduction improvement. Some even acknowledged that they understand that the country has been experiencing a lot of challenges with limited finances. The lacking disaster risk reduction resources span from equipment, capacitated manpower and funds. The national strategy did highlight that it calls for resource mobilisation, however it stated that fewer resources must be used to achieve more (Prevention Web, 2018).

iv. Sub- Theme 4: Lack of Long- Term Planning- Disaster Recovery Initiatives

This lack of resources also extends to the fact that government provides temporary relief measures, and these do not alleviate future risks. Especially in historically disaster-prone areas, where similar hazards/ disasters will occur the following year. For instance, participants mentioned that the relief currently provided following a flood disaster can be shelter in the form of a tent, if food has been damaged then the affected may be being given a food ration, which the participants believe is not enough. In line with this, Chong, and Kamarudin (2017) found that a few of the agencies in their study paid attention to the disaster recovery, and reconstruction phase. These were however, on critical infrastructure such as road, walls and public amenities and nothing on reconstruction of individual assets, such as residences. These measures are very important because they capacitate the most vulnerable and affected, increasing disaster resilience, and reducing the possibility of future losses (Balcik et al. 2010).

Participant A of district level semi structured interview session one explained that government once took a decision to build some two roomed houses for the victims of disasters, this was a once off and the victims were never vulnerable to flood disasters again. Through this, disaster risk reduction was incorporated into the recovery and rebuilding phase. While nobody can stop the occurrence of natural disasters, community resilience can be built to protect the vulnerable and to capacitate them to withstand the impacts of future disasters.

v. Sub- Theme 5: Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction

The District Commissioners highlight that there is a general lack of knowledge around matters of disaster risk reduction within their districts and at village level. This may be because of limited engagement with those who are knowledgeable, that is, experts and national level structures. This situation needs to be addressed as communities are always the first victims of disasters.

c) Main Theme 3: Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts

Initially, there were varying answers pertaining to this theme. Some District Commissioners felt like implementation has been successful to some extent, in the past in reducing the effects of disasters while some believe that more can still be done to improve disaster mitigation operations in the district. The researcher noticed that participants were judging success from a lens of disaster response than mitigation. The researcher made this conclusion because in justifying why they said implementation has been successful, they spoke of among other things, the fact that resources are availed in case of emergencies and that there is manpower to respond. For instance, Participant A of district level semi structured interview session one said, "On an overall, whenever there are disasters, I think the members of the disaster management committee and other stakeholders are always responsive."

Then changed his view when the researcher prompted further on success specifically targeted at risk reduction initiatives. He said:

> I think the reduction part is the part that needs to be worked on. For instance, for most of the veldt fires there wasn't maintenance of fire breaks, so that is a reduction issue, a prevention issue. It is an issue that we do not deal with.

Participant A of district level, semi structured interview's session four mentioned that in his previous role in another district, though not as District Commissioner, played a key role in disaster risk reduction. He mentioned that there used to be a lot of flooding, they then suggested to council to build a storm water drainage system in a certain area to divert the water, redirecting it back into the river. Thereafter, flooding reduced drastically.

d) Main Theme 4: Way Forward

i. Sub- Theme 1: Resource Mobilisation

It was highlighted that districts do not have resources specifically for disasters, or a budget specifically for disaster risk reduction. Every time something needs to be done in disaster management; districts rely on resources from different departments operating within the districts. One of the participants suggested a possible decentralisation of funds to districts, so that they can carry out plans effectively and in a timely manner.

ii. Sub- Theme 2: Capacity Building within the Disaster Risk Management Institutional Framework

There were various points raised that the researcher grouped into capacity building. The first one being the importance of induction and regular training of implementors both at district level and community level. This enables the development of competencies and skills that would make implementors more effective. Three of the District Commissioners spoke on the importance of appointing disaster risk reduction and general disaster management focal persons in the district. One of them even went a little further to say they need a fully-fledged unit of disaster management in the districts. This is like Bang et al. (2019) findings, when Law No. 86/ 016 of 1986 in Cameroon prescribed that there should be creation of a national observatories for disasters with local branches to pay close attention to areas that are disaster prone. Participant A of district level semi structured interview's session two explained that he believes that among other things, the country managed to control HIV/ AIDS because there are coordinators in districts focusing on this, on a day-to-day basis. They manage the planning and

mobilisation of all other stakeholders and their roles as District Commissioners is just to give them support. This is unlike disaster management/ disaster risk reduction issues which are only discussed quarterly unless there is an emergency. He further said, “The National Disaster Management Office once promised us that they would create such posts, now I do not know how far it is, perhaps they didn't win it at that the top level. But we need those officers."

Participants explained the importance of educating and creating awareness among all stakeholders and the public on matters of disaster risk reduction. This is especially important as disaster risk reduction is a group effort, thus educating everyone on the various ways to combat potential hazards within the community, cumulatively results in reduced disaster risk. Participant A of district level semi structured interview session three gave a detail explanation on the importance of disaster risk reduction education using an example, he said:

> It is important to educate our village structures and village leadership. Village leadership I am referring to DiKgosi (Chiefs) and honorable councillors. Because I had written, I think two months ago to them, and told them I expect them to do a few things. Then in our past council which ended last week, one of them asked a question and said, “who is the District Commissioner to instruct us to do this? Why does the District Commissioner want us to do this?”. They believe that it is my responsibility alone, sitting here to manage a disaster in your village and they do not have to take part in it. I think they lack education to see where they fit in as leaders and at village level.

iii. Sub- Theme 3: Maintenance of Required Standards

By sectors when providing services:

As previously highlighted under the national level analysis. Maintenance of required standards in service provision by different sectors is a very important issue. Not taking this seriously leads to exposure to potential risks in developments that could have otherwise been avoided had the required standards been met. In line with this, participant A of district level semi structured interview’s session five said:

> With disasters being a multi sectoral issue, each structure should be integrated into the processes. If you can get into our planning code, you will see that there are gaps there in terms of building our structures. Are our houses resilient enough?

By the community:

This issue of maintaining required standards also applies to the community, particularly in areas where they have leeway to build their homes and other structures without inspection at different levels, because those services may be far from some remote areas. Participant A of district level semi structured interview session three explained that:

> We always tell our people that with the structures they build, they should follow the building standards. So, some do not do it, because they do not know. They think I am just building a house. A house that when you finish after some time it collapses. Or where they build their house, they have not checked the condition of the land. Maybe that is where there used to be a river. People who do that are those who do not understand.

vi. Sub- Theme 4: Continuity in Disaster Risk Reduction Plans

Participant A of district level semi structured interview's session two elaborated on the importance of continuity in disaster risk reduction plans within the districts. This is in terms of regular updating and evaluating such that, should there be transfers into the district, it is easy to pick up where the last person left off. She said:

> We have got to have a continuous plan, continuous in terms of having to review it and plan consistently. There must be consistency so that even when another person comes in, they can easily pick that this is what has been going on and there is an easy transition. That one we can't avoid that in the next two or three months I might not be here and not be the chair of this committee, but somebody coming in must easily flow with the plan.

4.5.2.3 Key Findings

Table 4.6 Key findings- District level semi structured interviews

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Data Collection Method				
Semi Structured Interviews- District Commissioners	1	a) Implementation Activities	i. District Coordination of Disaster Management	• District Commissioners coordinate disaster management in districts. They focus on resource mobilisation and stakeholder participation, from disaster mitigation until disaster response. • The District Disaster Management Committees they chair are meant to assess the environment, identify hazards, and formulate strategies to address or mitigate against those potential hazards. • They are also the first point of contact in disaster response at district level.
			ii. Top Rated Practices	• Meetings, training, organisational planning, budget monitoring and reporting, unofficial discussions with co-workers. • Most of them explained that these practices apply in their general work more than in disaster risk reduction/ disaster management. However, this is what they would consider to be important in disaster risk reduction.

		b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Most of the initiatives are on the response stage of the disaster management cycle.
			ii. Stakeholder Engagements	<u>National Level</u> • Mostly as and when necessary- disaster response (through physical meetings, site visits, telephone calls and emails) • The National Disaster Management Office checks on the disaster management status quo - very rarely (through telephone calls and emails) • The National Disaster Management Office checks for available disaster management inventory particularly during seasons when the villages are hazard prone. • The National Disaster Management Office representatives visit the districts on request from the District Commissioner's office for induction of new members and advice on disaster management plans- very rarely (Physical meetings and workshops). • Most of these engagements are few and far between. No regular and scheduled engagements with the districts, especially on disaster risk reduction. <u>District Level</u> • Quarterly scheduled physical meetings as the District Disaster Management Committee. Discussions are around potential hazards and mitigations, particularly

				veldt fire incidents and maintenance of fire breaks, clearing of storm water drainage systems, checking of available disaster management inventory and preparation of internal reports as required. • There is hardly any follow of action items most times due to a lack of resources. • Engagements are also as and when- during disaster response (engagements are through emails, telephone calls, site visits and physical meetings). <u>Village Level</u> • Most District Commissioners stated that communication to village level structures is as and when necessary- mostly during disaster response and recovery (Physical meetings and site visits), except for one. • Meant to be quarterly physical meetings and facilitated by the district pairs (made up of District Disaster Management Committee members). However, the focus here is rarely on disaster risk reduction, it is on other village pressing matters.
			iii. Evaluation and Updating of Disaster Risk Reduction Objectives and Plans	• Some District Commissioners say they have evaluated and updated their district disaster risk management plans submitted to the National Disaster Management Office in the past while most stated that they have never evaluated or updated the district disaster risk management plans.

				• They all indicated that they know there are national disaster management guiding documentation on disaster risk reduction, but they have never gone through them.
			iv. Organisational Restructuring	• Current disaster risk management institutional framework is not functioning as well as it should. • There must be disaster risk reduction and disaster management focal persons in the districts. • The Village Extension Team and Village Development Committee must merge at village level to form a local disaster risk management committee.
			v. Bottom-Up Approach	• They would like the national level to engage them as well lower level implementors at village level on disaster risk reduction planning and strategising as they would have more insights on what is happening on the ground.
		c) Implementation Resources	i. Stakeholder Collaboration	• District Commissioners, the District Disaster Management Committees, the Village Extension Team, businesses, community, tribal administration as well as other district specific stakeholders such as mining authorities should be part of disaster risk reduction processes. • Most participants did not acknowledge any one party as spearheading disaster management at village level. There was mention of various parties including councilors, the Village Extension Team, social workers,

				and tribal leadership as being the first point of contact in village disaster matters.
			ii. Skills and Competencies of Implementors	• They believe that implementors should possess basic disaster response skills and disaster management technical skills. • Need more and continuous training in this regard.
	2	a) The Institutions Influence on National Disaster Risk Reduction Strategic Objectives		• No influence.
		b) Challenges	i. Unwillingness of Stakeholders to Cooperate in Disaster Risk Reduction.	• Community participates when they feel like it. • Different government sectors at district level are not as cooperative as they should in disaster risk reduction service delivery.
			ii. No Disaster Management Legislation	• No dedicated disaster management legislation- no accountability on the part of implementors.
			iii. Lack of Resources	• Lack of capacitated manpower. • No funds for disaster risk reduction.

				• Not enough equipment in the districts.
			iv. Lack of Long-Term Planning-Recovery (Post-Disaster) Initiatives	• Temporary relief measures such as provision of tents to the affected in historically disaster-prone areas, does not alleviate future risks and promote disaster resilience.
			v. Implementor's lack of Knowledge and Awareness on disaster risk reduction	• This may be because of limited engagement with experts and national level structures. • should be trained on disaster risk reduction.
		c) Success of Implemented disaster risk reduction Initiatives in Reducing Disaster Impacts		• More can still be done, especially where disaster risk reduction is concerned.
		d) Way Forward	i. Resource Mobilisation	• Development of the disaster risk reduction budget. • A possible decentralisation of the budget to districts.
			ii. Capacity Building within the Disaster Risk Management Institutional Framework	• Induction and regular training of district and village level implementors on disaster risk reduction. • Focal disaster risk management persons in the districts.

				• Fully fledged disaster risk reduction and disaster management units in the districts. • Educating and creating awareness of disaster risk reduction among implementors and other stakeholders.
			iii. Maintenance of Required Standards	• Maintaining required standards in service provision by different government sectors is very important. • The community should also maintain required standards, particularly in areas where they can carry out projects without professional oversight e.g., building homes and other structures without inspection due to those services being far from some remote areas.
			iv. Continuity in Disaster Risk Reduction Plans	• Should be able to be understood by implementors transferred into new districts.

Source: Dennison (2024), *developed for this PhD thesis*

4.5.3 District Level Data Analysis- Focus Groups

The focus groups at district level were conducted with District Disaster Management Committee members who represent different governmental departments including the fire department, the Water Utilities Corporation, metrological department, forestry department, crop production, health, Botswana Police Service, and the wildlife department. There were six different sessions carried out in the six districts, however in this section the researcher will only analyse five districts. The sixth one is under section 4.6- validation of findings. For purposes of this analysis the participants will be referred to as Participant A of district level focus group session one, Participant B of district level focus group session one, Participant A of district level focus group session two, Participant B of district level focus group session two so on. Most of them had a minimum of a bachelor's degree, while a few had diplomas and secondary school certificates.

4.5.3.1 Research Question 1

a) Main Theme 1: Implementation Activities

i. Sub- Theme 1: District Coordination of Disaster Management

Most of the participants generally used the word "coordination" of disaster management when addressing the role of the District Disaster Management Committee is in the districts. They mentioned that it is important for all committee members from the different government departments to work together to deliver on their collective mandate. They firstly identify the risks, or the hazards facing their areas of specialty at departmental level and then come up with a plan of mitigations prior to the incidents. These risks and mitigations are then presented among the District Disaster Management Committee and consolidated into their quarterly reports. Although they believe that this is not done thoroughly as it should. They also attend to post disaster initiatives. Participant C of district level focus group session three stated that, "Our role here is just to try and manage, monitor what we have submitted and then see to it that where we need to source funds, we engage our superiors."

Over and above that the committee members explained that as individual departments, they are there to ensure that some of the required standards are upheld and to speak of the consequences

of not following them. For instance, in building control they must assess construction near rivers in villages and the suitable building techniques, because if that is not done, residents will be prone to destruction and harm when there are floods. They advise during building plans perusal, during licensing and they inspect the structures to ascertain whether people comply with required standards for risk reduction purposes. They also try to sensitize the community on the various disaster hazards. One of the participants from the fire department mentioned that they normally carry out awareness initiatives not through the District Disaster Management Committee but in collaboration with their sister departments such as the forestry department for instance. They highlighted that their roles also beyond their places of work, where they continue to disseminate information and provide guidance where disasters are concerned in their personal capacity.

ii. Sub- Theme 2: Top rated practices

Following the rating exercise on the important implementation practices, the researcher asked them to each choose their best five and explain why they believe that those work best. The researcher compiled their average top five based off their answers. Most of the participants explained that they apply most of these practices in their core job responsibilities and only some of them in disaster risk reduction/ disaster risk management. Below are the top five practices chosen by the participants:

- **Training**

All participants indicated that training is pertinent in disaster risk reduction. They highlighted that implementors need to be imparted with knowledge from time to time to be better placed to deliver desired results. Some of the participants explained that they are part of the District Disaster Management Committee by virtue of being heads of departments in their districts. When they joined the committee, they were never formally inducted, thus, they tied training to induction because they believe that once one comes into a new area, they must be familiarised with what happens in there. Participant B of district level focus group session six stated that:

> We must first sit as a committee to identify our disaster risk reduction training needs. It would be worthwhile to then cascade it to also benefit the community members, to close the gaps between us and the community that we are serving.

- **Budget monitoring and reporting**

Some participants explained that they are generally dealing with a lack of resources at district level (Bang et al. 2019). There is no dedicated budget in disaster risk reduction for implementing planned initiatives. Like the District Commissioners, they explained that each time there is a need for funds in disaster management, they need to be sourced from different departments operating in the districts. Participant D of district level focus group session two spoke of challenges in disaster response where budgeting and funds are concerned. In as much as she addressed disaster response, the principle remains the same throughout the disaster management cycle. She said:

> There are times we have very serious incidents that need a proper budget. When they happen, we expect our social services department to buy people food or maybe provide people with blankets only to find that they do not have that kind of budget. And it will turn out that we have been with them for that long and not knowing that they would not be able to assist in such a situation. So, it is important to know how prepared departments are, how their budget is through reporting. We must also monitor these budgets as the District Disaster Management Committee.

- **Networks and partnerships**

Various participants indicated how difficult it would be to try managing disaster related matters alone. It takes a team, combined efforts from different skills and disciplines to reach set disaster risk reduction objectives. They explained that networks and partnerships are also important to address capacity issues and promote an exchange of skills and ideas.

- **Meetings**

Their quarterly scheduled engagements are always through physical meetings. Some indicated that during COVID-19 these were online. Even their "as and when" engagements are mostly through physical meetings hence why they rated meetings highly. In meetings, they come up

with plans and can disseminate information, ensuring that all attendees are on the same page. Ikavalko (2005) top practices were informal discussions and networking, followed by meetings and performance appraisals. One participant also mentioned that these are necessary for performance evaluation after implementation of certain initiatives.

- **Operational and performance objectives**

Most of participants explained that they looked at this aspect from the context of individual departments as well as the District Disaster Management Committee. They explained that there might be bigger or longer-term plans, but they should have operational disaster risk reduction plans that detail how they run things daily. This is especially important for disaster risk reduction that seemingly hardly gets proper attention from implementors.

b) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsive

Considering that there are some elements of disaster preparedness and disaster recovery in districts, the participants explained that the District Disaster Management Committees are very responsive to disasters as opposed to implementing disaster risk reduction initiatives. This is the same finding as that of the District Commissioners and national level participants. In asking about the role of these committees in the district, participant C of district level focus group session five, from the fire department said:

> Our role is to prevent destruction of property by fire. Our primary role is to save lives, where life is concerned, we are expected to be there. So whatever incident occurs, we are expected to be there. We render services in different ways, I can give you an example, at times we can be called for newborns being thrown in pit latrines, we even rescue puppies. We see to it that we help our communities but sometimes we fail due to a lack of resources.

ii. Sub- Theme 2: Stakeholder Engagements

The District Disaster Management Committee members mentioned that they hardly engage with national level structures unless an incident or disaster has occurred, and they must

respond. There should be regular schedule engagements (Bang et al., 2019). At times the National Disaster Management Office contacts them to enquire on available inventory such as tents, fire beaters etc especially during seasons where their districts are more prone to certain hazards. They mentioned that when it comes to physical visits, the national level structures come on invitation or when they have something important to communicate, but those type of engagements are not often. Communication is an essential part of the implementation process as it is pertinent that strategies must get support throughout the organisation (Verweire, 2018). Participant A of district level focus group session one stated that:

> We are normally the ones that ask for assistance or their (the National Disaster Management Office) presence when there is a pressing matter, for instance, like now that we want to review our plan. We are going to contact them to ask if they will be able to be here on that date. Then we prepare all that is needed and refreshments.

The District Disaster Management Committees have quarterly scheduled physical meetings unless, there is an incident that requires their urgent attention before then. When there is an urgent matter, they engage though telephone calls, text messages and email. In these quarterly meetings, the various departments are meant to update each other on incidents that have occurred and the damages that were incurred, disaster threats and how they plan to mitigate those. For instance, the fire department will talk about fire incidents that have taken place and how much destruction there was. Based on that, the Forestry department can then discuss how they plan to stop future fire incidents using resources available for the maintenance of fire breaks.

The District Disaster Management Committee members expressed that they do not engage with village structures as much as they should. They also expressed that they engage villages in disaster management matters during response measures. At that point, they would need the Village Development Committee's to identify the affected, the assistance they will need and the subsequent distribution of food, tents etc. Following a question on their engagements with Village Development Committee's, Participant D of district level focus group session four expressed that the lines of communication between them and the Village Development Committee are still not clear to them. He stated that:

I think I see a gap; I see a gap between us and the Village Development Committee, and I think maybe not trying to go into politics, we must understand how these committees came to being, how we are supposed to work with them and who exactly we are supposed to be engaging with. So, you find that like she was saying, we only remember the Village Development Committee when there is problem but when we are still preparing, I think it's one committee that we always forget. I am speaking as a representative from my department, and not the District Disaster Management Committee. You find that we forget them, but these are the people that we should be utilising in the villages, but now I can see there is a gap. Your question shows me that there is a gap that needs to be closed as quick as we are really can.

i. Sub- Theme 3: Evaluation and Updating of Disaster Risk Reduction Objectives and Plans

Lessons learnt are a pertinent tool that should continuously be utilised in the evaluation and re-planning of initiatives (Caymaz et al., 2013). Some participants from district three explained that their plans have been evaluated and updated. They indicated that this was done once a year over a period of three years. From their explanations, a subcommittee was chosen from among the District Disaster Management Committee who was tasked with this. Not all members of the District Disaster Management Committee took part, all they were responsible for was submitting their individual departmental plans to the said subcommittee who collated everything. This was rather confusing for the researcher because according to the National Disaster Management Office, none of the disaster risk management plans submitted to them have ever been updated. Unless the evaluation and updating was internal within the districts and the final plan was never submitted or has not been submitted yet to the national office.

When the researcher followed up on this, the participants were not sure whether it was indeed submitted. Two of the participants from the same districts indicated that they were not aware of this as they were not working in that district at the time that it was done. Some of the people who were around at the time have been transferred out of the district. The rest of the participants from the other districts indicated that they had never evaluated and updated their district disaster risk management plans, however, this was in the pipeline.

Some of the participants indicated that they had never seen the national plan, the national strategy, the policy, nor had they heard anything about any course of action. This is a clear failure to cascade the plans and strategy efficiently down to implementation level. It leads to mistrust among stakeholders and implementors, Bang (2014) from his findings, explained that participants expressed doubts about implementation of disaster risk reduction, pertaining that to little or no government commitment to see these plans through. Some participants in this study attributed this lack of awareness to the fact that they had not gone through proper induction and training, that exposes them to various tools and resources available in the implementation of disaster management. They explained that these tools would also allow them to align their district plans with national objectives.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

Throughout the focus groups, all participants called for wider participation. This is based on fact that disaster risk reduction requires combined effort, from all the different levels of the institutional framework and other stakeholders (Abedin and Shaw, 2005). Participants mentioned that there should be participation from all government departments, District Disaster Management Committee, District Commissioner's office, tribal leadership, community volunteers, disaster risk reduction experts and other affected stakeholders. Similarly, Bang et al. (2019) also found that stakeholders within disaster management in Cameroon includes other government departments, private institutions, society, and nongovernmental organizations. Chong and Kamarudin (2017) found that perhaps over the years, Malaysia has placed a lot of importance on expertise and less focus on involvement of the community in disaster risk management. Participants also spoke of potential synergies across the different departments. The fire department can caution the forestry department on the importance of maintaining fire breaks. Or the metrological department cautioning the water department on the possibility of a lot of rainfall that can cause flooding and dam spillage. Hence, the possibilities in collaborating with external parties' present endless opportunities.

ii. Sub- Theme 2: Skills and Competencies of Implementors

Most District Disaster Management Committee members mentioned that they believe each member should above par departmental technical skills. For instance, those in the water space spoke of civil, water, mechanical and electrical engineering and so forth. They are in line with that was stipulated in the National Policy on Disaster Management 1996 with regards to the "specific skills' for those with sectoral responsibilities (PreventionWeb, 2013). They further stated that over and above these, basic disaster management and response skills training is pertinent to be able to assess and attend to incidents in a wholistic manner. These included first aid and fire extinguishing skills among others.

Three participants indicated that they would also like to be trained in risk profiling as a committee so that they are versed in assessing the hierarchy of risks. They would be able to know when certain risks are negligible and when some need to be given serious consideration. The organisational skills mentioned were around monitoring, communication, and organisational behavior.

4.5.3.2 Research Question 2

a) Main Theme 1: The institution's Influence on National Disaster Risk Reduction Strategic Objectives

Participants do not believe that they have influenced national strategic goals on disaster risk reduction in any way. Some mentioned that they have never been engaged on any planning in disaster mitigation and hence there is no way that they can determine if indeed they have had any influence.

b) Main Theme 2: Challenges

i. Sub- Theme 1: Unwillingness of Stakeholders to Cooperate in Disaster Risk Reduction

Participants indicated the unwillingness of stakeholders to cooperate. They mentioned that generally if it does not directly affect one party, they will not bother themselves with participation. They said that that has been one of the problems faced in the districts because it

seems that, a lot of people who should be concerned and playing their role, are not doing so effectively.

ii. Sub- Theme 2: Lack of Resources

This was a common theme throughout the focus groups. Participants expressed that they cannot fully accomplish any disaster risk reduction mission and implement measures and initiatives because there is a serious lack of resources. They spoke of the fact that at times there are no funds to construct or clear out existing storm water drainage systems, no funds to build roads and sometimes there are not enough funds to maintain fire breaks, even in highly fire prone areas. Participant D of district level focus group session one explained that:

> As a committee we make some recommendations but then comes the issue of money. There are always priorities somewhere else that would maybe constrain you from implementing what you have planned. I was just reminding you about the PPE (Personal Protective Equipment), that in case she gets an injury, it is against the labor law or the factory act that she did not have the right PPE on. When it comes to compensation, it is going to be an issue, over just simple PPE. We need to have the right to have resources to implement.

