

# A new implementation framework for disaster risk reduction policies and legislation for Cameroon: Designing policy for action

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## COMMENTS

The reader is reminded of the following important aspects of this thesis.

- It is submitted in journal article format, where five original research articles were written and submitted for publication. One article has been published while four are currently in press.
- The articles were authored by the candidate and the supervisor. The candidate acted as the main author and the supervisor served as the second author, providing inputs for all five articles.
- The main contribution of this thesis resides on the level of the Sendai Framework Target (e), as found in the appendix containing the National Strategy for Disaster Risk Reduction and Plan of Action, 2019-2025, in Cameroon.

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## SUMMARY

**Keywords:** Disaster risk reduction, Disaster risk management, Legislation, Street-level policy implementation, Policy into action, Strategy, Plan of Action, Cameroon.

Fifty-two years after the inception of the legal framework of the Cameroon civil protection law, which aimed to mitigate, prepare and reduce risk within the national territory, Cameroon is still lagging behind in terms of implementation of disaster risk reduction policies and legislation. Statistics show that more than 700,000 people have lost their lives, with over 1.4 million injured and approximately 23 million made homeless as a result of disasters occurring around the world. In the Sahel region, at least 23.5 million people – one in six - are expected to be food insecure, of which 6 million will need urgent food assistance. One in five children under five suffers from acute malnutrition while over 30 million are threatened by one of the deadliest armed group, Boko Haram, and now, the Anglophone crisis in the South West and North West regions of Cameroon. Cameroon is at the centre of humanitarian relief, refugee response and recovery planning in the Central Africa region, and Sahel as a whole in the last three decades. Paradoxically, the findings and results of this thesis show that Cameroon demonstrates very poor pro-activeness and efficacy in coordinating and implementing disaster risk reduction and management within its national territory.

Considering the endorsement of the Sendai Framework in 2015-2030, Cameroon was already a participant and member at the International Decade for Natural Disaster Reduction (IDNDR) meetings and also the Hyogo Framework for Action, 2005-2015. The actual efforts on the ground summated to crises management practices and emergency response where disaster prevention and management were based on “lip-services”, bureaucracy, bottlenecks and partisan politics rather than actual implementation of DRR policy into action. Wicked implementation of public policy for disaster risk reduction are felt at different levels, administrative units and the entire Cameroonian population whose lives lie at the mercy of anthropogenic or human-made disasters. The aim of this thesis therefore was to develop a new implementation framework for disaster risk reduction policies and legislation in Cameroon.

To address the purpose of this study, the thesis provided examples of implementation failures resulting from the current top-down approach. As such, the bottom-up / street-level and third generation of implementation theories are employed to provide concrete arguments on the theoretical framework used to design policy into action. This is aligned within the Words into Action framework of the United Nations International Strategy for Disaster Reduction (UN/ISDR).

The Concurrent Transformative Mixed Methods Research (MMR) suited the overall research design and analysis of the thesis. Given the highly normative nature of the research, this thesis by five articles consisted of either theory testing, case study, or developmental research. Implicitly, the thesis identified four critical components necessary for policy revision and change of legislation providing a model for amendment within a new disaster risk reduction framework in Cameroon. The importance of this thesis is not only limited to

the policy proposal plan to update existing laws and legislation within disaster risk reduction and management efforts in Cameroon, the annexed **Green paper**, which presents the **National Strategy for Disaster Risk Reduction and Plan of Action, 2019-2025** is expected to align Cameroon's goals towards the integration of Sendai Framework, Climate Change Adaptation (CCA and Sustainable Development Goals (SDGs). Based on the results of this thesis, it was recommended that the remaining four of the seven sectorial studies identified from the National Disaster Prevention and Management Programme (NDPMP) could be looked into for further research.

Three out of the seven targets, which were achieved in this thesis following the NDPMP supported by UNDP and the Cameroonian government were: i) revision of laws and regulations; ii) drawing up of an intervention national plan of action; iii) research on natural and technological risks and disasters. The thesis recommended that 1% of Cameroon's annual budget should be allocated for major disaster research and programmes annually as a prerequisite to address major risks and disasters throughout the national territory.

# CHAPTER 1

## 1. Introduction

Fifty two years after the Republic of Cameroon enacted Law No. 67/LF/9 of 12 June 1967, Section 11 and 18 of the Ministry of Territorial Administration /Department of Civil Protection MINAT/DPC (2002), the country is still lagging behind in terms of Disaster Risk Reduction (DRR) and Disaster Risk Management (DRM) policies, actions and legislation, despite the introduction of Law No. 86/016 of 6 December 1986 that reorganised the Department of Civil Protection (DPC) when it came to the country's disaster management.

Consequently, there is a wide lacuna between DRR practices in the public sector and implementation of public policy in relation to risk reduction and prevention within the national territory.

While drawing to some extent on critical international frameworks related to DRR and DRM, this thesis focuses on developing a new implementation framework for policies and legislation that impact on DRR and DRM in Cameroon. This study will endeavour to design and recommend relevant policies for action by decision takers and policy makers to carry forward as a green paper for deliberation at the macro level policy environment responsible of constitutional reforms and legislation.

In the midst of considerable challenges linked to public policy such as those outlined by Head and Brian (2008) as well as Head and Alford (2015), the present thesis endorses the vital significance attached to DRR, also when viewed in terms of international policies and commitments. These global commitments, indubitably relevant to Cameroon, include curbing the impacts of climate change, promoting Sustainable Development Goals (SDGs) and enhancing resilience to natural and anthropogenic hazards. Traces of climate change impacts and SDGs could also be identified with the Ministry of Economy and Regional Planning, MINEPAT (2009) from Cameroon's development Vision 2035. Undoubtedly, the close interrelationship between DRR and sustainable development (SD) was already recognised at the United Nations Conference on Environment and Development (UNCED) taking into account Agenda 21.

This **first Chapter** will provide reasons why the thesis focuses on designing a new DRR policy and legislation for Cameroon. This involves a contextualization that leads into a problem statement, followed by the theoretical framework underpinning the concept of DRR,

outlining the research process and methods, stating the research objectives and research questions, and delimiting the scope of the argument.

## **1.1. Contextualization and problem statement**

This section presents the orientation and problem statement of the thesis.

### **1.1.1. Contextualization**

Acknowledging the legislative efforts put in place by the Cameroonian government consistent with policies and legislations (see MINAT/DPC, 2002; Cameroon Government, 2008; and MINAT, 2015) regulating DRM, the present thesis nonetheless found lacunae and excesses such as lack of policies and enabling environment for DRR that complicate DRR and DRM policies and regulations in this country. Her efforts and initiatives to address risks, vulnerability and resilience to natural hazards and disasters are lacking owing to a history of crisis management and an emergency response model which is reactive and event focus.

According to WHO (2002:42) emergency response is sometimes a cyclical process, involving repeated assessment, planning, action and review, to respond appropriately to the needs and capacities as they evolve. It starts with an initial assessment (ORSEC Plan in the case of Cameroon) and may be triggered spontaneously by the disaster event, or officials may authorise the mobilisation of people and resources. Rapid and effective mobilisation is facilitated by proper disaster preparedness.

However, this reactive model caused dissociation between DRR practice and emergency responses where the former is predominantly practiced without any formal effective national disaster management structure covering the entire Cameroonian territory. This unfortunately has remained the case despite Cameroon's claims to institutional commitment to ensure civil protection from environmental, natural and technological disasters, commitments induced by its participation at the World Conference on Natural Disaster Reduction, held at Yokohama, Japan, from 23 to 27 May 1994 (Cameroon Report, 1999 ) and the more recent Fourth Declaration High Level Meeting for DRR in Cameroon, United Nations International Strategy for Disaster Reduction Africa (UNISDRAF *et al.*, 2015). The challenges have remained even as dozens of endorsements were made on several regional and international

DRR and DRM meetings. The question now is how many of these commitments constitute an integral part of Cameroon's development goals as mentioned in Vision 2035. For example, urban and regional development challenges which results to poor sanitation and degradation of the environment, squatter settlement, and uncontrolled urbanisation and planned housing in commercial towns and cities.

**Chapter 2** examines these challenges of merely reactive responses to disaster and the concomitant issues of development by analysing the status quo of DRR policies and legislations in Cameroon. This thesis will moreover critically analyse the existing policies and legislation around the DRM regulations in Cameroon as well as the actual DRR practice that has been implemented as measured, also, against international commitments. When viewed against the lacunae and general lack of effective legislation and practice around disaster reduction and management, then, the present thesis reconsiders standard procedures for policy development and implementation with a view to developing a new DRR policy to be implemented in Cameroon.

### **1.1.2. Problem statement**

According to United Nations Development Programme (UNDP, 2015) and World Conference for Disaster Risk Reduction (WCDRR, 2015) an increase in disaster risk and vulnerability presents the world with an unprecedented challenge: more than 700, 000 people lost their lives, over 1.4 million were injured and approximately 23 million were rendered homeless as a result of various disasters. At least 1.5 billion people were affected overall by disasters and the concomitant economic loss amounted to USD 1.3 trillion.

In the Sahel region, it is reported that at least 23.5 million people, that is, one in six, are food insecure of which six million will need urgent food assistance. One in five children under the age of five suffers from acute malnutrition, while other 30 million are threatened by one of the deadliest armed groups on the globe, Boko Haram (Lanzer, 2015). Within the last three years, over 1000 victims have died from the Anglophone crisis in Cameroon (2016 – date). At the time this thesis was written, thousands still suffered from malnutrition in the forest, premature birth, famine, lack of clean drinking water and food, loss of jobs, and fear

of the unknown grabbed several affected populations living in the anglophone regions of Cameroon.

On top of these major considerations and concerns, as **Chapter 3** of the present thesis will stress based on the findings of the present project, anthropogenic disasters, which comprise of technological disasters and protracted social conflicts, as indicated by the International Federation of Red Cross and Red Crescent Society (IFRCRCS, 1993), render populations in Cameroon even more susceptible and exposed to mortality rates than in the more usually-considered cases of natural hazards and disasters.

The present study has in fact established that the frequency of death rate in the case of anthropogenic (man-made) disasters ranges between 1-100, as opposed to natural hazards that ranges between 0 – 5 death for each devastation on human toll.

To address these challenges, as Llosa and Zodrow (2011) argue, legislation offers an important avenue, given that, in principle it forms a critical basis for effective and accountable action at national and local levels. Building on this notion, the present thesis carefully examines potential policy tools from the Sendai Framework (UN/ISDR, 2015) and the Hyogo Framework for Action 2005-2015 (UN/ISDR, 2005), tracing the roots of this potential to the International Decade for Natural Disaster Reduction (IDNDR, 1987), in particular IDNDR 1999: Articles 2(e); 6(a) and 6(b).

Historical analysis will furthermore be employed to examine DRR strategy and policy over the last fifty- two years of DRM in Cameroon. This will further aid not only in-depth understanding of the challenges involved, but will also point to potential remedies to be employed here as part of the new framework offered. Toward this ultimate end, the present thesis further draws on its necessary reviewing of how international policy tools have assisted, since the 1970s, the progress of establishing new DRR legislations and regulations at national levels. For instance, consider the policy formulated by the IDNDR (1999: Article 2(e); 6(a) and 6(b)):

IDNDR 2(e)

- that the historical piecemeal approach to natural disasters needed to be replaced with an integrated approach — one that would cut across natural hazards and would include planning, preparedness, prevention, warnings, relief and



rehabilitation and that a broader appreciation of the positive relationship between disaster reduction and economic and social development goals was required.

IDNDR 6(a)

- Comprehensive national assessments of risks from natural disasters should be integrated into development plans;

IDNDR 6(b)

- Mitigation plans of practical measures for application at the national and local levels should address long term disaster prevention, preparedness and community awareness;

With reference to this policy, which subsequently was replaced by the Hyogo Framework for Action, HFA (UN/ISDR, 2005), van Niekerk (2005) has demonstrated that they offer “soft-policy” options (see Lassa 2009) , which UN member states endorsed. These were expected to change the status quo of DRR practices of UN member states around the world. These changes in status quo were supposed to entail a shift from the formal International Decade for Natural Disaster Reduction (IDNDR) to the HFA (see IDNDR 1994:UN/GA Res. 49/22A and UN/ISDR, 2006).

As **Chapter 2** will therefore argue, a crucial paradigm shift from reactive to pro-active modes of disaster management was concretely intended when the HFA was adopted (UN/ISDR, 2005). Different institutions and nations, especially developing countries, optimized their DRR policies and legislation in connection with the adoption of the HFA in 2007. However, industrialized and first world countries enjoyed advanced legislation and regulations when it came to handling disasters and crises even before the HFA was established (see Amaratunga et al. 2017; Haddow et al., 2017:2; Benson and Twigg 2007). In Africa, it was only after its adoption that member states began embarking on DRR policies and regulations with the relative exception of South Africa who had earlier endorsed her much-discussed Act 57 of 2002 (see Van Niekerk, 2006). This South Africa Act 57 of 2002 ensured that disaster risk management policy in South Africa focuses on prevention and reducing the risk of disasters, mitigating the severity of disasters, which is based on a shift from reactive to pro-action for disaster prevention risk reduction.

