Public sector budgeting for Disaster Risk Reduction: Opportunities, challenges, and threats within the SADC region

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Abstract: The SADC region is prone and vulnerable to natural hazards and has a complex disaster risk profile. The region has sustained a number of disasters over the past decades which include recurrent floods, extreme drought and other climate induced hazards, such as cyclones that have had devastating impacts particularly on the Indian Ocean island states and east coast countries. To reduce the adverse effects of disasters, governments must invest in disaster risk reduction (Priority 3 of the SFDRR). However, interventions aimed at reducing social and economic vulnerability and investing in long-term mitigation activities are often few, poorly funded, and insignificant in comparison with resources spent on humanitarian aid, disaster relief, and post-disaster reconstruction. This study seeks to assess existing sources of funding for DRR within SADC Member States. The study applied qualitative research design with data collected through semi-structured interviews and focus group discussion. Respondents were selected purposefully and through snowball sampling with a total of 67 respondents from Botswana, Eswatini, Namibia, South Africa and Zimbabwe, participating in the study. Adequate funding of DRR is justified due to the high stakes in human life, damage to infrastructure, and economic losses resulting from inaction, as well as the potential economic gains resulting from unmaterialized catastrophic events. Findings from the study show that Member States face a myriad of challenges which altogether interact and result in inadequate financial provision for DRR both at national and sub-national level. This paper asserts the importance of a multi-pronged approach to address challenges and improve DRR financing in Member States. Efforts to address DRR financing challenges will need to target various actors at different levels of government.

Keywords: budget, finance, public sector, disaster losses, Southern African Development Community.

1. Introduction

Southern Africa is susceptible to extreme weather events with the most common being floods, large storms, droughts and wildfires (Davies-Reddy and Vincent, 2017). Disaster events such as cyclone Idai (2019) and cyclone Kenneth which affected Mozambique, Comoros, Malawi and Zimbabwe, and cyclone Eline (2000) which caused floods affecting Botswana, Zimbabwe and Mozambique and drought (1982 – 1984, 1991 – 1993, 2014 – 2017) have had huge human, economic as well as environmental impacts in the southern African region. Combined they have contributed significantly to the increasing trends in disaster losses [26]. The Southern African Development Community has experienced just over 150 disaster events, resulting in over 20 thousand death and affected an estimated 21 million people in the period 2015 – 2018 [1,12]. As such, the impacts of disasters are wide-ranging and affect multiple sectors [9,34]. To reduce disaster impacts, governments of the SADC member states must invest in disaster risk reduction (DRR) thus allocating budgets that will cover prioritised risk reduction activities.

The importance of dedicating resources, particularly financial resources to DRR has been emphasised in a number of reports and papers [25,26,42]. In Article 186 of the document "The future we want", the UN "invited governments at all levels, as well as relevant sub-regional, regional and international organisations, to commit to adequate, timely and predictable resources for disaster risk reduction in order to enhance the resilience of cities and communities to disasters …." [38]. However, spending on measures to reduce risk, by national and local governments remains insufficiently understood, both in scale and in effectiveness [42]. Similarly, interventions aimed at reducing social and economic vulnerability and investing in long-term mitigation activities are often few, poorly funded, and insignificant in comparison with money spent on humanitarian assistance and relief, as well as on post-disaster reconstruction [3,10]. As such, it is important to understand the dynamics of the budget process and the linkage between plans and budgets. This study investigated issues affecting public sector funding for DRR within SADC Member States in light of the high stakes in human life, infrastructure and economic losses and the potential savings resulting from unmaterialized disasters due to implementing ex-ante DRR interventions.

2. Public sector budgeting for DRR: Rationale and challenges

Seven years after almost all African states signed the Sendai Framework for Disaster Risk Reduction 2015–2030 (SFDRR), disasters still have a significant impact on the populations of Africa, their livelihoods, and the infrastructure on which they depend [40]. In the period 2018 – 2018, the continent experienced over 580 disaster events, resulting in 30 719 deaths affecting close to 60 million people. Apart from the physical toll exacted by disasters on vulnerable communities, disasters have also historically had a major impact on the economic sustainability of nations On the African continent, disasters have resulted in over US$3 billion of damages in the period 2015 – 2018 [1]. According the Goes and Skees [16], the cost of disasters to the GDP of a developing country can be as much as 20 percent greater than that of a developed country. This means that funds have to be diverted away from much needed projects and programmes that aim to address social vulnerability within at-risk communities such as unemployment, education, housing and sanitation, to fund response and reconstruction efforts [4,5,24]. The diversion of funds presents a serious obstacle to sustainable development and service delivery. The current *status quo* of disaster impacting heavily on the economies and development trajectories of low and middle-income countries will likely be exacerbated by the increasing frequency and intensity of disasters, exacerbated by climate change [7,35]. Africa could bear the brunt of a changing, climate-driven risk profile, with increases in droughts, floods, sea levels, animal diseases and subsequent pressure on food security, water resources, human health and agricultural systems [30]. Taken together, this could have a devastating impact on the lives, livelihoods and socio-economic sustainability of individuals and countries on the continent.