A few participants also mentioned the fact that they are understaffed in the districts and thus are unable to carry out disaster risk reduction work as they should. Over and above being members of the District Disaster Management Committee and doing disaster management work, they have other responsibilities that are directly part of the actual jobs they are hired for in their departments.

iii. Sub- Theme 3: Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction

The District Disaster Management Committee members say they are not very knowledgeable on disaster risk reduction matters. They complained about a lack of training because it inhibits them from being fully able to execute the mandate of the committee. A training needs analysis is pertinent because improperly training a person at a bad time will result in failure (Nazli et al., 2014). The members feel like there is no guide as to the specifics of their roles. Participant

B of district level focus group session five explained that first and foremost, she believes that the national disaster risk reduction/ disaster management strategy has not been cascaded properly. She said:

> …and then the other thing is this open gap that, there will be a plan or strategy that has not been cascaded. Cascading is very important because it enhances ownership, for us to know what is happening at national level, so that we can also inform our individual departments and be informed as the committee.

c) Main Theme 3: Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts

All participants agreed that more can still be done in disaster mitigation implementation because it needs stakeholder collaboration, cooperation and wider participation as mentioned earlier. Thus, if everyone is not doing their part, the country will suffer severely. Participant F of district level focus group session two explained that:

> To start with us, when we construct a water pipeline across the river, we see to it that we use the right type of material. And if there must be something special done to that part, we must do it. But then, while carrying out our assessments we always notice that there are some people who have settled right by the river and the Land Board responsible for placing people is not taking any action with regards to that. We are the very same people who are going to go there to assist them when there are floods, and their properties are destroyed. We are all not playing our part correctly.

d) Main Theme 4: Way Forward

i. Sub- Theme 1: Resource Mobilisation

Most participants spoke of a lack of resources under challenges. Disaster risk reduction is such an intricate subject, therefore planning around its resources cannot be just up to inexperienced employees doubling as disaster management practitioners. Determining how much resources are needed, from where and at what point takes skill. There should be a national disaster risk reduction/ disaster management budget, and the budgeting processes must involve in the field.

ii. Sub- Theme 2: Capacity Building within the Disaster Risk Management Institutional Framework

The most important one here is training for disaster risk reduction implementors because they need to acquire the right skills and be capacitated to carry out their roles effectively. Participants highlighted that like most organisations, the disaster risk management institutional framework may have plans, but implementation is the main obstacle. This is line with Bang et al. (2019) and Cheema et al. (2016) who proved that at times the strategic goals and plans can be outlined very clearly, but implementation leaves much to be desired. In this regard, implementors must be capacitated so that they know how to practically implement the strategies set before them. This of course is based on how well the strategy has cascaded from national level to all other levels of the disaster risk management institutional framework and owning it. Participant C of district level focus group session four said:

> If strategy is discussed and everyone is engaged, then there will be a way forward. As we speak now, really, it's just basic knowledge from each department, there is no ownership of any national disaster management strategy. Let it come and be cascaded, we will understand it and then work on it. This is where we were, and this is our desire. When implementors own strategy, they will carry it home.

ii. Sub- Theme 3: Stakeholder Cooperation

This was highlighted as a challenge. The participants explained that as with the disaster risk management institutional framework, they hardly engage with other interested parties such as the Red Cross, the business community and other professionals who are not part of the disaster risk management institutional framework. There are no clear lines of communication, instructions, commands, as well as standardisation of processes (Bang, 2014). Most expressed that they only realised during the focus group discussion that there is a large gap between them village level structures for instance. Even within the District Disaster Management Committees themselves, they do not have as much interactions as they should. Participant E of district level focus group session four said:

And as well, I've seen a gap whereby even we fail to communicate with each other. She is here, I have known here for maybe three years, but I don't know her roles, she doesn't know mine, so we need to communicate and collaborate.

4.5.3.3 Key Findings

Table 4.7 Key Findings- District level focus group's

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Data Collection Method				
Focus Groups- District Disaster Management Committee Members	1	a) Implementation Activities	i. District Coordination of Disaster Management	• Coordination of disaster management in districts. • They should identify risks and come up with mitigations. They also attend to disaster reduction initiatives. • The districts are still very much reactive following disasters than proactive in disaster risk reduction. • They ensure that some of the required standards are upheld in government service provision. • Information dissemination to the community on disaster risk reduction.
			ii. Top Rated Practices	• Training, budget monitoring and reporting, networks and partnerships, meetings, and operational and performance objectives. • Many of them explained that they apply most of these practices in their other operations and only a few in disaster risk reduction. However, this is what they consider would be important to improve disaster risk reduction.

		b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Most of the disaster risk management initiatives are on the disaster response. • There are however a few elements of disaster preparedness.
			ii. Stakeholder Engagements	<u>National Level</u> • They hardly engage with the national level- unless it is on response measures (through physical meetings, site visits, telephone calls and emails). • The national office communicates when they have important information to share with districts through telephone calls and emails – these are rare. • They also communicate to check on available disaster management inventory (through emails and telephone calls). • The National Disaster Management Office come on invitation to physical meetings when their assistance is needed, these engagements are also rare. <u>District Level</u> • Quarterly scheduled physical meetings as the District Disaster Management Committee to discuss hazard identification and possible mitigations. • As and when there is an emergency, here they engage through physical meetings, site visits, emails, texts, and telephone calls.

				<u>Village Level</u> • As and when there are emergencies- disaster response. To help in identifying and assisting the affected. The engagements are physical.
			iii. Evaluation and Updating of Disaster Risk Reduction Objectives and Plans	• Participants from one district said their plan has been reviewed, albeit not sure if it has been submitted to the National Disaster Management Office. • The rest of the participants indicated that their plans had never been evaluated and updated. • Some participants have never seen the national plan, the national strategy, and the policy, or heard about any national course of action.
		c) Implementation Resources	i. Stakeholder Collaboration	• They call for wider participation of stakeholders in disater mitigation; the District Disaster Management Committee, District Commissioner's office, tribal leadership, community volunteers, disaster risk reduction experts and other affected stakeholders.
			ii. Skills and Competencies of Implementors	• Technical skills from each department represented in the District Disaster Management Committee are important. • Basic disaster management and response skills training is pertinent in addressing disasters wholistically. • Risk profiling skills for implementors. • They also believe that organisational skills are pertinent.

	2	a) The Institutions Influence on National Disaster Risk Reduction Strategic Objectives		• They believe they have not had influence because they are not engaged in any disaster risk reduction planning.
		b) Challenges	i. Unwillingness of Stakeholders to Cooperate in Disaster Risk Reduction	• A lot of stakeholders do not want to participate if not directly affected.
			ii. Lack of Resources	• Lack of funds • Not enough equipment • Understaffed in the districts.
			iii. Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction	• District Disaster Management Committee members say they are not very knowledgeable on disaster risk reduction matters due to insufficient training.
		c) Success of Implemented Disaster Risk Reduction Initiatives in		• More can still be done.

		Reducing Disaster Impacts		
		d) Way Forward	i. Resource Mobilisation	• Effective planning around funds and other resources. • The budgeting processes must involve experts in disaster risk reduction and the various technical fields.
			ii. Capacity Building within the Disaster Risk Management Institutional Framework	• Training for implementors. • Cascading of the strategy and plans.
			iii. Stakeholder Cooperation	• They hardly engage with other stakeholders. • There is a need for cultivation of effective lines of communication in disaster risk reduction.

Source: Dennison (2024), developed for this PhD thesis

4.5.4 Village/ Community Level Data Analysis- Semi structured interviews

These interviews were conducted with Village Development Committee Chairpersons who make up 10% of villages that do not have/ belong to umbrella Village Development Committees. There were six different sessions carried out in the six districts, however in this section the researcher will only analyse five districts. The sixth one is under section 4.6- validation of findings. The Village Development Committee chairpersons in two out of the six districts targeted (one being the validation districts), were all part of the umbrella Village Development Committee, due to their districts having a small number of wards. Hence there were no Village Development Committee chairpersons semi structured interviews conducted in those two districts. For purposes of this analysis, the participants will be called Participant A of village level semi structured interview session one, participant A of village level semi structured interview session two, participant A of village level semi structured interview session three and so on.

4.5.4.1 Research Question 1

a) Main Theme 1: Implementation Activities

i. Sub- Theme 1: Village Coordination of Disaster Management Albeit Not Extensive

As explained under section 3.4- population and sampling, the researcher chose to focus on Village Development Committee's as the spear headers of disaster risk reduction and disaster management at village level. The Village Development Committee Chairpersons indicated that their committees are meant to coordinate all disaster matters at village level. However, they believe that their role is not extensive because plans come already prepared from the top offices. Researchers continue to emphasise the significance of minimising bureaucracy and empowering local communities to prepare for and manage potential hazards (Rumbach and Foley, 2014; Westley et al., 2008). The participants further highlighted that what happens is, they receive instructions on what is to be done and then try to implement those things. For instance, disaster management activities in the villages have a lot to do with assisting affected people following disasters more than anything else. A few stated that a very small part of their roles includes explaining certain disasters and hazards, the consequences and how they can

possibly be capped or avoided. This can include information on the outbreak of diseases (following information from the health department) or advising people not to build in flood prone areas. However, these types of engagements are very few.

On their personal role as chairpersons, they mostly highlighted that they are supposed to supervise the implementation of disaster management, among other matters in their villages. They see to it that whatever is received as instruction from national and district levels, must be implemented. Some participants explained that they give disaster risk reduction matters regular attention because some hazards and disasters such as drought and floods affect their livestock, their crops, and the livelihood of their communities. Some expressed disappointment at that they believe their role in village level disaster management implementation is not recognised. Participant A of village level semi structured interview session two stated that:

> We are demoralised by the fact that it is like they do not recognise us. They think of us only when situations are dire and the Village Development Committee can help sort out the mess on the ground. But when they come up with strategic plans, they do not involve us. So, we advise the community here and there, but we do not do it often.

ii. Sub- Theme 2: Top Rated Practices

As with the national and district level data collection exercises, the researcher asked all the participants to rate from a compilation of implementation practices on a Likert scale. The rating scale was from one to seven, one being not important and seven being very important. Following the rating exercise, the researcher asked them to choose their best five and explain why they believe that those work best. The researcher compiled their average top five based off their answers. A follow up question was on whether they use/ have applied the practices in their disaster risk reduction implementation. Some who were previously employed explained that they had used a few of the practices in the past, but the majority had never experienced most of them. Those who were not familiar with the implementation practices requested explanations from the researcher on what those entailed. They then rated the implementation practices not based on what they have used or are using, but rather, on which implementation practices they perceive would be important when implementing disaster risk reduction. They chose training, rewarding, informative meetings, unofficial discussions with coworkers, budget

monitoring and reporting as well as projects. District six participants at village level also mentioned notice boards. Below are the top five practices as chosen by participants:

- **Training**

Training was common with most participants; they explained the pertinence of cultivating knowledge and understanding among implementors. The majority stated that they had never been trained or formally inducted on disaster risk management/ disaster risk reduction matters as Village Development Committee members. However, as with some district level participants, most of them focused on the importance of disaster response training as opposed to risk mitigation training. Explaining that, if you train people who are going to assist whenever there is a disaster, you know that you have skilled manpower. They also emphasised that this training is not just for them as the Village Development Committee, but also for community members/ volunteers.

- **Rewarding**

The participants believe so much in rewards. They mention that they often go on incident/ disaster response missions where they work overtime, but they never get acknowledged or rewarded for this. They highlight that on a lot of these missions, they are usually with Government workers who at the end of the day get compensated for their work, while they do not. Although Houette and Mueller- Hirth (2022) findings relate to multinational companies, the researcher believes they can apply in this context as well because the disaster risk management institutional framework is made up of people from different levels, different sectors in different areas of the country. Houette and Mueller- Hirth (2022) concluded that organisations must be more responsive to the individual wishes of employees, consider their socio-economic contexts as well as to highlight the importance of participation in reward programs. It is also important to note that Village Development Committee members are unemployed hence their emphasis on compensation and rewarding, if they do not feel that their work is appreciated, they will be reluctant to offer their assistance in future.

- **Informative meetings**

Informative meetings were also popular among participants. They explained that having an expert tell you about or explain an issue of interest gives one a sense of confidence in their

understanding and the knowledge that they will live with. They stated that in informative meetings you get to ask specific and detailed questions relating to the subject matter. Participant A of village level semi structured interview session eight explained that he believes these types of meetings are closely related to being trained. He said that:

> I would like to believe that the informative meetings go hand in hand with training because there, you are basically having a meeting with an expert. They are training you or they are educating you, so you will be well informed to handle disasters.

- **Unofficial discussions with co- workers**

Participants believe that these are important because information can be collected and disseminated without any pressure of a formal setup and protocols. Colleagues can communicate openly on issues affecting them. Participant A of village level semi structured interview session five explained that "You can pick something from somebody just from saying one thing and then it is like, oh, I think this is the perception here."

- **Budget monitoring and reporting**

The participants believe that budgeting, monitoring, and timely reporting on the usage of funds can enable them to address necessary disaster matters that they otherwise have not been able to due to a lack of resources (Chong and Kamarudin, 2017). Some suggested the decentralisation of funds to their areas and explained that when the need arises, they would not have to go to the very top of the disaster risk management institutional framework to ask for assistance.

b) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsiveness

As with other levels of the disaster risk management institutional framework, the village level has also proven to be very active in disaster response than any other phases of the disaster management cycle. Bang et al. (2019) found that disaster management in Cameroon also places more emphasis on disaster response. Participant A of village level semi structured interview session three explained that the reason for this may be the fact that proactivity is not exercised

at the national and district levels and thus, it is difficult for them to take any other approach. He further said:

> I think we as a country are just reactive in most cases. If we are not then I am not aware, take for example we had COVID-19, for me I thought that was an eye opener, because it showed that we were just reacting to everything and not doing much to prepare or stop hazards.

ii. Sub- Theme 2: Stakeholder Engagements

According to Samuel et al. (2022), the National Disaster Risk Reduction Strategy 2013- 2018 does not identify the relevant stakeholders for reducing hazard levels and probabilities. Over and above that, there are no proper communication channels and plans in place. This is perhaps part of the reason why almost all the Village Development Committee Chairpersons stated that they rarely have engagements with any other level on issues of disaster risk reduction, they do not know how to go about it. In fact, one of the participants laughed before proceeding to answer that they never have any engagements with the national level at all where disaster risk reduction is concerned. A few of them have given some accounts of engagements that took place, with the National Disaster Management Office distributing surveys in the village on disaster management. But these types of engagements are rare.

Participant A of village level semi structured interview session nine stated that the communication they have with the national structures is mostly physical meetings. These types of meetings are rare, and they are mostly following a disaster to come assess damage or when they are in the village for other matters other than disaster management. At times, they engage the National Disaster Management Office and Ministries through letters and the telephone, addressing concerns regarding a lack of resources. He stated that:

> Yes, we communicate, the last time we communicated with the ministerial level for them to hear our voice. Even when the district does not have money, we register our concerns about the way we live, the disasters we experience. Our village is the most affected village when it comes to disasters in this area. Last time, the Minister of Health came to see the situation.

When it comes to district level engagements, one of the participants stated that the District Commissioner's office has at some points inquired through telephone calls on the progress of the village disaster risk management plans or at times it is to invite them to meetings and workshops. However, these engagements are not often in that a year can pass in between arrangement of such meetings. Some participants highlighted that they rarely have communication with the office of the District Commissioner unless it is regarding disaster response. They are not involved in planning matters.

Contrarily, participant A of village level semi structured interview session one, explained that they are in regular communication with the District Commissioner's office, mainly through telephone calls and letters. This is mainly because their village is disaster prone and hence for them to get assistance and support, they need to be in constant engagements. He stated that they submit quarterly reports to the District Commissioner's office. He said:

> We always communicate because we know that immediately after communicating it will bring development to our village. We must follow up each time. Even in terms of a budget, we make sure that we submit our requests and follow up to make them close gaps.

When it comes to communication among Village Development Committee members, the Chairperson's explained that they have monthly scheduled physical meetings, but they cannot honestly say that at each of those meetings they address disaster management or disaster risk reduction. These are on general village matters and engagements. If they do address disaster management, it would often encompass response to an occurrence and only a few times are the meetings about disaster risk reduction. On engaging the community on disaster management, they mention that they call them for physical meetings at the Kgotla's (village meeting place) about two to three times a year. But again, not all these meetings will have a disaster risk reduction focus. If they do, it is often cautioning them on expected harsh environmental conditions as well as the dangers of certain practices that can intensify hazards and disaster risks. For example, they advise them against building their kraals at the side of rivers because there may be dangers in case of flooding and they at times caution them against veldt fires and their prevention. Furthermore, participant A of village level semi structured interview session three stated that they have now introduced modern forms of communication including

WhatsApp, where they have formed a group for the village as well as a newly formed Facebook page.

iii. Sub- Theme 3: Evaluation and Updating of Disaster Risk Reduction Objectives and Plans

All participants except for one, indicated that they do not have a village disaster risk management plan with clearly set out objectives and plans and hence there is nothing that gets evaluated with regards to that. This is goes against the National Disaster Risk Management Plan 2009 which prescribes that villages should have such plans which are facilitated and guided by the District Disaster Management Committees in their districts (PreventionWeb, 2011). In addition to that they mentioned that they had individually never seen the national disaster risk reduction guiding documentation, neither have they been workshopped on those. Participant A of village level semi structured interview session four is the only one who had a different response to this stating that:

> Yes, we evaluate immediately after we have a case, we evaluate to also assess how much destruction was done. To also come up with ways to assist the affected. Like I have already said, we package these issues and take them to the District Commissioner's office. And then he sees how they can assist us. For them to assess if there are enough resources to assist.

From further questioning, the researcher realised that the participant was not relating to evaluation of disaster risk management plans and objectives. He was instead talking about the evaluation that is done following a disaster occurrence to establish the impacts and losses.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

The participants believe that disaster risk reduction needs input from various stakeholders to be successful. They mentioned that from where they stand at village level, they believe that the Village Development Committee, DiKgosi (Chief) and other community leaders, Village Extension Team, District Commissioner's office, the community, and experts should be part of disaster risk reduction planning. Samuel et al. (2022) explains that all stakeholders including

people at community level should be involved in strategy, plans and policy formulation because they are mostly always the first victims of disasters.

Participant A of village level semi structured interview session two explained that in most cases whenever there is a disaster or a hazardous event, it seems as though the country tends to focus more on using government employees ignoring the fact that a country is made up of different sectors, some not even affiliated with government itself. So, he believes that there should be a shift in the structure, based on the understanding that there are people with different skillsets from various sectors within the country that can have important input.

ii. Sub- Theme 2: Skills and Competencies of Implementors

The participants mentioned the importance of various skills ranging from organisational to basic disaster management skills that should be developed among implementors. In explaining the pertinence of organisational skills, they explained that one must consider what they say and how they carry themselves because people consider them as reference points. They mentioned that as Village Development Committee leaders whatever they say carries a lot of weight among the community and specifically on disaster matters. If they cause panic, then people panic. The messages they put out must be thoroughly based on research and backed up by facts and expert opinions. Among other skills mentioned were presentation skills, budgeting skills, communication skills and the use of modern technology. Participant A of village level semi structured interview session 10 explained that at times the District Commissioner's office brings in people who seem to not have much experience and decision-making power to come and address them at the villages, he stated that:

> … if you ask that person some questions, they say no, we must go and report then we will give you feedback. Bringing empowered people would help because we would have confidence in whatever is happening in our area and on the ground. It is also difficult to disseminate information through such a person. I think you are also aware that if I tell you something, by the time that message reaches the twenty fifth person, it has already been contaminated. You might find that now it is the wrong message that arrived there.

Furthermore, they mentioned the importance of basic disaster response skills including fire extinguishing skills, basic first aid as well as swimming skills.

4.5.4.2 Research Question 2

a) Main Theme 1: The Institution's Influence on National Disaster Risk Reduction Strategic Objectives

All participants do not believe that their institutions have had influence on national disaster risk reduction strategic objectives. They just simply believe that they do not get involved enough in planning and strategising and hence it would be difficult to even begin to think they could have had any sort of impact. It is however important to consider that in as much as some actors particularly at village level do not have a formal role in strategy making, they can shape strategy through their social, linguistic, and interpretative ways (e.g., Balogun, 2003; Regner, 2003). They may not have formal strategic authority, but they are pertinent in the success of laid out strategies and plans. Participants in villages that are more disaster prone did however highlight that, through their submissions of requests on their needs, they hope that in future the lessons learnt based on their villages can be widely applied. However, the general feeling was that of being demoralised because of what they deem as a lack of recognition of Village Development Committee's in disaster management by the district and national levels. Participant A of village level semi structured interview session five said:

> Let me start by saying some of the village structures, the committees are not taken that seriously. So maybe that's where we should start, so that we can also have our input. Every village/ ward everywhere has a Village Development Committee and a ward development committee, which means it caters for every city, every village, and every town in the country. Recognising their importance is a start. As a Village Development Committee, our contribution would come from being engaged on a regular basis on disasters and not just when there is a disaster.

b) Main Theme 2: Challenges

i. Sub- Theme 1: Unwillingness of the Community to Participate in Disaster Risk Reduction

This was a very common theme among participants. The communities are apparently not that much involved in disaster management, especially the youth. The people who come in to try assist are the elderly who need to be assisted themselves as they are not that active. People are also not eager to attend physical meetings at the village meeting place. The researcher noticed that the younger participants highlighted that they are now approaching village leadership to try out modern technology for sharing information, so that even if people do not attend physically, they can do so online and participate. Leskaj (2017) explains that the importance of Information and Communication Technology in the implementation of strategic management practices should not be neglected. The meetings are also usually held during the week when some people are at work, so some of the Village Development Committee Chairpersons are currently trying to have these meetings on weekends or holidays when people are home, such that they can gauge whether it is really a matter of genuinely being engaged elsewhere or just not being interested.

ii. Sub Theme 2: Lack of Resources

Village Development Committee's do not have their own budget, they do not control their own funds and hence cannot execute some of their initiatives aside from district level endorsement. This is also quiet a task because under the District Commissioner's office are many other villages that have similar or other concerns and needs. The participants mentioned that they do not have funds for infrastructure developments that can play a role in disaster risk reduction, for instance, the construction or paving of roads, elevation of low-lying grounds and clearing out storm water drainage systems among others. Ikavalko (2005) explains that strategy implementation has not received as much attention as strategy formulation in research. For instance, needs and recommendations are addressed in the national strategy but implementors on the ground are particularly finding it challenging because the well stated plans cannot be translated to address real problems on the ground.

iii. Sub- Theme 3: Lack of Long- Term Planning- Recovery (Post-Disaster) Initiatives

The participants have explained that following floods in their villages people are provided with food and tents for shelter, but those solutions are temporary. There is insufficient planning of long-term recovery (post-disaster) initiatives, such as building proper structures that can

withstand disasters in future, especially in disaster prone areas. The measures current presented in the response and recovery phase result in low level community resilience, compromising disaster risk reduction. They also highlighted that the usual smoothing and flattening of roads using machinery, following damage caused by rain, is a short-term solution that wastes funds as a lot is pumped into that annually. More long-term solutions should be considered like constructing roads in flood prone areas.

iv. Sub Theme 4: Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction

The participants believe that they do not have the required skills and knowledge on matters of disaster mitigation. They were very open to say that there is no way they can impart knowledge onto the community when they themselves do not have it. Fraser et al. (2017) found that many countries in Africa have indeed put initiatives in place to address disaster risk reduction, the strategic goals and plans are outlined very clearly, but the fact that the people on the ground do not have enough knowledge on the subject matter can have dire consequences.

c) Main Theme 3: Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts

Most participants refrained from answering this question because they maintain that they do not have enough knowledge on disaster mitigation. However, participant A of village level semi structured interview session six is of the view that they have been successful although a lot still needs to be done. He expressed that in his village 60% internal roads have been constructed, his village is flood prone and hence the development has reduced flooding risk.

d) Main Theme 4: Way Forward

i. Sub- Theme 1: Resource Mobilisation

All participants through their different suggestions, believe that this is very pertinent. First and foremost, they recommend that there be a possible decentralisation of budgets to district and village level. One of the participants suggested that there be a specific national budget for disaster risk reduction. He mentioned that it would be pertinent for this budget to be put to the

best use and it would require a great level of accountability. On another point, participant A of village level semi structured interview session four gave an example that in their village they need a sizeable health facility as the village has grown over the years. He acknowledged the fact that the health department has done well so far because at first, they didn't even have doctors and had only a few nurses. Now, they have doctors coming about twice a week and a lot more permanent nurses, He stated that the community can get medical services without having to travel as it also means money. He however said:

> We now need a health post or a full clinic because our village has grown to a point where by now it should have a sizeable health facility. It would not only be of service to our people but also those who are travelling past our village. Now, the lack thereof is disadvantaging citizens of this country.

ii. Sub Theme 2: Capacity Building Within the Disaster Risk Management Institutional Framework

The participants believe that implementors must be thoroughly trained on disaster risk reduction/ disaster management. They specifically spoke about the pertinence of disaster management training within their Village Development Committee's. Participant A of village level semi structured interview session eight explained that in consideration of funding constraints, and the fact that there are many Village Development Committees under one district, they can take turns to go for training during the year. He said that member training can be divided according to the funds available. They also believe that this training and education must be extended to the communities (especially volunteers) to know their roles in disaster risk reduction because they are on the ground, yet they are not involved enough.

Participant A of village level semi structured interview session three spoke on how experts should be allowed to do their job because they have in-depth knowledge on disasters and how to reduce their risks. He believes that such people are never in the forefront of these matters, it is always other government employees and leaders who are not particularly skilled in this manner. Thus, experts are the ones who need to impart knowledge on implementors and leadership. He mentions that experts must also be given leeway to gather data and come up with disaster management plans because the country needs customised solutions for Botswana, rather than taking whatever is coming from other countries and applying it.

Two participants proposed that there might be a need to establish a department which only deals with disasters. The rationale is on the fact the National Disaster Management Office seems too small to be able to deal with all DM matters countrywide. The office has about five employees servicing the whole country. Thus, in line with this, Lukamba (2010) also recommends that African governments should now make disaster risk reduction a ministerial function. This is because the intensity and magnitude of hazards and disasters is increasing hence, it is up to every country to instate specialised capacity within its institutional frameworks to manage disasters effectively. Participant A of village level semi structured interview session nine said:

> Even if it needs to be something like a ministry because that is something that worries me, we are having disasters, and it shows that we are not prepared. It can also be something independent, but be government funded. They can account regularly to even parliament but the experts there, should be given the freedom to perform and make decisions as they deem fit.