In Cameroon, however, an already complex and lacking approach has been aggravated by the fact that even the very best of academic research meant for developing policies and regulations have scarcely been enacted into the legislation for implementation. The study cannot but agree with Lindsey (2012) that, particularly in some sub-Saharan countries (excluding South Africa, and since the late 2010s Botswana, Zimbabwe and Malawi), research has little influence on policy and, even when it does, there does not exist a neat, linear model of research-informing-policy-leading-to-change-on-the-ground. Some of the reasons for this dire and constraining situation are argued in **Chapters 4, 5 and 6**.

As could be expected, this challenge occurs in a context where historical legacies of power and interest as well as bureaucratic politics have been enshrined within the blood stream of public policy, administration and governance (see Moncrieffe and Luttrell 2005).

Indeed, not least as a consequence of the three-pronged problem around political self-interest, Cameroon moves from one reactive and response emergency plan called *Organisation de la Réponse de Sécurité Civile* (ORSEC plan) to another under the umbrellas of its National Contingency Plan (NCP), adopted in 2011 and revised in 2018. **Chapters 4, Chapter 5 and Chapter 6** raise pertinent and critical questions about the validity of the reactive models used in Cameroon. The implication of these challenges on the ground due to inadequacies in the current DRR policies entail critical factors such as the lack of preparedness to natural hazards (such as flood risks, landslides, and mass movements occurring at various localities within the nation) causing enormous human and financial costs to affected population, and the state. Increase in vulnerability to famine, poverty, loss of livelihood, and lack of capacity for DRR/M to address high risks prevalence within the state. More of this has been discussed within the entire articles from Chapter 2 to Chapter 6. **Chapter 4** asks to what extent these reactive or emergency response models, which are centralized and bureaucratic in nature can address DRR and DRM effectively in the country.

To pre-empt this discussion, consider that in spite of international emphasis on the fact that nations need to be pro-active in DRM activities, in particular around the HFA and the Sendai Framework, Cameroon still adheres to its National Contingency Plan (NCP) and ORSEC. Both of, which, as indicated, entrench a narrowly bureaucratic knee-jerk approach.

Given this, and having examined, as indicated, the status quo of DRR in Cameroon over the past fifty-two years seen in **Chapter 2**, the glaring ineffectiveness and poor coordination of disaster management processes are all too apparent. This thesis therefore presents the future of DRR policy and legislation to the Cameroon government in terms of two choices for the,

foreseeable future from 2019 to 2030: It either continues to play the illogical game within its DPC of maintaining a blind eye to the considerable, critical underlying risks, hazards and conditions of vulnerability within the national territory, or it finally accepts policy change and review of DRR laws, which resulting in a Green Paper for a National Strategy for DRR and Plan of Action (2019-2025) as proposed, on careful examination and consideration, appendix within the present thesis. A full version of this strategy and plan of action can be found in the annexure at the end of the thesis. Although this newly proposed national strategy for DRR and plan of action (2019-2025) is found in the annexure, it should be noted that it is an integral part and product of this thesis to contribute to the achievement of the Sendai Framework in Cameroon.

Apart from the Yaoundé Declaration (UNISDR AF, AU 2015), which stresses a call of a wide dissemination at regional, sub-regional, national and sub-national levels of the Sendai Framework, Africa Regional Strategy and Programmes of Action on DRR, little research, has effectively been offered or employed to develop DRM policy into action in Cameroon. Some of the reasons for this, Bang (2008) argues, can be summarised in two points: the traditional geo-physical hazard focus approach has dominated the empirical aspects of DRR implementation and practices; and an approach characterised by emergency responses and post-disaster recovery phases dominate DRM in Cameroon.

The present thesis therefore enjoys every reason to tackle the problem of DRR implementation in Cameroon which comprises of, but not limited to (excessive bureaucracy, top-down policy implementation, bottle-necks in local relief and humanitarian assistance, over-centralisation, lack of knowledge in DRR initiatives, strategies, actions, commitments, and policies. Exclusion of civil society, businesses, the private sector, academics, and DRR English speaking experts in the coordination and decisions of DRR/M at the national level), certainly also, in addition, in view of the perspective of conformity to institutional and policy change as expounded by Benson and Twigg (2007). For example, as they rightly argue, such conformity must leave room for mainstreaming DRR into development planning at the national and local levels of disaster risk governance. All in all, the main question of this thesis comes into focus thus. How should international commitments such as the Sendai Framework (2015-2030), Climate Change Adaptation (CCA) and SDGs (2015-2030) influence Cameroon's DRR policies and regulations? Based on the critical arguments presented within **section 1.1.1** and the current **section 1.1.2**, this study asserted that, Cameroon's DRR/M policy and legislations do not possess an enabling environment capable of integrating global international policies such as the Sendai Framework for Disaster Risk

Reduction (SFDRR). Thus, there is an urgent need to review and change the current DRR policy in use by Cameroon to create an enabling environment for DRR implementation, and other related international framework such as SD and CCA. An appropriate research design and methodology to investigate the causes and consequences of Cameroon's current DRR policies was therefore eminent to assess whether empirical data confirm or reject this hypothesis, and the theory used within this thesis.

As is clear, this question aims to focus the thesis by ensuring that the expected outcomes, goals and priorities are effectively integrated into Cameroon's DRM policy and legislation for efficient implementation.

### **1.1.3. Integrating international DRR commitments into Cameroon's DRR policy**

The Sendai Framework, that is, the successor to the HFA 2005-2015, as well as CCA and SDGs are the current international DRR bilateral agreements (De Guttery, Gestri et al. 2012), which Cameroon's DRR policies and regulations will have to integrate within its development planning activities and budgeting. This initiative is expected to address severe risks and destruction of livelihood in development planning and CCA. The first question here is what the inter- and intra-sectoral nature and characteristics are of laws governing DRR within the Republic of Cameroon? Are the laws flexible and feasible enough to integrate DRR related frameworks mentioned above? If not, what is the way forward? A systematic look at these questions points to the fact that any attempt to design DRR policies and regulations should consider CCA and SDGs in strategic areas of planning, especially when it comes to the Green Paper proposed in this study (see Annexures).

#### ***1.1.3.1. Institutionalizing DRR / CCA and SDG in development planning sectors in Cameroon***

According to Fofung (1998), the focal point within the Cameroonian government that was responsible for environmental issues was the Ministry of Environment and Forestry (MINEF). However, thematic overlapping, which is still present, separated Forestry and Wildlife from the Ministry of Environment to provide its new acronym. The present name,

used as of 2004, is the Ministry of Environment, Protection of Nature and Sustainable Development (MINEPDED). Conceived at the hand of the vision of the Rio Earth Summit (1992), it controls, supervises and co-ordinates activities related to the environment, especially in terms of biodiversity, climate change and SD. **Chapter 4** of this thesis highlights MINEPDED's evidence-based mandates and current strategic objectives to drive SD processes and the National Adaptation Plan for Climate Change (NAPCC) in Cameroon. This acronym is mostly used in French, reading *l'Observatoire national sur les changements climatiques* (ONACC) (MINEPDED 2009b), but the present thesis will use its English acronym, NAPCC. This plan is carried out with the collaboration of Reducing emissions from deforestation and forest degradation and enhancing carbon stocks (REDD+) and Global Water Partnership (GWP).

GWP has lauded Cameroon's progress in terms of climate change with a view to traces of indicators at regional levels. However, the results of the present project revealed that issues on natural hazards and disasters are considered ad hoc within the Cameroon context. This is explained to the fact that, even though Cameroon has made progress in managing climate change, in other words, that progress does not extend to the vital fields of disaster management in relation to climate change. Two factors explain this remaining problem: the lack of DRR integration within SD frameworks and parallel structures governing both climate change and DRR.

In spite of this progress made by MINEPDED, the challenging side of Cameroon's management remains for all to be seen: unsustainable development within its environmental management context and the built environment in particular (Munslow 1999; Fernando 2003), which poor urban solid waste management, lack of mandates to enforce environmental policies related to hygiene and sanitation, lawlessness and disrespect for policies and authorities in view of solid waste disposal and land pollution are just some of the important challenges in this respect (Aka et al. 2016; Nathanson 2017). This has increased vulnerability to flood and vector-borne diseases to some populations living in urban towns. When it comes to the matters of SD, DRR and climate change, the present thesis proposes that this sector, MINEPDED, will act as a major determinant to link all three related international DRR policies into action.

MINEPDED is the cornerstone of the three main pillars of DRM: natural hazards related to geological origin, climate change and sustainable development. Where necessary, MINEPDED is expected to play a strategic role towards changing DRR and interventions within development planning. Unfortunately, at the moment Cameroonian policy and

legislation guiding both natural hazards and crises management are absent within development planning. This turns the management of climate change and disaster risk within its NAP into a problem area instead of a solution.

In terms of functional capacity, the Ministry of Public Works (MINTP) and its related ministries operate in close collaboration with MINEPDED to mainstream DRR into development planning. These ministries can therefore aid MINEPDED in the new framework towards improved DRR and DRM. These Ministries include but are not limited to the following: Ministry of Agriculture and Rural Development (MINADER), Ministry of State Property and Land Tenure (MINDAF), Ministry of Energy and Water (MINEE), Ministry of Transport (MINTRANSP) and Ministry of Economy, Planning and Regional Development (MINEPAT) whose actions are critical to the built environment. Table 1 below presents some international policies and commitments related to DRR, CCA and SDGs, which Cameroon is signatory to and has endorsed.

**Table 1.** International / regional/ sub-regional environmental conventions ratified / adhere by Cameroon, which is related to DRR and DRM, CCA and SD.

Conventions	Signature: place / date	Date enforced	Cameroon - Ratified (R)/ Adhere (A)	Observation
<b>At the International level</b>				
International convention on civil responsibility in relation to hydro-carbon pollution from solid waste.	Brussels 29/11/69	12/8/84	29/11/69 14/5/84 (R)	
Conference on Environment and Human Development	Stockholm 1972			
Convention on biodiversity	Rio 5/6/92	29/12/93	14/6/92 & 19/10/94 (R)	
Convention on desertification	Paris 14/12/94		14/10/95 & 8/8/95 (R)	
Convention on the protection of the ozone	Vienne 22/3/83	22/9/88	30/8/89 (A)	
Montreal Protocol related to substances that deplete the ozone layer	Montreal 16/9/87	1/1/89	30/8/89 (A)	
Amendment of the Montreal Protocol	London 29/6/90	10/8/92	8/6/92 (A)	
Convention on climate change	Rio 5/6/92	21/3/94	14/6/92 19/10/94 (R)	
Kyoto Protocol to the UNFCCC	Kyoto 11/12/97	16/02/2005	28/08/2002 (R)	
<b>At the Regional and Sub Regional level</b>				
Convention and status in relation to the putting in place values of the Lake	22/5/64		22/5/64	

Chad Basin				
African convention for nature conservation and natural resources in Africa	Alger 15/9/68	16/6/69	15/9/68 29/9/78 (R)	
Revised African Convention on the Conservation of Nature and Natural Resources	-	-	-	Cameroon is not a signatory to this Convention 15/06/17
Convention relating Marine and coastal zones in West and Central Africa	Abidjan 23/3/81	5/8/84	23/3/84 1/3/83 (R)	

**Source:** Adapted and modified from (MINTP 2015)

At the national level there are specific legal and institutional frameworks on environmental protection in Cameroon Table as presented in Table 2 below.

**Table 2.** Specific legal and institutional frameworks on environmental protection in Cameroon.

Texts / Programme	Significance / Applicability to related environmental elements
1992	Creation of Ministry of Environment and Forestry (MINEF)
1977 MAB ( <i>Man and Biosphere</i> )	Underlines certain environmental problems
1984	Creation of an Environmental Unit at the Ministry of Territorial Planning
Law No. 96/12 of August 1996	Law relating to environmental management
December 2004	Creation of the Ministry of Environment, Protection of Nature (MINEP)
Decree No. 2013/0171/PM of 14/02/2013	Fixing modalities for environmental impact studies.
Decree No. 2013/0172/PM of 14/02/2013	Fixing modalities for the realization of social and environmental auditing.
Decree No. 2012/0882/PM of 27 March 2012	Fixing modalities for the exercise of certain competences transferred from the state to Municipal councils concerning environmental issues.
Decree No. 2012/2808/PM of 26 September 2012	Fixing modalities for the conditions of exercise of the functions of an inspector and controller of the environment.
Decree No. 2012/2809/PM of September 2012	Fixing modalities for the conditions of collecting, transporting, storage, treatment, recycling and final elimination of urban waste. This decree advocates the ecologically efficient management of wastes.
Decree No. 2011/2582/PM of 23 August 2011	Fixing modalities for protection of the atmosphere
Decree No. 2011/2583/PM of 23 August 2011	Regulating nuisances alarm and olfactory
Decree No. 2009/410 of 10 December 2009	Regulating the creation, organisation and functioning of the National Observatory for Climate change (ONACC)

**Source:** Adapted and modified from (MINTP 2015)

These Tables indicate that Cameroon began considering interest in environmental problems in the 1960s when it began to adhere to or sign international conventions relating to the environment.