A crucial step to ensuring that disaster risk gets reduced and climate change adaptation implemented, is to ensure that national budget allocations for these activities are provided and supported by appropriate governance structures, human resources and political will [42]. International frameworks such as the Hyogo Framework for Action and its successor, the Sendai Framework for DRR (SFDRR), give impetus on the importance of providing adequate financing for DRR. For instance, the first priority for action in the Hyogo Framework, amongst other things, encouraged governments to "allocate resources for the development and the implementation of disaster risk management policies, programmes, laws and regulations on disaster risk reduction in all relevant sectors and authorities at all levels of administration and budgets on the basis of clearly prioritized actions" [2,14,37,41]. Similarly, Priority 2 of the Sendai Framework for DRR (SFDRR) in section 27 does not only encourage parliamentarians to support implementation of DRR by developing new or amending relevant legislation, but also emphasises that they set budget allocations that can lead to successful operationalisation of such legislation. In Priority 3, section 30 (a), the Framework encourages national and local governments to avail necessary financial and logistical resources to support development and implementation of DRR strategies, policies, plans, laws and regulations in all relevant sectors [39].

Section 30(b) of SFDRR advocates for governments to invest in risk transfer and financial protection mechanisms that would lessen financial costs associated with disasters and help speed up post-disaster recovery [39]. Whilst in Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction emphasis is placed on funding of specific interventions to improve preparedness and response capacities within countries". Apart from these specific funding directives and responsibilities placed on national governments, the Framework also recognises that funding support can be provided through bilateral and multilateral channels to those nations that lack substantial financial, technical and human resources for implementation of priority areas of the SFDRR [39]. The SFDRR makes it clear that disaster risk funding is a cross-cutting issue that is integral in achieving global risk reduction and resilience-building priorities.

Although international and national policies strongly advocate for national and local governments to fund DRR, the reality remains that many countries, especially those in low and middle-income regions, still struggle to avail the necessary funding for DRR [6,28,32]. Crucially, as outlined in the following sections, DRR is not a standalone issue, but rather occurs in association with related challenges such as lack of political will, human resources, coordination between government departments and institutional arrangements for DRR contribute to limited budget allocations for DRR activities and projects [6,17,23].

For DRR to attract funding, institutional and funding structures should form the foundation for successful DRR activities [6,33]. The institutionalisation of DRR relates to all policies, legislation and governance structures put in place to ensure successful operationalisation of DRR at national, regional/district and local government levels [16,43]. A crucial pattern that emerges from literature is that many countries have since the early 1990s taken steps towards creating policies, legislation and governance structures intended to guide implementation of DRR. This, is also true of most of SADC countries participating in this study, as most (except Zimbabwe) either have legislation, policy or frameworks in place working towards DRR goals. However, despite some of the progress made in the region much more needs to be done within existing legislation, policies and frameworks to clarify the mechanism (such as funding arrangement) that would operationalise the move from a disaster response orientation to a DRR orientation [13,15,23].

According to Holloway[20] clear changes in DRR policy and legislation allows line departments to incorporate DRR activities into their existing core functions. If DRR is not elevated to the level of a core function within line departments, it often remains an unfunded mandate [40].

Equally important, is the availability and competency of officials to be able to spend allocated budgets [8]. Manyena et al. [29] and Hagelsteen and Becker [17] highlight that human resources are crucial to ensure that financial and material resources are effectively utilised within DRR interventions. For instance, a country might have sufficient funds and materials to implement a DRR intervention, however, a lack of human resources would severely hamper ability to scale down interventions to local government level where most officials are needed to serve a community. Van Niekerk [40] agrees that these human and skill shortages often extend into line departments that need to play a role in DRM. This results in a situation where there are not only officials who cannot integrate DRR into their line function's day-to-day activities, but also staff that cannot spend existing budgets or advocate for greater budget allocations towards risk reduction activities.