4.4.4.3 Key Findings

Table 4.8 Key findings- Village level semi structured interviews

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Data Collection Methods				
Semi structured interviews- Village Development Committee Chairpersons	1	a) Implementation Activities	i. Village Coordination of Disaster Management Albeit Not Extensive	• The Village Development Committee Chairpersons indicated that they are meant to coordinate all disaster matters at village level. • Plans are formulated by the district and national level structures with no involvement of Village Development Committee's. • A small part of their role entails explaining certain hazards and disaster impacts.
			ii. Top Rated Practices	• Training, rewarding, informative meetings, unofficial discussions with coworkers, budget monitoring and reporting. • The previously employed have experienced a few of the practices in the past but the majority had never experienced most of them. However, this is what they would consider to be important in improving disaster risk reduction.

		a) Implementation Processes	i. Disaster Management Cycle: Responsiveness	• Most of the disaster risk management initiatives are on disaster response, they do very little on disaster risk reduction, they do not know much about it.
			ii. Stakeholder Engagements	<u>National Level</u> • Hardly any engagements, except for disaster response (through site visits and physical meetings). • The National Disaster Management Office has carried out disaster management surveys in the past, however this is rare. • The Village Development Committee bring up disaster management issues when national level leaders visit their villages for physical meetings. Most of the times the meetings are on general village matters other than disaster matters. <u>District Level</u> • One participant indicated that during intense hazard seasons, they are in constant communication with the District Commissioner's office for assistance and support because their village is disaster prone. • The District Commissioner's office contacts them whenever there are disasters to assist in response and recovery measures. • One participant stated that there were a few times when the District Commissioner's office contacted them to check on the progress of their village disaster risk

				management plan. However, such communication is rare. • They get invited to physical meetings at the village meeting place (Kgotla) facilitated by the District Commissioner's office, but these are meetings on general village matters, however, at times disaster matters are discussed there. <u>Village Level</u> • At their monthly Village Development Committee scheduled physical meetings they can discuss disaster response issues especially during disaster seasons. But this is rare as the meetings are on general village matters.
			iii. Evaluation and Updating of Disaster Risk Reduction Objectives and Plans	• They do not have disaster mitigation objectives and plans and thus, have nothing to evaluate and update. • They have never seen the national guiding documentation on disaster risk reduction. They did not know that they exist.
		c) Implementation Resources	i. Stakeholder Collaboration	• They believe in wider participation of all implementors and stakeholders. • The Village Development Committee's, Kgosi and other tribal leaders, Village Extension Team, District

				Commissioner's office, volunteers from the community, the general community and experts from outside government should be part of the planning, strategising, and implementation of disaster risk reduction.
			ii. Skills and Competencies of Implementors	• They believe that they should have basic disaster response skills and organisational skills. • They indicated the need for training in this regard.
	2	ii. The Institutions Influence on National Disaster Risk Reduction Strategic Objectives		• No influence due to no involvement in planning and strategising. • The participants believe that their structure is not recognised.
		iii. Challenges	i. Unwillingness of the Community to Participate	• Poor participation especially the youth. • Some chairpersons are now approaching village leadership to try introducing modern technology to share information so that participation can also be online. • Village Development Committee chairpersons are currently trying to schedule meetings on weekends or holidays when most people are home.

			ii. Lack of Resources	• No disaster risk reduction budget, hence, cannot carry out initiatives necessary for the villages.
			iii. Lack of Long- Term Planning- Recovery (Post-Disaster) Initiatives	• Provision of food and tents instead of more long term planning results in low- level community resilience, compromising disaster risk reduction in future. • The smoothing and flattening of roads following rain damage is a short-term solution that wastes funds when more long-term solutions should be considered like constructing roads.
			iv. Implementor's lack of Knowledge and Awareness	• Do not have the required skills and knowledge on matters of disaster risk reduction. Hence, there is no way they can impart knowledge onto the community when they themselves do not have it.
		c) Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts		• Most village level participants maintain that they are not knowledgeable on the subject matter, hence cannot comment on its success. • One participant said they are successful because in his flood prone village, about 60% of the internal roads have been completed, reducing flooding risk.
		d) Way Forward	i. Resource Mobilisation	• There should be a specific disaster mitigation budget at national level. • Decentralisation of a disaster risk reduction/ management budget to district and village level.

			ii. Capacity Building Within the Disaster Risk Management Institutional Framework	• There should be training for implementors. • Experts must be in the forefront in disaster risk reduction matters. • Setting up of a department that solely deals with disaster risk reduction and disaster management matters in the country.

Source: Dennison (2024), developed for this PhD thesis

4.5.5 Village/ Community Level Data Analysis- Nominal Group Technique

These were conducted with Umbrella Village Development Committees of the districts which are made up of Village Development Committee Chairpersons from various villages. The nominal group technique had much fewer questions in comparison to other data collection methods, because of the technique behind its data collection (as described in section 3.5.4.2). There were six different sessions carried out in the six districts, however in this section the researcher will only analyse five districts. The sixth one is under section 4.6- validation of findings. For purposes of this analysis the participants will be referred to as Participant A of village level nominal group technique session one, Participant B of village level nominal group technique session one, Participant A of village level nominal group technique session two, Participant B of village level nominal group technique session two and so on.

4.5.5.1 Research Question 1

a) Main Theme 1: Implementation Activities

i. Sub- Theme 1: Village Coordination of Disaster Management Albeit Not Extensive

The participants explained that they should be coordinating disaster management in their villages, because they are responsible for all village development matters (Botswana Government, 2014), they are the "village parliament" as they call themselves. They believe that they have not been fully given the responsibility and space to do so as they are not part of any disaster management planning processes. Bang (2014) explains that cross- sectoral and multi-level cooperation can indeed be difficult, however, for disaster risk reduction implementation to be successful there needs to be effective collaboration between the various stakeholders.

What they have been engaged in is being first responders on the scene and immediately finding refuge and assistance for the affected. They would then go and report to the social workers what they found at those scenes, who has been affected, how they have been affected and how they can be helped. Another participant mentioned that they often do not know what is happening in their own villages, they are unaware of most of the things that affect their own people. They would just see authorities from district and national level coming in to attend to

matters that they do not know of. Participant C of village level nominal group technique session 4 explained that:

> The Village Development Committee is supposed to assist in our villages, but I believe we are not taking part to our full extent. We sometimes get surprised by certain things happening in our village. An incident can occur, and without our knowledge we just see the District Commissioner and councilor arriving and they find that the Village Development Committee does not have any idea of what is going on. Poor communication inhibits us from at times carrying out our duties properly. We are needed only when it is convenient and that is it.

The participants who seemed demoralised mentioned that they do not know of any national strategy, national plans, and policy, and hence, cannot implement what they do not know. Participant A of village level nominal group technique session five explained that:

> We do not know much about disaster risk reduction, if we are to help our community get better, we must be better first ourselves because what you are given is what you take to the community. But as we are here today, we know nothing about the disaster risk reduction strategy and plans.

ii. Sub- Theme 2: Top Rated Practices

As with the national and district level data collection exercises, the researcher asked all the participants to rate from a compilation of implementation practices on a Likert scale. Following the rating exercise, the researcher asked them to choose their best five and explain why they believe that those work best. The researcher wrote those down and asked participants to rank them. A follow up question was on whether they had used most of those practices in their disaster risk reduction implementation. Participants who had previously been employed explained that they had seen some of the practices in the past, but not in disaster risk reduction matters. Most were not familiar with them. The participants asked the researcher to explain what those involved. They then rated the implementation practices based on which implementation practices they perceive would be important in disaster risk reduction implementation, and not what they have been using. They chose training, rewarding, informative meetings, unofficial discussions with coworkers, budget monitoring and reporting

as well as projects. District six participants at village level also mentioned notice boards. Below are the consolidated top five practices chosen by the participants:

- **Training**

Most participants highlighted training as the most important practice and this was mainly because they do not know much on disaster risk reduction issues and hence believe that for them to be able to push the disaster management mandate in their villages and deliver what is expected, they need the knowledge and skills. Participant D of village level nominal group technique session three said "I believe training is very important especially for people who do not have the right or enough knowledge on a subject matter like us. It puts us in a position to know and understand what we must deal with."

- **Informative meetings**

Informative meetings were also popular among Village Development Committee chairpersons, they highlighted that this is because these are conducted by an expert who is knowledgeable in the subject matter and has facts to back up dissemination of such information.

- **Budget monitoring and reporting**

Villages do not have a disaster risk reduction budget and thus whenever there is a need for funds in this regard, they must contact the District Commissioner who is also burdened with the needs of other villages within the district. They believe that village-focused budget monitoring and reporting is pertinent. Monitoring the budget also gives a sense of accountability to the sponsors on whether projects and initiatives are going ahead as planned.

- **Projects**

Projects were mentioned by some of the participants as important to strategy implementation. They mentioned that in as much as they are not in any position at this moment to say they can implement any disaster risk reduction project due to a lack of funds, they believe that projects can improve aspects within their societies that promote disaster risk reduction.

- **Rewarding**

When addressing this practice, participants tones changed signalling that this was a very serious matter for them. They mentioned that it is very important because at the end of the day, it motivates people to complete their tasks. As mentioned previously, Village Development Committee members only get a sitting allowance from the government for being part of this committee and attending to its duties (Ngwenya, 2008). This could be justification for why the monetary value of rewarding is of utmost importance to them. This also came across in what Participant B of village level nominal group technique session three said:

> I believe that to tell the truth the Village Development Committee is not being taken seriously. It is like the COVID-19 time, a lot of us had volunteered along with social workers to distribute food rations. People were getting paid a lot of money for it, the authorities said they would consider rewarding us and that has not been done until now. They just need us when it is convenient, but I believe that we can have valuable input.

b) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsive

The participants indicated throughout the group sessions of how their institution is only engaged during post a disaster. They mentioned that among other things they help relocate the affected and distribute tents, food and whatever else they may need to them. Again, they are not part of the planning process, but take instructions of what to do when there has been a disaster occurrence.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

They mentioned that in an ideal world, they should be working in collaboration with the councilor, tribal leadership, and the Village Extension Team. They believe that all communication into the village must be starting with them. However, their concern is that at times communication can come into the villages through councilors, the social workers and only then will the Village Development Committee be informed. They feel as though

authorities come to them when there is trouble and want to seek for help on the ground. However, Strategy-as-practice has progressively identified middle managers and lower-level employees as significant strategic actors (Regnér, 2003; Balogun & Johnson, 2004). According to this, Village Development Committees can play an important role in the interpretation and success of the disaster risk reduction strategy at village level.

4.5.5.2 Research Question 2

a) Main Theme 1: Challenges

i. Sub- Theme 1: No involvement of village level structures in Disaster Risk Reduction matters

As has been the main theme of this section, participants complain of the fact that the national and district levels do not communicate and engage them enough on issues of disaster management. There are simply no clear lines of communication (Bang, 2014). Over and above that, they have not been facilitated to come up with their own village disaster risk management plans. Participant B of village level nominal group technique session two explained that:

> Maybe to add on to what she said, as Village Development Committee's we work on guidelines so, with issues such as this one, we end up working on assumptions which is not right. When we talk about disaster planning, we are not there. We are not part and parcel of the processes, and it means something is missing. So, we need a revision of the guidelines to say Village Development Committee's must play a role in disasters like this, not just have whatever is passed down for them to do. We must also sit down and partake in the planning because when it is like that, we can better inform on what is happening on the ground.

ii. Sub- Theme 2: Lack of Long- Term Planning-Recovery (Post-Disaster) Initiatives

nominal group technique participants also highlighted that short term disaster recovery initiatives affect the ability of communities to mitigate future risks, especially the poor (Maripe and Setlalentoa, 2017). Participant D of village level nominal group technique session four further said that:

> It appears that government is not too active on disaster matters. When houses are destroyed, the only assistance the affected get are tents and food rations which are temporary. Rebuilding of the house is left to you the affected. If there was some type of disaster insurance where we pay a certain premium monthly towards disaster cover. But now we do not have that. We must not forget that some of these are natural, and people have no hand in having their properties destroyed.

iii. Sub Theme 3: Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction

Participants explained that they do not have enough knowledge and understanding when it comes to matters of disaster risk reduction and hence cannot be firm on what it is that needs to be implemented. One participant even stated that she feels like the Village Development Committees are not recognised and this is the reason why they are not given the necessary knowledge to not remain in the dark. The lack of knowledge and awareness became even more evident when Participant E of village level nominal group technique session one asked the researcher for clarity on what a disaster is, she said:

> When referring to these disasters, are we only talking about for instance, people whose homes have been destroyed by heavy rains, or does it also refer to the homeless people and the poor who maybe have lost their homes due to other life circumstances like losing their jobs?

a) Main Theme 2: Way Forward

i. Sub- Theme 1: Capacity Building within the Disaster Risk Management Institutional Framework

Village level participants communicated on their lack of knowledge and understanding on matters of disaster risk reduction and hence would like to be trained and educated on the subject matter. If the plan is for them to implement the country's disaster risk reduction strategy, it will never come to fruition because they will never be able to implement anything that they do not understand. Participant C of village level nominal group technique session two expressed that she believes the current implementors at district and village level do not have capacity to fully

execute the disaster risk reduction mandate. She stated that the District Commissioner and the District Disaster Management Committee have other mandates and primary job responsibilities that are not related to disaster risk reduction activities. Her suggestion which was backed up by others was that perhaps there should be formulation of a dedicated unit or organisation that deals solely with disaster management. This suggestion is like the decision taken in Cameroon through Law No. 86/ 016 of 1986 which prescribed that there should be creation of a national observatory for disasters with local branches to pay close attention to areas that are disaster prone (Bang et al., 2019). Participant C of village level nominal group technique session four said:

> I feel like the people implementing right now have a huge load on, if maybe there can be a society started or maybe an non- governmental organisation that will focus solely on disaster matters, they can have the load off them. The reason why many things maybe do not reach us is probably because the District Commissioner's office must prioritise which matters to handle, and which ones are not very important. Maybe that is why we deal with disasters only after they have happened, and we need to respond. Because maybe they do not see risk reduction or disaster preparedness as important. So, if there can be a separate organisation that focuses on disasters, hiring people who will solely focus on that. It would work better.

Participant B of village level nominal group technique session four also added on to this explaining that the dedicated unit could exist at the national, district and village levels, with all the other levels reporting to the national level structures. This is like how the current national disaster risk management institutional framework is, but the only difference is that the people who would be hired at district and village levels will be there solely for disaster management. He further said:

> I wanted to chip in there to say that that the current structure does not work. It is very theoretical because they meet only at certain times or wait for a time when there is an emergency. That structure is not strong enough and what should be developed should be better than the current one. There should be people specifically focused on disaster risk reduction issues not those who already have other job roles like somebody from the fire department. Let the structure also have dedicated people at the district and village levels.

ii. Sub- Theme 2: Bottom-Up Approach

The participants suggested that the only way to sort out issues of them not being involved by district and national level structures, is for strategy making to start from the bottom, focusing on implementors on the ground. According to them it appears as if the strategy disappears midway through the disaster risk management institutional framework. They stated that the bottom-up approach is important because they are the ones who know what is on the ground, they know the challenges. How things currently are is in line with Chong and Kamarudin, (2017) who found that all the 79 agencies they identified, apply the top- down approach with only four of those also incorporating the bottom-up approach by engaging local communities. Participant E of village level nominal group technique session five said:

> We are the ones implementing on the ground. So, if it starts from us, the people at the top can get a sense of what is happening on the ground. Unlike if you make decisions alone at the top not knowing the problems on the ground and how the plans will be received. For instance, if we say this is what we will be able to do or this is how we could do it, you can in future say okay you said you can manage this, here it is do it. But if you prescribe, I may not be able to fully implement.

4.5.5.3 Key Findings

Table 4.9 Key findings- Village level nominal group technique

	Research Question	**Main Theme**	**Sub- Themes**	**Key Points**
Data Collection Method				
Nominal Group Technique- Village Development Committee Chairpersons	1	a) Implementation Activities	i. Village Coordination of Disaster Management Albeit Not Extensive	• The participants explained that they should be coordinating disaster management in their villages, but they believe that they are not given the responsibility and space to do this. • They are not part of any planning processes. • They do not know of any national strategy, plans or policy.
			ii.Top Rated Practices	• Training, informative meetings, budget monitoring and reporting, projects, rewarding. • Most participants who have previously been employed had seen some of the practices in the past but not in disaster risk reduction matters while others were not familiar at all with most of them. However, this is what they would consider to be important in improving disaster risk reduction.
		b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Mostly engage in disaster response and some aspects of disaster recovery.

		c) Implementation Resources	i. Stakeholder Collaboration	• They should be working in collaboration with the councilor, the tribal leadership, and the Village Extension Team on disaster risk reduction matters. • They believe that all communication into the village on disaster matters must start with them.
	2	a) Challenges	i. No Involvement of village level structures in Disaster Risk Reduction Matters	• The national and district levels do not communicate and engage them enough on issues of disaster risk reduction. • There is a need to cultivate clear lines of communication. • They have not been facilitated by the districts to formulate their own village disaster risk management plans.
			ii. Lack of Long-Term Planning-Recovery (Post-Disaster) Initiatives	• Short term measures e.g. food rations and tents for temporary shelter do not promote/ build community resilience in disaster prone areas.
			iii. Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction	• Participants explained that they do not have enough knowledge and understanding on disaster risk reduction. • They are not trained on disaster risk reduction, hence cannot be firm on what it is that needs to be implemented.
		b) Way Forward	i. Capacity Building Within the Disaster Risk Management	• Training and educating implementors on disaster risk reduction. • Setting up a dedicated disaster mitigation/ disaster management unit/ organisation.

			Institutional Framework	• The unit should exist at the national, district and village level- reporting to the national structures.
			ii. Bottom- up Approach	• Strategy making should start from the bottom levels of the disaster risk management institutional framework, going up to the national level.

Source: Dennison (2024), *developed for this PhD thesis*

4.6 Validation of Findings- The sixth District

4.6.1 Introduction

This section validates the research findings. The researcher decided to include it because saturation was reached after the fifth district, where no new information was being discovered. Thus, she went on to conduct data collection at the sixth district to verify whether the findings of the other districts can be generalisable to disaster risk reduction in Botswana. Most of the main themes and sub themes identified for the other five were also identified under this district. The discrepancies (if any) are mentioned on the tables under each group analysis.

The section covers the district and village level participants. The national level was not included as there is only one National Disaster Management Office in the country. As explained under section 3.5- Data Collection, the semi structured interviews at village level were conducted with 10% of Village Development Committee Chairpersons from villages that do not have umbrella Village Development Committees. All the Village Development Committee chairpersons in district six, were all part of an umbrella committee, due to their district having a small number of wards. Hence there were no semi structured interviews conducted in district six. There was no validation of the village/ community level semi structured interview data.

4.6.2 District Level Data Analysis- Semi structured interviews

Here a semi structured interview was conducted with the District Commisioner who chairs the District Disaster Management Committee. For purposes of this analysis the participant will be referred to as Participant A of district level semi structured interview session 6. He had a bachelor's degree.

4.6.2.1 Research Question 1

a) **Main Theme 1: Implementation Activities**

i. **Sub- Theme 1: District Coordination of Disaster Management**

The District Commissioner in this district confirmed what the other District Commissioners stated that their mandate is to coordinate disaster management in districts. The District Disaster Management Committees indeed do identify potential hazards across their districts and find ways to mitigate them or respond accordingly if isolated incidents/ disasters have already occurred. He also confirmed that his role as chairperson of this committee is to coordinate the general disaster management activities within the district.

ii. Sub- Theme 2: Top rated practices

Following rating his top five disaster risk reduction implementation practices, participant A of district level semi structured interview session six, just like his counterparts explained that he had indeed applied most of the practices on the Likert scale in his other work responsibilities than in disaster risk reduction work. Below are the top five practices as chosen:

- **Meetings**

As with the other participants physical meetings were rated highly because of their convenience and provision of clarity. Issues can be addressed in real time and the way forward can be mapped with all parties being on the same level.

- **Training**

Training was also among the top picks with the other participants. In elaborating his answer concerning this practice, participant A of semi structured interview session 6 said, “We need trained people because disaster management is a very sensitive issue, implementors need to know what to do. You do not want to exacerbate problems while you have intentions of curbing them.”

- **Organisational Planning**

This was also common amongst all District Commissioners. They all believe that it is pertinent to set goals and create tasks to meet those goals. These must constantly be monitored against the changing environment (Joyce, 2015). Participant A of semi structured interview session six further stated that, “Through an organisational plan, we can be able to monitor our progress and whether we are aligned to the national strategy and its objectives.”

- **Budget Monitoring and Reporting**

This matter appeared to be a challenge throughout all districts. Planning for funds that are necessary to implement all disaster risk reduction projects is important because without these, efforts are futile (Bang et al. 2019). Moreover, participant A of semi structured interview session six stated that, "We have got to ensure that we have a proper budget so that we have control over what we plan for. We also need to empower especially our communities by resourcing them."

- **Letters**

This choice is different from what was collated as the average top five of the other participants. Participant A of district level semi structured interview session six explained that they still use letters as a means of communication across the various districts and government sectors. He gave an example that they mostly invite each other for meetings through physical letters that must be delivered at each of the government departments. He further said, "Unfortunately, some of our committee members have major challenges with internet and new forms of communication. We still rely on letters as a form of communication."

b) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsive

Participant A of district semi structured interview session six confirmed from his answers that his district is more focused on the response phase of disaster management cycle. A small part of their work is dedicated to disaster preparedness and recovery measures. Not much attention is given to mitigation which includes disaster risk reduction. This answer was consistent among all the District Commissioners at all six districts.

ii. Sub- Theme 2: Stakeholder Engagements

The participant also explained that he communicates with the National Disaster Management Office as and when necessary. That is usually when there has been an occurrence, or they need help from the national office for certain matters. A certain matter could be for instance when they want to resuscitate and refresh their district disaster risk management plan as they are

planning to. This communication is through telephone calls and emails. He mentioned that the National Disaster Management Office does get hold of them at times particularly in the rainy season to ascertain how prepared they are and if they have the right inventory for hazards/ disasters.

He stated that at district level, they have quarterly scheduled physical meetings unless there is an occurrence or emergency that needs to be attended to urgently. In these meetings, they discuss hazards, their mitigations and how incidents that occurred have been addressed, according to the relevant departments. That is, the fire department will talk about fire hazards, the metrological department will talk about harsh weather conditions and so on. There is also checking of disaster response inventory. Communication here is also through phone calls, emails, and letters. As with most District Commissioners, participant A of district semi structured interview session six also stated that communication with village level structures is mostly as and when necessary. The engagements are mostly around disaster response measures (Samuel et al, 2022).

iii. Sub- Theme 3: Evaluation and updating of Disaster Risk Reduction Objectives and Plans

The disaster risk management plan that they have submitted to the National Disaster Management Office has not been evaluated and updated. Caymaz et al. (2013) and Samuel et al. (2022) explain that countries should have pro-active strategies that are revised regularly by all important stakeholders to keep up with emerging challenges. It however appears that they have items to action from their quarterly District Disaster Management Committee meetings that are not linked to their district disaster risk management plans. Like other District Commissioners, he indicated that he is aware of the disaster risk reduction national guiding documentation but is not aware of their contents.

iv. Sub- Theme 4: Organisational Restructuring

Participant A of district level semi structured interview's session six indicated that he and the District Disaster Management Committee do not have enough capacity to be hands on when it comes to disaster risk reduction matters and thus, will miss a lot that needs attention. This was common among all the districts, with the District Commissioners alluding to the fact that there needs to be focal points in districts who focus on disaster mitigation/ management matters.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

Like all the other District Commissioners, this one indicated the pertinence of wider stakeholder engagements and collaboration in disaster risk reduction, which they all agree is not how things currently are. They mentioned the pertinence of collaborative effort between all parties in the disaster risk management institutional framework, experts, the business community as well as the community at large as in Cheema et al. (2016).

ii. Sub- Theme 2: Skills and Competencies of Implementors

When it came to the issue of skills and competencies, they all mentioned that implementors must be equipped with basic disaster response skills such as first aid, swimming and technical skills including fire suppression techniques, as well as the ability to assess disaster events following their occurrence. This District Commissioner had a hard time singling out risk reduction skills, this again being proof that the institutional framework is more responsive than proactive in disaster management issues.

4.6.2.2 Research Question 2

a) Main Theme 1: The institution's Influence on National Disaster Risk Reduction Strategic Objectives

All District Commissioners and participant A of district level semi structured interview session six were synonymous in addressing the question of influence on national disaster risk reduction strategic objectives. They said that they do not believe that they have had any influence because there are not involved in any planning of initiatives or policy making as they hardly ever interact with the National Disaster Management Office. He stated that, "I do not think that we have had any influence because we do not get involved or are not included in policy decision making, thus, it would be very difficult for me to gauge any impact there."

b) Main Theme 2: Challenges

i. Sub- Theme 1: Lack of Resources

All the District Commissioners discussed the lack of resources within their districts. This includes funds, equipment, and capacitated manpower. Participant A of district level semi structured interview session six further stated that, "As we are in the district, we do not have resources specifically for disasters, every time we need to do something or respond to a disaster occurrence, we must ask for funds or get support from other departments."

ii. Sub- Theme 2: Lack of Long- Term Planning- Recovery (Post-Disaster) Initiatives

Some of the District Commissioners complained of temporary relief measures provided to those affected by disasters especially in the form of tents for shelter. Participant A of district level semi structured interview session six explains that by providing such short-term measures and not solving or finding ways to mitigate the actual problem, the vulnerable population will likely keep on suffering the same fate (Sabouhi, et al. 2019).

iii. Sub- Theme 3: Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction

All District Commissioners mentioned that the limited knowledge and awareness around matters of disaster mitigation within the districts is a big issue. Participant A of district level semi structured interview session six expressed that he and the District Disaster Management Committee are mostly active in disaster response measures and thus need training and education on risk mitigation initiatives. He said, "We do not have the knowledge and capacity to ensure that we are skilful regarding handling different disaster issues."

c) Main Theme 3: Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts

As with the rest of the District Commissioners, participant A of district level semi structured interview session six, also expressed that there are currently a lot of gaps in disaster risk reduction in his district and a lot of work needs to be carried out to get to a point where they can even start evaluating success.

d) Main Theme 4: Way Forward

i. Sub- Theme 1: Resource Mobilisation

All District Commissioners highlighted the challenge around a lack of resources and thus, to mitigate this they call for the mobilisation of resources (Bang et al, 2019; Chong and Kamarudin, 2017). In elaborating his point, Participant A of district level semi structured interview session six was mostly concerned with the timing of available resources. He said, "The other is to mobilise resources well in time, to ensure that we are always ready for any disaster mitigation matters. These are resources in terms of machinery, personnel, funds, and the like."

ii. Sub- Theme 2: Capacity Building within the Disaster Risk Management Institutional Framework

This sub theme includes a variety of factors that were grouped together and most of what was stated was common across all the districts. For this district the participant discussed the importance of training implementors on disaster risk reduction as well as the issue of appointing a focal person within the districts to concentrate solely on matters of disaster management

4.6.2.3 Discrepancies in findings- validation

Table 4.10 Discrepancies in findings- District level semi structured interviews

Research Question	**Main Theme**	**Sub- Themes**	**Key Points**	**Discrepancies against Validation Section (sixth district)**
1	a) Implementation Activities	i. District Coordination of Disaster Management	• District Commissioners coordinate disaster management in districts. They focus on resource mobilisation and stakeholder participation, from disaster mitigation until disaster response. • The District Disaster Management Committees they chair are meant to assess the environment, identify hazards, and formulate strategies to address or mitigate against those potential hazards. • They are also the first point of contact in disaster response at district level.	• None
		ii. Top Rated Practices	• Meetings, training, organisational planning, budget monitoring and reporting, unofficial discussions with co-workers. • Most of them explained that these practices apply in their general work more than in disaster risk reduction/ disaster management. However, this is what they would consider to be important in disaster risk reduction.	• The only discrepancy is that letters replaced unofficial discussions with co- workers.

	b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Most of the disaster management initiatives are on the response stage of the disaster management cycle.	• None
		ii. Stakeholder Engagements	<u>National Level</u> • Mostly as and when necessary- disaster response (through physical meetings, site visits, telephone calls and emails) • The National Disaster Management Office checks on the disaster management status quo - very rarely (through telephone calls and emails) • The National Disaster Management Office checks for available disaster management inventory particularly during seasons when the villages are hazard prone. • The National Disaster Management Office representatives visit the districts on request from the District Commissioner's office for induction of new members and advice on disaster management plans- very rarely (Physical meetings and workshops). • Most of these engagements are few and far between. No regular and scheduled engagements with the districts, especially on disaster risk reduction.	<u>National Level</u> • All the other points were discussed except for that the National Disaster Management Office checks up on whether they are on track with disaster management initiatives. • The point on induction of new members was also not discussed. • The District Commissioner at district six added that they can contact the National Disaster Management Office when they need to resuscitate/ refresh their plans.