Given that DRR and DRM cut across all sectors of the national territory, it becomes clear that only a few sectoral policies and legal frameworks have been selected by Cameroon. This is because DRR is not an integral part of development in Cameroon. This lack of selection offers yet another challenge for Cameroon's DRR and DRM, but those policies that were selected are valuable and worthy of further consideration. For example, Article 4 of ONACC articulates measures related to DRR and DRM as follows:

- to follow-up and evaluate the impacts of social, economic and environmental measures to prevent, attenuate and or adapt to negative effects and risks linked to climate change.
- to establish climate change indicators pertinent for the follow-up of environment policy.
- to initiate and promote studies that show evidences on indicators, of risks linked to climate change impacts.
- to initiate all action of sensitization and preventive information on climate change.

At the same time, the ONACC organ of MINEPDED has submitted its NAP for Cameroon to the United Nations Framework Convention on Climate Change, UNFCCC (2016). **Chapter 6** of this thesis will subsequently argue that Cameroon's operational disaster management instruments, namely ORSEC and its National Contingency Plan (NCP) of 2011 and 2018 are unfortunately incompatible with the NAP project and its plan of action. Molua (2009) rightly argues that the macro policy environment in Cameroon is described by limited government ownership of efforts to adapt to climate related risks, while it suffers additionally from limited financing for CCA as indicated by Hagelsteen and Becker (2013). One of the outfalls of this situation is that local government and surrounding communities remain responsible for household protection. Molua (2009) further argue that, disaster warning and preparedness should become a key aspect in Cameroon's response to climate related hazards in view of the coastal areas threatened by climate change extremes. However, as Table 1 illustrates, vulnerability and adaptation programmes are still lacking in Cameroon. This is aggravated by the absence of an institutional response system for natural hazards such as storms and floods, which does not only reflect the country's vulnerability to these events, but also highlights the



relative newness of the threats and the urgency that should be necessary to incorporate the changing environment into national policy plans (see Molua, 2009).

### ***1.1.3.2. Examining Cameroon Vision 2035 and international DRR policy related instruments***

Having looked at horizontal and vertical integration of DRR and CCA in the preceding sections, then, the present section will examine Cameroon Vision 2035 (see MINEPAT, 2009:57) and international DRR policy related instruments applicable to the country's territory. Cameroon's Vision 2035, which endeavours to address SD, environmental and ecosystems protection and the control of the impact of climate change. Examining this piece of planning, the following actions were identified:

- i. improved clean power supply to boost economic growth and stem the tide of climate change, notably by diversifying energy sources (wind, nuclear, bio-fuel, solar) and replacing fossil fuels by clean energy supplies;
- ii. enhancing the protection potential from the harmful effects of climate change, particularly by promoting SD and management projects of natural resources, approving funding mechanisms provided for by the Kyoto protocol (MDP, REDD, and so forth);
- iii. developing strategies aimed at reducing various forms of pollution (soil, water, air, etc);
- iv. improving drainage and solid waste management systems;
- v. the protection and sustainable management of ecosystems (soil, sub-soil, water, fauna, flora, marine and coastal ecosystems, forests);
- vi. improving disaster communication, information, warning and management mechanisms.

In conjunction with the global governance quest to curb threats such as climate change and the loss of ecosystems, the question should be posed: how can we meet the needs of the present without compromising the ability of future generations to meet their own needs? In response to this question Cameroon Vision 2035 argues that the Cameroonian population and its physical environment have already started experiencing the effects of climate change within the national territory. This is seen through the effects of the depletion of water reserves due to changes in the water cycle, degradation of rivers and streams, increases in the number and/ or intensity of storm events, continued and constant periods of low rainfalls and a rise in

temperatures. Moreover, desert encroachment in the Northern Region of Cameroon is already causing damage, hampering social development in the region (Bellefontaine, Bernoux et al. 2011). In response to these threats, environmental protection measures such as the Operation Green Sahel (Wakponou, Nizesete et al. 2008; Cheo, Amankwah et al. 2014; Runge 2014, Techoro and Schmidt 2014) has been launched by the government to plant 1.5 million trees mainly in the Northern and Western Regions where desertification is rampant. The purposes for this tree planting as emphasised by MINEPDED is to support forest landscape restoration in the Lake Chad Region in order to raise water levels, encourage sustainable agro-pastoral activities and conserve dwindling biodiversity. A benefit for Cameroon is its founding membership within the Central Africa Forests Commission (COMIFAC), which is actively committed to projects such as the Niger Basin and the Lake Chad Basin within the region. For example, the BIOSphere and Heritage of Lake Chad (BIOPALT) project protected by the United Nation Educational and Scientific Organisation (UNESCO).

In addition, themes such as adaptation, damage and losses to be discussed in further brief detail within **Chapter 3** of the present thesis, were included in arguments raised in Paris at the 21<sup>st</sup> Conference of Parties of the UN Framework Convention on Climate Change (UNFCCC) or COP 21, as seen in Cameroon's Press Kit on COP 21 (CameroonCivilCabinet 2015:2-10). Here, adaptation and resilience to climate change was stressed in relation to themes, which public sectors in Cameroon have decided to implement at the macro level of policy environment. This can be seen in the selection of public contracts for building dykes and elevated roads. According to the COP21 calendar of activities, the integration of the Sendai Framework for DRR within the macro policy environment is inscribed within the list. There is therefore a call for action in the macro policy environment to review and update DRR policies and regulations in order to integrate all three international frameworks mention within this study. This positive development of course needs to be critically examined but also used as impetus within the new framework to be proposed here.

Although Nachmany et al. (2015a:3) and Nachmany et al. (2015b:39), emphasised that Cameroon's Vision 2035 acknowledges the need for climate change considerations in national growth planning, REDD+ (2018) argues in contrast that Cameroon's Vision 2035 *does* provide a structure on how climate change is going to be operational within all sectors. This argument goes to show that although Cameroon endorses climate change in her Vision 2035 and development goals, Cameroon's macro implementation of actions anticipating

climate change risks is far from being attainable. Furthermore, DRR itself is mentioned within the calendar of items from the COP21 plan (CameroonCivilCabinet 2015:2-10) but Cameroon does not enjoy feasible and enabling environments for integrating the Sendai Framework. The country still advances the emergency and response model in its efforts to address natural hazards and disasters.

### ***1.1.3.3. Measuring DRR and sustainable development in Cameroon***

The manner in which Cameroon aims to achieve the SDGs involves the major contradiction of not linking DRR measures and efforts with development planning and budgeting. However, DRR and economic development are entwined, as argued by Guha-Sapir (2004) and as witnessed by Le Billon, (2000). Another contradiction centres on the fact that no official macro policy exists that links DRR and SDGs. These contradictions go against the grain, as **Chapter 2** will show, of Cameroon's commitments to international frameworks such as Millennium Development Goal (MDG) 7 aimed at assuring SD, the Johannesburg Declaration (2002), which was given mandate to implement existing commitments such as the Rio declaration and MDGs, also to make SD happen with concrete action plans, and Strategy 4 of the Poverty Reduction Strategy Paper (PRSP) of 2003, which were examined in the present study, all of, which carry the impetus of connecting SD and disaster management. It is ironic to realize that every year SDGs are celebrated by UN representatives without paying attention to the implementation and integration of their impetuses at country level in Cameroon.

The matter becomes even more complex and fraught with important challenges when one shifts the focus from national to regional levels. The United Nations Commission for Africa (UNECA) has revitalised the question of measuring SD since the advent of the Brundtland Commission in 1987 (UNECA, AUC et al. 2014). UNECA's position on SD indicators is that SD involves no less than a continuous process of growth and improvement in living standards, quality of life, productivity as well as educational, cultural and political well-being, while maintaining the quantity and quality of environmental resources (UNECA, AUC et al. 2014, UNECA, AfDB et al. 2015). Considering that among the 20 themes chosen as SD indicators for Africa, climate change variability as well as natural and human-induced hazards were shortlisted as core challenges and opportunities within the African continent.

By implications, SD progress in each member states according to this argument above would be measured against the extent of climate change and DRR integration within the context of SD achievements.

Table 3 below reflects the core of the United Nations General Assembly Resolution, UN GA Res. (A/68/970) that establishes the critical connections between DRR and selected outcomes on SD that are central to the argument of the present thesis.

**Table 3.** Brief summary linking DRR and selected outcomes on SD.

	<b>SDGs</b>	<b>Target</b>	<b>DRR references</b>
<b>Goal 1</b>	End Poverty in all its forms everywhere	<b>1.5</b>	By 2030 build resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extremes and other economic, social and environmental shocks and disasters.
<b>Goal 2</b>	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<b>2.4</b>	By 2030 ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.
<b>Goal 3</b>	Ensure healthy lives and promote well-being for all at all ages	<b>3.d</b>	Strengthen the capacity of all countries, particularly developing countries, for early warning, risk reduction and management of national and global health risks.
<b>Goal 4</b>	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	<b>4.a</b>	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
<b>Goal 6</b>	Ensure availability and sustainable management of water and sanitation for all	<b>6.6</b>	By 2020 protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
<b>Goal 9</b>	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	<b>9.1</b>	Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being with focus on affordable and equitable access for all
		<b>9.a</b>	Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, Less Developing Countries.
<b>Goal 11</b>	Make cities and human settlements inclusive, safe, resilient and sustainable	<b>11.4</b>	Strengthen efforts to protect and safeguard the world's cultural and natural heritage
		<b>11.5</b>	By 2030 significantly reduce the number of deaths and the number of affected people and decrease the economic losses relative to GDP caused by disasters, including water-related disasters, with the focus on

			protecting the poor and people in vulnerable situations
		<b>11.6</b>	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management
		<b>11.b</b>	By 2020, increase by x[number!]% the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters and develop and implement these changes in line with the forthcoming [full name if first use]HFA (Sendai Framework) holistic DRM at all levels
		<b>11.c</b>	Support least developed countries, including through financial and technical assistance, for sustainable and resilient buildings utilizing local materials.
<b>Goal 13</b>	Take urgent action to combat climate change and its impacts	<b>13.1</b>	Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries
		<b>13.2</b>	Integrate climate change measures into national policies, strategies and planning
		<b>13.3</b>	Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
<b>Goal 14</b>	Conserve and sustainably use the oceans, seas and marine resources for SD	<b>14.2</b>	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration, to achieve healthy and productive oceans
<b>Goal 15</b>	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation and halt biodiversity loss	<b>15.1</b>	By 2020, ensure conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
		<b>15.3</b>	By 2020, combat desertification and restore degraded land and soil, including land affected by desertification, drought and floods and strive to achieve a land-degradation neutral world

**Source:** Re-assembled by author Dia (2015) from [https://www.unisdr.org/files/42613\\_drrinsustainabledevelopmentoutcomed.pdf](https://www.unisdr.org/files/42613_drrinsustainabledevelopmentoutcomed.pdf). Retrieved 26/3/2018

Apart from Goal 5, namely achieving gender equality and empowering all women and girls as well as Goal 10, namely reducing inequality within and among countries which were not directly linked to Sendai Framework, the UN/ISDR reflection paper (UN/ISDR 2015b) accedes that the 2030 Agenda for SD should be lauded as a “universal, transformative and integrated development agenda” for all countries and all stakeholders to implement. The present thesis therefore emphasises the relevance and benefits of viewing the 2030 Agenda for SD through the lens of DRR and the Sendai Framework in particular. In other words, the concept of DRR and resilience as imperative parts of the developmental agenda should be fully exhausted for all countries and stakeholders, and this opportunity should further be used as a transformative tool to build a resilient future for 2030 with a view to the SDGs mentioned in Table 3 above. The Sendai Framework for DRR (2015-2030) envisages seven targets and four priorities for action shown in the box below.

**Box 1. Sendai Framework Targets and Priorities for Actions**

<b>Sendai Framework</b>	
<b>Targets</b>	
a)	Substantially reduce global disaster mortality by 2030, aiming to lower the average per 100,000 global mortality rate in the decade 2020–2030 compared to the period 2005–2015;
b)	Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 in the decade 2020–2030 compared to the period 2005–2015;
c)	Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030;
d)	Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030;
e)	Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020;
f)	Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030;
g)	Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.
<b>Priorities for Actions</b>	
Priority 1: Understanding disaster risk	
Priority 2: Strengthening disaster risk governance to manage disaster risk	
Priority 3: Investing in disaster risk reduction for resilience	
Priority 4: Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction.	

This Table provides impetus for the way ahead around DRR and DRM in Cameroon. A question that may guide this process is how a new national strategy for DRR and the concomitant plan of action should be designed for Cameroon to ensure that the outcome and priorities of this Sendai Framework are put into practice. Indeed, **Chapter 6** of the present study addresses this question. To achieve this, however, designing an effective policy for action on the macro level of implementation will be necessary. The section below subsequently provides an overview of policy implementation theories surrounding the implementation of DRR and management in Cameroon, starting with a brief discussion of the theoretical rationale behind such an overview.