Finally, in the absence of sufficient internal budget for DRR, most developing countries depend on external donors to augment budgets [19,21,32]. However, as Kellet and Caravani [25] suggest, external funding support has historically been biased towards response. For instance, from the period of 2002-2012 international aid for disaster related issues amounted to $106.7 billion globally. Of this amount only $13.5 billion was allocated to DRR, whilst $93,2 billion was allocated to response activities including reconstruction and rehabilitation [25]. Yodmani [43] argues that initiatives focusing on DRR, such as mitigation and prevention, are so poorly funded that they become almost insignificant in their impact. Holloway [20] and Linnerooth-Bayer and Mechler [27] posit that as a result of this dependence on external funding for disaster response, governments have become discouraged to invest in DRR, as response funding can be used to address other developmental issues. Van Niekerk [40] elaborates that reliance on international aid and development makes it increasingly difficult for developing countries to budget for DRR.

3. Research Methodology

This study applied a qualitative research design which allowed the research team to interact with participants who could convey their own experiences relating to the funding challenges and opportunities for DRR in participating countries [31]. To attain an adequate sample both purposive and snowball sampling were implemented in the study. The purposive sample of this study consisted of a selection of national officials from DRM institutions, government departments, NGOs, INGOs and academia that have extensive experience and insight into the economic implications of disasters and the financing of DRR within participating countries. Snowball sampling was also utilised to identify additional knowledgeable experts who were previously unknown by the research team. A total of 67 respondents from Botswana, Eswatini, Namibia, South Africa and Zimbabwe participated in the study. To obtain information from the sampled participants, open-ended questionnaires were formulated, and administered through face-to-face interviews and/or focus group discussions. The interview questions were aligned with the three main focuses of the research topic, i.e. DRR financing, CBA of DRR, and impacts of disasters on national economies.

The collected responses were analysed through thematic analysis and sorted into categories or topics for the purpose of bringing order, structure and meaning to the mass of collected data [21, 22,36] This data organisation process was guided by the eight steps as described by Tesch [36]These include, familiarisation with topic, distinguishing between topic and content, clustering topics, referring back to data, categorising and comparing data, coding, group data according to categories, and re-coding of data. Through this process the research team was able to align responses to the main focuses of the research topic.

The findings of the study are presented in the section to follow.

4. Findings

4.1 Disaster impacts and climate change

The majority of respondents indicated that disaster impacts experienced within Member States and across the region are multi-faceted. Respondents acknowledged that most of the disasters that affected the regions are of hydrometeorological origin (floods and drought) and therefore are influenced by climate change. The major impacts identified by the respondents are loss of lives, livelihoods and infrastructural damage. Consequently, disasters were said to often retard development in Member States as resources for developmental projects such as housing, sanitation and job creation are redirected to finance costly relief and response activities when disasters strike. In addition, respondents identified longer-term economic impacts, including loss of productive labour, disruptions in agricultural production capacity, slowdown in economic growth and loss of socio-economic development gains. The following statements provide insights into respondents' perspectives on economic implications of disasters;

> *…the 2014/15 drought caused the Eswatini government in the region of E3.6 billion, which is equivalent to about 7% of the country's GDP, in economic costs"* **(Government Official, Eswatini)**

> *Economic losses due to the impact of disasters have increased in recent years…public finances are jeopardised, poorest communities and large segments of the population disproportionately affected* **(Senior Official, Botswana)**

Respondents elaborated on the disproportionate impacts of climate change, especially within the agriculture sector which are affected by hydrometeorological and biological (pests and disease outbreaks) hazards. Both large-scale commercial and subsistence agriculture are negatively impacted by droughts and floods, especially in cases where farmers are not equipped to minimise the impacts on their livelihoods.

Most importantly, respondents indicated that currently there seems to be minimal consideration of climate change, and the risk that it poses, in risk reduction and infrastructural development projects. For example, in major road rehabilitation where materials used do not seem to cater for future climate variations, such as above-normal temperature levels, or flooding. Consequently, such development projects are at risk of being damaged or destroyed by climate-related hazards. This would lead to significant losses in economic, trade and investment into development projects.

4.2 Benefits of, and evidence-base for DRR investment

All respondents opined the benefits of investing in ex-ante DRR interventions. Views that when funds are spent on mitigation, preparedness and resilience, would lead to eventual decrease in the cost on response were confirmed by the majority of respondents. Respondents also suggested that where DRR forms part of development planning, sectors would not need as much education on DRR issues, and this would enhance opportunities for possible economic investment in the region, including resilience of various sectors. The following perceptions exemplify how respondents understand benefits of DRR investment;

> *There is an obvious need to emphasise investment into DRR adaptation and mitigation…for maximum benefit, DRR needs to be integrated into other sectors, such as housing, ensuring development is sustainable and future risks mitigated* **(Government official, South Africa)**