			<u>District Level</u> • Quarterly scheduled physical meetings as the District Disaster Management Committee. Discussions are around potential hazards and mitigations, particularly veldt fire incidents and maintenance of fire breaks, clearing of storm water drainage systems, checking of available disaster management inventory and preparation of internal reports as required. • There is hardly any follow of action items most times due to a lack of resources. • Engagements are also as and when- during disaster response (engagements are through emails, telephone calls, site visits and physical meetings). <u>Village Level</u> • Most District Commissioners stated that communication to village level structures is as and when necessary- mostly during disaster response and recovery (Physical meetings and site visits), except for one.	<u>District Level</u> • None <u>Village Level</u> • Only the first point was discussed

			• Meant to be quarterly physical meetings and facilitated by the district pairs (made up of District Disaster Management Committee members). However, the focus here is rarely on disaster risk reduction, it is on other village pressing matters.	
		iii. Evaluation and Updating of Disaster Risk Reduction Objectives and Plans	• Have never evaluated or updated the district disaster risk management submitted to the National Disaster Management Office. • They all indicated that they know there are national disaster management guiding documentation on disaster risk reduction, but they have never gone through them.	• Only the first point was discussed. • The additional point discussed by the participant from district six is that they have items to action from their District Disaster Management Committee meetings that are not linked to the disaster risk management plan.
		iv. Organisational Restructuring	• Current disaster risk management institutional framework is not functioning as well as it should. • There must be disaster risk reduction and disaster management focal persons in the districts. • The Village Extension Team and Village Development Committee must merge at village level to form a local disaster risk management committee.	• Only the second point was discussed.

		v. Bottom-Up Approach	• They would like the national level to engage them as well lower level implementors at village level on disaster risk reduction planning and strategising as they would have more insights on what is happening on the ground.	• Sub-theme did not come up, but main theme is there.
	c) Implementation Resources	i. Stakeholder Collaboration	• District Commissioner, the District Disaster Management Committees, the Village Extension Team, businesses, community, tribal administration as well as other district specific stakeholders such as mining authorities should be part of disaster risk reduction processes. • Most participants did not acknowledge any one party as spearheading disaster management at village level. There was mention of various parties including councilors, the Village Extension Team, social workers, and tribal leadership as being the first point of contact in village disaster matters.	• None.
		ii. Skills and Competencies of Implementors	• They believe that implementors should possess basic disaster response skills and disaster management technical skills.	• None.

			• Need more and continuous training in this regard.	
2	a) The Institutions Influence on National disaster risk reduction Strategic Objectives		• No influence.	• None.
	b) Challenges	i. Unwillingness of Stakeholders to Cooperate in Disaster Risk Reduction.	• Community participates when they feel like it. • Different government sectors at district level are not as cooperative as they should in disaster risk reduction service delivery.	• Sub- theme did not come up, but main theme is there.
		ii. No Disaster Management Legislation	• No dedicated disaster management legislation- no accountability on the part of implementors.	• Sub- theme did not come up, but main theme is there.
		iii. Lack of Resources	• Lack of capacitated manpower. • No funds for disaster risk reduction. • Not enough equipment in the districts.	• All the points were discussed. • This participant added that each time something disaster related needs to be done or there is an occurrence, they must ask for funds or borrow equipment from different departments.

		iv. Lack of Long-Term Planning-Recovery (Post-Disaster) Initiatives	• Temporary relief measures such as provision of tents to the affected in historically disaster-prone areas, does not alleviate future risks and promote disaster resilience.	• None
		v. Implementor's lack of Knowledge and Awareness on disaster risk reduction	• This may be because of limited engagement with experts and national level structures. • Should be trained on disaster mitigation.	• Only the second point was discussed.
	c) Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts		• More can still be done, especially where disaster mitigation is concerned.	• None
	d) Way Forward	i. Resource Mobilisation	• Development of a disaster risk reduction budget. • A possible decentralisation of the budget to districts.	• These two suggestions were not discussed. • The participant was more concerned with the issue of timing of available resources.

		ii. Capacity Building within the Disaster Risk Management Institutional Framework	• Induction and regular training of district and village level implementors on disaster risk reduction. • Appointing focal disaster risk management persons in the districts. • Setting up of a fully-fledged disaster management units in the districts. • Educating and creating awareness of disaster risk reduction among implementors and other stakeholders	• Only the first two points were discussed.
		iii. Maintenance of Required Standards	• Maintaining required standards in service provision by different government sectors is very important. • The community should also maintain required standards, particularly in areas where they can carry out projects without professional oversight e.g., building homes and other structures without inspection due to those services being far from some remote areas.	• Sub- theme did not come up, but main theme is there.
		iv. Continuity in disaster risk reduction Plans	• Should be able to be understood by implementors transferred into new districts	• Sub- theme did not come up, but main theme is there.

Source: Dennison (2024), *developed for this PhD thesis*

4.6.3 District Level Data Analysis- Focus Groups

This focus group was conducted with the District Disaster Management Committee members. For purposes of this analysis the participants will be referred to as Participant A of district level focus group session 6, Participant B of district level focus group session six and so on. Most of them had bachelor's degrees while a few had diplomas.

4.6.3.1 Research Question 1

a) Main Theme 1: Implementation Activities

i. Sub- Theme 1: District Coordination of Disaster Management

As with other District Disaster Management Committee members from other districts, the participants here explained that their role as members of this Committee is to coordinate disaster management activities in the districts. They also spoke about identifying hazards, actioning mitigation measures as well as responding to disasters that occur within their districts.

ii. Sub- Theme 2: Top rated practices

Following the ratings as discussed below, the researcher asked a follow up question on whether they had used any of those practices in their disaster risk reduction implementation. Most of the participants explained that they apply these practices in their other operations and only a few in disaster risk reduction work. Below are the top five practices as chosen:

- **Training**

This has proven to be the most important practice among the District Disaster Management Committee members. They believe that to deliver and perform to the best of their ability they need to be imparted with knowledge (Flood et al., 2000), especially because they do not know much about disaster risk reduction in general. Training needs must be identified and acted upon.

- **Budget monitoring and reporting**

Again, the participants in district six also highlighted the pertinence of budget monitoring and reporting, especially because they currently do not have dedicated budgets for disaster risk reduction and disaster management (Bang et al. 2019). They mentioned that proper budget

monitoring and reporting promotes accountability and gives the correct picture to the public, as well as current and potential funders. Participant C of district level focus group session six further went on to explain that:

> A budget is very important, we must monitor how we use finances, and we need to report so that whoever is helping us, or whoever is responsible for funding whatever the project is, knows what we do with the money, and gets the reports.

- **Networks and partnerships**

The participants in this district also agreed that this is an important practice in disaster risk reduction, mainly because it is such an intricate area that requires different skillsets and resources to be successful. Participant D of district level focus group session six stated, "You have got to identify your stakeholders and build networks. It is also building capacity. Interested parties come together to share information, resources and assist each other where other lack."

- **Meetings**

The focus group participants in this district also believe that physical meetings are a very important practice because they bring everyone together to discuss issues, strategise and make pertinent decisions under one roof (Suleiman, 2018).

- **Induction Training**

This is the only different pick from the top five in other districts. It is different from normal training in that training can be done on a regular or continuous basis, whereas induction training is specifically at the beginning of the job/ role. The participants believe that new members should be effectively trained on appointment so that they aware of the expectations and fully understand the committee's mandate.

b) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsive

Through the various examples given and the general discussion, it is quite evident that District Disaster Management Committees as a structure are very much responsive to disasters as

opposed to being proactive (Samuel et al., 2022). This was the consensus among all participating members. The participants kept swaying more towards the response side of the disaster management cycle in answering questions because that is their natural inclination, it is what they know. However, there were some small aspects of disaster preparedness and recovery identified.

ii. Sub- Theme 2: Stakeholder Engagements

These participants also stated that their engagements with people at the national level on matters of disaster risk reduction are mostly on an as and when basis (Bang et al, 2019), that is, it could be following a disaster occurrence or when there is an identified hazard that needs prompt attention. The National Disaster Management Office contacts them periodically to enquire on available inventory particularly during hazard prone seasons. This communication is through the telephone and emails. Physical visits are few and far between. At district level, there are quarterly District Disaster Management Committee meetings unless there is an urgent matter that needs to be attended to. Communication is through physical meetings, phone calls, letters, and emails. Here the members give updates on potential hazards, current hazards, and their mitigations. There are also discussions around response and recovery measures. There is confirmation again that the District Disaster Management Committees hardly engage with village level structures, unless there is an emergency that needs to be attended to, and they go there physically. Participant D of district level focus group session six stated that:

> We engage the village level when there is an emergency, then the concentration will be maybe on those affected. But we are very much aware that we need to engage them. Most times it will be the area councillor saying we should check on affected villages and report on the incident. But we are very much aware that we must get in touch with the village level structures often.

iii. Sub- Theme 3: Evaluation and Updating of Disaster Risk Management Objectives and Plans

These participants, like in most districts, explained that they had never been part of any evaluation and updating exercise of their disaster risk management objectives and plans (Caymaz et al. 2013). They mentioned that according to records, this has never been done since

submission to the National Disaster Management Office, nor has there been talks of carrying out that exercise. Participants in this district also highlighted that they had never seen the national guiding documents.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

Participants at this district also mentioned the pertinence of having wider stakeholder participation on issues of disaster risk reduction. Cross collaboration is important for successful implementation (Trainor and Subbio, 2014). They further stated that participation should be from the District Disaster Management Committee, District Commissioner's office, businesses, tribal leadership, village level structures and the community.

ii. Sub- Theme 2: Skills and Competencies of Implementors

The focus here was on the various technical skills that each of the members brings into the District Disaster Management Committee, their technical departmental skills. They also discussed that they need to be equipped with the basic disaster response skills such as swimming, first aid and firefighting. Their answers were in line with other districts.

4.6.3.2 Research Question 2

a) Main Theme 1: The institution's Influence on National Disaster Risk Reduction Strategic Objectives

All participants including those at district six, do not believe that they have had any influence on national disaster risk reduction strategic objectives because they do not engage on any policy or strategy issues with authorities at national level.

b) Main Theme 2: Challenges

i. Sub- Theme 1: Lack of Resources

All focus groups stated this as a challenge. The participants in district six explained that even if they had plans to, it would be difficult for them to be proactive because they do not have

funds, hence cannot execute anything themselves. They can be able to identify the district's needs as a committee but without a budget as things stand, nothing will change. Another challenge is on equipment. Participant B of district level focus group session six responded using a disaster response example:

> I know we have talked about funds and all that, but you will find that, if we have any drowning case in our district, we must wait for the scuba divers from Gaborone who will take five hours or even days. If we have floods, we have boats that are with the National Disaster Management Office in Gaborone and the protocol for you to get those is long. So, we understand the budget constraints but how about we have small boats so that we can do something while still waiting for the protocols to be done and then they give us the better equipment.

ii. Sub- Theme 2: Implementors Lack of Knowledge and Awareness

The committee members complained that there is no proper information dissemination from the national structures and standardisation of processes. What is done in one district will not be done in the next. They acknowledge that disasters and hazards may be area specific and thus should be treated accordingly, however, there should be standards in processes that are communicated across the country, so that they can comply and are aligned.

c) Main Theme 3: Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts

The participants here also believe that more can still be done in disaster risk reduction implementation.

d) Main Theme 4: Way Forward

i. Sub- Theme 1: Resource Mobilisation

Participants at this district similarly discussed resource mobilisation as a solution to their problem of limited resources. They highlighted funds as the most important thing because with funds, equipment can be procured, and manpower can be trained to address disaster mitigation issues. They mentioned that it is difficult to implement anything that they could independently

because they do not have a budget that they control. Participant E of district level focus group session six stated that, “We need a budget at district level that speaks to disaster mitigation and its initiatives, so that we beat the hassle of bureaucracy.”

ii. Sub- Theme 2: Capacity Building within the Disaster Risk Management Institutional Framework

The most recurring area under capacity building that was also brought up by district six participants is continuous training. They believe that implementors should be equipped with the right skillset to implement effectively and efficiently (Cheema et al. 2016). As with the other districts, participants here believe that they have not/ do not receive sufficient training as members of the District Disaster Management Committee, particularly on disaster risk reduction matters (Fraser et al., 2017). Participant C of district level focus group session six said:

> It is important to train people that will be working on a particular project or initiative. You cannot take somebody who doesn't know what he's supposed to be doing and expect results. You might find that in whatever you're trying to improve, they will worsen it.

iii. Sub- Theme 3: Stakeholder Cooperation

Participants in this validation section explained that it is very difficult to connect and communicate with other stakeholders because it is not clear when the right time is to do so, how and with regards to what, particularly on matters of disaster risk reduction. They believe that the national level structures should be fostering this process, with a clearly set out communication and engagement plan. They stated that surely it is not right that they mostly communicate with other levels in the institutional framework on disaster response matters.

4.6.3.3 Discrepancies in findings- validation

Table 4.11 Discrepancies in findings- District level focus groups

Research Question	Main Theme	Sub- Themes	Key Points	Discrepancies against Validation Section (sixth district)
1	a) Implementation Activities	i. District Coordination of Disaster Management	• Coordination of disaster management in districts. • They should identify risks and come up with mitigations. They also attend to disaster reduction initiatives. • The districts are still very much reactive following disasters than proactive in disaster risk reduction. • They ensure that some of the required standards are upheld in government service provision. • Information dissemination to the community on disaster risk reduction.	• All the other points were discussed except for the one where the District Disaster Management Committee advises on maintaining required standards in government service provision.
		ii. Top Rated Practices	• Training, budget monitoring and reporting, networks and partnerships, meetings, and operational and performance objectives. • Many of them explained that they apply most of these practices in their other operations and only a few in disaster risk reduction. However, this is what they consider would be	• The only discrepancy is that induction training replaced operational and performance objectives.

			important to improve disaster risk reduction.	
	b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Most of the disaster risk management initiatives are on the disaster response. • There are however a few elements of disaster preparedness.	• None.
		ii. Stakeholder Engagements	<u>National Level</u> • They hardly engage with the national level- unless it is on response measures (through physical meetings, site visits, telephone calls and emails). • The National Disaster Management Office communicates when they have important information to share through telephone calls and emails – these are rare. • The national office communicates to check on available disaster management inventory (through emails and telephone calls). • They come on invitation to physical meetings when their assistance is needed, these engagements are also rare.	<u>National Level</u> • All the other points were discussed except for the one where the national office come on invitation to assist in reviewing plans.

			<u>District Level</u> • Quarterly scheduled physical meetings as the District Disaster Management Committee to discuss hazard identification and possible mitigations. • As and when there is an emergency, here they engage through physical meetings, site visits, emails, texts, and telephone calls. <u>Village Level</u> • As and when there are emergencies-disaster response. To help in identifying and assisting the affected. The engagements are physical.	<u>District Level</u> • None <u>Village Level</u> • None.
		iii. Evaluation and Updating of Disaster Risk Reduction Objectives and Plans	• Participants from one district said their plan has been reviewed, albeit not sure if it has been submitted to the National Disaster Management Office. • The rest of the participants indicated that their plans had never been evaluated and updated. • Some participants have never seen the national plan, the national strategy, and	• None, they also stated that their plans have never been evaluated and updated.

			the policy, or heard about any national course of action.	
	c) Implementation Resources	i. Stakeholder Collaboration	• They call for wider participation of stakeholders in disaster risk reduction; the District Disaster Management Committee, District Commissioner's office, tribal leadership, community volunteers, disaster risk reduction experts and other affected stakeholders	• None.
		ii. Skills and Competencies of Implementors	• Technical skills from each department represented in the District Disaster Management Committee are important. • Basic disaster management and response skills training is pertinent in addressing disasters wholistically. • Risk profiling skills for implementors. • They also believe that organisational skills are pertinent.	• The point on organisational skills was not discussed. • Risk profiling was also not discussed.
2	a) The Institutions Influence on National Disaster Risk Reduction Strategic Objectives		• They believe they have not had influence because they are not engaged in any disaster mitigation planning.	• None.

	b) Challenges	i. Unwillingness of Stakeholders to Cooperate in Disaster Risk Reduction	• A lot of stakeholders do not want to participate if not directly affected.	• Sub-theme did not come up, but main theme is there.
		ii. Lack of Resources	• Lack of funds • Not enough equipment • Understaffed in the districts.	• The only point that was not discussed is the one on being understaffed, thus, being unable to carry out disaster mitigation work properly.
		iii. Implementors Lack of Knowledge and Awareness on Disaster Risk Reduction	• District Disaster Management Committee members say they are not very knowledgeable on disaster risk reduction matters due to not receiving enough training.	• They also mentioned that they need training but did not mention currently only having job specific training. • There was however mention that there is no proper information dissemination from the national structures and standardisation of processes.
	c) Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts		• More can still be done.	• None.

	d) Way Forward	i. Resource Mobilisation	• Effective planning around funds and other resources. • The budgeting processes must involve experts in disaster risk reduction and the various technical fields.	• The point not discussed is on that the budgeting process must involve experts.
		ii. Capacity Building within the Disaster Risk Managemement Institutional Framework	• Training for implementors. • Cascading of the strategy and plans.	• The only point that was not discussed is the one on cascading the strategy and plans.
		iii. Stakeholder Cooperation	• They hardly engage with other stakeholders. • There is a need to improve the lines of communication in disaster risk reduction	• None.

Source: Dennison (2024), *developed for this PhD thesis*

4.6.4 Village/ Community Level Data Analysis- Nominal Group Technique

This was conducted with the Umbrella Village Development Committee of the sixth district. For purposes of this analysis the participants will be referred to as participant A of village level nominal group technique session six, participant B of village level nominal group technique session six and so on.

4.6.4.1 Research Question 1

a) Main Theme 1: Implementation Activities

i. Sub- Theme 1: Village Coordination of Disaster Management Albeit Not Extensive

The participants at the sixth district also indicated that they believe they are supposed to be coordinating all disaster management projects and programmes that take place at village level. However, the district and national level structures have not involved them as much as they perhaps should.

ii. Sub- Theme 2: Top Rated Practices

Following the rating exercise, the researcher asked participants whether they had used some of those practices in disaster risk reduction implementation. Participants who had previously been employed (not the majority) explained that they had seen some of the practices in their past job roles and not in disaster mitigation, while others were not familiar at all with most of them. Following the researcher's explanations of what they were, the participants rated them based on what they perceive would be important in disaster risk reduction implementation, not what they are currently using or have used. Below are the consolidated top five practices as chosen:

- **Training**

As with other Village Development Committee participants, the district six focus group rated training as part of the top five practices. This is mostly because they explain that they do not know much about disaster risk reduction and what is supposed to be done in its planning and implementation and hence need capacitation (Righi et al. 2021). Participant D of village level nominal group technique session six explained that, "We need to be trained on this because we

are in the dark, all we do is respond to disasters or be engaged as and when the higher offices need assistance on the ground."

- **Informative meetings**

The participants equate informative meetings to training in that, experts, and other knowledgeable people would come educate them, raising awareness on issues of disaster risk management. Only in that way would they as the Village Development Committee be able to contribute to disaster management issues.

- **Networks and Partnerships**

This is one of two implementation practice ratings that differed from the other five districts. They explained that networks and partnerships (Trainor and Subbio, 2014), would benefit them because as things stand, they are not in any position to implement anything, even if they had initiatives lined up due to a lack of skill and resources. Participant A of village level nominal group technique session six also spoke on the importance of collaborations with other countries. He said:

> Networks and partnerships are very important because disasters can occur anywhere at any time, for instance, we can have cyclones from Mozambique going across South Africa and into Botswana. It is therefore very important to network and partner because it can help us not just within our borders but outside as well.

- **Notice Boards**

This rating is also different from the other five districts, they chose notice boards because they stated that not everyone in villages has access to the internet or other modern forms of communication. Thus, they believe that if there is anything that the public needs to be sensitised on, it can be put on the boards especially at the Kgotlas (village meeting place), the clinic and basically wherever else people go in large numbers.

- **Rewarding**

District six participants also believe that rewarding is very important in line with Houette and Mueller- Hirth (2022). They like other participants brought up the fact that they worked hard during COVID-19 response initiatives to assist their communities however, their efforts were not acknowledged while the government workers they did this with were remunerated. Participant C of village level nominal group technique session six explained that, "Rewarding is very important to us, we are unemployed, so when we put in our time and efforts to assist somewhere, we need our efforts to be recognised."

b) Main Theme 2: Implementation Processes

i. Sub- Theme 1: Disaster Management Cycle: Responsive

This sub theme was very clear throughout the whole session. They spoke about how their engagements with either the district or national levels are only when there has been a disaster occurrence and people on the ground must be assisted. They have never been part of any consultation processes where disaster risk reduction planning was concerned.

c) Main Theme 3: Implementation Resources

i. Sub- Theme 1: Stakeholder Collaboration

They also believe that disaster risk reduction needs collaborations and team effort to be implemented successfully (Trainor and Subbio, 2014). Here they did not single out the parties that they think should be involved. However, they said it needs collaboration from the national, district as well village level structures.

4.6.4.2 Research Question 2

a) Main Theme 1: Challenges

i. Sub- Theme 1: Lack of Long- Term Planning-Recovery (Post-Disaster) Initiatives

This sub theme was also common among the other five districts. Participants believe that government has not put in place measures that improve or at least leave disaster victims in the same position that they were in prior to a disaster. They stated that the affected usually get

temporary shelter in the form of tents and food parcels. However, this does not place them in any better position to be resilient against disasters in the long term. More long- term measures are required in disaster recovery planning to reduce future risks (Balcik et al. 2010).

ii. Sub Theme 2: Implementor's Lack of Knowledge and Awareness

Participants from this district also explain that there is not enough information sharing on issues of disaster risk reduction. They do not know much when it comes to disaster mitigation implementation, they stated that they do not even know where to begin in disaster management implementation.

b) Main Theme 2: Way Forward

i. Sub- Theme 1: Capacity Building within the Village Level Structures

These participants also complained about a lack of knowledge on matters of disaster risk reduction and thus training would be pertinent for them to bear fruits in implementation. Participant B of village level nominal group technique session six explained that there is a need for a dedicated disaster management unit because it seems as though coordinators and implementors on the current structure are overwhelmed. She said, "The structure as it currently is, is not effective. It needs to be improved."

ii. Sub- Theme 2: A Combination of a Bottom-Up and Top-Down Approach

The participants here suggested that there should be a combination of the bottom up and top-down approaches in disaster risk reduction to complement each other (Isidiho and Sabran, 2016). They stated that they understand the national level structures would never completely relinquish their decision-making authority, however, they should involve them in some aspects of planning as they are the ones on the ground. They know and fully understand the needs of their communities.

4.6.4.3 Discrepancies in findings- validation

Table 4.12 Discrepancies in findings- Village nominal group technique

Research Question	**Main Theme**	**Sub- Themes**	**Key Points**	**Discrepancies against Validation Section (sixth district)**
1	a) Implementation Activities	i. Village Coordination of Disaster Management Albeit Not Extensive	• The participants explained that they should be coordinating disaster management in their villages, but they believe that they are not given the responsibility and space to do this. • They are not part of any planning processes. • They do not know of any national strategy, plans or policy.	• None
		ii. Top Rated Practices	• Training, informative meetings, budget monitoring and reporting, projects, rewarding. • Most participants who have previously been employed had seen some of the practices in the past but not in disaster risk reduction matters while others were not familiar at all with most of them. However, this is what they would consider to be important in improving disaster risk reduction.	• The only discrepancy is that networks and partnerships and notice boards replaced budget and monitoring and projects.

	b) Implementation Processes	i. Disaster Management Cycle: Responsive	• Mostly engage in disaster response and some aspects of disaster recovery.	• None.
	c) Implementation Resources	i. Stakeholder Collaboration	• They should be working in collaboration with the councilor, the tribal leadership, and the Village Extension Team on disaster risk reduction matters. • They believe that all communication into the village on disaster matters must start with them.	• None, they however generalised the parties by saying the national, district as well village level structures.
2	a) Challenges	i. No Involvement of village level structures in Disaster Risk Reduction Matters	• The national and district levels do not communicate and engage them enough on issues of disaster prevention/ mitigation. • There are simply no clear lines of communication. • They have not been facilitated by the districts to formulate their own village disaster risk management plans.	• Sub-theme did not come up, but main theme is there
		ii. Lack of Long-Term Planning-	• Short term measures e.g food rations and tents for temporary shelter do not promote community resilience in	• None.

		Recovery (Post-Disaster) Initiatives	disaster prone areas, it in fact compromises disaster risk reduction.	
		i. Implementor's Lack of Knowledge and Awareness on Disaster Risk Reduction	• Participants explained that they do not have enough knowledge and understanding on disaster prevention. • They are not trained on disaster mitigation, hence cannot be firm on what it is that needs to be implemented.	• None.
	b) Way Forward	i. Capacity Building Within the Village Level Structures	• Training and educating implementors on disaster risk reduction. • Setting up a dedicated disaster mitigation/ disaster management unit/ organisation. • The unit should exist at the national, district and village level- reporting to the national structures.	• They did not discuss the third point on how the unit/ organisation should be structured. • They also did not discuss the formulation of village disaster management committees.
		ii. Bottom- up Approach	• Strategy making should start from the bottom levels of the disaster risk management institutional framework, going up to the national level.	• They spoke of a combination of bottom up and top-down approaches.

Source: Dennison (2024), *developed for this PhD thesis*

4.7 Evaluation of Key Research Objectives and Discussion of Findings

4.7.1 Key Research Question

How is strategy implementation done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as-practice lens?

Research Outcome

The researcher successfully answered this key research question by finding out the status quo of the Botswana disaster risk reduction system through guidance of the subsidiary research questions and related objectives. Based on the research findings, the researcher developed a Strategy-as-practice based disaster risk reduction implementation framework (see Figure 5.1 in Chapter 5) and came up with practical recommendations that can guide the design of effective future disaster risk reduction strategy implementation processes in practice. Evaluation of the subsidiary research objectives is carried out below. Most findings from the validation were in line with findings from the other five districts, there were no substantial disparities identified. Hence, when the researcher writes 'all villages/ districts' or 'most villages/ districts' it is inclusive of the validation participants. However, where there are noteworthy differences, these are brough forth.

4.7.2 Research Objectives

4.7.2.1 Research Objective 1: To identify the activities, processes and resources used in implementing the Botswana Disaster Risk Reduction strategy.

Research Outcome

- **Implementation Activities**

The national level participants indicated that they are responsible for coordination of disaster management activities in the country. They did however highlight that government has taken a decision to restructure the roles in disaster management. The National Disaster Management Office will now be left with coordination of disaster and emergency

management as well as policy issues at national level, while preparedness and response will be delegated to local levels. The district and villages level participants indicated that they coordinate disaster activities in their areas respectively. However, the researcher can perhaps highlight that all the national disaster management guiding documents have different recommendations on who should spearhead disaster management at village level. The National Disaster Risk Reduction Strategy 2013- 2018 highlights that it is the local disaster risk management committees, the National Policy on Disaster Management 1996 prescribes that it should be traditional leadership and organised groups identified by the District Disaster Management Committee's, while the National Disaster Risk Management Plan 2009 states that it should be Village Development Committee's under the leadership of *Dikgosi* (chiefs). Communication at times reaches the village through social workers, the Village Extension Team, councillors, and even tribal leadership. It appeared as if there is no proper stakeholder identification. There needs to be clarity to avoid confusion and ambiguity of responsibilities among implementors.