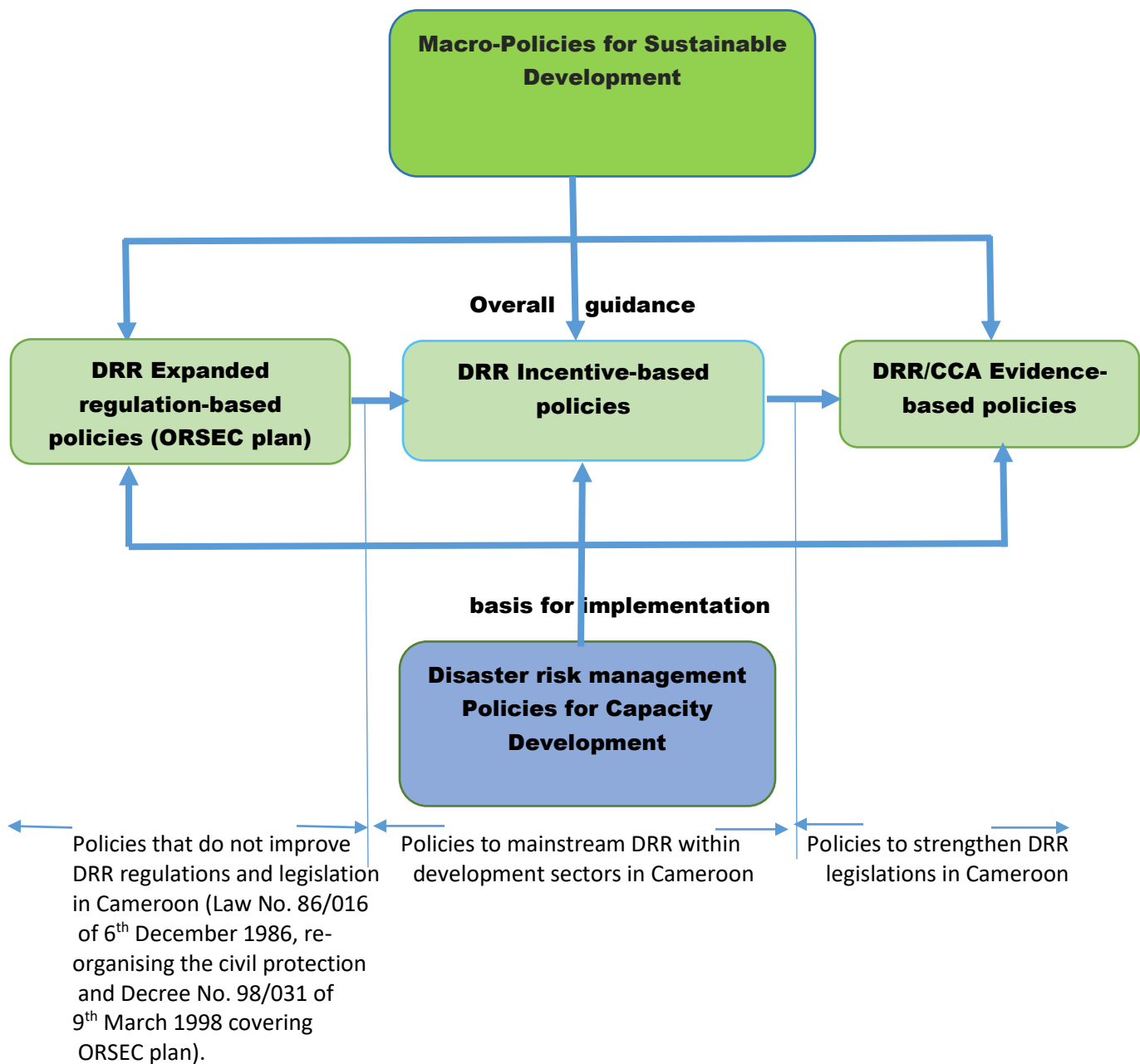
## **1.2. Theoretical rationale**

In the midst of considerable challenges linked to public policy in relation to the implementation (Head and Brian, 2008; Head and Alford, 2015) of DRR in Cameroon, Püzl & Treib (2006:89) emphasise that the process of “translating policy into action” (Barett and Fudge, 1981) attracted more attention because policies seemed to lag behind expectations. Cameroon’s policy aimed at DRR and management has critically lagged behind expectations over the past fifty-two years of re-organizing the Department of Civil Protection (DPC). Unfortunately, the 1986 legislative framework for DRR in Cameroon also has to be reviewed and amended as will be proposed here in **Chapter 6**. This is to ensure that it could fully integrate into practice the Sendai Framework and related international DRR commitments mentioned above (see **Figure 1**). Hence, the implementation of DRR policies such as the Sendai Framework, will entail the translation of the frameworks into practical tools for practitioners and policy-makers to ensure implementation of the legislation and regulations. This implies a change in the macro policy environment (see Figure 1) that has to be reflected in the long-term development plan, budgeting and legislative framework aimed at DRR.

Figure 1 below presents innovative policies adapted from Mori (2005) addressing macro policy issues in relation to DRR at the national level. The basic tenets of this policy formulation and implementation framework in terms of their relevance to DRR implementation are as follows:

- i. promotes policies that turn burdens into opportunities and weakness into strength
- ii. strengthens policies that can introduce new ideas and mechanisms that can prove to be effective





**Figure 1:** Illustrating policy formulation and implementation for DRR and related policy framework used in the present thesis. Adapted from Mori (2005).

Careful examination of figure 1 soon reveals a need for DRM policies that will strengthen capacity development in Cameroon, which, in its turn, will empower institutions responsible for

the coordination and implementation of DRR. This will enhance institutionalization of risk and DRR mainstreaming around development planning and budgeting. Commitments to a multi-sectoral and multi-stakeholder partnership approach, to be discussed in **Chapter 4**, is imperative in this regard, not least because neglect and exclusion will only lead to lack of education, training, research and information sharing for DRR within the national territory. Furthermore, expanded DRR regulatory-based policies such as the ORSEC Plan, to organize emergency and relief in case of major disasters or risks would entail changing and reviewing policies that are not compatible and coherent with those of related legislations such as climate change policies and SD. It therefore entails changing the current policies and legislations that is based on a reactive and military approach to one based on preparedness, prevention and risk reduction. Additionally, incentive-based policies will be necessary that integrate DRR as a means of providing public service goods within their development plan, policies and programmes. Here it is important to consider that each sector/ ministry should have a coordinator in charge of the DRR implementation programme. This is critical because, as the present thesis will demonstrate in considerable and brief detail, it involves enhancement of decentralization and DRR implementation in Cameroon. A fourth innovative element here is DRR and CCA evidence-based policies (Pawson, 2006). Every realistic welfare intervention programme aimed at effective DRR and CCA has to be grounded in clear evidence-based policies (Pawson, 2013) by ensuring mechanisms for planning, implementing and evaluating capacity building programmes within institutions. This matter of capacity building therefore adds a dimension to the complexity of the challenges facing DRR and DRM in Cameroon, to be discussed in **Chapter 4**. The fifth innovative element here involves macro policies for SD, which, as described here, form a “universal, transformative and integrated development agenda” for all countries and all stakeholders to implement.

### **1.2.1. Analysing the genesis, evolution and consequences of policy statements in Cameroon**

To understand Cameroon *in situ*, one must first recognize the influence of WWI, the collapse of the Ottoman Empire (1914-1918) and French and English colonialism. The latter colonialism was imposed in a ratio of 80 (French):20 (English). Intriguingly, Cameroon therefore shares a fate with Canada. After the post-colonial period, public policy and administration in Cameroon

has gone through several constitutional reforms (Ngwafor, 1995) including the current dispensation of the New Deal government of *La République du Cameroun*. In the vein of the account of Anna (2009), this thesis will argue that one of the major constitutional problems in Cameroon today emanates from the nature of her colonial legal practice and heritage from the pre-independent stage under several colonial masters and administrators. For instance, constitutional problems arise from the dual colonial heritage with a view to Cameroon's civil and common law where the fact of the two languages and their distribution play an important role. Indeed, at the time of this study fierce contradictory debates around re-unification, federalism and the unitary state are contested among stakeholders (see **Chapter 3 and Chapter 6**). The contestation occurs among civil society in the English-speaking regions, secessionists and the central government, which is dominated by a French heritage and the use of French. This historically-induced, bloody civil violence and the contested statutory quo of the unitary state (see Konings and Nyamnjoh 2003) has resulted, alas, in massive destruction of critical infrastructure, lives of the innocent and those of culprits, and the dignity of stakeholders. Never in the history of Cameroon, fifty-nine years after independence, has such a protracted conflict reigned her soil. It involves political tensions and violence, kidnapping, rape and the massacre of youths and the elderly as well as sporadic killings within the national territory. It has been argued that even after these political crises will be over, the Republic of Cameroon may never recover to be the kind of place that it was fifty-nine years ago.

As have been argued elsewhere in **Chapter 2**, and as will be discussed further in **Chapter 3**, the root cause of this conflict that has been going on since October 2016 is the neglect of underlying risk factors (UN/ISDR HFA; 2005) according to (HFA Priority 4) which include poverty, and inequality in particular which promotes: i) lack of capacity in the face of overwhelming constraints, and ii) lack of political will to include groups (such as Anglophone Cameroonians) who feel they have been marginalized. Reverting back to the parallel situation in Canada for the moment, where various texts are expected to be made available in both languages, for instance in the case of the Emergency Management and Civil Protection Act, Ontario Regulation 380/04. This act has been published in both languages. This has the major advantage of including the different language populations in decisions around risk management, and one expects that Cameroon will reflect on such actions and execute similar inclusive procedures where applicable with a view to improved DRR.

These arguments demonstrate that the dual legacy in Cameroon is likely to determine the future of the republican values that have been claimed since independence in 1960 with *La République du Cameroun* and the British Cameroon under the League of Nations. In practice, this situation significantly influences not only governance of DRR in Cameroon, but effective implementation and endorsement of the newly designed DRR policy and legislation, which will rely on the cooperation and collaboration of the political party in power, since that party will have to be inclusive for the policy to be effective. Chapters 6 and Article 4 pay special attention to this complex and frequently debilitating matter.

At the core of the matter resides the issue of paradigms that underpin transformation theory. In this respect, various factors such as historical heritage have prompted the present study to adopt a paradigm of pragmatism. Such a paradigm involves understanding research that always occurs in social, historical, political, and other contexts through a theoretical lens that is reflexive of social justice and political aims such as the transformative theory. Pragmatist also look for the "what" and "how" of research based on its intended consequences where they want to go with it in order to establish a purpose for "mixing," a rationale. For these reasons, quantitative and qualitative data need to be mixed in the first place rather than subscribing to only one way (e.g., quantitative or qualitative). Detail on pragmatism is discussed in Table 6.

### ***1.2.1.1. The paradox of public policy and market failure in Cameroon***

As Cochran and Malone (2005) and Mayer et al. (2013) argue, the field of applied policy research is broad, and no unanimous definition can be given of the definition of public policy. The present thesis therefore employs different definitions of public policy, which including “the overall framework within, which government actions are undertaken to achieve public goals”(Cochran and Malone 2005). Brooks defines it “as the broad framework of ideas and values within which decisions are taken and action or inaction is pursued by governments for solving complex and conflicting problems “(Brooks 1989). Dye’s definition of public policy is however particularly relevant to the present study: “whatever government chooses to do or not do” (Dye, 1976). This simple definition applies to the present study, because it addresses issues

related to public policy goods and service delivery for DRR and DRM which the government is expected to provide for through public administration and good governance in a democratic system.

**Chapter 5** will for instance employ this definition when it argues investment should be done in risk awareness and assessment including hazard analysis and vulnerability/capacity analysis across different regions, and environments where people's livelihoods and coping strategies have been deliberately blocked.

It has been argued that in the current dispensation of democratic reforms no government can afford to turn a blind eye to the plight of the people who elected them: they must address their concerns and keep their best interests at heart in welfare programmes and interventions (see Bratton and Mattes, 2000) Gyimah-Boadi (2004) Holdar et al. 2002; Maluleke 2011). These authors argue on the effectiveness of public service delivery at the macro and municipal levels of government, topics discussed in **Chapters 5**, asserting that the implementation or non-implementation of effective policies may lead to bad governance and decrease the likelihood for social and economic improvements, as is the case in Cameroon. One component of this multi-pronged challenge is that, as a result of problems on the macro levels mentioned, one is not likely to witness multi-sectoral and multi-stakeholder partnerships when it comes to DRR implementation, especially given the decades of bureaucratic politics and the centralized nature of risk governance, topics covered in **Chapter 4**. Without an inclusive and participatory approach to DRR, as will be argued in **Chapter 4**, it is almost impossible for Cameroon's DRR activities to move forward and attain any of the international targets discussed above. **Chapter 4** and **Chapter 5** therefore argue that there is a strong link between Cameroon's public service delivery and DRR actions based on the consideration of what government does or does not do. Unfortunately, DRR effectiveness continues to depend on an elite political culture, as **Chapter 5** will demonstrate in expansion of Williams (2011).