It was further suggested that in pursuit of DRR investment, the engagement process would bring together different institutions, thereby promoting a highly coordinated system with improved information-sharing. Respondents also indicated that there was poor evidence-base for DRR investment to make a case for DRR funding in respective Member States. Specifically, cost benefit analysis (CBA) in the context of DRR financing was generally not undertaken. However, the importance of conducting CBA for advocacy purposes, and to create evidence-base that informs DRR financing decisions, were acknowledged. Respondents indicated that the results of the DRR CBA could change perceptions especially for political leaders who are involved in the budgeting process. In this regard the evidence from CBA would guide investment decisions, physical planning, capital expenditure and maintenance programmes. Apart from CBA, respondents also identified state of disaster reports and disaster (risk) management plans as possible sources of evidence that could guide decision-making. Ultimately, this would advocate for DRR mainstreaming in the sustainable development context of Member States, many of whose economies are struggling. The following statement illustrates the common views encountered from the majority of respondents;

> *There is a dearth of information to inform proactive disaster planning and prevention, including a lack of cost-analysis. Furthermore, the national disaster plan should include state-of-disasters report to help inform funding decisions* **(Public Finance Official, South Africa)**

Participants also alluded to the usefulness of comprehensive pre-and-post-disaster recovery studies in creating an evidence-based body of knowledge for supporting adequate funding for DRR. In some instances, respondents indicated that although there were studies that were conducted, a gap remained in how findings from conducted studies such as annual vulnerability assessments and post-disaster reports were used to inform budget planning for future risks and hazards.

4.3 Perceptions on DRR funding in Member States

The study explored what provisions for DRR funding existed in Member States as outlined in the following sub-sections.

4.3.1 Sources of DRR Funding

Main sources of DRR-related funding were national governments, non-governmental organisations (NGOs) and bi/multi-lateral development agencies. Capacity of local government to provide funding for DRR is limited in all participating countries, as in some instances local government is mostly dependant on central government for their budget allocation and in others limited budgets collected through local taxation are diverted towards priority development activities (housing, water and sanitation). In some Member States DRR-related funding from government was enshrined within the particular Member States' legislation, for example in Namibia. In other cases, such as in Zimbabwe, government funding was still said to be biased towards response.

> *Namibia has a National Disaster Fund as provided for by the NDRM Act 12 of 2012. This fund is centralised in the Office of the Prime Minister and regional and local governments can request funds. Local governments may also budget for DRR but their DRR activities are coordinated by the Regional Council, through which they can request funds from the Disaster Fund.* **(Government official, Namibia)**

> *We do have external DRR funding from NGOs, but this is usually for small, short-term projects…DRR funding for long-term projects comes from government, but is implemented through various government sectors, for example large dam construction* **(Government official, Zimbabwe)**

A general trend across Member States was that there was no specific source of DRR funding and that when funds were identified for DRR, it was always severely limited. An additional challenge that emerges in determining of funding availed to DRR activities within SADC member states is the lack reporting by line departments of funding allocated to DRR related project. Due to a lack of understanding on what DRR entails, line departments often do not report some of their day to day activities i.e. dam-construction as DRR investment. Thus, it remains a challenge to gain a holistic picture pertaining to funding source and total investment into DRR.

4.3.2 Budgetary Allocations

In a number of Member States respondents stated that DRR was neither adequately nor consistently budgeted for, and they attributed that to bad economic situation in their respective countries. Some respondents indicated that a larger percentage of the budget allocated for Disaster Management is committed to operations. Within this "operations" budget an even high percentage of that budget is allocated towards administration. It was further stated in most Member states, budgetary allocations for disaster risk management were mainly contingency funds towards response, with little allocated for prevention, preparedness and mitigation. Some participants indicated that in some instances they believe that 95% of disaster management budget is allocated to response, as captured in the following statement;

> *Our annual budget for 2019 is 2 million dollars, of which $1000,000 is allocated for flood management program which is the core of our DRR work for the year…* **(Government official, Zimbabwe)**

> *There is no adequate funding for DRR at all, government usually budget for disaster response but when those allocated funds are not utilised, a portion may be re-channelled to support DRR.* **(Government Official, Botswana)**

Inadequate budget allocations for DRR were not only unique to the national government level, but were said to also exist at sub-national levels (i.e. provincial, district, local). Apart from struggling national economies, inadequate budget allocations for DRR were also attributed to lack of knowledge and understanding of how DRR forms part of, and should be integrated into, every-day functions at both national and sub-national government levels.

Personnel from a Ministry of Finance who were interviewed in this study explained that to them DRR financing is an emerging issue that still needs to be championed through advocacy so that it gains importance on the national development agenda. They argue that this advocacy will assist in incorporating issues of disaster risk in capital and infrastructure projects.