According to participants, the common disaster risk reduction strategy implementation practices at national level includes projects, emails, networks and partnerships, budget monitoring and reporting as well as training. The district level participants stated that they implement or would like to implement through meetings, training, budget monitoring and reporting, organisational planning, unofficial discussions with co-workers, networks and partnerships as well as operational and performance objectives. District six participants on validation, added letters and induction training at district level. District level participants explained that they apply most of the practices on the Likert scale in their general work roles, than in disaster prevention. The findings show that there is not much disaster risk reduction activity at village level, however, the practices they deem would be pertinent are training, rewarding, informative meetings, unofficial discussions with coworkers, budget monitoring and reporting as well as projects. Under validation, the village level added notice boards to the list. While participants at village level who had previously been employed (not the majority), explained that they had seen some of the practices in their past job roles and not in disaster risk reduction, some were not familiar at all with most of them. As explained previously, their ratings followed the researcher's explanations on what they are. The ratings are not on the implementation practices they are currently using but rather, on how they would like to implement disaster mitigation in future.

The researcher identified that there are several highly rated practices that are common among district and village level participants, such as training, budget monitoring and reporting as well as unofficial discussions with coworkers. Some of these were also identified by Ikavalko (2005) among her participants, she found that many intentions of executing were around practices such as informal discussions, documents, e-mail, stories, or observation. Due to the dominance of informal discussions in what she termed "enabling experiences", there can easily be a conclusion that a lot of strategy work occurs in the corridors and outside the formal meeting places.

The researcher noticed that Information and Communication Technology was not a top practice at district and village level, albeit the district level participants mentioning that some of the communication and engagements were through emails. One of the District Commissioners mentioned the use of letters as they said some District Disaster Management Committee members still have challenges with using the internet. A national level participant also spoke of having halted physical meetings with other national committees because of COVID- 19, and they since have not had any. However, the pandemic presented an opportunity for government to advance themselves where technology is concerned, like many organisations have. As Zammuto et al. (2007) asserted, Information and Communication Technology use has indeed and should improve how things are done in public service, there should be new organisational arrangements and functions to match the fast-paced world that we are living in. However, there must be a fine balance, because as with all the benefits that have come with the digital era mostly during COVID-19, there are pressures on employees related to expectations in performance, easy access and just a general invasion of privacy (Coldwell, 2021).

- **Implementation Processes**

All participants at district and village levels believe that currently, the disaster risk management institutional framework is more reactive after disasters have occurred than being proactive in implementing disaster risk reduction measures (Samuel et al., 2022) The researcher however picked that at district level along with being responsive following disasters, there are some small elements of disaster preparedness. However, disaster mitigation which involves disaster risk reduction is seemingly not being given due consideration at all levels of implementation. The engagements across the disaster risk

management institutional framework are mostly as and when there is a need, particularly in disaster response and recovery. When this happens, engagements are through emails, telephone calls, physical meetings, and site visits. This communication would be around how to assist the affected through distributing of food and blankets as well as temporary shelter in the form of tents among others. There is currently no detailed national communication and stakeholder engagement plan.

The District Disaster Management Committees and national level committees are supposed to have quarterly scheduled meetings on disaster management, respectively. Here disaster risk reduction may be discussed including the maintenance of fire breaks, early warning systems, community sensitisation as well as advocating for increased funding for maintenance of storm water drainage systems, among others. These discussions cannot be classified as continuous and in-depth because according to some district level participants, they are based on surface level knowledge. Contrary to what is currently happening, the disaster risk management plans at all levels require continuous engagements and monitoring, especially where disaster risk reduction is concerned (Chong and Kamarudin, 2017). This is because that is where implementors get to identify, assess, and come up with mitigations to risks before incidents happen. The national guiding documents also address the importance of general community awareness in risk prevention as Righi et al. (2021) also emphasise. Most Village Development Committee participants believe that there is no way that the community can be knowledgeable on issues of disaster risk reduction, if they as a committee are not. They explained that this is because they are the eyes and ears of the village, they should be able to take this information to their people. Samuel et al. (2022) explains that strategy formulation, planning and policy formulation should include people at community level because they are always the first victims of disasters. The consequences of not paying attention to this stage of the disaster management cycle can have damning consequences for the country.

Certain participants at district level indicate that their disaster risk management plans have been evaluated and updated in the past while the majority at this level, expressed that they have not been part of any evaluation and updating of district disaster risk management plans. All villages do not have a village specific disaster risk management plan as prescribed by the National Disaster Risk Management Plan 2009 (PreventionWeb, 2011). Furthermore, a district level participant from the validation section explained that they have action items

from their District Disaster Management Committee meetings, but they never use these action items to update their current district disaster risk management plan. Perhaps what is even more surprising, is that all some District Disaster Management Committee members and all Village Development Committee chairpersons who took part in this study have never seen the disaster management national guiding documentation, some have never even heard about them. The researcher understands that some strategies that are not written are implied and can be seem through approved programmes, policies, plans etc, but this is also not the current case for Botswana.

- **Implementation Resources**

The National Disaster Risk Reduction Strategy 2013- 2018 has gone way past its design life. It however did explicitly state recommendations on the timing of evaluations. The strategy was meant to be reviewed in 2016 (three years into implementation) and annually, following that. There was supposed to be progress updates to the National Disaster Management Office every six months from all the ministries and District Commissioners (incorporating challenges and recommendations). From interactions with participants this is currently not being done properly. The National Disaster Risk Management Plan 2009 also needs to be reviewed and updated considering that the organisational environment has changed. There are more cross cutting issues in disaster management that need to be addressed, for instance gender issues (Ngozi, 2019) as well as the worsening condition of climate change and epidemics that shook the world like COVID- 19.

The National Disaster Management Office indicated that they have just completed the process of reviewing the National Policy on Disaster Management 1996 and it is currently awaiting presentation to parliament. The participants indicated that review of the other national documents will commence after approval of the policy. They mention that Cabinet has also approved drafting of the disaster management/ disaster risk management legislation. In the absence of a dedicated legislation, implementation is currently supported by various other legislation and policy e.g., Emergency Powers Act and the Constitution of Botswana, among others (PreventionWeb, 2011). The National Disaster Risk Management Plan 2009 and the National Disaster Risk Reduction Strategy 2013- 2018 highlighted their alignment to various international and regional frameworks for instance, Hyogo Framework for Action 2005- 2015 (which was a United Nations framework in place at the time), the Africa

Regional Strategy for Disaster Risk Reduction, the SADC Regional Water Policy as well as the draft SADC Disaster Risk Reduction Strategy and Plan of Action 2010 – 2015. The country is now signatory to the Sendai Framework for Disaster Risk Reduction 2015-2030, which was adopted by United Nations member states in 2015. Adelekan and Asiyanbi (2016) found that disaster risk reduction is not given due consideration in Africa and is not at par with the required practices internationally. This is a threat to sustainable development.

Stakeholder collaboration is another important issue within disaster risk reduction. Participants expressed that disaster risk reduction is not a one man show and thus, individually they cannot manage to implement successfully. It requires collaboration of stakeholders including the whole disaster risk management institutional framework, experts, the business community as well as the community at large (Cheema et al., 2016). Participants have expressed that it is currently not so; government has limited capacity and resources, and thus should collaborate with private businesses and other potential funders to see disaster risk reduction/ disaster management implementation through. On the issue of necessary skills to implement, participants highlighted that they do not have regular and continuous training, some have never even not gone through induction training. The National Policy on Disaster Management 1996 highlights that focus should be on acquiring specific skills for those with sectoral responsibilities (PreventionWeb, 2013). Similarly, the National Disaster Risk Management Plan 2009 and National Disaster Risk Reduction Strategy 2013- 2018 focused on the importance of department specific roles and responsibilities (PreventionWeb, 2011; PreventionWeb, 2018). All participants indicated the importance of organisational skills, basic response skills such as first aid, swimming, disaster management technical skills like fire extinguishing, as well as risk profiling training. The National Policy on Disaster Management 1996 stated that training will be offered for government workers and non- governmental organisations through training and educational institutions.

4.7.2.2 Research Objective 2: To explore perceptions of implementors at all levels of the Disaster Risk Reduction institutional framework on the current Disaster Risk Reduction implementation structures and initiatives prescribed by the national strategy.

Research Outcome

- **Influence on National Disaster Risk Reduction Strategic Initiatives**

The national level participants believe that they have indeed had an influence on national objectives related to disaster mitigation. For instance, they have received approval to draft a disaster management legal instrument that they have been recommending for years. Furthermore, the new policy has now taken into consideration cross cutting issues around the elderly and people living with disabilities. Most district level participants do not believe that they have had influence on disaster prevention national objectives because they do not partake in enough/ any planning and strategising for disaster risk reduction. The same view was held by all village level participants; however, the national level participants maintain that they do engage disaster risk reduction implementors in their planning and strategising.

- **Challenges**

The challenges identified at national level are different from those identified at district and village levels. National level participants highlight that implementors are not active in disaster risk reduction matters as it is not their core mandate. For instance, District Disaster Management Committee members are employed in various government departments in the districts, they have other job responsibilities aside from disaster management. Over above that, national level participants speak about the unwillingness of the community to also participate in disaster risk reduction, if it does not affect them, they are not concerned. Contrarily, district and village level participants say the National Disaster Management Office does not cascade the disaster risk reduction/ disaster management strategy effectively to them. They further spoke of the lack of technical and financial resources to implement disaster mitigation effectively, as well as the lack of training (Ashu and Van Nierkerk, 2019; Bang et al. 2019; Cheema et al., 2016; Samuels et al., 2022). There is no capacitated manpower, no budget/ funds for disaster risk reduction as well as not enough equipment in

the districts and village. A participant at district level, from the validation chapter added that every time something disaster related needs to be actioned, they must ask for funds or borrow equipment from different departments within the districts. The national disaster management guiding documents encourage feedback and recommendations from implementors, but village level participants say they do not have the platforms and clear channels of communication to do this. They in fact indicated that they know very little on matters of disaster risk reduction. One national level participant highlighted that there is no due consideration for risk informed development because government departments approve and implement risky development decisions such as allowing people to construct their homes near rivers, or constructing bridges where water will be trapped, with no thought for properly functioning drainage systems.

Some of the other challenges highlighted by district level participants are that stakeholders are uncooperative within the districts. They also mentioned that the absence of a disaster management legislation means that service providers cannot be held accountable for non-performance. Participants also expressed that some of the disaster response and recovery measures especially the provision of tents for flood victims, have a short- term focus and lack long term sustainable planning, particularly in historically disaster-prone areas. Some hazards and disasters occur annually in certain parts of the country and thus, disaster recovery should enable reconstruction and rehabilitation ensuring that there are improvements for sustainability and strengthening resilience against future threats (Banomyong et al., 2019). For instance, it would be wise to build permanent and more resilient structures for those annually affected by disasters, in comparison to the yearly provision of temporary shelter and food for them. Participants explained that many of the challenges stated have been there for many years, and they have been communicated to their leaders. Most participants are in consensus that the challenges have not been addressed, however, two participants stated that to some extent their complaints are being noted as more non- governmental organisations are coming to the forefront to collaborate in disaster management.

- **Success of Implemented Disaster Risk Reduction Initiatives in Reducing Disaster Impacts**

National level participants believe that disaster risk reduction initiatives have been successful at reducing the impacts of disasters, while district level participants argue that more can still be done to improve it. Most village level participants stated that they are clueless on the subject matters, hence cannot fairly partake in gauging its success. Only one participant at village level explained that the roads in his village are 60% complete and he considers this as a disaster risk reduction success because his village is flood prone and the construction of roads has helped with curbing flood risks.

- **Way Forward**

National level participants discussed the importance of capacity building within the disaster risk management institutional framework (Rumbach and Foley, 2014; Westley, 2008), highlighting that implementors need to be trained to deliver desired results. This was also a common theme with district and village level participants who stated that there is little to no training offered in disaster risk reduction. There is also no formal induction offered when joining the District Disaster Management Committee. The national level also highlighted development of a disaster risk management legislation which according to them will solidify disaster risk reduction structures and systems. Under resource mobilisation, district and village level participants highlighted that there should be development of a disaster risk reduction budget which is centralised within the districts. They recommended for the budgeting process to be carried out by experts in the disaster risk reduction field. In the validation section, a district level participant emphasised the importance of timing in availing disaster risk reduction resources, due to the sensitivity of disaster management.

Government administrators in disaster risk reduction should not just be employees in their departments who happen to double as disaster management managers, without proper training. This is the reason why most participants at district and village levels called for the appointment of focal points in districts who solely deal with disaster management issues (Lukamba, 2010). Over and above that, some participants at the same levels called for dedicated disaster management units that are highly capacitated with experts to deal with such matters. Educating and creating awareness among implementors was also an important

theme that came up, especially at village level. Rodriguez et al. (2013) stated that educating and providing information to communities and their active participation in disaster risk reduction, are some of the factors that impact on the likelihood that an extreme event does not become a catastrophe. Furthermore, disaster risk reduction needs proper consideration in its planning, thus a recommendation of maintenance of required standards in service provision to curb risks. Lastly, the participants at district and village level discussed a bottom-up approach as in Chong and Kamarudin (2017) and Coetzee and Van Niekerk (2012), citing that they would like to be more involved in disaster risk reduction/ disaster management planning considering that they are on the ground and have insight on what is happening at implementation level. This is in line with the National Disaster Risk Reduction Strategy 2013- 2018 which called for a bottom-up approach for effective disaster risk reduction (Prevention Web, 2018). Village level participants in the validation section, recommended a combination of the bottom up and top-down approaches in disaster risk reduction strategising, because they believe that national level structures would never fully relinquish their authority in that regard.

4.7.2.3 Research Objective 3: To formulate a Strategy-as-practice framework targeted at promoting proactive disaster risk reduction strategy implementation for Botswana, through providing guidance on important issues like resource allocation, development of processes within the implementing institutions as well as guidance on development activities for implementors, among others, taking into consideration the current weaknesses in the system.

Research Outcome

Based on the findings from research question 1 and 2, and a SWOT analysis of the country's disaster risk reduction system, the researcher formulated a comprehensive Strategy-as-practice based framework and recommendations presented in Chapter 5.

4.7.2.4 Research Objective 4: To highlight future researchable propositions on the subject area.

Research Outcome

These have been presented in section 5.5 of this study.

4.8 Conclusion

The data collected was analysed using both content and thematic analysis for document review and only a thematic analysis for the empirical data. The researcher found various themes that recurred through the different institutional levels, albeit with different sub themes as can be seen on the key findings' tables at the end of each participant group analysis. These findings were validated with data from district six as presented in section 4.6. The were only minor discrepancies seen in examples, however the sub themes remained the same. More themes, information collected and coherence on matters of disaster risk reduction was evident at national and district levels, where more participants understood more on disaster risk reduction and its importance. Village level participants did not have much awareness on the subject matter. There was a simultaneous process of analysis and interpretation to fully grasp the participant's narratives. The next chapter among other things, presents the recommended Strategy-as-practice based disaster risk reduction implementation framework.

CHAPTER 5 : PROPOSED FRAMEWORK, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

Strategy implementation might seem as if it is just putting into action a chosen strategy. However, the transformation of a particular strategy into action is a challenging task, as seen through this study's findings as well as the literature reviewed. This chapter presents the recommended framework, research contributions, limitations as well as recommendations relating to the study.

5.2 Proposed Framework

The formulation of the framework was based on the research findings and a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis on the country's disaster mitigation system. Critical success factors for the framework are also discussed in detail.

5.2.1 SWOT Analysis on Botswana Disaster Risk Reduction

Table 5.1 SWOT analysis- Botswana disaster risk reduction

STRENGTHS	**WEAKNESSES**
• The just ended policy review, that will among other things address maintenance of required standards by sectors in service provision, and issues of the marginalised and vulnerable e.g., people with disabilities, children (is awaiting presentation to parliament). • The separation of disaster management responsibilities, with the National Disaster Management Office only co-ordinating strategic emergency management and policy issues at national level, while the districts and villages deal with disaster preparedness and response at local level (Disaster risk reduction decentralisation could translate to increased flexibility and autonomy). • The National Disaster Management Office is under the Office of the President and hence allows for quick decision making. • There are national disaster risk reduction guiding documentation in place; policy as well as the national strategy and plan (albeit they need to be updated). • Some districts have developed their district disaster risk management plans. • There are some early warning systems in place (although their effectiveness has not been established by the researcher).	• There is currently no national disaster risk reduction budget. • There is currently no disaster risk reduction legislation (reported to be in the pipeline). • Outdated disaster risk reduction guiding documents (National Disaster Risk Reduction Strategy 2013- 2018 and the National Disaster Risk Management Plan 2009). • Failure to effectively cascade the disaster risk reduction national strategy and plans to district and village level staff involved in its implementation. • Confusion on disaster risk reduction roles and responsibilities, particularly at village level. • Disaster risk reduction is not adequately included in national development plans. • Limited/ no regular engagements across the disaster risk management institutional framework. No clear lines of communication and reporting. • There is currently no communication and stakeholder engagement plan.

	• National Disaster Management Office not engaging with implementors enough on planning and strategising around disaster management and disaster risk reduction. • Limited/ no formal induction sessions for members of the District Disaster Management Committee and Village Development Committee's on disaster risk reduction. • Limited/ no disaster risk reduction training of District Disaster Management Committee and Village Development Committee members. • No village disaster risk management plans as prescribed by the National Disaster Risk Management Plan 2009. • Limited/ no evaluation and updating of district disaster risk management plans. • No disaster risk reduction focal persons at district and community levels. • Currently some sectors are not maintaining required standards e.g., land use planning and allocation, building standards, among others. • There is no continuity in District Disaster Management Committee memberships (e.g., when transferred to another district as a former committee member, you are not necessarily going to continue with

	the work, similarly, one can be part of this committee when transferred to a new district, not having had previous experience on disaster management. It is by virtue of being head of department that one becomes a member.
THREATS • No consideration for risk informed development, especially considering climate change, environmental degradation, increasing levels of urbanisation, among others. • Limited/ no regular risk assessments and analysis on hazards and evaluating existing conditions of vulnerability that could harm exposed communities. • Lack of necessary resources (capacitated manpower, finances) at district and community level to combat worsening/ increasing hazards. • The country is generally responsive after disasters have occurred than proactive in risk mitigation which can lead to economic losses and loss of lives. • Unwillingness of implementors to be active in disaster risk reduction as it is not their core job responsibility (they are members of such committees because they work in government departments).	**OPPORTUNITIES** • Global and regional partnerships: Strong linkages with other countries for knowledge and information sharing based on good practice. • A possible shift of disaster risk reduction and disaster management to a Ministerial function that can have district and community offices. Capacitated with various experts in the field and resources to carry out disaster risk reduction and disaster management activities solely and fully. • Use of Information and Communication Technology in planning and implementation of disaster risk reduction, e.g., Emails, online meeting platforms, data sharing, information and knowledge management systems. • Sectoral collaboration supported by government and other stakeholders, for instance, insurance companies providing premium discounts for hazard mitigation/ disaster preparedness investments.

	• Effective alignment with international guiding frameworks such as the United Nations Sendai Framework for Disaster Risk Reduction 2015-2030. • Collaboration at village level to form village disaster management committees (can be between Village Extension Team and Village Development Committee members). • The anticipated disaster management/ disaster risk management legislation will cement the structures and mechanisms pertinent for effective disaster mitigation.

Source: Dennison (2024), *developed for this PhD thesis*

5.2.2 A Diagrammatic Representation of the Recommended Disaster Risk Reduction Framework

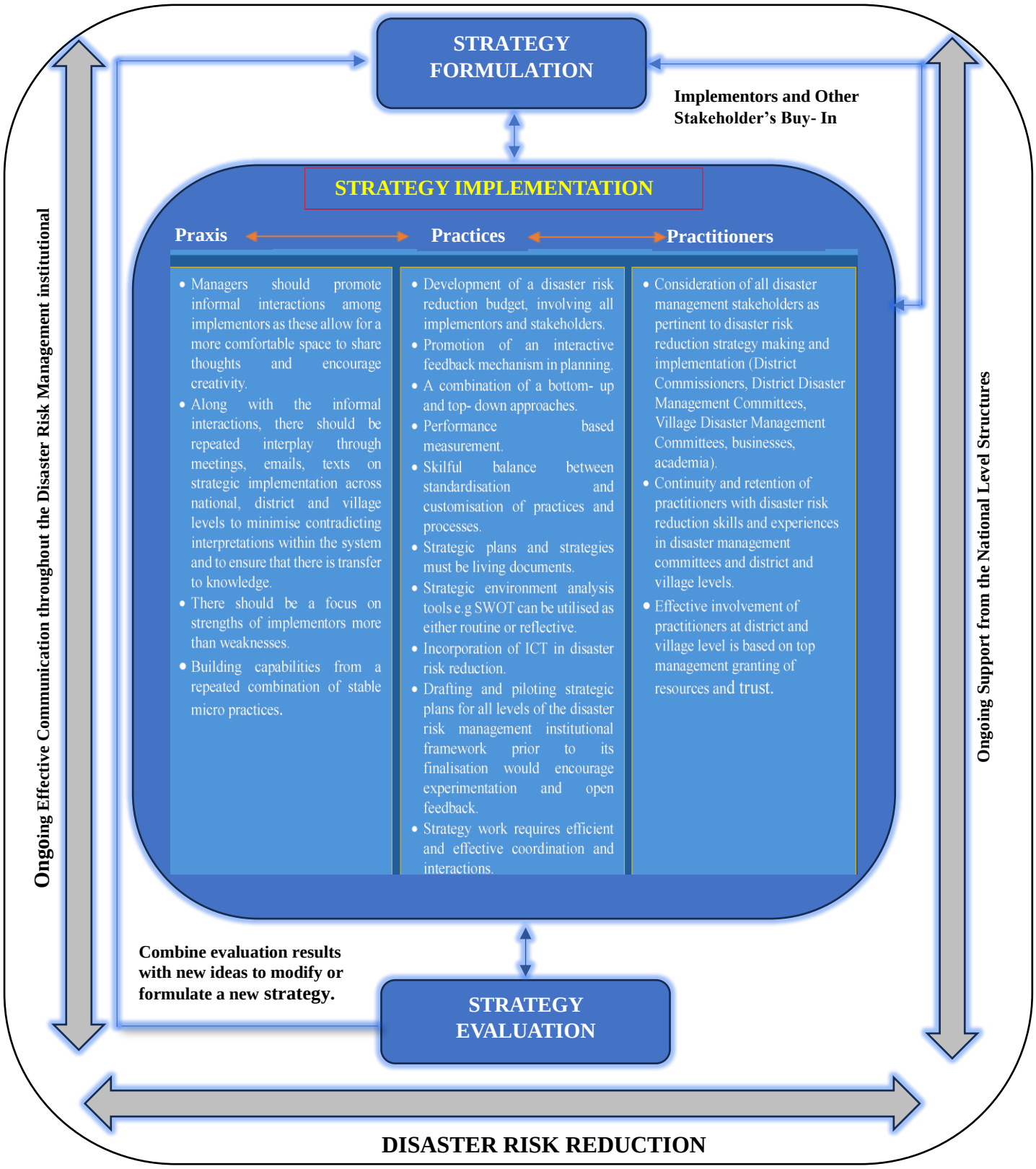


Figure 5.1 Recommended Strategy-as-practice based disaster risk reduction implementation framework

Source: Dennison (2024), *developed for this PhD thesis*

5.2.2.1 Discussion of the Framework

This framework has key Strategy-as-practice based principles that the researcher believes are pertinent in turning around the operations within disaster risk reduction in Botswana. Some of the recommendations on the framework, are based on findings from various studies collated by Vaara and Whittington (2012), however, the ones applied here were tailored to fit this current research. The researcher would like to draw attention to that she termed the village level structure as the "village disaster management committee" on the proposed model. The suggestion is that the Village Development Committee be merged with the Village Extension Team at village level to form a village disaster management committee, as one of the districts has already done. The Village Extension Team members have technical expertise from their respective government departments, they have some access to department resources and ways to lobby for them, and there would be a transfer of skills and knowledge to the Village Development Committee's. The National Disaster Management Plan 1996 states that, the village focus can be changed by districts depending on the area's disaster profile as well as organisational strengths (PreventionWeb, 2013).

- **Strategic Management Process**

The framework/ model shows three main stages of the strategic management process (David, 2009). There is the strategy formulation stage that feeds strategy implementation and then lastly the strategy evaluation stage. As can be seen on Figure 5.1 above, there is a line with arrows at both ends between strategy formulation and strategy implementation that illustrates that at any point during strategy implementation, if there is realisation that the strategy is flawed, strategists can go back to the drawing board without having to wait for the full-on evaluation stage. The same arrows exist between the strategy implementation and strategy evaluation stages, meaning that if there is any indication during evaluation that something was not implemented properly, there can be a shift directly from evaluation to implementation to correct that. The arrow between evaluation and strategy formulation depicts that following implementation, evaluation results must be merged with new and innovative ideas to address any changes in the organisations environment while modifying or developing a new strategy.

- **Praxis, Practices and Practitioners**

Under strategy implementation are the three Strategy- as- practice research parameters: praxis, practices and practitioners identified by Whittington (2006). As explained earlier, the Strategy-as-practice principles enable a micro analysis on strategic activities. Based on information from participants on the various practices, resources, and processes that they partake in, the researcher was able to formulate a micro- level analysis on how these factors that are considered small can be consequential in the wider sense of disaster risk reduction strategising in the long- term. The arrows between the research parameters indicate that the three perspectives can also influence each other. For instance, practices implemented by practitioners can transform the perceptions of the one who puts them into action, and praxis can transform the environment that the practice is carried out in.

- **Evaluation and Updating**

A strategy needs to be evaluated and updated to assist the organisation in determining whether they are on the right path as well as identifying its strengths and weaknesses, while making necessary amends where need be to achieve set objectives. There should also be clear arrangements on how performance is measured.

- **Implementors and Other Stakeholders Buy-in**

This is pertinent between the strategy formulation and strategy implementation stages. At that point, the organisation must do the best to solicit as much support as it can from all stakeholders as this is a very big determinant of whether the strategy will be accepted, owned, and implemented successfully. The line has arrows on both ends as the researcher believes that stakeholder buy-in should be ongoing and back and forth between the strategy formulation and strategy implementation stages.

- **Ongoing Support from the National Level Structures**

National level structures under the Office of the President determine the inclusion of disaster risk reduction in national development plans. This impacts on the allocation of resources towards disaster risk reduction and effort put into its planning and implementation. Thus, the national level

structures should be fully engaged throughout the strategic management process and kept abreast with disaster risk management/ disaster risk management sectoral changes and developments.