Considering that the challenges outlined here account for market failures towards public policy goods such as DRR policies and actions, one must carefully examine how and why certain public policy goods such as DRR are determined by the ruling party's choices about direct resources.

For instance, their choice not to recruit English-speaking DRR experts in the coordination of DRR activities at the civil protection department, exclusion of the civil society, businesses, academia, and private sectors at the national and sub-national levels of disaster governance, retaining instead a centralised exclusivity, ultimately means that the economy is vulnerable to disaster. Bækkeskov (2015) argues that market failure occurs when less welfare is created to deliver optimal results than could be created given the available resources. This means that the social duty of the government remains to correct market failures as is the case for DRR policies and regulations in Cameroon.

### ***1.2.1.2. Policy statements and institutionalization of risk reduction in Cameroon***

This is strongly argued that polycentric governance is an essential factor in achieving DRR implementation and mainstreaming of DRR within development sectors and planning in Cameroon. For example, the involvement of youths, the civil society, private sector, academicians, and a host of stakeholders in DRR practices, strategies, actions and trends will increase disaster risk reduction and prevention strategies within the national territory in Cameroon. The thesis therefore endorses Twigg's position that determined individuals can create significant innovations even in large organizations such as countries if sufficient space is available within institutional structures and systems (Twigg, 2004). One of the best means of getting statements, that will shape public policy towards institutionalization of risk reduction in Cameroon would therefore be raising awareness within interest groups through advocacy and buy-in by the ruling party.

### **1.2.2. Policy determinants and concepts**

To clarify some concepts around policy formulation and implementation used in this thesis with a view to Cameroon, key determinants and conceptual models for policy analysis should be highlighted. Policy analysis has been defined by Kraft and Furlong (2012) as the process of “determining, which of various alternative policies will most achieve a given set of goals in

regards to the relations between the policies and the goals”. These authors further distinguish between two major fields of policy analysis: a) analytical, which adopts a normative approach to viewing policies and proposals. This normative position concerns the goals of the present thesis, because the thesis attempts to develop a new DRR policy and legislation for Cameroon. b) Descriptive, which explains policies and their development. However, since the thesis does not focus on instruments used by policy analysts to shape processes within policy environments, it will suffice to state the different kinds of policy models (Birkland 2014): institutional; systemic; rational; bounded rational; incrementalist; game-related; optimal-normative; elite; group theoretical ; and the market exchange related.

### **1.2.3. Policy implementation: the process of designing policy for action**

It is widely accepted that no single research, philosophical paradigm or theoretical model underlies the branch of study called implementation analysis (Lennon and Corbett 2003, Mayer et al. 2013). This school of thought goes further to argue that there are no standard sets of questions that dominate this field. A theoretical framework will therefore subsequently be provided here towards implementation theories, which served as the foundation for developing a new DRR policy for Cameroon. The framework draws significantly on theories of implementation expounded by (Elmore 1979), Yudof (1980), Barrett and Fudge (1981), Sabatier and Jenkins (1998), DeLeon (1999), Hill and Hupe (2002), Maskin and Sjöström (2002), Palfrey (2002) and Barrett (2004).

Even as it will advance “implementation theories,” the present study mainly adopts Elmore’s Organizational Model (Osborne 2002:23-148) and the Action-Centred approach of Barrett and Fudge (1981), because it refutes and rejects outrightly the current top-bottom bureaucratic approach practiced by Cameroon to coordinate and manage risks and disasters throughout the national territory. While the latter creates room for designing [translating] policy into action. Designing policy into action therefore suits Elmore’s Organizational Model and Action-Centred approach. It should be emphasised here in this study that, policy formulation and development regulating actions of citizens are entirely in the hands of the state or party in power occupying the larger majority in the house of assembly where laws are being made and passed on for actions. This traditional “autocratic” top-down bureaucracy dominates policy development where

a monopoly of top-down power structure does not leave room for research-informing-policy-leading-to-change-on-the-ground (see Lindey, 2012). In practice, the coordination and management of disasters and risks is still stuck under excessive monopoly within one single Ministry / Department (MINAT/DPC) where Francophone bureaucratic elites have held DRR/M policies, practices, actions and commitments hostage, with little commitments to multisectoral, multidisciplinary, and inclusive approach to disaster risk governance. Policies developed for DRR/M over Fifty-two years are therefore dormant and reactive in approach given the bureaucratic, and elites political culture of partisan politics. Disaster risks as argued in this thesis, cannot function under such environment where marginalisation and exclusion of certain groups like English-speaking DRR experts are not engaged for policies within the sub-national and national levels of risk governance.

#### **1.2.4. Definition of implementation**

Based on its results and findings, the present study must necessarily judge implementation to be one of the most controversial, complex and paradoxical categories present within the social, environmental, political and economic environment where practices and policy are put into action. Nonetheless, in the simplest possible terms, implementation is defined by the standard dictionary as putting something “into effect according to some definite plan or procedure” (Hayes 2002). Fixsen et al. (2005) state that it implies “a specified set of activities designed to put into practice an activity or programme”. For others, implementation is the science, practice and policy of getting science into practice and policy (Schroeder 2011). The position of Fixsen et al. (2005) dovetails well with two approaches mentioned in the subsequent section of the present study, , which focuses on theories of policy implementation:

- the conditional or consequential matrix as presented in Figure 2, which holds that implementation can take place on a number of levels: that of the practitioner, the agency, or the community and
- the vital recognition that implementation should be designed or translated into policy and action.

According to Van Meter and Van Horn (1974:447-8), policy implementation “encompasses those actions by public or private individuals (or groups) that are directed at the achievement of



objectives set forth in prior policy decisions”. Hence, as Pawson (2006) rightly argues, policy implementation should be grounded in evidence-based practice. The present study adopts this to improve DRR policies and regulations, which are expounded on paper and at conferences, not least because these are treated in the manner of “lip service” with little or no effect on the actual implementation process.

In the field of political science implementation is part of the policy cycle , which is used for analysing the development of a policy item (Edwards, 2017). This policy cycle or “stages approach” may seem to be a linear process for policy implementation on paper but complex and intractable when it comes to implementation on the ground. Such a standard policy cycle may include the following stages: problem identification, policy formulation, adoption, implementation and evaluation. Using a deductive approach, this thesis will indeed focus on these stages. The next section elaborates on the usefulness of implementation theory in policy studies.

### **1.2.5. Relevance of implementation theory for DRR and DRM in Cameroon**

Consider the following statement made by early pioneers on the relevance of implementation theory for public policy:

There is (or there must be) a large literature about implementation in the social sciences- or so we have been told by numerous people [...] It must be there; it should be there; but in fact it is not. There is a kind of semantic illusion at work here because everything ever done in public policy or public administration must, in the nature of things, have some bearing on implementation [...] Nevertheless, except for the few pieces mentioned in the body of this book, we have been unable to find any significant analytic work dealing with implementation (Pressman Jeffrey and Wildavsky 1973:166).

The above statement affirms the relevance of implementation theory for public policy or public administration as a mandatory, and an indispensable element which must, and should be applicable to every subject matter on public policy and administration, as the case in Cameroon.

With a view to the brief analysis in preceding pages here of the genesis and history of Cameroon's policy statements and constitution and the contradiction involved in the relations between public policy and market failure within the national territory, implementation theories and their relevance for DRR and DRM in Cameroon as used in the chapters to follow will briefly be reviewed here.

As Yudof (1980) argues, implementation theories focus on consequences arising from the attempted implementation of policy choices, frequently referred to as "implementation research" (see also Pressman et al. 1973:166 and Berman 1978:157-160). Extending his definition, Yudof (1980) argues that at its simplest level implementation theory is committed to the examination of organizational compliance with particular policy directives such as those included, for example, in CCA policy and legislation, SDGs and the Sendai Framework for DRR.

The question here is why policy compliance with the implementation of these regulatory materials do not form a linear process as it appears on paper? An answer to this question could be inferred from the intractably complex policy social landscape, as demonstrated in Dennard and Morçöl 2008:1), with a view to a new understanding of complex adaptive systems (see further Coetzee et al., 2016a).

Scholars of political geography have argued that these complex adaptive systems (CASs) involve a dynamic and co-adaptive approach to policy analysis pertaining to welfare states (Archer 1981, Taylor 1982:15-34 and Kliot and Waterman 2015:10-16). Hence the usefulness of implementation research resides in its willingness to consider the intractability of complex adaptive systems and the considerable challenges in relation to public policy and market mechanisms that does not anticipate risk within the social and political landscape, as is the case, again, in Cameroon. Fifty-two years of disaster management policy inception, of which, thirty-two involved re-organizing civil protection around elements of preparedness, mitigation and prevention of risk, unfortunately show that Cameroon still lags behind when it comes to these elements of disaster management. Very few achievements of DRR activities have been mainstreamed in these periods. **Chapter 4** therefore argues that the NDPMP did not meet expectations due, as mentioned, to intractable and complex problems on policy implementation within the political environment of Cameroon. Consequently, with the designing of a new DRR policy and legislation for Cameroon as expounded in the pages of the present thesis,

implementation theory? becomes an important tool for adoption and anticipation of risk in the Cameroon contexts.

### **1.2.6. Implementation theory: normative standards**

Despite the fact, as has been argued, that no single paradigm undergirds implementation analysis, the approach used in this thesis will be normative, because it attempts to design policy into action. It is therefore necessary to examine what is termed implementation theory, especially in its context of game theory, because according to the game theory, the actions and choices of all the participants affect the outcome. In this context, the actions and choices of the Cameroon government in implementing DRR as a public service or not to, will affect citizens in her territory. Likewise the choice for stakeholders to choose whether or not to implement DRR actions in their community and neighbourhood. Palfrey (2002) argues that this area implementation theory, known also as economic theory, rigorously investigates the correspondence between normative goals and institutions designed to achieve or implement those goals. Chapters 5 of the present thesis examine and discuss this correspondence. For instance, a normative goal, also known as a welfare criterion, aims to prescribe how a situation should be managed with a view to good or bad conduct that will show good or bad results Mishan (1972). An example for the present study would be the normative goal of decentralizing disaster management so that lives can be saved instead of lost.

Since a normative goal or welfare criterion involves a particular class of problems or domain of environments, game theory is useful for the reason that it formally characterizes organizational mechanisms that will guarantee outcomes consistent with that goal. To do so, it assumes the outcomes of any of such mechanism arising from some specification of equilibrium behaviour (Palfrey 2002). Maskin and Sjöström (2002) concur that the problem of implementation is a problem of designing mechanisms which involve game theory such that the equilibrium outcomes satisfy a criterion of social optimality embodied in a social choice rule. Maskin and Sjöström (2002) point out that, whether or not a social choice rule is implementable may depend on, which game-theoretic solution concept is used. Thus, it becomes clear that what is known as game theory can be enormously useful to the theoretical approach that the thesis adopts. Game theory envisages organisational mechanisms that will guarantee outcomes consistent with goals.

For instance, game theory foresees and helps formulate decentralizing mechanisms that would actually meet the objective of decentralization and more efficient disaster management leading to a decrease in mortality rates.

These, then, are important considerations in designing a policy for action with a view to a framework towards a new DRR policy and legislation in Cameroon. A mechanism or game form is necessary where players are members of the society while the state guarantees an equilibrium of outcomes (see Maskin 2008) by setting normative goals and equilibrium behaviours related to the institutionalization of risk reduction in Cameroon. Although the adoption of this kind of position has been criticized by Elmore (1979), the present study has found it to be valuable, not least because implementation theory is seen as a multi-faceted discipline with implementable connections with game theory, as argued, for instance, by deLeon and deLeon (2002:468). The thesis has relied extensively on the position of implementation theory as agreed by proponents of public policy and administration, as discussed within the next section.

### **1.2.7. Theories of policy implementation**

The present study, then, is significantly grounded in theories of implementation as argued in most of its chapters. **Chapter 4** suggests that DRR actions and activities should be integrated not only within educational curriculums, but by professional higher institutions such as the Higher Institute of Magistracy and Administration (ENAM), which should be one of the strategic public administrative institutions within Cameroon (Schofield and Sausman 2004:235) to integrate DRM within its curriculum. Given that the overall purpose of this study is based on policy change (see Jenkins 1978:203) for DRR legislations in Cameroon, it could be argued that the process of designing policy for action draws fundamentally on policy implementation theories. Pülzl & Treib (2006:89) throw more light on the history and origin of some of these implementation theories by discussing examples of implementation failure, as is the case in Cameroon's DRR policies and legal framework endorsed in 1967 and again in 1986.