While for most Member States' budgetary allocations were said to be inadequate, the case was different for the Republic of South Africa (RSA). In the RSA respondents stated that at national level there was a DRR Unit which had a specific budget allocated to it. Hence, respondents noted that at national level they faced no challenges with adequacy of DRR budgets, with limitations encountered at lower provincial and district levels. The major challenges cited in DRR funding in RSA were operationalisation of allocated DRR budgets, and financial management of allocated funds. Similar challenges which ultimately hindered delivery of DRR services to communities, were also highlighted in the rest of the Member States.

4.3.3 Funding mechanisms and systems

This study also sought to assess the kind of DRR funding approaches that are used or preferred in the Member States. Respondents understood the need for DRR to be mainstreamed in different sectors and for those sectors to budget for DRR, because a centralised budget in the Ministry or department responsible for DRR will not be sufficient. Respondents indicated that sectoral budgeting would be the best approach to DRR funding, with Disaster Management institutions having a general oversight in terms of coordination and monitoring of DRR activities. Respondents also stated that sectoral budgeting for DRR would ensure line departments and local authorities had ownership of DRR and there would be increased implementation of funded DRR activities.

> *Each Ministry must have a budget line for DRR, this way disaster risk reduction will become a reality as more financial resources will be directed towards prevention, preparedness and mitigation. In this regard the role of the Disaster department will be to coordinate activities of the different department* **(NGO respondent, Eswatini)**

Different Departments should integrate DRR activities into their normal activities. As a consequence, the normal budget for that department will also be geared towards DRR. This is better than a central DRR fund that will cover a limited number of activities **(Government official, South Africa)**

In most Member States there were no existing funding mechanisms and systems specifically for DRR, although general financial management systems exist to guide government departments. Monitoring and Evaluation (M&E) mechanisms for DRR funding were not clearly articulated. Respondents referred to the application of the Public Finance Management Systems to monitor general budget expenditure. Respondents acknowledged that a sectoral approach to DRR funding required a robust M&E mechanism that would track DRR investment and expenditure and needed to be spearheaded by national disaster (risk) management institutions. Benefits of a robust expenditure and investment tracking system were stated as provision of evidence required by disaster (risk) management institutions to advocate for increased DRR funding from national treasury where necessary. Additionally, respondents shared that M&E of DRR funding could help Member States accurately report on DRR investment under the SFDRR. Respondents alluded to the fact that the monitoring mechanism is currently lacking in some countries, and the following statements capture existing scenario in the region;

Although programmes budget for DRR, there are no systems in place at national level to track if budget allocation leads to tangible DRR, for example it is difficult to show how building of infrastructure such as schools and flush toilets contributes to DRR. This monitoring mechanism is crucial as it will help us to motivate to treasury for increased funding as we would be able to show investing in DRR is a safe investment. **(Government official, South Africa)**

4.3.4 Capacity to spend funding

Participants from all participating Member States identified that some government institutions critical for DRR financing lacked the necessary capacity to spend their funding allocations. Some of the capacity gaps identified across Member States included project management skills, DRR mainstreaming knowledge and human resource. For example, in Eswatini respondents shared how there had been instances where relevant government departments had to return unspent funds to Treasury that had initially been allocated for DRR.

The statements below encapsulate the sentiments of the majority of respondents in the study.

Human resources and quality assurance form part of the problem. Funds have to be managed… you also need to have the right people with the right skills to do high quality work in DRR **(NGO sector, South Africa)**

If the department or Agency does not have the capacity to spend, this creates more problems for DRR as funds are not spent must be returned to Treasury. It is therefore important that the Disaster management officials have project management skill **(Senior Official Eswatini).**

Consequently, these capacity gaps were cited as contributing also to an inability of staff within disaster (risk) management institutions to ensure that DRR funding allocations are spent on initiatives to the benefit of targeted vulnerable communities.

4.4 Institutional provisions for DRR funding

To fully comprehend DRR financing in the SADC region, this study also assessed the institutional provisions for DRR financing in Member States. In that regard, the study explored what institutions were mandated with DRR funding at central and local government level.

4.4.1 National institutions for DRR

The study established that there are different institutional scenarios driving the DRR funding mandate in Member States. Some countries such as Eswatini have both a Disaster Management Agencies and a Department, while others have either an Authority, Agency, Centre or Department, while others still rely on Civil Protection institutions. Each institutional structure was said to have a bearing on DRR funding. For example, countries that were still using the Civil Protection approach, such as Zimbabwe indicated that main focus of their disaster (risk) management mandate was mainly on response, and funding corresponded with their mandate. Some respondents emphasised need for establishment of semi-autonomous organisations for DRR, to circumvent governments' bureaucratic inertia. This group of respondents argues that disaster risk management issues are sometimes time sensitive and therefore with the CEO having decision making powers, it is easy to implement risk reduction and response programmes.