- **Effective Communication Throughout the Disaster Risk Management Institutional Framework**

It is critical that there is regular communication throughout the disaster risk management institutional framework at all points of the strategic management process. Suitable communication mechanisms must be deployed for appropriate audiences considering the different accessibility levels. Effective communication is also a pertinent in ensuring that all implementors and stakeholders thoroughly understand plans and set objectives. There must be regular disaster risk reduction information sharing, feedback, and communication regarding changes on plans.

5.2.2.2 Critical Success Factors for the Model

There are basically two distinct levels of effective disaster risk reduction strategy and practice that need to be addressed. First, awareness around possible hazard information and mitigations need to be effectively communicated to the public and second, the disaster risk reduction strategy needs to be effectively implemented on the ground. For the framework above to be successful, the following critical success factors must be addressed (that mostly relate to the second level highlighted above, targeted at implementors of the national disaster risk reduction strategy). How to practically action these is detailed after discussion of each critical success factor. The responsibility of seeing these through lies with the Nation Disaster Management Office.

a. **Responsible, Effective and Ethical Leadership**

This is perhaps the most important factor in the success of the recommended framework. Responsible, effective, and ethical leadership plays a very important role in ensuring that strategic objectives are met. Coldwell (2017) explains that organisations can come up with excellent approaches and strategies but without ethical leaders to drive them, they just simply will not be as effective. Leaders must be forward thinkers, ensuring that there is adaptation to changes. They must be able to align implementors, the community and other stakeholders with various skillsets together, to achieve a common. Maak and Pless (2006, p.5) define responsible leadership as, “the art of building and sustaining morally sound relationships with all stakeholders of an organisation.”

They further state that responsible leaders must ask themselves the following questions, "Will this action serve a worthwhile purpose? Is this action consistent with relevant principles? Does this action respect the legitimate claims of people likely to be affected? And do we have power to take this action?" Coldwell et al.'s (2012) study discussed earlier focuses on immediate and post-crisis stages of risk management actions. However, there are some steps that can also apply to a disaster risk reduction/ mitigation context. These are particularly steps one, two, three and six, which are disclosing crisis event early and accepting responsibility, disclosing information openly to the media, selecting governance leadership to handle the event and demonstrating social concern. In the practical disaster risk reduction sense this could be disclosing hazard information early and taking responsibility on how it will be mitigated, disclosing information openly to the media- awareness information through radio, television, and print media. Selecting trained and skilled leadership to handle disaster risk reduction initiatives and, demonstrating social concern to the vulnerable and least disaster resilient in the community, through maybe relocating them to less flood prone areas prior to the rainy seasons. These steps are in line with effective and responsible leadership in disaster risk reduction, if the government is to uphold its reputation and strengthen public support and trust. It is especially important at the back of some of the important findings in this study which include that there is no disaster risk management legislation, the disaster management cycle within the country is mostly responsive after disasters have occurred than proactive in disaster risk reduction, little to no training of implementors at the district and village levels, as well as failure to cascade the disaster risk reduction strategy effectively to its implementors.

Public trust is pivotal to governance because a trusted government will see many of its people likely complying with public policies and programmes (Cooper et al., 2008). This is also important as the funds utilised for disaster risk reduction initiatives implementation are essentially public funds. Governments also depend largely on foreign aid; thus, the researcher believes that the way in which a country's departments and projects are run, influences interest donors have in supporting its initiatives.

How to practically action this:

- There should be creation of platforms for feedback, discussions on plans and cross collaborations in disaster risk reduction. This can be through facilitating conferences and workshops in various districts.

- District and village implementors must be trained, offered guidance, and involved in disaster risk reduction planning and decision making.
- All disaster risk reduction issues must be dealt with in a timely decisive manner.
- Leadership should explore introducing some elements of the bottom- up approach in disaster risk reduction strategising.

b. The Ability to Cascade the Strategic Intent and Ensure Clear Understanding

Strategy implementors need to fully understand what must be done, why and what the expected results are. There must be clear communication of responsibilities otherwise, operations will be haphazard. The study's findings show that some participants at district level and all village level participants have never seen the national guiding documents, some had never heard about them. Buy- in and ownership of the strategy can only happen once people fully understand why they must do what they must do (Safari et al., 2018). Furthermore, most strategy implementation processes encompass change, therefore, there should be a change management intervention put into place where need be.

How to practically action this:

- Facilitation of country- wide induction workshops with every District Disaster Management Committee and village disaster management committee members, focusing on discussing the national policy, plan as well as strategy.
- Assisting the district and village structures to formulate, evaluate and update their disaster risk management plans within given timeframes.
- There should be clarity on roles of committees making up the disaster risk management institutional framework, on the implementation of the disaster risk reduction strategy.

c. Availability of Resources

One of the recurring responses was the lack of both financial and technical resources where implementation is concerned. With little or no consideration given to these prior to and during implementation, the execution of strategy (any strategy) will fail.

How to practically action this:

- There should be focal persons or dedicated units within the district, solely implementing disaster risk reduction and other disaster management matters.
- Formulation of village disaster management committees (made up of the Village Extension Team's and Village Development Committees).
- There must be a disaster risk reduction and disaster management budget.
- The use of Information and Communication Technology through online forms of communication and information sharing e.g., sending emails, web pages, online communication applications such as Zoom, Teams should be promoted.

d. Monitoring and Evaluation of Strategic Objectives

The organisation's goals and objectives should not be set in stone because decision making must consider changes and developments in the environment. What has been implemented and achieved must be measured against set objectives with an ability to readjust or change direction as is fit. Implementors at district level indicated that they have never evaluated or updated their disaster risk management plans since submission to the National Disaster Management Office. How do all levels of the disaster risk management institutional framework know that they are on the right track? How do they measure success? How do their plans address the current environmental conditions and cross cutting issues?

How to practically action this:

- Districts and villages must evaluate and update their plans annually, within set timelines.
- The National Disaster Management Office must get expert advice in setting up performance measures for all disaster risk reduction/ disaster risk management plans at all levels.
- The tracking of projects and implementation of objectives through a detailed milestone plan and an achievements checklist should be implemented.

e. Engagements and Information Sharing

Participants indicated that engagements are few and far between. There must be constant, consistent, and transparent communication throughout the disaster risk management institutional framework (Safari et al., 2018).

How to practically action this:

- Scheduled monthly disaster risk reduction engagements which each district- physical or online meetings.
- Scheduled bi- monthly disaster risk reduction engagements which each village- physical meetings.
- Bi- weekly disaster risk reduction information through email, notice boards in the villages, social media, radio, on print media as well as through television.
- Development of a stakeholder communications plan, shared with all stakeholders.
- Highlight the pertinence of strategic engagements informal settings. These can promote creativity and be a comfortable space for sharing ideas.

f. Long Term Planning- Recovery Initiatives

The recovery and reconstruction phase in the disaster management cycle is pertinent. It is important to give special attention to measures on livelihood and asset support following the impacts of disasters. This encompasses making improvements to strengthen and improve sustainability and future disaster resilience.

How to practically action this:

- Districts and villages should identify possible recovery needs and desired recovery outcomes pre disasters, based on historical information particularly in disaster prone areas.
- There should be long term solutions to strengthen resilience against future disasters, such as ensuring there are permanent structures built for the affected or relocating the affected from flood and fire prone areas, for instance.

- Disaster recovery requires substantial funds and thus, it should involve collaboration with businesses, community members, government, non-governmental organisations among others.

g. Training and Development for Implementors

The study revealed that there is limited to no training for disaster risk reduction implementors at district and village levels alike. Some participants expressed that they were not even formally inducted at the start of their tenure as disaster risk reduction implementors. The Revised District Planning Handbook (2010) however, states under disaster training and capacity that:

> You will need to assess training needs. You can do this by asking role players and community members to complete a survey form about their needs.

This is meant to be executed by the District Commissioner and his office. However, most implementors will not be able to identify the skills they need because they are not aware of what they are supposed to be doing in disaster mitigation, particularly at village level.

How to practically action this:

- Experts should be engaged to perform a training needs assessment on implementors.
- The National Disaster Management Office should see the inductions and training through as recommended by experts.

h. Acknowledging Success and Hard work

Following achievement of milestones, it is important to acknowledge hard work. This is very encouraging to people on the ground to continue that trajectory and strive to be even better. Disappointment at the lack of recognition and rewarding among Village Development Committee members was evident in the findings. Most of the examples they gave were around response initiatives during COVID- 19, where they volunteered alongside government workers, who later got compensated while they did not.

How to practically action this:

- Hard work should be recognised, not just in monetary terms, it could also be in the form of letters, emails, physical visits, or a phone calls.

i. Alignment With International Frameworks and Agreements

Botswana is a signatory to the Sendai Framework for Disaster Risk Reduction 2015-2030 and as such the disaster risk reduction strategies and plans in the country should be aligned to it. The national disaster risk reduction strategy's design life ended in 2018, and the question is, how are the current environmental needs and risks in the country aligned to the Sendai framework priority areas which came into effect in 2015? There should be best practice tools and frameworks that guide strategising and implementation of disaster risk reduction in the country.

How to practically action this:

- Align the country's strategic objectives with the overarching objectives and priority areas detailed in the Sendai Framework for Disaster Risk Reduction 2015-2030.
- Research should be carried out on other international and regional disaster mitigation frameworks, for guidance on implementation.
- Educate implementors on the international frameworks that national strategies and plans are aligned to.

5.3 Research Contributions

Below are this study's theoretical and practical contributions:

5.3.1 Literature and Theoretical Contributions

The literature reviewed highlighted various challenges in disaster risk management and disaster risk reduction across several countries in the African continent and the world. Some of these challenges include the prominence of a top-down approach with little consideration of community inputs, disaster risk management/ reduction documents not meeting internationally required standards, the need to work on effective lines of communication, there is limited cooperation among stakeholders, countries are mostly active in disaster response than disaster mitigation and

a lack of resources, among others (Bang et al., 2019; Caymaz et al., 2013; Bang 2014, Lukamba, 2010). Similarly, this study's empirical data also identified outdated national and district disaster risk management/ reduction plans, District Disaster Management Committees and Village Development Committees mostly function in emergency response while overlooking disaster risk mitigation, no national disaster risk reduction/ management legislation, there is no national disaster risk budget thus, resulting in inadequate resources at the district and village levels, there are no dedicated disaster risk management staff in the districts and a general failure to sufficiently mainstream disaster risk reduction in development.

In studies identified, researchers have mostly reported on perceptions and the status quo of national disaster risk reduction, however, over and above identifying these, this study aimed to find out the exact ways in which implementation is done, guided by the Strategy-as- practice perspective. The research gap the study aims to fill is, therefore, the actual practice of disaster risk reduction strategy among those responsible for implementing it. The detailed dissection of the systems, processes, resources needed, people involved, and the problems encountered in effective disaster risk reduction described in the study is considered a useful contribution to the extant literature. Rarely has it been possible for researchers to have access to qualitative government primary and secondary disaster risk management data of the span and depth available in the current study. And, although the findings are specifically contextual and ungeneralisable, it is considered that the research has made a significant contribution to filling the gap between the literature on national disaster risk reduction strategy on the one hand, and the mechanisms and problems in its actual, in situ implementation on the other. The recommended practical ways on how national disaster risk reduction should be implemented are targeted at the National Disaster Management Office and policy makers to effectively curb the impacts of disasters.

The theoretical lens of Strategy-as-practice used in this study can provide solutions to the identified problems because:

- There are various voices pertinent in strategising- in this case, actors at the district and village levels. The population covered what can be termed as senior and grassroots personnel to reveal mismatches in perceptions at different levels within an organisation. These mismatches pointed to issues in the practical implementation of disaster risk reduction.
- Few studies have been conducted in the detail that disaster risk reduction implementors in Botswana have made possible, exploring their processes, resources and activities.

- Although the findings cannot be generalised to other countries, there is an appreciation of the problems faced in cascading and implementing disaster risk reduction within a national context.
- Some Strategy-as-practice research advocates for backstage arenas whose setting supports unofficial intensive communication at whatever moment of time without a defined setting as opposed to those that are more tied to schedules, norms, and sanctions (Ikavalko, 2005). The findings of this study have also proven this is as true in a national disaster risk reduction context. Some participants at district and village levels rated unofficial discussions with co- workers highly on the list of strategy implementation practices.

Furthermore:

- The study comprehensively covered strategic management, Strategy-as-practice and disaster risk reduction in a national context.
- This study was on disaster management and disaster risk reduction in an African context by a researcher knowledgeable and fluent in their vernacular.
- The findings cannot be generalised to other national contexts as highlighted above, however, the Strategy as practice framework developed and the study ideologies can be applied in other country contexts, facing similar challenges as Botswana.

5.3.2 Practical Contributions

These practical contributions are targeted at the National Disaster Management Office and other policy makers:

- This study has developed a Strategy-as-practice based disaster risk reduction implementation framework that takes into consideration the implementors and micro activities in disaster risk reduction implementation. Leading strategy away from being seen as a mechanical construct of planning and more towards a social shift that pays close attention to human activity.
- The study highlights the importance of proactivity in risk reduction when implementing a national disaster management strategy.
- It has made a distinction between disaster mitigation (what should be done pre disasters to curb potential disaster impacts) and response following a disaster occurrence.

- Findings show the crucial importance of effectively cascading the disaster risk reduction/disaster management strategy to staff responsible for implementation at district and village levels. It further highlighted the importance of responsible and ethical communication with clear engagement channels and how that should be done, it highlighted the need for properly trained personnel as well as the importance of adequate technical and financial resources for effective disaster risk reduction implementation.\
- The research can be used by scholars in the fields of strategic management, Strategy-as-practice and national disaster risk reduction as a pre-cursor to further studies.

5.4 Research Limitations

- There were no similar studies identified in the literature reviewed. To mitigate this limitation, the researcher collated various studies in national disaster risk reduction, disaster management, strategic management in the public sector and Strategy-as-practice. This assisted the researcher to gain understanding of this field of study and provided important guidance in addressing the research questions and objectives.
- Research has investigated strategists, however, its mostly on top managers responsible for the formulation of strategies. Only a limited number of studies identified offered empirical evidence on the influence middle managers and lower-level employees have in strategising.
- The researcher had to go through various approval and permission processes that were unforeseen. These include the protracted process of getting permission from the Government of Botswana's Ministry of State President that oversees the implementation of disaster management through the National Disaster Management Office. The application could not be submitted online and hence the researcher had to travel to Botswana as she was based in Johannesburg, South Africa at the time. Following this, prior to submitting the research ethics application to the University's Human Research Ethics Committee (Non-Medical), the researcher discovered that she had to attend ethics training with a written assessment offered by the University. These pushed back the research timelines; however, certain processes were run concurrently.
- As explained under section 3.4 of this write up (population and sampling), the researcher had a challenge of accessing all the 12 districts targeted due to non- responsiveness. The participant selection criteria was then narrowed down to focus resources and time on a reduced number of districts. This ultimately affected the villages targeted as it had to be those under the selected districts.

- Along with gathering data from Village Development Committee Chairpersons at village level, the researcher had intended on engaging ordinary members of those committees as well. However, the researcher discovered from district level findings that village level structures are only ever involved in disaster response measures, and they do not have village disaster risk management plans as prescribed by the National Disaster Risk Management Plan 2009 (PreventionWeb, 2011). Thus, they would not provide relevant information to address the research objectives. So, the researcher limited village level participation to Village Development Committee Chairpersons only. This was done to ascertain empirically how far their involvement as a committee in disaster risk reduction goes.
- Due to reasons beyond the researcher's control, district six data collection ended up being conducted online and on the telephone. Online means were not an option at village level as most participants there did not have access to the internet nor computers.

5.5 Recommendations for Further Research

This section addresses research objective four of this study.

- There needs to be studies in disaster mitigation extending the strategising focus to middle managers, lower-level employees, external actors such as consultants, experts, regulators, and the community. This will help extend understanding over and above the upper echelon, to appreciate those who actively contribute to socially accomplishing strategy (Whittington et al, 2003). These can also bring light to experiences and personal identities of strategists in connection to how their social dynamics play a role in the making and shaping of strategy.
- A study could investigate how moving disaster mitigation/ prevention to a ministerial function in Botswana, which also has a strong and dedicated presence in districts and villages can promote effectiveness in disaster risk reduction implementation.
- The recommended framework can in future be evaluated in Botswana to test out its practicality.
- A follow up study can be carried out on comparing the cost of investing (time, funds, efforts) in long- term planning for disaster recovery initiatives relative to funds spent on short- term recovery measures annually in disaster prone areas in Botswana.

- Disaster management in Botswana appears to be more responsive and reactive to disasters; it would be worthwhile to understand in the general sense, what the remedial steps are to limit and control potential damage to government's reputation. Future research could possibly evaluate the 'Ideal Type Responsibility Compass Management Crisis Remedial Steps' by Coldwell et al., (2012) in a Botswana context.

5.6 Conclusion

The study's findings do not show significant progress towards what was identified as national strategic objectives for disaster risk reduction to be implemented by 2018 (PreventionWeb, 2018, pp. 26 and 27). These objectives include the need improve the legal and institutional basis for efficient disaster risk reduction, to mainstream disaster risk reduction and emergency management into development policy, programmes, and projects, to build disaster risk reduction capacity at national, district, community, and household levels as well as to increase awareness of disaster risk reduction methods and opportunities through information sharing, strategic partnerships, education, and training. Empirical evidence and the extant literature show that strategy implementation meets a lot of difficulties and often falls short of the desired results. For success in disaster risk reduction implementation, attention must be paid to the work of its implementors as well as the various impeders they are faced with. It is of utmost importance to understand the reasons behind those impeders and find effective and practical solutions to address them.

Strategy is constantly affected by the changing environment. It needs to be continuously monitored, evaluated, and updated. There needs to be continuous and intentional engagement through clear channels, within the disaster risk management institutional framework. This is because the responsibility of sustainably reducing disaster risks is upon the people, supported and directed by government. Additionally, the importance of comprehensive but clear implementation plans at all implementation levels must not be overlooked. Botswana needs to embrace an encompassing foresight involving disaster risk management and risk reduction strategies that are effective on the ground. To be sustainable such strategies frameworks and systems should, collectively be able to identify, assess and act proactively in taking remedial steps to counter and reduce the damaging effects of local and national crises.

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APPENDIX A: Permission to Conduct Research: Ministry of State President (Botswana)

TELEGRAMS: PULA
TEL: +267 3950845
FAX: +267 3913375

REPUBLIC OF BOTSWANA

OFFICE OF THE PRESIDENT
PRIVATE BAG 001
GABORONE

Our Reference OP 5/59/8/XXI ((24)

20 May 2022

Margaret Opelo Dennison
University of the Witwatersrand
School of Business Sciences
1 Jan Smuts Avenue, Braamfontein 2000
Johannesburg, South Africa

Dear Madam

PERMISSION TO CONDUCT RESEARCH ENTITLED "EXPLORING THE CONCEPT OF STRATEGY AS PRACTICE IN NATIONAL DISASTER RISK REDUCTION: A CASE OF BOTSWANA."

Reference is made to your letter dated 05 May 2022 on the above subject matter.

You are granted permission to conduct research on the above stated title as you requested. The National Disaster Management Office will facilitate you where necessary.

You are free to liaise with the Office through the Director on the following contacts, 3950909, 3950981 or mobaleseng@gov.bw or gnkhori@gov.bw.

Thank you.

Yours faithfully

20 MAY 2022

Goitsemang Morekisi
Permanent Secretary, Ministry of State President

APPENDIX B: The Ethical Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Dennison

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H22/07/03**
PROJECT TITLE	Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: A Case of Botswana
INVESTIGATOR(S)	Mrs M Dennison
SCHOOL/DEPARTMENT	School of Business Sciences/
DATE CONSIDERED	22 July 2022
DECISION OF THE COMMITTEE	Approved Risk Level: Minimal
EXPIRY DATE	01 September 2025

DATE 07 September 2022 **CHAIRPERSON** (Professor J Watermeyer)

cc: Supervisor : Prof D Coldwell

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

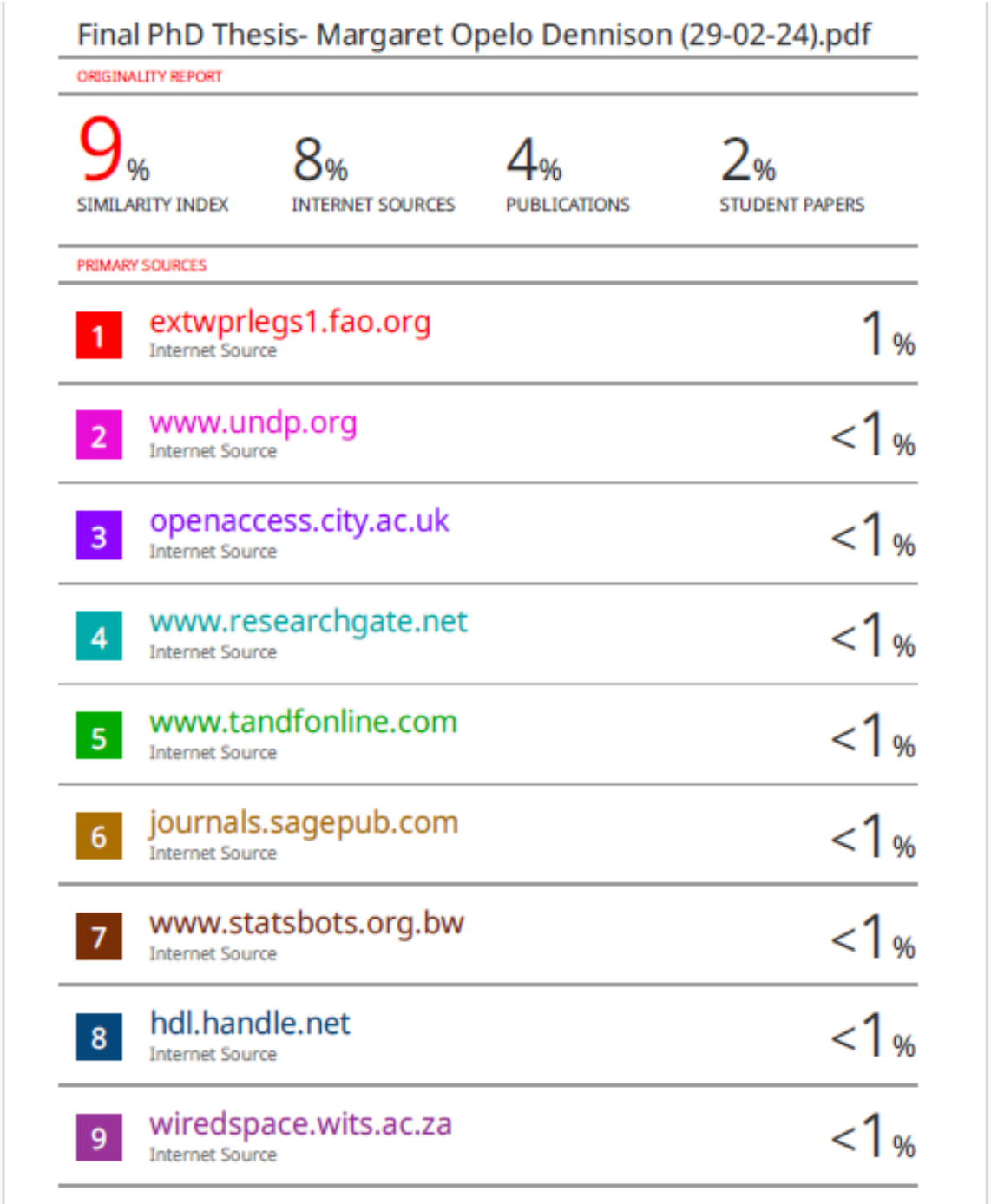
I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to submit an amendment of the protocol to the Committee. **I agree to completion of a regular progress report. For Minimal and Low studies, this is due annually on 31 December. For Medium and High Risk studies, this is due twice annually on 30 June and 31 December.**

M. D — 14 / 09 / 22

Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

APPENDIX C: Turnitin Report



Final PhD Thesis- Margaret Opelo Dennison (29-02-24).pdf

ORIGINALITY REPORT

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SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

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APPENDIX D: Research Instruments

Below are the sample research instruments used in collecting data for this study, however, the transcripts from the data collection are available to the examiners if requested.

National level (National Disaster Management Office management)

Semi Structured Interviews

Introduction

- Introduce the researcher and reiterate that contact details are on the Participant Information Sheet.
- Go over the general interview guidelines as explained on the Participant Information Sheet.
- Take questions (if any) from the participant before starting the interview.
- Participant's level of education prior to starting the interview (for demographic purposes).

Questions

A. Activities and resources utilised to implement national Disaster Risk Reduction strategic initiatives.

1. What does the term strategy mean to you?
2. What is your institution's role in the National Disaster Risk Reduction Strategy implementation?
3. What is your personal role in the National Disaster Risk Reduction Strategy implementation?
4. Is the National Disaster Risk Reduction Strategy implementation plan ever evaluated and updated? How often do you meet?
5. Who participates in evaluating and updating the National Disaster Risk Reduction Strategy implementation plan?
6. How do you communicate the National Disaster Risk Reduction Strategy implementation plan within the various institutions you advice?

7. How do you ensure that personnel fully understand the disaster risk reduction strategic objectives?
8. How often do you communicate with national leaders on issues of disaster risk reduction? Please explain how you do this and what you discuss.
9. How often do you communicate with co-workers on issues of disaster risk reduction? Please explain how you do this and what you discuss.
10. How often do you communicate with your subordinates on issues of disaster risk reduction? Please explain how you do this and what you discuss.
11. How often do you personally give attention to issues of disaster risk reduction or its implementation in your work? Please explain how you do this.
12. Please rate the importance of each of the disaster risk reduction strategy implementation practices on the table below, 1 being not important and 7 being very important.

	Not important			**Moderately Important**			**Very important**
Communication							
Meetings	1	2	3	4	5	6	7
Informative meetings	1	2	3	4	5	6	7
Letters	1	2	3	4	5	6	7
Notice boards	1	2	3	4	5	6	7
Internal magazines	1	2	3	4	5	6	7
Intranet	1	2	3	4	5	6	7
Mailing lists (e-mail)	1	2	3	4	5	6	7
Unofficial Discussions							
With superiors	1	2	3	4	5	6	7
With subordinates	1	2	3	4	5	6	7
With co-workers	1	2	3	4	5	6	7
Cultural Phenomena							
Stories	1	2	3	4	5	6	7
Symbols	1	2	3	4	5	6	7
Slogans	1	2	3	4	5	6	7
Personnel Development							
Training	1	2	3	4	5	6	7
Performance appraisal	1	2	3	4	5	6	7
Induction training	1	2	3	4	5	6	7
Personnel choices	1	2	3	4	5	6	7
Rewarding	1	2	3	4	5	6	7
Planning							
Budget monitoring and reporting	1	2	3	4	5	6	7

Organisational plans	1	2	3	4	5	6	7
Operational and performance objectives	1	2	3	4	5	6	7
Balanced scorecard	1	2	3	4	5	6	7
Operations/ processes							
Projects	1	2	3	4	5	6	7
Project management systems	1	2	3	4	5	6	7
Quality systems	1	2	3	4	5	6	7
Changes in organisational structure	1	2	3	4	5	6	7
Networks and partnership	1	2	3	4	5	6	7

Source: Adopted from Ikavalko (2005)

13. Why do you believe the practices you have rated highly work best? Please explain why your top five ratings are the most effective.
14. Who participates in your top five ratings indicated on question 12? (How do they participate?)
15. What skills and competencies are required from staff to implement the disaster risk reduction strategic initiatives?
16. In your opinion, have you or your institution had an opportunity to influence national strategic goals related to disaster risk reduction? (If yes please elaborate how, if not, how would you wish to have done this?)