### ***1.2.7.1. The rational -technical top-down model***

This is the dominant centralized and bureaucratic model being used in Cameroon's public policy and administration. **Chapters 4 and 5** address challenges posed by this approach when it comes to coordination and implementation of DRR initiatives, policy and practices in Cameroon. The rational-technical top-down approach as expounded by Pressman Jeffrey and Wildavsky (1973:166) and Van Meter and Van Horn (1974:447-8) advocates for policy implementation as the execution of decisions within hierarchy from the top down. This approach, as shown by Bardach (1977), Sabatier and Mazmanian (1980:544), Sabatier (1986:22) and Sabatier and Mazmanian (1995:153) perceives implementation as on that "automatically" (Brynard 2005:6) controls the internality and externality of the policy once it has been proclaimed. The most dreadful problem here, as Elmore (1979) points out, is the unquestionable assumption that policymakers control the organizational, political and technological processes that affect implementation, as in the case of DRR and DRM in Cameroon. For instance, as has been mentioned in a different context, the dominant control within the centralized and bureaucratic model of government in existence over fifty-one years in Cameroon failed to develop, design or translate public policy goods related to DRR and DRM for actions within the national territory. As has been pointed out, once more, Cameroon still relies on the ORSEC Plan and/ or the NCP, which are reactive rather than risk anticipatory, reinforcing the importance of Elmore's critique, which rightly speaks of the "noble lie" of conventional public administration and policy analysis. Indeed, risk governance as will be argued **in Chapters 4 and 5** will rarely succeed in creating non-democratic societies where civil society, businesses, community groups and private the sector are included within DRR policy formulation and implementation processes, resulting in skewed, disproportionate and exclusionary practices that lead to inefficient disaster management.

### ***1.2.7.2. Interpretive bottom-top model (Street-level discretion)***

For the reasons to be expounded, Chapters 1 to 5 will argue for and use the adoption of this model. As has been shown by Lipsky (1980:76), Rein (1983:117-118), Lipsky and Smith (1993:382), this approach challenges the top-down implementation theory, conceiving of

implementation as a process of interpretation and delivering services to programme or policy recipients on diverse localities and situations (see Elmore 1979) by “street-level bureaucrats within different organizational settings” (Tsang 2013:6-7). For reasons explained below, this thesis employs both Elmore’s Organizational Model (Osborne 2002:23-148, Tsang 2013:6-7) and Barrett and Fudge’s Action-Centred Model (Barrett and Fudge 1981) as part of its analysis to translate or design DRR policy for action in Cameroon.

### ***1.2.7.3. Richard Elmore’s Organizational Model***

This model divides implementation theory into four sub-models (Yudof 1980) to assert, which that one of the vital features of policy implementation is “the process by, which policies are translated into administrative actions [while] the translation of an idea into action involves certain crucial simplification”. Hence, knowledge about the Organizational Model (see Osborne 2002:23-148, Tsang 2013:6-7), which that policy implementation agencies should subscribe to, is vital to understand the policy implementation process. The structure and ways into, which the Organizational Models could be translated into policy are represented in Table 4 below.

**Table 4. (Source: Modified from Osborne 2002 and Tsang, 2013).** Summary of Elmore’s Organizational Model and ways of translating or simplification of policy implementation within institutions and organizations.

	<b>System Management Model</b>	<b>Bureaucratic Process Model</b>	<b>Organizational Development Model</b>	<b>Conflict &amp; Bargaining Model</b>
<b>Central Principle</b>	Hierarchical control	Discretion and routine	To satisfy the basic psychological and social needs of individuals for autonomy and control for the purposes of the organization	Individuals and subunits compete for relative advantage in the exercise of power and allocation of scarce resources.
<b>Power Structure</b>	Subsystem management	Fragmented and dispersed	Minimize hierarchical control and distributes responsibility for decisions among all levels of the organization.	Never stable. May depend on financial, specialized knowledge, control of material resources and capacity of manipulation exerted towards others.

<b>Decision Making Procedure</b>	Rational value maximizers	Controlling discretion changing routine	Creation of effective work groups	Bargaining within and among organizational units.
<b>Implementation Process</b>	Defining detailed set objectives that accurately reflect the intent of a given policy, assigned to subunits. Implementation always goal-directed and value maximizing.	Identifying where discretion is concentrated and , which organizational repertoire needs changing and devising that represent the intent of policy and inducing organizational units to replace old routines with new ones.	Consensus-building and accommodation between policy makers and implementers.	Complex series of bargained decisions reflecting the preferences and resources of participants.

**Table 4. above summarises** Elmore’s organizational model and ways of translating or simplification of policy implementation within institutions and organizations. The section below analyses policy implementation tools from Street-level policy implementation and Elmore’s organisational model of translating or designing policy into action.

**1.2.7.4 Street-level discretion as a tool for policy implementation**

It is necessary to stress the significance of street-level discretion as pointed out by Elmore (1979):

If leaders exert but little influence on the actions of subordinates, then one of the axioms of democratic government ceases to apply [...] democracy in the modern state pre-supposes that changing a handful of officials in high places will ultimately change the actions of thousands of employees throughout the system.

The above citation evokes the challenge of implementation as a process of hierarchical control. Thus, to get Cameroonian DRR policy designed and translated for action, the author proposes that one of the key processes should involve *changing policy and changing a handful of officials in high places within the complex, intractable and distressing public administrative systems in Cameroon*”. This “handful of officials in high places” pay only “lip service” to representing the Cameroonian population in matters of risk reduction and prevention, whereas evidences and practical implications demonstrate a lack of these. Against this backdrop, considering the street-level bottom-top model serve to further underscore how hierarchy

increases the probability of failure. In short, there is a need for an alternative model involving street-level discretion when it comes to policy implementation, and the present study will embrace this.

#### ***1.2.7.4. The third generation of implementation theory***

A new generation of scholars focusing on policy implementation emerged in the late 1970s and early 1980s (Goggin, Bowman et al. 1990:18) with the objective to synthesize the rational top-down and bottom-up approaches. The concern of these scholars was not policy failure but rather the mentioned synthesis forms of coalition, structuration, networking, institutionalization and learning, that would allow various parties in a specific policy domain to strive to realize a policy, programme or project (Jenkins 1978:203, Barrett and Fudge 1981, Giddens 1984:377, Sabatier and Jenkins 1998, Barrett 2004).

#### ***1.2.7.5. Barrett and Fudge's Centred action-centred approach***

**Chapters 2 to 5** use this model to be discussed here. Barrett's and Fudge's central thesis holds that implementation should be viewed as an integral and continuing part of the political policy process rather than merely an administrative follow-up procedure (1981), as seen in the case of Elmore's policy-action dialectic on negotiation and bargaining between those who put policy into effect and those upon whom action depends. The approach also challenges the existence of hierarchical relations in policy making and implementation. Thus, this approach regards policy implementation as performance rather than compliance. Influenced by Giddens's theory of structuration of (1984:377) this approach regards policy implementation not as a linear progression of policy to action, but as recursive and ongoing process of actions and responses.



### ***1.2.7.6. Sabatier's advocacy coalition framework***

**Chapters 4 and 5** further discuss and use this model. Harrowing public policy problems in relation to DRR and DRM implementation constitute part of the fundamental problem, which this thesis attempts to address through the lens of policy change. As such, employing the Advocacy Coalition Framework (ACF), as set out by Sabatier and Jenkins (1998), should add value to examining the relevance of implementation theory. It seems logical to assume that participants in the policy subsystem hope to influence it, while they must therefore specialize in a particular area of interest (Hecl 1978, Sabatier and Weible 2007:189-210). This specialization would enable them to translate their belief systems into actual policy before their opponents can do the same. The core belief, as stated again by Sabatier and Weible (2007:189-210) is that:

- policy participants will seek allies among people who hold similar policy core beliefs, including legislators, agency officials, interest group leaders, judges, researchers and intellectuals from multiple levels of government;
- coordination involves some degree of working together to achieve similar policy objectives;
- advocacy coalitions provide the most useful tool for aggregating the behaviour of hundreds of organizations and individuals involved in a policy subsystem over periods of a decade or more.

Sabatier (1988:129-168) subsequently provides three premises for the ASEE:

1. Understanding the process of policy change and the role of policy-oriented learning requires a period of a decade or more.
2. The most useful way to think about policy change over such a timespan is by focusing on “policy subsystems”, that is, the interaction of actors from different institutions interested in a policy area.
3. Public policies (or programmes) can be conceptualized in the same manner as belief systems, i.e. as sets of value priorities and causal assumptions about how to realize them.

It therefore stands to reason that Elmore's Organizational Model (Osborne 2002:23-148) supported in Yudof (1980), which asserts that one of the vital features of policy implementation is "the process by, which policies are translated (designed) into administrative actions" (see also Tsang 2013:6-7) embodies a crucial contributor to the bottom-up perspective. In addition to these theoretical contributions when it comes to implementation theory, the action-centred approach of Barrett and Fudge (1981) and the Advocacy Coalition Framework of Sabatier and Jenkins (1998) contribute to relevant arguments in a third generation of implementation theory, which the present thesis outlines.

Empirical findings presented here in **Chapters 2 to 5** indubitably demonstrate that there is a need to develop a new implementation framework for DRR policies and legislation in Cameroon, and this theoretical framework enables the present thesis to summarize previous data and guide the future course of action. Having analysed the existing knowledge as a background to the thesis, it will provide a suitable research design and methodology, which will ultimately lead to the attainment of the goals and objectives that it projects. The latter are discussed in brief closer detail within the subsequent section below.

### **1.3. Research design and methodology**

The present thesis, then, forms part of a larger overarching project to develop a new implementation framework for DRR policies and legislation in Cameroon. The author employed a mixed methods research design (MMR) to achieve the aims and objectives of this study, namely to be a full form of research (see Figure 4). The author ultimately employed different types of methodology in different articles (now chapters). Brief elaboration on this situation is therefore necessary.

As seen in the background and context of this study, literature was drawn from two broad categories. They included but were not limited to literature relating to Elmore's Organizational Model (Osborne 2002:23-148, Tsang 2013:6-7) and the third generation of policy implementation theories (Barrett and Fudge 1981, Goggin, Bowman et al. 1990:18, Sabatier and Jenkins 1998), thus leading to a methodological approach of mixed methods research, not least since this provides a pragmatic context for the development of a new DRR framework for implementation in Cameroon. As argued in the last paragraph of the theoretical section (**section**

**1.2.7.7)**, Hill and Hupe (2002) stress that Elmore should be seen as amongst the first synthesizers within the domain of policy implementation, because of his emphasis on the use of multiple theories to arrive at an alternative policy for implementation. That is, according to Hill and Hupe (2002), Elmore encouraged the use of triangulation, that is, using different theoretical models in a quest to achieve a satisfactory explanation of what happened in a given situation.

Before discussing the philosophical assumptions underpinning this research and its validity for contributing to knowledge, this section begins by stating the objectives and the research questions guiding this thesis. Notwithstanding debates on the dilemma of using the mixed methods research (Symonds and Gorard 2008), it should be noted that the research questions and theoretical framework formulated for this study justify MMR . An MMR design was necessary to achieve the objectives of this study, because of the questions which the present thesis attempts to address Therefore, there was no question of selecting only a qualitative or quantitative research design for the entire study.

### **1.3.1. Research objectives**

The following objectives were developed and considered for this thesis:

**RO 1:** Examine the status quo analysis of disaster risk reduction in Cameroon.

**RO 2:** Evaluate Cameroon's DRR commitments in view of her development goals such as Vision 2035.

**RO 3:** Assess existence of enabling environment for DRR policy and legislations in Cameroon.

**RO 1, 2 and 3** are used in Chapter 2. RO 1 examined the history of DRR and DRM in Cameroon including the legal and institutional framework regulating DRR and DRM within the national territory. A comprehensive overview of the formulation of the laws and legislation governing DRR is provided in Chapter 2. RO 2 evaluated the enabling environment for the existence of these DRR policies and regulations within the last fifty-one years of formulation. These objectives provided a base for understanding the history and evolution of disaster management practices and hazard risk profiles within the national territory.

**RO 4:** Count the cost and impacts of natural and anthropogenic disasters in Cameroon.

RO 4 was addressed in Chapter 3. RO 4 assessed the impacts of natural and anthropogenic disasters in Cameroon and the total cost estimate of human and economic disasters. Using an historical approach, that is, by comparing disaggregated data from various sources, RO 4 addressed Targets 2 and 3 of the Sendai Framework, namely “to substantially reduce the number of affected people by 2030” and reduce direct disaster economic loss to GDP by 2030. This led to **RO 5**: To build capacity for DRR at all levels in Cameroon.

**RO 5:** Build and strengthen national and local capacity for DRM in Cameroon.

The lack of institutional capacity to address loss estimates at the national and local levels is discussed in Chapter 4, following capacity development initiatives developed to reduce disaster risk. Seventy (70) references were reviewed to advance the NDPMP supported by the UNDP and the Cameroonian government. To this end, six factors were identified to strengthen national and local capacity building for DRM in Cameroon.

**RO 6:** Provide a critical analysis of the implications of decentralizing DRR in Cameroon with a focus in the Centre and South West Regions.

The lack of strong national and local institutions for DRR, mentioned above under RO 5, was linked to RO 6, which addressed the implications of decentralizing of DRR in Cameroon. There is a need for capacity building for all relevant stakeholders involved in DRR implementation. Therefore, decentralization and DRR are important components of institutionalizing DRR in Cameroon. **ROs 1-6** support Priority 2 of the Sendai Framework (see **Box 1**) above.