> *I would recommend that disaster risk management be located in the highest office or in a semi-autonomous institution for efficiency and decision-making reasons,* **(Government official, Eswatini).**

In line with sentiments raised by respondents on sectoral budgeting for DRR, respondents also emphasised importance for disaster (risk) management institutions to play an active coordination role in harmonising plans for all stakeholders directly or indirectly funding DRR projects. For example, institutions for physical planning and infrastructural development were identified as key in championing DRR financing in integrated development planning, especially given that in most instances they received funds for DRR-related projects directly from national treasury.

4.4.2 Local governance structures for DRR financing

The study also probed the provisions for DRR financing at sub-national levels. This study identified that sub-national governments are required to specifically include DRR or DRR-related activities, in their plans and corresponding budget allocations given that disaster impacts are mainly felt at local and community levels. Respondents identified local authorities as having the mandate to finance DRR at local level. In some instances, local authorities were said to generate the bulk of their income from revenue collection from rate-payers (especially bigger urban centres). In such instances, rate-payers were said to have a stake in the local-level budget processes, with legislative requirements for budget consultative processes clearly outlined in some Member States. Respondents highlighted how local governments need to be transparent and accountable in their budgets as rate-payers demanded to see value for money. In instances where rate-payers perceived poor governance and inadequate service delivery, they were likely to discontinue payments for services even though this is unlawful. Ultimately, this meant that income to local authorities was reduced, a scenario that was said to likely *'affect service delivery components, some of which could also be addressing DRR, such as waste collection.'*

Although major DRR activities was said to be centralised at national government level, respondents acknowledged that at sub-national level, local and regional authorities should allocate funds for DRR. Examples were shared on how local authorities' functions, such as improved water and sanitation services and storm water drainage systems, addressed and funded DRR even though this was rarely mentioned as DRR work. However, respondents in Member States registered concern that information on disaster risk funds remained centralised at national level where the funds were often channelled towards disaster response activities.

Given that government sectors are guided by legal documents in the form of Acts of Parliament, there is need for the coordination role to be supported by appropriate legislative framework on DRR. Such legislation can also guide policy formulation and strategy development that will ensure that there is mandatory provision for DRR financing on the National Budget.

4.4.3 Importance of legal frameworks for funding allocations

Respondents indicated that legislation is important in making sure that DRR is adequately funded. They argued for the critical need to develop relevant legislation, policies and frameworks that are aligned with international frameworks. This study established that in general, existing legislation did not have specific provision for DRR funding in most of the Member States. Respondents stated that existing legislation mainly focused on provision for Disaster Funds or Civil Protection Funds, which many a times seemed to mainly cater for disaster response. For example, in Zimbabwe respondents estimated that current funding for pro-active DRR activities is less than 10% of the country's overall budget for Civil Protection. However, it was mentioned that a draft Disaster Risk Management Bill was in place which made specific provision for DRR funding. Although this could be a good starting point, respondents lamented the time it is taking for the Bill which was last revised in 2011 to be enacted, some citing *'bureaucratic fatigue chasing something that is taking so long to be put in place.'* From these views it is apparent that legislative gaps currently inhibit DRR funding in some Member States.

Respondents also highlighted that legislation has to give a clear outline on how DRR is to be funded at all levels of government. They stated that legislation needed to clearly articulate importance of sectoral involvement in DRR and funding provisions for DRR. In addition, some respondents argued that currently DRR legislation '*was not clear or extensive enough to ensure sustained funding for DRR.'* This lack of clarity in legislation contributes to lack of political will and 'bureaucratic bundling' of DRR funding. The following statement exemplifies some of the shortcomings of current legislation on DRR financing in Member States;

> *Legislation is necessary because it enforces implementation and action of the policies. Namibia has the NDRM Act, there is a Disaster Risk Management Policy, the National Development Plan 5 as well as the NDP5 Implementation Plan. However, these do not make provision for allocation of funding.* **(Government official, Namibia)**

Respondents further stated that existing or future legislative frameworks needed to reinforce the need for DRR to be aligned and integrated into other developmental activities at international, regional and local levels.