B. Perceptions around the national disaster risk reduction strategy implementation.

17. What are the challenges you face in implementing the disaster risk reduction strategy? Please list the main ones you regard as being most important.
18. How have you in the past addressed these challenges? Please give me an actual example if possible.
19. Would you say implementation has been successful in the past in reducing the effects of a disaster? Please give an example.
20. What do you believe are the three most important things that should be done to ensure the effective implementation of disaster risk reduction?

In closing, are there any questions or comments?

Thank you for your time**.** If you would like to withdraw your participation from this study or have questions, please do not hesitate to contact the researcher on the contact details provided.

District and village/ community level (District commissioners and 10% of Village Development Committee that do not have/ belong to umbrella committees).

Semi Structured Interviews

Introduction

- Introduce the researcher and reiterate that contact details are on the Participant Information Sheet.
- Go over the general interview guidelines as explained on the Participant Information Sheet.
- Take questions (if any) from the participant before starting the interview.
- Ask for the participant's level of education prior to starting the interview (for demographic purposes).

Questions

A. Activities and resources utilised to implement national Disaster Risk Reduction strategic initiatives.

1. What does the term strategy mean to you?
2. What is your institution's role in the National Disaster Risk Reduction Strategy implementation?
3. What is your personal role in the National Disaster Risk Reduction Strategy implementation?
4. To what extent is your area disaster risk management plan aligned to the National Disaster Risk Reduction Strategy? Please explain in what ways it is.
5. Is your area disaster risk management plan ever evaluated and updated? How often do you meet?
6. Who participates in evaluating and updating your area disaster risk management plan?
7. How do you communicate the National Disaster Risk Reduction Strategy within the various institutions you advice? (*Question not applicable to Village Development Committee Chairpersons only to District Commissioners)*
8. How do you ensure that personnel fully understand the disaster risk reduction strategic objectives?
9. How often do you communicate with management at national level on issues of disaster risk reduction? Please explain how you do this and what you discuss.
10. How often do you communicate with co-workers on issues of disaster risk reduction? Please explain how you do this and what you discuss.

11. How often do you communicate with your subordinates on issues of disaster risk reduction? Please explain how you do this and what you discuss.
12. How often do you personally give attention to issues of disaster risk reduction or its implementation in your work? Please explain how you do this.
13. Please rate the importance of each of the disaster risk reduction strategy implementation practices on the table below, 1 being not important and 7 being very important.

	Not important			Moderately Important			Very important
Communication							
Meetings	1	2	3	4	5	6	7
Informative meetings	1	2	3	4	5	6	7
Letters	1	2	3	4	5	6	7
Notice boards	1	2	3	4	5	6	7
Internal magazines	1	2	3	4	5	6	7
Intranet	1	2	3	4	5	6	7
Mailing lists (e-mail)	1	2	3	4	5	6	7
Unofficial Discussions							
With superiors	1	2	3	4	5	6	7
With subordinates	1	2	3	4	5	6	7
With co-workers	1	2	3	4	5	6	7
Cultural Phenomena							
Stories	1	2	3	4	5	6	7
Symbols	1	2	3	4	5	6	7
Slogans	1	2	3	4	5	6	7
Personnel Development							
Training	1	2	3	4	5	6	7
Performance appraisal	1	2	3	4	5	6	7
Induction training	1	2	3	4	5	6	7
Personnel choices	1	2	3	4	5	6	7
Rewarding	1	2	3	4	5	6	7
Planning							
Budget monitoring and reporting	1	2	3	4	5	6	7
Organisational plans	1	2	3	4	5	6	7
Operational and performance objectives	1	2	3	4	5	6	7
Balanced scorecard	1	2	3	4	5	6	7
Operations/ processes							
Projects	1	2	3	4	5	6	7
Project management systems	1	2	3	4	5	6	7
Quality systems	1	2	3	4	5	6	7
Changes in organisational structure	1	2	3	4	5	6	7
Networks and partnership	1	2	3	4	5	6	7

Source: Adopted from Ikavalko (2005)

14. Why do you believe the practices you have rated highly work best? Please explain why your top five ratings are the most effective.
15. Who participates on your top five ratings indicated on question 13? (How do they participate?)
16. What skills and competencies are required from staff to implement the disaster risk reduction strategic initiatives?
17. In your opinion, have you or your institution had an opportunity to influence national strategic goals related to disaster risk reduction? (If yes please elaborate how, if not, how would you wish to have done this?)

B. Perceptions around the national disaster risk reduction strategy implementation.

18. What are the challenges you face in implementing the disaster risk reduction strategy? Please list the main ones you regard as being most important.
19. How have you in the past addressed these challenges? Please give me an actual example if possible.
20. Would you say implementation has been successful in the past in reducing the effects of a disaster? Please give an example.
21. What do you believe are the three most important things that should be done to ensure the effective implementation of disaster risk reduction?

In closing, are there any questions or comments?

Thank you for your time**.** If you would like to withdraw your participation from this study or have any questions, please do not hesitate to contact the researcher on the contact details provided.

Translated version (Setswana)- Village/ community level (Village Development Committee chairpersons who prefer using the Setswana language)

Semi Structured Interviews

Kamogelo ya motsayakarolo

- Ikitsise motsayakarolo, o bo o mo gakolole ditsetlana tse a ka ikgolaganyang le wena/ moithuti mo go tsone, tse di kwadilweng mo pampiring e e neng e mo fa kitso ya dithuto tse.
- Feta ka go bua ka melawana ya puisano ka bofefo jaaka e tlhalositswe mo pampering e e neng e e fa motsayakarolo kitso ka dithuto tse.
- Fa motsayakarolo a na le dipotso, o ka botsa pele ga puisano e simolola.
- Ka nako e, botsa motsayakarolo gore o ithuthile go fitlhella kae (nngwe ya ditsela tsa go tlhaloganya sebopego sa setlhopha sa batsayakarolo ba ba tlhophilweng).

Dipotso

A. Ditiro le didirisiwa tse di botlhokwa go diragatsa maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho

1. Maano a tebelopele a raya eng mo go wena?
2. Karolo ya lephata la gago ke eng mo go diragatseng maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho?
3. Karolo ya gago ke eng o le mo bonosing, mo go diragatseng maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho?
4. Megopolo ya kgaolo ya lona ya go thibela, go fokotsa kgotsa go laola dibetsa tsa tlholego kana tse di dirilweng ke batho e bapile go le kahe le maano a tebelopele a lefatshe a go dira jalo? Ka kopo tlhalosa ditsela tse e leng gore di amana ka teng.
5. A megopolo ya kgaolo ya lona ya go thibela, go fokotsa kgotsa go laola dibetsa tsa tlholego kana tse di dirilweng ke batho e etle e lekolwe kgotsa e nchafadiwe? Go kopanwa ga kahe?
6. Ke mang yo o tsayang karolo mo go lekoleng le go nchafatseng megopolo ya kgaolo ya lona ya go thibela, go fokotsa kgotsa go laola dibetsa tsa tlholego kana tse di dirilweng ke batho?
7. O buisana jang ka maano a tebelopele a lefatshe a go fokotsa kgonagalo ya dibetsa tsa

tlholego kana tse di dirilweng ke batho le maphata a a farologaneng a o a gakololang? (Batsayakarolo ba Village Development Committee ba seka ba araba e potso e).

8. O dira jang go netefatsa gore babereki ba tlhaloganya maitlamo le maano a go fokotsa kgonagalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho?
9. O ka re o bua ga kahe le bagogi ba ba rweleng maikarabelo a go tlhama maano a go fokotsa kgonagalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho? Ke kopa tlhaloso ya gore o dira jang se le gore le bua ka ga eng?
10. O ka re o bua le babereki ka wena ga kahe ka dikgang tsa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho? Ke kopa tlhaloso ya gore o dira jang se le gore le bua ka ga eng?
11. O ka re o bua le ba ba berekelang kwa tlase ga gago ga kahe ka dikgang tsa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho? Ke kopa tlhaloso ya gore o dira jang se le gore le bua ka ga eng?
12. O ka re ke ga kahe mo bonosing o fa kelotlhoko dikgang tsa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho le go di diragatsa maano a go di fokotsa mo tirong ya gago? Ke kopa tlhaloso ya gore o dira jang se.
13. Ka kopo, fa matshwao mo tafoleng e fa tlase e, o lebile botlhokwa ja ngwe le ngwe ya ditiro tsa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho, 1 e le tse di seng botlhokwa, 7 e le tse di botlhokwa thata. (Moithuti o tla abela batsayakarolo dipampiri tse di nang le tafole e fa tlase e.

	Tse di seng botlhokwa			Tse di botlhokwa mo go lekanetseng			Tse di botlhokwa thata
Communication							
Bokopano jo bo haphegileng jwa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho	1	2	3	4	5	6	7
Makwalo	1	2	3	4	5	6	7
Bokopano bo bo eteletsweng pele ke moitseanape							
Mabotana a dikitsiso	1	2	3	4	5	6	7
Bukana ya ditshwantsho ya mo teng ga lephata	1	2	3	4	5	6	7
Maranyane a tlhaeletsano a dikhomputara mo lephateng	1	2	3	4	5	6	7
Go romelana makwalo ka maranyane	1	2	3	4	5	6	7
Dipuisano tse di sa rulaganngwang							

Le bagololwane	1	2	3	4	5	6	7
Le ba ba ka fa tlase ga gago	1	2	3	4	5	6	7
Le babereki ka wena	1	2	3	4	5	6	7

Moedi: E tserwe mo go Ikavalko (2005)

14. Ke eng o dumela gore ditiro tse o di fileng matshwao a a kwa godimo di bereka botoka go feta tse dingwe? Ka kopo tlhalosa gore ke eng tse tlhano tse di nang le matshwao a a kwa godimo go di feta tsotlhe di bereka botoka thata.
15. Ke bo mang ba ba tsayang karolo mo ditirong tse tlhano tse di nang le matshwao a a kwa godimo go di feta tsotlhe, tse o di supileng mo potsong ya bo 11? (ba tsaya karolo jang?)
16. Ke bo feng bokgoni le kitso tse di tlhokahalang go diragatsa mananeo a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho?
17. Ka mafoko a gago, a wena kgotsa lephata la gago le kile la nna le tshono ya go fa megopolo kgotsa go akgela mo go tsa maikaelelo le thulaganyo ya maano a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho. (Fa karabo e le ee, ke kopa tlhaloso ya gore se se diragetse jang, fa karabo e le nnyaa, o ne o eletsa gore o ka bo o ne o akgetse jang?)

B. Maikutlo/dikakanyo ha go tla mo diragatseng mananeo a phokotso ya kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho

18. Ke dikgwetlho dife tse o kopanang le tsone ha o diragatsa maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho? Ka kopo balolola tse o bonang di le botlhokwa.
19. Dikgwetlho tse di ne tsa rarabolowa jang mo nakong e fetileng? Ka kopo fa sekai fa go kgonahala.
20. A o ka re go diragatsa ga maano a, go ntse go atlega mo nakong e fetileng mo go fokotseng dibetsa tsa tlholego kana tse di dirilweng ke batho? Ka kopo fa sekai.
21. O dumela gore ke dife ditsela tse tharo tse di ka tsewang go netefatsa gore go diragatsa maano a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho e a atlega?

Fa re konetelela, a go na le dipotso kgotsa dikakgelo?

Ke lebogela nako ya gago. Fa o batla go boela morago mo go tseyeng karolo kgotsa o na le

dipotso o ka ikgolaganya le moithuti mo ditsetlaneng tse di o di filiweng.

District level (District Disaster Management Committee members)

Focus Groups

Introduction

- Introduce the researcher and reiterate that contact details are on the Participant Information Sheet.
- Go over the general interview guidelines as explained on the Participant Information Sheet.
- Take questions (if any) from the participant before starting the discussion.
- Ask for the participant's level of education prior to starting the discussion (for demographic purposes).

Questions

A. Activities and resources utilised to implement national Disaster Risk Reduction strategic initiatives.

1. What does the term strategy mean to you?
2. What is your institution's role in the National Disaster Risk Reduction Strategy implementation?
3. What is your personal role in the National Disaster Risk Reduction Strategy implementation?
4. Is your area disaster risk management plan ever evaluated and updated? How often do you meet?
5. Who participates in evaluating and updating your area disaster risk management plan?
6. How is the National Disaster Risk Reduction Strategy communicated to you?
7. Do you fully understand the current disaster risk reduction strategic objectives? (Have they been presented to you clearly?)
8. How often do you communicate with management at national level and senior management within your institution and on issues of disaster risk reduction? Please explain how you do this and what you discuss.
9. How often do you communicate with co-workers on issues of disaster risk reduction? Please explain how you do this and what you discuss.
10. How often do you personally give attention to issues of disaster risk reduction or its implementation in your work? Please explain how you do this.

11. Please rate the importance of each of the disaster risk reduction strategy implementation practices on the table below, 1 being not important and 7 being very important.

	Not important			Moderately Important			Very important
Communication							
Meetings	1	2	3	4	5	6	7
Informative meetings	1	2	3	4	5	6	7
Letters	1	2	3	4	5	6	7
Notice boards	1	2	3	4	5	6	7
Internal magazines	1	2	3	4	5	6	7
Intranet	1	2	3	4	5	6	7
Mailing lists (e-mail)	1	2	3	4	5	6	7
Unofficial Discussions							
With superiors	1	2	3	4	5	6	7
With subordinates	1	2	3	4	5	6	7
With co-workers	1	2	3	4	5	6	7
Cultural Phenomena							
Stories	1	2	3	4	5	6	7
Symbols	1	2	3	4	5	6	7
Slogans	1	2	3	4	5	6	7
Personnel Development							
Training	1	2	3	4	5	6	7
Performance appraisal	1	2	3	4	5	6	7
Induction training	1	2	3	4	5	6	7
Personnel choices	1	2	3	4	5	6	7
Rewarding	1	2	3	4	5	6	7
Planning							
Budget monitoring and reporting	1	2	3	4	5	6	7
Organisational plans	1	2	3	4	5	6	7
Operational and performance objectives	1	2	3	4	5	6	7
Balanced scorecard	1	2	3	4	5	6	7
Operations/ processes							
Projects	1	2	3	4	5	6	7
Project management systems	1	2	3	4	5	6	7
Quality systems	1	2	3	4	5	6	7
Changes in organisational structure	1	2	3	4	5	6	7
Networks and partnership	1	2	3	4	5	6	7

Source: Adopted from Ikavalko (2005)

12. Why do you believe the practices you have rated highly work best? Please explain why your top five ratings are the most effective.
13. Who participates on your top five ratings indicated on question 11? (How do they participate?)
14. What skills and competencies are required from you to implement the disaster risk reduction strategic initiatives?

B. Perceptions around the national disaster risk reduction strategy implementation

15. What are the challenges you face in implementing the disaster risk reduction strategy? Please list the main ones you regard as being most important.
16. How have these challenges been addressed in the past? Please give me an actual example if possible.
17. Would you say implementation has been successful in the past in reducing the effects of a disaster? Please give an example.
18. What do you believe are the three most important things that should be done to ensure the effective implementation of disaster risk reduction?

In closing, are there any questions or comments?

Thank you for your time**.** If you would like to withdraw your participation from this study or have any questions, please do not hesitate to contact the researcher on the contact details provide

Village/ Community level (Umbrella Village Development Committee members)

Nominal Group Technique

Introduction

- Introduce the researcher and reiterate that contact details are on the Participant Information Sheet.
- Go over the general interview guidelines as explained on the Participant Information Sheet.
- Take questions (if any) from participants before starting the discussion.
- Ask for the participants' level of education prior to starting the discussion (for demographic purposes).

Questions

A. Activities and resources utilised to implement national Disaster Risk Reduction strategic initiatives.

1. Please rate the importance of each of the disaster risk reduction strategy implementation practices on the table below, 1 being not important and 7 being very important. Please explain why your top five ratings are the most effective.

	Not important			Moderately Important			Very important
Communication							
Meetings	1	2	3	4	5	6	7
Informative meetings	1	2	3	4	5	6	7
Letters	1	2	3	4	5	6	7
Notice boards	1	2	3	4	5	6	7
Internal magazines	1	2	3	4	5	6	7
Intranet	1	2	3	4	5	6	7
Mailing lists (e-mail)	1	2	3	4	5	6	7
Unofficial Discussions							
With superiors	1	2	3	4	5	6	7
With subordinates	1	2	3	4	5	6	7
With co-workers	1	2	3	4	5	6	7
Cultural Phenomena							

Stories	1	2	3	4	5	6	7
Symbols	1	2	3	4	5	6	7
Slogans	1	2	3	4	5	6	7
Personnel Development							
Training	1	2	3	4	5	6	7
Performance appraisal	1	2	3	4	5	6	7
Induction training	1	2	3	4	5	6	7
Personnel choices	1	2	3	4	5	6	7
Rewarding	1	2	3	4	5	6	7
Planning							
Budget monitoring and reporting	1	2	3	4	5	6	7
Organisational plans	1	2	3	4	5	6	7
Operational and performance objectives	1	2	3	4	5	6	7
Balanced scorecard	1	2	3	4	5	6	7
Operations/ processes							
Projects	1	2	3	4	5	6	7
Project management systems	1	2	3	4	5	6	7
Quality systems	1	2	3	4	5	6	7
Changes in organisational structure	1	2	3	4	5	6	7
Networks and partnership	1	2	3	4	5	6	7

Source: Adopted from Ikavalko (2005)

B. Perceptions around the national disaster risk reduction strategy implementation

2. What are the challenges you face in implementing the disaster risk reduction strategy? Please list the main ones you regard as being most important.
3. What do you believe are the three most important things that should be done to ensure the effective implementation of disaster risk reduction?

In closing, are there any questions or comments?

Thank you for your time**.** If you would like to withdraw your participation from this study or have any questions, please do not hesitate to contact the researcher on the contact details provided.

Translated Version (Setswana): Village/ community level (Umbrella Village Development Committee members who prefer
using the Setswana language)

Nominal Group Technique

Kamogelo ya batsayakarolo

- Ikitsise batsayakarolo, o bo o ba gakolole ditsetlana tse ba ka ikgolaganyang le wena/ moithuti mo go tsone, tse di kwadilweng mo pampiring e e neng e ba fa kitso ya dithuto tse.
- Feta ka go bua ka melawana ya puisano ka bofefo jaaka e tlhalositswe mo pampering e e neng e e fa batsayakarolo kitso ka dithuto tse.
- Fa batsayakarolo ba na le dipotso, ba ka botsa pele ga puisano e simolola.
  Ka nako e, botsa batsayakarolo gore ba ithuthile go fitlhella kae (nngwe ya ditsela tsa go tlhaloganya sebopego sa setlhopha sa batsayakarolo ba ba tlhophilweng

Dipotso

A. Ditiro le didirisiwa tse di botlhokwa go diragatsa maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho.

1. Ka kopo, fa matshwao mo tafoleng e fa tlase e, o lebile botlhokwa ja ngwe le ngwe ya ditiro tsa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho, 1 e le tse di seng botlhokwa, 7 e le tse di botlhokwa thata. (Moithuti o tla abela batsayakarolo dipampiri tse di nang le tafole e fa tlase e.

Communication	**Tse di seng botlhokwa**			**Tse di botlhokwa mo go lekanetseng**			**Tse di botlhokwa thata**
Bokopano jo bo haphegileng jwa go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho	1	2	3	4	5	6	7
Makwalo	1	2	3	4	5	6	7
Mabotana a dikitsiso	1	2	3	4	5	6	7
Bukana ya ditshwantsho ya mo teng ga lephata	1	2	3	4	5	6	7

Maranyane a tlhaeletsano a dikhomputara mo lephateng	1	2	3	4	5	6	7
Go romelana makwalo ka maranyane	1	2	3	4	5	6	7
Dipuisano tse di sa rulaganngwang							
Le bagololwane	1	2	3	4	5	6	7
Le ba ba ka fa tlase ga gago	1	2	3	4	5	6	7
Le babereki ka wena	1	2	3	4	5	6	7
Setso sa lephata							
Dipolelo	1	2	3	4	5	6	7
Matshwao	1	2	3	4	5	6	7
Molaetsa o mokhutshwane wa go dirisiwa kgapetsa kgapetsa go tsosa kgatlhego mo bareetsing ba one	1	2	3	4	5	6	7
Tswelelopele ya babereki							
Go rutiwa	1	2	3	4	5	6	7
Go kanoka ka fa mmereki a dirang tiro ka teng, abo a fiwa maduo	1	2	3	4	5	6	7
Go rutiwa fa mmereki a simolla tiro	1	2	3	4	5	6	7
Go fiwa tshono ya go itirela ditshwetso o le mmereki	1	2	3	4	5	6	7
Go fiwa sengwe go akgolwa morago ga go dira sentle mo tirong	1	2	3	4	5	6	7
Go rulaganya							
Go ela tlhoko tekanyetso ya tiriso ya madi le go begwa ga yone	1	2	3	4	5	6	7
Lenaneo la lephata	1	2	3	4	5	6	7
Maikaelelo a beilweng go kaela ditirelo le godiragatsa ga babereki	1	2	3	4	5	6	7
Tsamaiso ya go sela morago le go bega ka fa babereki ba dirang ka teng mo tirong	1	2	3	4	5	6	7
Ditirelo							
Diporojeke	1	2	3	4	5	6	7
Ditsamaiso tsa bogogi ja diporojeke	1	2	3	4	5	6	7
Ditsamaiso tsa go tlhatlhoba boleng ja tiro	1	2	3	4	5	6	7
Go fetolwa ga sebopego sa ditsamaiso mo lephateng	1	2	3	4	5	6	7
Botsalano le batho ba ba farologaneng le tirisano	1	2	3	4	5	6	7

Moedi: E tserwe mo go Ikavalko (2005)

B. Maikutlo/dikakanyo ha go tla mo diragatseng mananeo a phokotso ya kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho.

2. Ke dikgwetlho dife tse o kopanang le tsone ha o diragatsa maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho? Ka kopo balolola tse o bonang di le botlhokwa.

3. O dumela gore ke dife ditsela tse tharo tse di ka tsewang go netefatsa gore go diragatsa maano a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho e a atlega?

Fa re konetelela, a go na le dipotso kgotsa dikakgelo?

Ke lebogela nako ya gago. Fa o batla go boela morago mo go tseyeng karolo kgotsa o na le dipotso o ka ikgolaganya le moithuti mo ditsetlaneng tse di o di filiweng.

APPENDIX E: Participant Information Sheets

National Level (National Disaster Management Office Management)

Semi Structured Interviews



Good day,

My name is Margaret Opelo Dennison, and I am a PhD student in Business Sciences (Management) at the University of the Witwatersrand, Johannesburg. As part of my studies, I must undertake a research project, and I am exploring the concept of Strategy as Practice Strategy-as-practice in national Disaster Risk Reduction: the case of Botswana, under the supervision of Professor David Coldwell. The aim of this research project is to find out how strategy implementation is done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as-practice lens.

As part of this project, I would like to invite you to take part in a once off, face to face interview. This activity will involve me asking you mostly open-ended and one (1) ranking question, it will take around one (1) hour. With your permission, I would also like to audio record the interview using a digital device. This recording will be transferred to and stored in a password-protected file on a password protected laptop, and only the researcher will have access to this recording. It will be deleted after five (5) years.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The interview will be confidential as the information you give to me will be held securely and not disclosed to anyone else. I will not be asking for your name and other identifying information. However, I will be able to see you and because you will be speaking in your official capacity at the only National Disaster Management Office (National Disaster Management Office) there is in the country, you may be identifiable based on your distinct role. Thus, anonymity cannot be guaranteed. I will nonetheless use a pseudonym (false name) to represent your participation in my final research report. If you experience any distress or discomfort at any point in this process or show signs that suggest that the discussion may be stressful, I will halt the interview to apply the distress protocol. I will ask questions relating to how you are feeling. If after this, you feel that you are ready to

continue with the interview, we will proceed. If you would like for us to reschedule for another time, we can arrange for that. But if you are unable to carry on, you can voluntarily decide to excuse yourself entirely from the interview and no longer take part in the research data gathering process. If the distress escalates, I will ask you if you would like me to contact your general practitioner or a mental health expert or provide you with local contacts who provide those services. With your consent, I will follow up on your well-being with a call and encourage you to get in touch should you experience any further distress in the hours or days following the discussion.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the University's Institutional Repository on DSpace. If you wish to receive a summary of this report, I will be happy to send it to you. The transcribed data collected from this research project will be kept in a file stored in a locked drawer at the researcher's home and shredded after five (5) years. The recordings obtained will be kept and destroyed as explained in paragraph two above. Analysed data/ findings from the research may be used for publications and conference presentations. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon- medical@wits.ac.za

Yours sincerely,

Margaret Opelo Dennison

Researcher:
Margaret Opelo Dennison, margaretdennison1@students.wits.ac.za, +267 74 643 267

Supervisor:
Professor David Coldwell, David.Coldwell@wits.ac.za, +27 83 684 5140

District and village/ community Level (Commissioners and 10% of Village Development Committee that do not have/ belong to umbrella committees)

Semi Structured Interviews



Good day,

My name is Margaret Opelo Dennison, and I am a PhD student in Business Sciences (Management) at the University of the Witwatersrand, Johannesburg. As part of my studies, I must undertake a research project, and I am exploring the concept of Strategy as Practice in national Disaster Risk Reduction: the case of Botswana, under the supervision of Professor David Coldwell. The aim of this research project is to find out how strategy implementation is done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as-practice lens.