**RO 7:** Examine and propose critical components necessary for policy revision with a view to DRR in Cameroon.

**RO 1 –5** are all linked together within the various chapters (and, in journal format, articles). A combination of all the research objectives led to the development of critical components necessary for policy revision with a view to DRR in Cameroon.

### 1.3.2. Research questions

The main research question employed in this thesis reads:

*What strategy, processes and standards should be put in place to design a new implementation framework aimed at DRR policies and legislation in Cameroon, considering in particular the extant top-bottom governance system, bureaucracy and considerably challenged public policy towards DRR implementation and lack of knowledge and initiatives to implement DRR activities?*

The research sub-questions, which assisted to answer the main question. They were therefore expected to satisfy two criteria: design research for policy development and analysis as well as implementation research in relation to the theoretical framework and research design for developing policy into action.

*RQ 1: What is the status quo of DRR in Cameroon?*

*RQ 2: How many DRR commitments constitute an integral part of Cameroon's development goals and Vision 2035 and*

*RQ 3: Is there an enabling environment for the existence of DRR policy and legislations in Cameroon?*

**RQ1, 2 & 3** had to satisfy implementation and design criteria for policy development and evaluation. Given the scope and historical analysis involved in the analyses of the status quo for DRR in Cameroon from 1967-2017, **RQ 1 and 2** permitted a longitudinal survey examining the need to review DRR policies and legislations. This was done in alignment with regional and international plans and strategies such as the Hyogo Framework for Action (UN/ISDR 2005) involving relevant research methods, namely qualitative and quantitative survey instruments. **RQ 1, 2 and 3** identified the need to review DRR laws and regulations, not least since these were in effect, which abandoned as a priority target with the adoption of NDPMPs in Cameroon. It was therefore necessary to examine and present these two sub-questions, which are linked together within a single chapter, namely **Chapter 2**. **RQ 1, 2 and 3** provided a robust foundation to

answer the main question of the thesis including the sub-questions. While **RQ 1** reviewed the overall policy and historical documents from 1967-2017 on DRR and management (DRR and DRM), **RQ 2** employed relevant qualitative and quantitative survey methods to measure and investigate DRR actions and practices within the Republic of Cameroon. **RQ3** assessed the enabling environment for DRR. The conclusions attested that DRR strategies, actions and policies were relatively weak and ineffective. These findings reinforced the position of the present thesis on policy implementation, to design a new DRR strategy framework, showing that a legal and institutional framework was necessary to improve the state of affairs within the country.

***RQ 4. What are the impacts of natural and anthropogenic disasters in Cameroon?***

**RQ 4** points to the Cameroonian community's current exposure to various kinds of risks affecting their day-to day existence and socio-economic development. To examine this question is so vital, because of the obvious but easily overlooked reality that no DRR policy design exists that would be complete without knowing the types of risks, vulnerabilities and exposures to, which the system is exposed. Having conducted a foundational analysis of the status quo of DRR, **RQ 4** stressed the effects of natural and anthropogenic disasters. It positions itself strategically among the other sub-questions to provide an understanding of Cameroon's risk and hazard profile. This could assist policy and decision makers about specific priority actions related to policy statements. **Chapter 3** therefore pursued questions related to the importance of understanding disaster risk, that is, Priority 1 of the Sendai Framework, in particular parts a, b, j and m) as well as underlying risk factors in Cameroon as examined within a crucial window period from 2001 to 2016. With the aid of the theoretical concepts derived from theories of policy implementation, which led to the identification of lacunae in DRR practices in relation to **RQ 1**, **RQ 2** and **RQ 3**, **RQ 4** engaged the matters of policies and evidence-based practices that would support and strengthen the system in relation to capacity building for DRM.

***RQ 5: How can Cameroon's platform for DRR strengthen its national and local capacity with a view to effective DRM?***

**RQ 5** assisted this study to point out capacity-building gaps for DRM initiatives since it led to the delineating of the ineffectiveness and non-evidence-based DRM programmes, which are intertwined within the political and institutional process responsible for co-ordination and implementation of capacity building, again towards DRM, in Cameroon. **RQ 5** furthermore served to unveil considerable challenges around public policy and legislation, which impede the operations and the functionality of DRR policy and initiatives. This sub-question moreover integrates the bottom-top and third generation of policy implementation theories, that reject a centralized top-down implementation policy. It assisted in the formulation of a new capacity building framework for DRM proposed for implementation by Cameroon. **RQ 5** therefore constitutes one of the sub-questions that enabled the researcher to match theoretical underpinnings drawn from policy implementation theory with the aims of the present thesis.

***RQ 6: To what extent should decentralizing government responsibility determine DRM policy at different levels in Cameroon?***

This question of course aligns with **RQs 1-4**, since there are no legal structures on Cameroon's first and second levels of government to carry out mitigation, preparedness and risk reduction in the community. Risks, vulnerability and exposure therefore become problems especially for the poor who enjoy very little or no resilience mechanisms to reduce risks and shocks in their neighbourhoods. In tandem with these questions, **RQ 6** points to the fact that there is an imperative need to develop new and effective policies for DRR on national and sub-national levels in Cameroon with a view to reducing the loss of lives and destruction of livelihoods. Posing this question further telescoped the thesis on the extent of decentralizing government responsibility for DRM policy at different levels and the challenges and stumbling blocks in the way of decentralizing DRR. The framework that the present thesis proposes therefore embraces the support of government influences towards decentralizing DRR into different administrative units.

***RQ 7: What are the critical components necessary for DRR policy revision and legislation in Cameroon?***

As a result of **RQ 7** where the theoretical argument concerning decentralization and DRR is that DRR policy implementation is critically linked to political and institutional factors, **RQ 7** was formulated, pointing to the view that evidence-based programmes, standards and strategies for DRR should seek to integrate good practices as an alternative policy option for DRR policy implementation. This question aligns with the others to argue that many DRR programmes have failed to deliver their outcomes and expected benefits due to a lack of political will towards change in Cameroon, unfortunately leading to the creation of new risks and unsustainable development.

This question therefore empathetically urges that Cameroon's DRR and DRM laws and legislation need amendments and a change of perspective, away from emergency response and humanitarian aid to risk reduction and prevention. In spite of prominent NCPs and the ORSEC Plan on, which the Cameroon have depended since the inception of the Civil Protection ideology in 1967, it is the duty of the present thesis to point out, with a view to **RQ 6**, that it is high time for Cameroon to accept a shift in focus as has taken place already in other African such as South Africa, Botswana and Kenya to mention a few.

These questions bring into renewed focus the research approach adopted by the present thesis in tandem with one or two critical aspects of the philosophical paradigms that underpin it, to be subsequently discussed in brief detail.

### **1.3.3. Research approach**

The present research, as indicated, ultimately drew upon influential theories of policy implementation, to achieve its goals and objectives. These include the works of Barrett and Fudge (1981) who built on Strauss's (1982) explanation of a "negotiated order" that is, there is an interorganisational (and intraorganizational) relationships that puts into negotiation organisations engagement. The lines of work as Strauss emphasised which organisations are engaged and are crucial to negotiations which may help to establish linkages possible. Copp (2004) stress that, negotiated-order perspective provides a means to understand the processes involved in both structural change and stability and to identify the social structures and conditions that shape those processes. This negotiated order relates according to Strauss (1982) to three relevant issues: a) utility of the modes of action, b) relationships between the utilization of the different modes on the one hand and the differential power relations between the

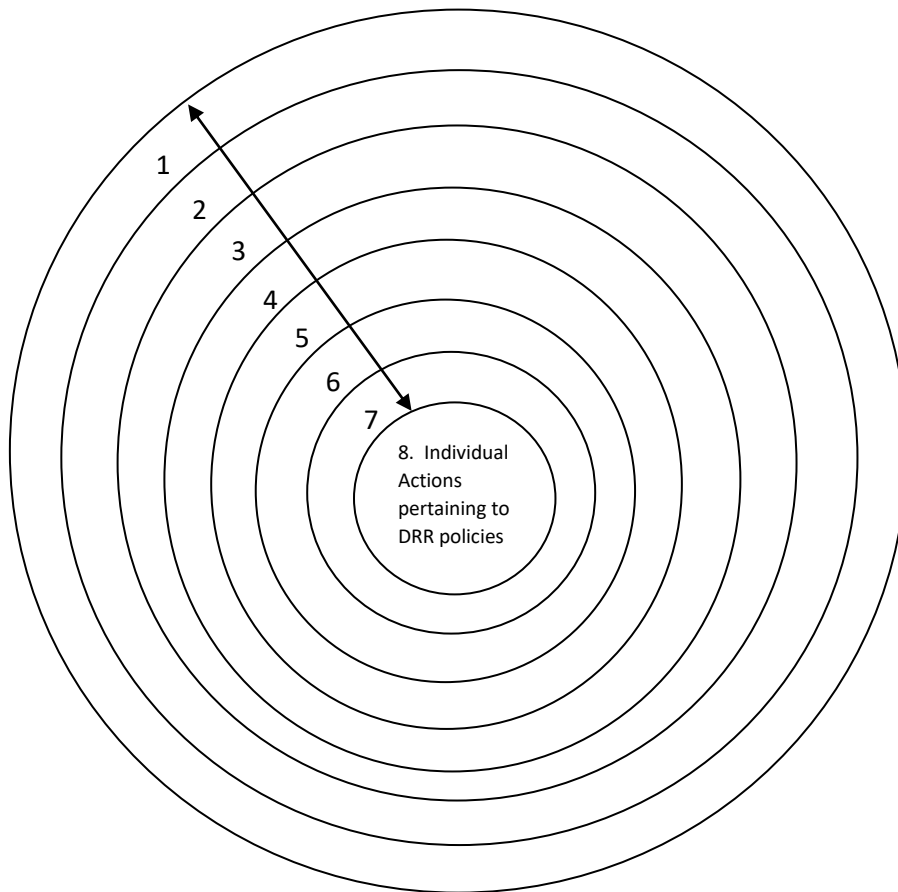


interacting parties on the other and c) connections between the different modes of action. The present research integrated this negotiated order proposed by Strauss and Corbin (1990) with a policy and action model (Barett and Fudge 1981) to approach the policy implementation process through the lens of what is termed a conditional or consequential matrix, explained below in Figure 2. This consequential matrix presents an overall model of explanation on DRR actions, policies, strategies, and processes within the society. That is, starting from the international level (level 1) to the individual level (level 8) of DRR efforts.

### ***1.3.3.1. The conditional or consequential matrix***

In following the policy and action approach the present study found that the conditional or consequential matrix was properly suited to analyse techniques and processes. This useful conditional or consequential matrix, has been used as a model for this thesis in different scientific areas. It is described as an Archimedean spiral where dark lines are used to denote interaction and the spaces between the lines are used to indicate the sources of conditions or consequences. In their turn, the arrows denote intersections among processes as described by HanWorks Research (2015). This analytical matrix also highlights important processes on the levels of macro and micro conditions or consequences in terms of one another (Strauss and Corbin 1998:181-199), as follows: a) conditions and consequences are not independent, b) micro and macro conditions are often intertwined c) conditions and consequences exist in clusters, d) action or interaction is not limited to individuals, but is caused by global bodies or organizations (see also HanWorks Research 2015). However, Strauss and Corbin (1990) argue that researchers should pay attention to conditions, actions or interactions and consequences of a phenomenon to order these conditions and consequences into theories. The role of these theories would be to evaluate the criteria so that the research is adapted to fit the procedures of the method. To facilitate this, they suggest a useful tool, namely the conditional matrix under examination here. By employing it, as can be seen below, the present thesis attempts to illustrate that to align Cameroon's DRR National Strategy with international instruments at country level demands actions or interactions and consequences of policy formulation, development and implementation.

However, as soon as one focuses on trends in recent legislation, policies and emerging organizations, it becomes clear that the outer cycles, from Circle 1 to Circle 8, are affected. This will in turn have an impact on the presence or absence of future legislation that will impact the DRR policy at macro and community levels of policy implementation. The conditional or consequence matrix drawn, as mentioned, from what is known as grounded theory, assisted the present research in transcribing abstract ideas into easily understood phenomena, as illustrated in Figure 2 below



**Figure 2:** the conditional or consequential matrix showing different levels of DRR policy implementation and interactions within the outer circles of the matrix. (Source: adopted from (Corbin and Strauss 2008:94.)