4.4.4 Political buy-in

Respondents identified political buy-in as critical in addressing DRR financing in Member States. Political buy-in was also said to be essential in addressing identified legislation gaps which hindered DRR financing in Member States. Most respondents from across the region highlighted that there was currently little political buy-in for DRR funding. It was argued that this lack of buy-in could stem from politicians' lack of knowledge of DRR, or a deliberate bias towards response activities which were said to often attract publicity. Countries such as Namibia and Zimbabwe emphasised the need for political leaders who enact national policies, and technocrats that implement them, to comprehensively understand DRR. It was highlighted that with improved knowledge on DRR, funding commitments could be improved.

> *If political leaders understand what DRR entails, they may be more willing to provide funding for DRR activities. The problem is that politicians understand the need for funding preparedness and response activities, but not the need for DRR funding.* **(Regional government official, Namibia)**

Sentiments were also echoed by technocrats that knowledge on DRR would address challenges encountered with certain political decisions that often create hazards, and increased risks. For example, low-cost housing provision for urban poor which often lacked accompanying service delivery giving rise to public health hazards was cited. Respondents recommended that creating awareness and engaging political decision-makers and policy-makers would require lobbying and advocacy by various players, such as DRR practitioners, civil society and grassroots communities who were at the frontline of disaster impacts. Ultimately, such engagement would contribute towards improving DRR funding.

5. Discussion

Findings from the study show that Member States face a myriad of challenges which altogether interact to result in inadequate financial provision for DRR both at national and sub-national level. Also, findings on disaster impacts and climate change were consistent with previous [4,25]. Furthermore, this study established the same concerns that Hochrainer-Stigler [19] and Van Niekerk [40] alluded to in their studies where they articulated long-term socio-economic losses, especially among vulnerable communities. In addition, findings on provisions for DRR funding in Member States are consistent with submissions made by other similar studies. De La Poterie and Baudoin [11] Kellet and Caravani [25] and Van Niekerk [40] are some of the authors whose research established inadequacy of budget allocations for DRR in a highly competitive financial context where countries pursued diverse development projects that required funding from the national fiscus. Also, Bendimerad [4], Cummins and Mahul [8] and Manyena [29] underscore importance of having financial, human resources and skills capacity in institutions mandated with DRR financing and implementation. Based on the findings of this study, this paper asserts the importance of a multi-pronged approach to address challenges and improve DRR financing in

Member States. Efforts to address DRR financing challenges will need to target various actors at different levels of government.

Findings shared herein also showed that there are capacity gaps in DRR knowledge among politicians and technocrats, especially those who are in non-disaster risk management institutions. Lack of knowledge on DRR was identified as a challenge that hindered financing for DRR. Thus, this paper submits that capacity development and enhancement could be a good starting point towards improving DRR financing. A robust capacity development programme targeting especially ministers and parliamentarians could be explored. A meaningful DRR capacity development programme would need to transcend across government level from national up to sub-national level. Ultimately, this paper proposes that this would usher in a critical DRR mainstreaming agenda for Member States and the region at large.

Furthermore, the findings presented in this paper support earlier findings by Linnerooth-Bayer [26] that currently DRR financing was not a priority agenda both at national and sub-national level, and is often carried out in ad-hoc and response orientated manner. Some respondents even stated that in the absence of advocates to champion the cause for DRR financing, it was likely to remain unconsidered. Based on these findings, this paper submits that there is a critical need for lobbying and advocacy in DRR. Lobbying and advocacy could be targeted at national and local levels by diverse actors, especially civil society who are at the frontline of disasters. A good starting point for lobbying and advocacy for DRR financing would be creation of evidence-based DRR. Findings of this study showed that there was little to no evidence from studies that was being used to present a good case for DRR financing. Where studies or assessments were being undertaken, for example vulnerability assessments, these were mainly said to inform response instead of including DRR as well. In similar studies by Benson and Twigg [5], findings highlighted existence of a weak evidence-base especially in developing countries where even CBA in the context of DRR were rarely conducted. Therefore, there is an apparent convergence of findings from this study with such previous studies.

It is this paper's submission that Member States need to conduct CBA for post-disaster recovery and development projects, and that findings from such studies need to inform DRR financing. Providing evidence for the status of DRR financing in Member States also requires that there are systems in place to track budget allocations and expenditures. The research suggests that while this may not necessitate creation of entirely new systems to be in place, governments may consider how DRR is specifically included in their public finance management systems. Such an approach could improve record-keeping and reporting on the SFDRR Monitoring Framework[41].

Schiper and Pelling [33] and Van Niekerk [40] accentuate that institutions should form the anchor of DRR funding. Emphasis on local-level institutions for DRR financing converge with findings by Zuma *et al*. [44] who state the importance of operationalisation of DRR at local level. Consistent with Botha and Van Niekerk [6] and Malalgoda *et al*. [28] findings of this study established that institutions struggled with DRR funding, especially where there were concerns about governance issues at local level. This study established that at national and sub-national level there was provision for DRR financing, which is in line with the SFDRR [39]) although other constraints explained in other sub-sections still remained responsible for challenges in DRR financing.