As part of this project, I would like to invite you to take part in a once off, face to face (*or online/ telephone- used at the sixth district*) interview. This activity will involve me asking you mostly open-ended and one (1) ranking question, it will take around one (1) hour. With your permission, I would also like to audio record the interview using a digital device. This recording will be transferred to and stored in a password-protected file on a password protected laptop, and only the researcher will have access to this recording. It will be deleted after five (5) years.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The interview will be confidential as the information you give to me will be held securely. However, I will be able to see you, hence there is no anonymity (*except over telephone interviews*). I will be using a pseudonym (false name) to represent your participation in my final research report. A code will also be used for your institution because in as much as there will be representation from similar institutions, they can be identifiable based on location. If you experience any distress or discomfort at any point in this process or show signs that suggest that the discussion may be stressful, I will stop the discussion and offer support. I will ask questions relating to how you are feeling, what you are thinking, if you will be able to go on with your day and the discussion. If after a few minutes you feel that you are ready to continue with the discussion, I will proceed. If you are unable to carry on, I will ask for your consent to contact your/ any general practitioner or a mental health expert. With your consent, I will follow up on your well-being with a call and encourage you

to get in touch should you experience any further distress in the hours or days following the discussion. With your permission, we will schedule to resume another time.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the University's Institutional Repository on DSpace. If you wish to receive a summary of this report, I will be happy to send it to you. The transcribed data collected from this research project will be kept in a file stored in a locked drawer at the researcher's home and shredded after five (5) years. The recordings obtained will be kept and destroyed as explained in paragraph two above. Analysed data/ findings from the research may be used for publications and conference presentations. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon- medical@wits.ac.za

Yours sincerely,

Margaret Opelo Dennison

Researcher:
Margaret Opelo Dennison, margaretdennison1@students.wits.ac.za, +267 74 643 267

Supervisor:
Professor David Coldwell, David.Coldwell@wits.ac.za, +27 83 684 5140

Translated Version (Setswana): Village/ community level only (Village Development Committee chairpersons who prefer using the Setswana language)

Semi Structured Interviews

Go Rre/ Mme

Leina la me ke Margaret Opelo Dennison, ke moithuti was dithuto tse di kgolwane tsa PhD ya Business Sciences (Management) kwa Univesithing ya Witwatersrand, mo Johannesburg. Karolo e botlhokwa ya dithuto tsa me ke go tlhatlhoba didirisiwa, ditsela le mekgwa e e dirisiwang ke badiri ba maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho mo Botswana (Exploring the concept of Strategy as Practice in national Disaster Risk Reduction: the case of Botswana). Ke dira ke le ka fa tlase ga dikgakololo tsa ga Moprofesa David Coldwell. Maikaelelo magolo a dipatlisiso tsa me ke go batlisisa gore go diragatsa maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho, go dirwa jang, le gore ke dife ditokafatso tse di ka dirwang go lebilwe ka kelotlhoko didirisiwa, ditsela le mekgwa ya badiri ba maano a tebelopele le gore ba a dira jang.

Ka ntlha ya dithuto tse, ke rata go go laletsa go tsaya karolo mo puisanong e e tla diragalang gangwe fela, e re tla bong re lebagane (*kana ka tiriso ya tsa maranyane kana mogala jaaka ko kgaolong ya borataro*). Dipotso tse ke tla di botsang ka bontsi ga di na karabo ya ee kgotsa nnyaa, ke tse di go letlelelang go bua mogopolo wa gago o phuthologile. E le nngwe fela mo go tsone ke yone fela ya dikarabo tse di tswalegileng. Puisano e, e tla tsaya selekanyo sa oura (1). Ka tetlelelo ya gago, ke ka rata go kapa mantswe a puisano ke dirisa sekapamantswe. Rekote e, e tla bo e sireletsegile mo faeleng e e bulwang ka nomore e e haphegileng, mo khomputareng e le yone e bulwang ka nomore e haphegileng. Ke nna fela yo ke tla bong ke na le tetlelelo ya yone, mme e sutlhiwe mo go tsa maranyane morago ga dingwaga tse tlhano (5).

Ha gona dituelo dipe tse di solofetsweng mo motseyeng karolo ebile ha gona dikatso dipe tse di solofetswang motsayakarolo. Ha gona bothata kgotsa dikgato tse o tla di tseelwang fa o sa batle go tsaya karolo kana o ikgogela morago mo go tseyeng karolo. Motsayakarolo o letlelesega go ikgogela morago ka nako nngwe le nngwe kgotsa go gana go araba dipotso tse ba sa batleng go di araba. Kitso yotlhe e ke tla e fiwang mo puisanong e, e tla bewa fa go haphegileng teng, mme sefatlhego sa motsayakarolo se ka se bipege ka gore ke tla bo ke mmona. (*ko ntleng ga dipuisano tse di ka dirwang ka tiriso ya mogala*). Maina a a tla dirisiwang go mo kaya ke a e seng a nnete. Ke tla dirisa le maina a a seng a nnete gape go supa ko motsayakarolo a berekelang teng ka gore le ntswa maphata ka bontsi a tla bo a tshwana, a ka kgona go lemotshega ke mafelo. Fa o ka ikutlwa o sa phuthologa fa puisano e tsweletse kana o supa dikai tsa gore

puisano ha e go tseye sentle, ke tla e emisa go tlhomamisa gore o siame. Ke tla botsa dipotso tse di amanang le gore o ikutlwa jang, o akantse eng, a o tla kgona go tswelela le letsatsi la gago le puisano. Fa e le gore morago ga metsotso e le mmalwa o ikutlwa o ka kgona go tswelela, ke tla dira jalo. Mme fa e le gore ga o kake wa kgona go tswelela, ka tetlelelo ya gago ke tla itshwaraganya le ngaka ya gago kana nngwe le nngwe, kgotsa moitsaanape wa tsa botsogo jwa tlhaloganyo. Fa o dumela, ke tla go tlhola ka mogala ke bo ke go rotloetse gore o itshwaraganye le nna ha o ka ikutlwa o ntse o sa tsoga sentle morago ga dioura kana malatsi a a latelang puisano. Ka tetlelelo ya gago, re tla dumelana ka go tswelela mo nakong e e tlang.

Fa o na le dipotso fa dipatlisiso tse di ntse di tsweletswe kgotsa morago ga go di fetsa, o golosegile go ikgolaganya le nna mo ditsetlaneng tse di nankotsweng fa tlase ga lekwalo le. Dipatlisiso tse le maduo a teng di tla bo di kwadilwe e le pego e e tla tsenngwang mo go tsa maranyane tsa Univesithi (Institutional Repository on DSpace). Fa o na le keletso ya go fiwa pego e, ke ka itumelela go go e romelela. Kitso/ dintlha tse di tla bong di kwadilwe, di tla bewa mo faeleng, di lotleletswe kwa moithuti a nnang teng, morago ga moo di kgagolwe morago ga dingwana di le tlhano. Direkote tsone di tla bewa di bo di sutlhiwe jaaka fa go tlhalositswe mo temaneng ya bobedi. Kitso e e sekasekilweng le diphitlhelelo tsa dithuto tse, di ka kgona go dirisiwa mo dikwalong kgotsa dipego tse morafe o letlelesang go di bona le ko dikopanong tsa kabelano megopolo. Fa o na le matshwenyego kgotsa dingongorego dipe mabapi le tetla ya mealo ya boitshwaro ya dipatlisiso tse, o amogelesigile go itshwaraganya le ba Human Research Ethics Committee (Non-Medical) kwa Univesithing ya Witwatersrand, mogala +27(0) 11 717 1408, lekwalo la maranyane hrecnon-medical@wits.ac.za.

Ka boikokobetso,
Margaret Opelo Dennison

Moithuti:
Margaret Opelo Dennison, margaretdennison1@students.wits.ac.za +267 74 643 267

Mogakolodi:
Moporofesa David Coldwell, David.Coldwell@wits.ac.za, +27 83 684 5140

District level (District Disaster Management Committee members)

Focus Groups



Good day,

My name is Margaret Opelo Dennison, and I am a PhD student in Business Sciences (Management) at the University of the Witwatersrand, Johannesburg. As part of my studies, I must undertake a research project, and I am exploring the concept of Strategy as Practice in national Disaster Risk Reduction: the case of Botswana, under the supervision of Professor David Coldwell. The aim of this research project is to find out how strategy implementation is done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as-practice lens.

As part of this project, I would like to invite you to take part in a once off, focus group which involves me asking mostly open-ended and one ranking question to a group with a minimum of seven (7) and a maximum of ten (10) participants. It will take around one (1) hour, 30 minutes. With your permission, I would also like to audio record the focus group using a digital device. This recording will be transferred to and stored in a password-protected file on a password protected laptop, and only the researcher will have access to this recording. It will be deleted after five (5) years.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The information you give to me will be held securely. However, neither confidentiality nor anonymity can be guaranteed as this is a group activity, but I will be using a pseudonym (false name) to represent your participation in my final research report. A code will also be used for your institution because in as much as there will be representation from similar institutions, they can be identifiable based on location. If you experience any distress or discomfort at any point in this process or show signs that suggest that the discussion may be stressful, I will stop the discussion and offer support. I will remove you from the discussion area to a quiet place and ask questions relating to how you are feeling, what you are thinking, if you will be able to go on with your day and the discussion. If after a few minutes you feel that you are ready to continue with the discussion I will proceed. If you are unable to carry on, I will ask for your consent to contact your/ any general practitioner or a

mental health expert. With your consent, I will follow up on your well-being with a call and encourage you to get in touch should you experience any further distress in the hours or days following the discussion. When it comes to focus group discussions as a group activity, it would practically not work to discontinue the discussion with one participant and resume it later, hence in case of any distress, the process described above (distress protocol) will be followed and if it fails, your participation will be cancelled.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the University's Institutional Repository on DSpace. If you wish to receive a summary of this report, I will be happy to send it to you. The transcribed data collected from this research project will be kept in a file stored in a locked drawer at the researcher's home and shredded after five (5) years. The recordings obtained will be kept and destroyed as explained in paragraph two above. Analysed data/ findings from the research may be used for publications and conference presentations. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon- medical@wits.ac.za

Yours sincerely,

Margaret Opelo Dennison

Researcher:
Margaret Opelo Dennison, margaretdennison1@students.wits.ac.za, +267 74 643267

Supervisor:
Professor David Coldwell, David.Coldwell@wits.ac.za, +27 83 684 5140

Village/ community level (Umbrella Village Development Committee's)

Nominal Group Interviews Technique



Good day,

My name is Margaret Opelo Dennison, and I am a PhD student in Business Sciences (Management) at the University of the Witwatersrand, Johannesburg. As part of my studies, I must undertake a research project, and I am exploring the concept of Strategy as Practice in national Disaster Risk Reduction: the case of Botswana, under the supervision of Professor David Coldwell. The aim of this research project is to find out how strategy implementation is done for national disaster risk reduction in Botswana and what improvements can be made using the Strategy-as-practice lens.

As part of this project, I would like to invite you to take part in a once off, nominal group interview which involves me asking mostly open- ended and one ranking question to a group with a minimum of six (6) and a maximum of nine (9) participants. This activity will start off with distribution of papers where you can write down ideas and responses to the questions I will ask. Then you will be asked to present your answers to the group. Your contributions will be written down on a flip chart, followed by me clarifying these contributions, with an option to either group or eliminate some of them. They will be ranked, and the results compiled. Discussions are not allowed among participants during nominal group interviews until the group discussion stage. This interview will take around one (1) hour, 30 minutes. With your permission, I would also like to audio record the interview using a digital device. This recording will be transferred to and stored on a password-protected file in a password protected laptop, and only the researcher will have access to this recording. It will be deleted after five (5) years.

There will be no personal costs to you if you participate in this project. You will not receive any direct benefits from participation but there are no disadvantages or penalties if you do not choose to participate or if you withdraw from the study. You may withdraw at any time or not answer any question if you do not want to. The information you give to me will be held securely. However, neither confidentiality nor anonymity can be guaranteed as this is a group activity, but I will be using a pseudonym (false name) to represent your participation in my final research report. A code will also be used for your institution because in as much as there will be representation from similar institutions, they can be identifiable based on location. If you experience any distress or discomfort at any point in this process or show signs that suggest that

the discussion may be stressful, I will stop the discussion and offer support. I will remove you from the discussion area to a quiet place and ask questions relating to how you are feeling, what you are thinking, if you will be able to go on with your day and the discussion. If after a few minutes you feel that you are ready to continue with the discussion I will proceed. If you are unable to carry on, I will ask for your consent to contact your/ any general practitioner or a mental health expert. With your consent, I will follow up on your well-being with a call and encourage you to get in touch should you experience any further distress in the hours or days following the discussion. When it comes to the nominal group interview technique as a group activity, it would practically not work to discontinue the discussion with one participant and resume it later, hence in case of any distress, the process described above (distress protocol) will be followed and if it fails, your participation will be cancelled.

If you have any questions during or afterwards about this research, feel free to contact me on the details listed below. This study will be written up as a research report which will be available online through the University's Institutional Repository on DSpace. If you wish to receive a summary of this report, I will be happy to send it to you. The transcribed data collected from this research project will be kept in a file stored in a locked drawer at the researcher's home and shredded after five (5) years. The recordings obtained will be kept and destroyed as explained in paragraph two above. Analysed data/ findings from the research may be used for publications and conference presentations. If you have any concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical), telephone +27(0) 11 717 1408, email hrecnon- medical@wits.ac.za

Yours sincerely,

Margaret Opelo Dennison

Researcher:
Margaret Opelo Dennison, margaretdennison1@students.wits.ac.za, +267 74 643 267

Supervisor:
Professor David Coldwell, David.Coldwell@wits.ac.za, +27 83 684 5140

Translated Version (Setswana): Village/ community level (Umbrella Village Development Committee members who prefer using the Setswana language).

Nominal Group Interviews Technique



Go Rre/ Mme

Leina la me ke Margaret Opelo Dennison, ke moithuti was dithuto tse di kgolwane tsa PhD ya Business Sciences (Management) kwa Univesithing ya Witwatersrand, mo Johannesburg. Karolo e botlhokwa ya dithuto tsa me ke go tlhatlhoba didirisiwa, ditsela le mekgwa e e dirisiwang ke badiri ba maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho mo Botswana (Exploring the concept of Strategy as Practice in national Disaster Risk Reduction: the case of Botswana). Ke dira ke le ka fa tlase ga dikgakololo tsa ga Moprofesa David Coldwell. Maikaelelo magolo a dipatlisiso tsa me ke go batlisisa gore go diragatsa maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho, go dirwa jang, le gore ke dife ditokafatso tse di ka dirwang go lebilwe ka kelotlhoko didirisiwa, ditsela le mekgwa ya badiri ba maano a tebelopele le gore ba a dira jang.

Ka ntlha ya dithuto tse, ke rata go go laletsa go tsaya karolo mo puisanong e e tla diragalang ga ngwe fela, ya dipalo tsa batsayakarolo ba feta borataro (6) mme ba sa fete borobabongwe (9). Dipotso tse ke tla di botsang ka bontsi ga di na karabo ya ee kgotsa nnyaa, ke tse di go letlelelang go bua mogopolo wa gago o phuthologile. E le nngwe fela mo go tsone ke yone fela ya dikarabo tse di tswalegileng. Puisano e, e tla simolola ka go abiwa ga dipampiri tse e leng gore batsayakarolo ba tla kwala dikarabo tsa dipotso mo go tsone. Morago ga moo, le tla kopiwa go di buela ko godimo ha pele ga ba ba mo setlhopheng se le sengwe le wena. Dikarabo tse di tla kwala mo pontsheng, mme di tlhalosiwe, di bo di tsenngwa mo ditlhophaneng kgotsa di seegelwa kwa thoko. Di tlaa bo di neelwa maemo go yeng ka gore ke dife di tse di ratilweng ke bontsi ba batsaya karolo. Gobuisana gareng ga batsaya karolo ka bo bone ha go letlelelwe go fitlhela go buisanwa jaaka setlhopha. E tla tsaya selekanyo sa oura (1) le masome a mararo (30). Ka tetlelelo ya gago, ke ka rata go kapa mantswe a puisano e ke dirisa sekapamantswe. Rekote e, e tla bo e sireletsegile mo faeleng e e bulwang ka nomore e e haphegileng, mo khomputareng e le yone e bulwang ka nomore e haphegileng. Ke nna fela yo ke tla bong ke na le tetlelelo ya yone, mme e sutlhiwe mo go tsa maranyane morago ga dingwaga tse tlhano (5).

Ha gona dituelo dipe tse di solofetsweng mo batseyeng karolo ebile ha gona dikatso dipe tse di solofetswang batsayakarolo. Ha gona bothata kgotsa dikgato tse o tla di tseelwang fa o sa batle go tsaya karolo kana o ikgogela morago mo go tseyeng karolo. Batsayakarolo ba letlelesega go ikgogela morago ka nako nngwe le nngwe kgotsa go gana go araba dipotsa tse ba sa batleng go di araba. Le fa ke tla leka ka gotlhe go bipa kitso yotlhe e ke tla e tsayang mo batseyeng karolo le go bipa maina a bone, dilo tse pedi tse, di ka se tshepisiwi ka ke puisano ya motsayakarolo a feta mongwe. Kitso yotlhe e ke tla e fiwang mo puisanong e, e tla bewa fa go haphegileng. Ke tla dirisa maina a a seng a nnete go kaya batsayakarolo, ke bo ke dirise a a seng a nnete go supa ko batsayakarolo ba berekelang teng, ka gore le ntswa maphata ka bontsi a tla bo a tshwana, a ka kgona go lemotshega ke mafelo. Fa o ka ikutlwa o sa phuthologa puisano e tsweletse kana o supa dikai tsa gore puisano ha e go tseye sentle ke tla e emisa go tlhomamisa gore o siame. Ke tla go ntsha fa re tshwaretseng puisano teng ke go isa fa go didimetseng. Ke tla botsa dipotso tse di amanang le gore o ikutlwa jang, o akantse eng, a o tla kgona go tswelela le letsatsi la gago, le puisano. Fa e le gore morago ga metsotso e le mmalwa o ikutlwa o ka kgona go tswelela, re tla dira jalo. Mme fa e le gore ga o kake wa kgona go tswelela, ka tetlelelo ya gago ke tla itshwaraganya le ngaka ya gago kana nngwe le nngwe, kgotsa moitseanape wa tsa botsogo jwa tlhaloganyo. Fa o dumela, ke tla go tlhola ka mogala ke bo ke go rotloetse gore o itshwaraganye le nna ha o ka ikutlwa o ntse o sa tsoga sentle morago ga dioura kana malatsi a a latelang puisano. Fa go tla mo puisanong ya mofuta o, ya batho ba feta bongwe, go ka se kgonagale gore ke e sutise ka lebaka la gore motsayakarolo a le mongwe ga a yo. Ka jalo, fa go ka diragala gore o se tseege sentle, tsamaiso e e tlhalositsweng fa godimo (ya go ela tlhoko ba ba sa tseegeng sentle) e tla a latelwa, fa e sa bereke ka maswabi go tsayakarolo ga gago go tlaa boelwamorago.

Fa o na le dipotso fa dipatlisiso tse di ntse di tsweletswe kgotsa morago ga go di fetsa, o golosegile go ikgolaganya le nna mo ditsetlaneng tse di nankotsweng fa tlase ga lekwalo le. Dipatlisiso tse le maduo a teng di tla bo di kwadilwe e le pego e e tla tsenngwang mo go tsa maranyane tsa Univesithi (Institutional Repository on DSpace). Fa o na le keletso ya go fiwa pego e, ke ka itumelela go go e romelela. Kitso/ dintlha tse di tla bong di kwadilwe, di tla bewa mo faeleng, di lotleletswe kwa moithuti a nnang teng, morago ga moo di kgagolwe morago ga dingwana di le tlhano. Direkote di tla bewa di bo di sutlhiwe jaaka fa go tlhalositswe mo temaneng ya bobedi. Kitso e e sekasekilweng le diphitlhelelo tsa dithuto tse, di ka kgona go dirisiwa mo dikwalong kgotsa dipego tse morafe o letlelesang go di bona le ko dikopanong tsa kabelano megopolo. Fa o na le matshwenyego kgotsa dingongorego dipe mabapi le tetla ya mealo ya boitshwaro ya dipatlisiso tse, o amogelesigile go itshwaraganya le ba Human Research Ethics Committee (Non-Medical) kwa Univesithing ya Witwatersrand, mogala +27(0) 11 717 1408, lekwalo la maranyane hrecnon-medical@wits.ac.za .

Ka boikokobetso,

Margaret Opelo Dennison

Moithuti:
Margaret Opelo Dennison, margaretdennison1@students.wits.ac.za, +267 74 643267

Mogakolodi:
Moporofesa David Coldwell, David.Coldwell@wits.ac.za, +27 83 684 5140

APPENDIX F: Consent Forms

National Level (National Disaster Management Office Management)

Title of project: Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: The Case of Botswana

Name of researcher: Margaret Opelo Dennison

I, ... , agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following: (Please circle the relevant options below).

I agree that there is no anonymity guaranteed as the researcher can see me and I may be identifiable based on my distinct role at the National Disaster Management Office however, my identity will not be revealed in the research report.	YES	NO
I agree that there is confidentiality guaranteed	YES	NO
I agree that the researcher may use anonymous quotes in her research report	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that the researcher may use information from any documents obtained from me in her research report.	YES	NO

…… (signature)
…… (name of participant)
…… (date)

…… (signature)
…… (name of person seeking consent)
…… (date)

District and village/ community Level (Commissioners and 10% of Village Development Committee chairpersons that do not have/ belong to umbrella Committees)

Semi Structured Interviews

Title of project: Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: The Case of Botswana

Name of researcher: Margaret Opelo Dennison

I, ... , agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following: (Please circle the relevant options below).

I agree there is no anonymity guaranteed as the researcher can see me *(except over telephone interviews)*, however, my identity will not be revealed in the research report.	YES	NO
I agree that there is confidentiality guaranteed	YES	NO
I agree that the researcher may use anonymous quotes in her research report	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that the researcher may use information from any documents obtained from me in her research report.	YES	NO

…… (signature)
…… (name of participant)
…… (date)

…… (signature)
…… (name of person seeking consent)
…… (date)

Translated Version (Setswana): Village/ community level only (Village Development Committee chairpersons who prefer using the Setswana language)

Semi Structured Interviews

Title: Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: The Case of Botswana

Setlhogo sa dipatlisiso: Go tlhatlhoba didirisiwa, ditsela le mekgwa e e dirisiwang ke badiri ba maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho mo Botswana.

Leina la moithuti: Margaret Opelo Dennison

Nna ke le, ..., ke dumela go tsaya karolo mo dipatlisisong tse. Ke tlhaloseditswe gore dipatlisiso tse ke ka ga eng ebile ke tlhaloganya gore go tsaya karolo ga me go tla dirwa jang le gore go raya eng. Ke dumelana le tse di latelang:

(Ka kopo rala ka go dikologa dikarabo tse o bonang di tshwanetse fa tlase).

Ke dumelana le gore ha gona jaaka sefatlhego same se ka bipiwa ka gore moithuti o ya go mpona (kwa ntleng ga ha e le tiriso ya megala), mme ga nkitla ke senolwa mo go kwalweng ga pego ya dipatlisiso.	EE NNYAA
Ke dumelana le gore moithuti o tla bipa kitso yotlhe e ke tla e mo fang.	EE NNYAA
Ke dumelana le gore moithuti o ka dirisa mafoko a ke a dirisetseng mo pegong ya dipatlisiso tsa gagwe mme leina la me le kitso e epe hela e e ka supang gore ke mang e sa senolwe	EE NNYAA
Ke dumelana le gore puisano e e ka kapiwa ka sekapamantswe	EE NNYAA
Ke dumelana le gore moithuti o ka dirisa kitso go tsweng mo dipampiring/ dibukana tse di	EE NNYAA

Tswang mo go nna, mo pegong ya dipatlisiso
tsa gagwe.

…… (monwana)
…… (leina la motsaya karolo)
…… (kgwedi)

…… (monwana)
…… (leina le yo o kopang tetla)
…… (kgwedi)

District level (District Disaster Management Committee members)

Focus Groups

Title of project: Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: The Case of Botswana

Name of researcher: Margaret Opelo Dennison

I, ... , agree to participate in this research project. The research has
been explained to me and I understand what my participation will involve. I agree to the following: (Please circle the relevant options below).

I agree that neither anonymity nor confidentiality can be guaranteed as this is a group activity however, my identity will not be revealed in the research report	YES	NO
I agree that the researcher may use anonymous quotes in her research report	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that the researcher may use information from any documents obtained from me in her research report	YES	NO

…… (signature)
…… (name of participant)
…… (date)

…… (signature)
…… (name of person seeking consent)
…… (date)

Village/ community level (Umbrella Village Development Committees)

Nominal Group Interviews Technique

Title of project: Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: The Case of Botswana

Name of researcher: Margaret Opelo Dennison

I, ... , agree to participate in this research project. The research has been explained to me and I understand what my participation will involve. I agree to the following: (Please circle the relevant options below).

I agree that neither anonymity (except if conducted over the telephone) nor confidentiality can be guaranteed as this is a group activity (except if conducted over the telephone) however, my identity will not be revealed in the research report	YES	NO
I agree that the researcher may use anonymous quotes in her research report	YES	NO
I agree that the interview may be audio recorded	YES	NO
I agree that the researcher may use information from any documents obtained from me in her research report	YES	NO

…… (signature)
…… (name of participant)
…… (date)

…… (signature)
…… (name of person seeking consent)
…… (date)

Translated Version (Setswana): Village/ community level (Umbrella Village Development Committee members who prefer using the Setswana language).

Nominal Group Interviews Technique

Title: Exploring the Concept of Strategy as Practice in National Disaster Risk Reduction: The Case of Botswana

Setlhogo sa dipatlisiso: Go tlhatlhoba didirisiwa, ditsela le mekgwa e e dirisiwang ke badiri ba maano a tebelopele a lefatshe a go fokotsa kgonagalo ya tiragalo ya dibetsa tsa tlholego kana tse di dirilweng ke batho mo Botswana.

Leina la moithuti: Margaret Opelo Dennison

Nna ke le, ..., ke dumela go tsaya karolo mo dipatlisisong tse. Ke tlhaloseditswe gore dipatlisiso tse ke ka ga eng ebile ke tlhaloganya gore go tsaya karolo ga me go tla dirwa jang le gore go raya eng. Ke dumelana le tse di latelang:

(Ka kopo rala ka go dikologa dikarabo tse o bonang di tshwanetse fa tlase).

Ke dumelana le gore ha gona jaaka sefatlhego same se ka bipiwa *(ko ntlheng ha go ka dirisiwa mogala*) kana dikarabo tsa me tsa nna sephiri ka gore puisano e, e na le batsaya karolo ba feta bongwe. Mme ga nkitla ke senolwa mo go kwalweng ga pego ya dipatlisiso.	EE	NNYAA
Ke dumelana le gore moithuti o ka dirisa mafoko a ke a dirisetseng mo pegong ya dipatlisiso tsa gagwe mme leina la me le kitso e epe hela e e ka supang gore ke nna e sa senolwe	EE	NNYAA
Ke dumelana le gore puisano e e ka kapiwa ka sekapamantswe	EE	NNYAA
Ke dumelana gore moithuti o ka dirisa kitso go tsweng mo dipampiring/ dibukana tse di tswang mo go nna, mo pegong ya dipatlisiso tsa gagwe.	EE	NNYAA

…… (monwana)
…… (leina la motsaya karolo)
…… (kgwedi)

…… (monwana)
…… (leina le yo o kopang tetla)
…… (kgwedi)