Holloway [20] emphasised that policy and legislation amendments were necessary to enable relevant institutions to conduct DRR specific and related work. Given that for some Member States such as Zimbabwe, legislation amendments have been protracted, this paper suggests lobbying and advocacy by civil society to push for enactment of relevant enforceable legislation.

With regard to issues on political by-in, deliberate bias towards response for its ability to enable politicians to garner political mileage was also established by Hagelsteen and Becker [18] and Schiper and Pelling [33]. This bias remains a challenge to DRR financing commitments in the region as espoused by this study. Propositions made by respondents that may help alleviate this challenge, such as identification and use of champions especially at grassroots level are similar to suggestions made by Botha and Van Niekerk [6]. This could potentially open new frontiers for DRR mainstreaming.

There is thus a need for a deliberate drive towards DRR mainstreaming and DRR-sensitive budgeting in the SADC region, especially given the disasters the region has to contend with and the corresponding harsh economic conditions in some Member States. It is high time that DRR mainstreaming and DRR sensitive budgeting are explored and this could be a new approach to DRR worth pursuing in the region. Pilot studies in a cross-section of the Member States could be considered.

Regional entities such as the SADC DRR Unit will also have to play a guiding role in ensuring that the DRR financing agenda progresses amongst its member states. Although regional organisations such as the SADC DRR Unit has no real authority and power to direct increased funding for DRR in Member States, it can focus on strengthening processes and relationships that could facilitate this. Specifically, the SADC Secretariat should focus on spearheading how governments and civil society elevate and champion DRR financing in individual countries and across the region. They should also make reporting on key process such as CBA compulsory for all member states' disaster (risk) management entities and provide avenues for peer oversight amongst member states (such as the DRR Peer review mechanism proposed by the SADC Regional DRR Strategy, 2019). The secretariat should also provide policy development support and inputs to ensure alignment between the need for DRR, and actual detailed financial and budgeting mechanism to operationalise DRR. Whilst these, small interventions by the SADC Secretariat will not solve all the issues relating to public sector funding of DRR in member states, it will give a solid foundation to move towards more holistic and sustainable modes of financing.

6. Conclusions and policy recommendations

The findings presented above, indicate that there is a myriad of challenges that subsume the funding of DRR activities within countries in the SADC region. Major issues raised by participants alluded to lack of institutional mechanisms for funding for DRR, absent human resources for implementing funded DRR activities at sub-national levels, deficient inter-governmental budgeting for DRR and lacking political will to fund DRR activities. As indicated in the theory and analysis presented above, these issues all have the potential to derail the effective funding and subsequent implementation of DRR within SADC region.

Member States must initiate legislative reforms that clarify specific mechanism and actions that inform the funding of DRR. Specifically, legislative amendments should focus on clarifying issues pertaining to funding to DRR at sub-national levels were disaster occur. DRR legislative reform would be a crucial first step in ensuring that the existing philosophical orientation towards DRR contained in legislative documents in the region, is realised through appropriate DRR funding provisions in said legislative documents. In lieu of chronic budget shortages faced by national disaster risk management entities in the region, legislative reforms should also mandate line departments to budget for, and integrate DRR into their day-to-day activities. Mandating line departments to budget for DRR, could also facilitate greater buy-in and understanding of the importance of DRR from such departments. CBAs should be conducted by disaster risk management entities in Member States on an annual basis. CBA would be useful tools in advocating for annual increases in budget allocations for DRR. Importantly, CBAs provide a scientific base for the benefits of investing DRR, which in turn can be used to lobby political actors to buy into and invest into DRR activities. Political will is needed in facilitating investment in DRR. Apart from the use of CBA to lobby for increased political support for DRR, Member States should launch extensive awareness and capacity building programmes focusing on stimulating the involvement of political office bearers in DRR activities at national and sub-national levels. Human resource (numbers and capacity) need urgent attention. Budget allocations should make provision for the increased employment of qualified disaster risk management professional, especially at sub-national levels. In conclusion, institutions responsible for disaster risk management must develop a monitoring system to identify all sources of DRR funding within each Member States. This will enable them to effectively coordinate all DRR activities.

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DISCLAIMER:

The findings, interpretations, and conclusions expressed in this publication do not necessarily reflect the views of the World Bank, the Executive Directors of the World Bank or the governments they represent, the ACP Secretariat, SADC Secretariat and the European Union. The World Bank does not guarantee the accuracy of the data included in this work.

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