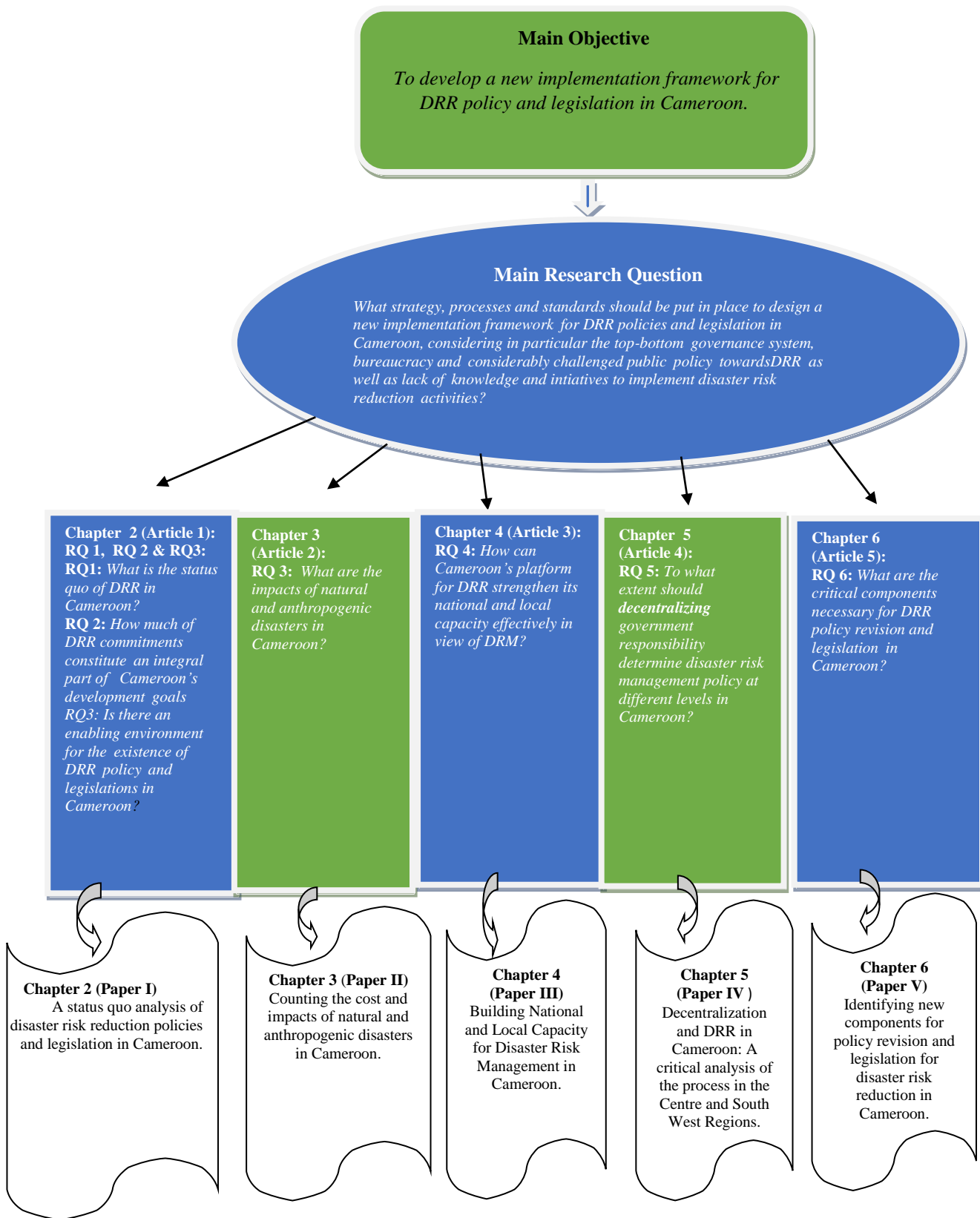
**Legend:** 1) *International*, 2) *National*, 3) *Community*, 4) *Organisational and Institutional Level*, 5) *Sub-Organisational, Sub-institutional Level*, 6) *Group, Collective*, 7) *Individuals Interaction*, 8) *Actions pertaining to DRR policy implementation*.

Circle 1 presents an international level where global decisions on DRR and management, climate

change, SD and related international framework are made. These decisions are expected to be implemented on national levels where macro policies concerning DRR and DRM are made across sectoral levels. It is expected that Circles 2 to 8 present areas where DRR actions are expected to be carried out to mitigate, prepare and reduce risk on interactive levels that are national, communal, organizational-institutional, sub-organizational, group-related and individual. The arrow demonstrates actions and interactions between the international frameworks and various spheres related to DRR policy and legislation at the macro and community levels right down to individual and household levels with a view to risk reduction and implementation.

#### **1.3.4. Research process**

Figure 3 below illustrates the different processes through, which the research questions, objectives and articles are linked. As explained (see 1.3.1), research questions and objectives organised and focused the design and development of a new implementation framework for DRR regulations in Cameroon.



**Figure. 3** Research approaches in relation to research questions and objectives within this thesis.

### **1.3.5. Philosophical underpinnings and methodology**

According to Guba and Lincoln (1994:163-194), a paradigm is defined as the “basic belief system or world view that guides the investigation”. Before examining the philosophical paradigm underpinning this research, it is necessary to set the rationale for the identification and functions underlying paradigms, as suggested in relation to the work of Guba and Lincoln (2005) and Denzin and Lincoln (2005) by Mertens (2007:212-225). The rationale can be determined by considering four belief systems, identified by (Crotty, 1998; Cohen et al. 2007; Guba and Lincoln, 1994), which constitute a paradigm:

- a) Axiology, which is related to nature of ethics.
- b) Ontology, which relates to belief about nature and reality.
- c) Epistemology, which relates to the nature of knowledge and the relationship between the knower and that which would be known.
- d) Methodology, which focuses on how knowledge, viewed as valid and systematic, can be inquired.

The four basic beliefs above that guide scientific investigations are based on the fact that truth produced by scientific investigations or paradigm is simply our belief in the truth of current tested hypotheses argued in Popper (1959). Again, Ernest (1994) argues that scientific theory can never be proven true except when all attempts to refute them fail, can they be tentatively accepted. Lastly, in order to understand certain scientific theories, more than empirical data is needed.

Where relevant, the thesis critically discusses and draws on philosophical debates (such as those of Mackenzie and Knipe (2006:193-205) on the use of pragmatism with a view to the employment, in the thesis, of so-called mixed methods research. On careful consideration a transformative paradigm (Mertens 2007:212-225) in conjunction with pragmatism (Hesse-Biber and Johnson 2015:654-697) was best suited to provide the mixed methods used in this study within the context of appropriate philosophical paradigms (see Neuman 2000; Teddlie and Tashakkori 2009:7-93).

Cresswell et al., (2003) argue that “the transformative inquiry needs source to be intertwined with politics and the political agenda”. They further state that “the transformative approach contains an action agenda for reform that may change the lives of the participants, the

institutions in, which individuals work or live, and the researcher's life". This transformative inquiry also called the advocacy / participatory approach as Creswell et al. (2003) emphasise, refutes the postpositivist position because it did not fit marginalised individuals or groups, and did not address issues of social justice. One of the main key positions and tenets of this advocacy/participatory approach which holds true for the present thesis is that of marginalisation. Moreover, the specific problems of transformative inquiry which this approach seeks to address are similar with those mentioned throughout the present thesis. These are: political, empowerment, inequality, oppression, domination, suppression, and alienation. Issues linked to inequality of regional underdevelopment and deprivation have been raised that leads to vulnerability and exposure. Also, oppression and suppression of particular groups like the English-speaking DRR experts in the coordination of DRR activities. It is under this grid where the present thesis lays its firm position on social justice, empowerment issue-oriented, collaborative, and change-oriented.

Restating the tenets of a transformative or emancipatory paradigm, that is, political, empowerment, collaborative and change (see Mertens 2003 Hesse-Biber and Johnson 2015:654-697), the present thesis agrees that a specific focus within the context of this paradigm is based on asymmetrical power relations (Moncrieffe and Luttrell 2005) and revealing the perspectives of marginalized groups. For example, those oppressed for reasons of gender, disability, ethnicity, social class, language or political heritage, as is pertinently the case English speaking professionals in policy development for disaster management in Cameroon, must be included in DRR decision making (see **Chapters 4 and 5**).

Such a transformative paradigm must be linked to Cameroon's political heritage (see Konings 1996:246-265, Gungwu 2000:5-30, Konings and Nyamnjoh 2004:191-234, Essa 2017, Lekane 2017:134-153) and the exclusion of marginalized groups (see Konings and Nyamnjoh 1997:207-229) such as, again, English speaking professionals (see Tummers 2012:11) from civil society participation in DRM efforts in Cameroon (**Chapter 4**). The present thesis will show that this kind of marginalization and exclusion accounts to a considerable extent for the lack of transparency, accountability and weak governance especially when it comes to capacity building in DRM within Cameroon (see Do 2010:2-12). **Chapters 4** examine these matters.

Two additional philosophical paradigms will be used here to guide the validity and appropriateness of knowledge development, namely positivism (see **Chapters 2 and 3**), which argues that research intervention should mostly be based on numbers and statistics (see Glicken 2003:20, Denscombe 2010a:324, Lincoln, Lynham et al. 2011:107-108, 122), as opposed to an interpretive paradigm, which holds that situations are based on human feelings, values and beliefs (see, again, **Chapters 2 to Chapter 5**).

Now, while interpretivist or phenomenological approaches aim to understand actions and persons by means of qualitative inquiry (Collis and Hussey 2009:56-57), positivists believe that an objective reality with its own cause-and-effect relationships exists outside personal experiences (Remenyi and Williams 1998:32, Riege 2003:77, Henning, Van Rensburg et al. 2004:17). The present thesis perhaps surprisingly found that both approaches enjoy validity and functionality within the context of examining DRR and DRM in Cameroon. For instance, measuring DRR commitments in development sectors in Cameroon, and the impact of natural and anthropogenic hazards as will be argued in Chapter 2 and 3.

As indicated, however, a further framework or paradigm crucial to the present study is pragmatic, as indicated by Cresswell et al. (2003). These authors identified four useful questions towards research interventions, as established by Crotty (1998) as discussed in **section 1.3.5 above**:

- a) What epistemological theory of knowledge informs the research (for example, objectivism, subjectivism and so forth)?
- b) What theoretical perspective and philosophical stance lies behind the methodology in question (for example, positivism and post-positivism, interpretivism, critical theory and so forth)?
- c) What methodology and strategy or plan of action linking methods to outcomes governs the choice and use of methods (for example, experimental research, survey research, ethnography and so forth)?
- d) What methods including techniques and procedures will the study propose to use (for example, questionnaires, interviews, focus groups and so forth)?

Over and above the other paradigms employed, the present study found that pragmatism was best suited to accommodate pluralistic approaches (see **Chapters 2 to 5**). Thus, pragmatism provided

the MMR with an appropriate philosophical paradigm (see also Johnson et al. 2007) as illustrated in Table 5 below, which has been modified from the work of Ellis and Levy (2009).

**Table 5.** Summary of research approaches used in this thesis. Modified from Ellis and Levy (2009).

Article(s)	Approach	Paradigm	Type of data	Stage of problem	Nature of theory
1	Historical	interpretivist / Positivist	Qualitative Quantitative	Description	Testing
2	Historical	interpretivist / Positivist	Qualitative/ Quantitative	Description	Testing
3	Developmental	interpretivist / Transformative	Qualitative	Descriptive	Building
4	Case study	interpretivist / Transformative	Qualitative	Exploration	Building
5	Developmental	interpretivist / Transformative	Qualitative	Descriptive	Building

This study therefore used the transformative paradigm in unison with pragmatism as its philosophical inquiry strategy (see Cresswell et al. 2003, Mertens 2007:212-225, Teddlie and Tashakkori 2009:7-93) in relation to the epistemology, ontology, axiology and methodology of its scientific position (see also Terre Blanche and Durrheim 1999:6). The study therefore makes its scientific contribution in the knowledge domain of geography and environmental management. It could further be classified under the subfield referred to as “political geography” (see Cox 1979, Archer 1981, Taylor 1982:15-34, Kliot and Waterman 2015:10-16), which emphasises changes from order to welfare states, specifically under the rubric of “disaster risk science” (Holloway 2009).

### ***1.3.5.1. The transformative/ advocacy or participatory paradigm***

This paradigm has been used throughout the present thesis. Cresswell et al. (2003) identify characteristics of both the transformative and the pragmatic paradigms emphasizing how



theoretical perspectives may be integrated with philosophical paradigms. This will assist in constructing a picture of the issues being examined, the people to be studied and the changes that are needed. For example, the critical theory employed here, which may be referred to as critical methodology involves questioning values and assumptions, exposing hegemony and injustice, challenging conventional social structures and engaging in social action as stressed by (Crotty, 1998). Scotland (2012) argue that this critical methodology is inseparable from politics as the case of DRR actions and implementation in Cameroon. This critical theory belongs under the transformative paradigm. Characteristics of the transformative paradigm are unpacked by Cresswell et al. (2003), Johnson et al. (2007) and Hesse-Biber and Johnson (2015:654-697): see section 1.3. and Figure 4. However, a detailed application of the transformative paradigm must wait for a section below on pragmatism, prior to the section on research design, since it is necessary first to summarise and connect the pragmatic paradigm and the present study on a closer level.

### 1.3.5.2. *Pragmatic paradigm*

In what follows, characteristics of pragmatism are presented to justify how the paradigm addresses research problems of the present study. This justification of pragmatism and its use is presented below in table 6.

**Table 6.** Characteristics of pragmatism as justified in this study

Characteristics of pragmatism	Justification for use in this research
Pragmatism is not committed to any one system of philosophy and reality. This applies to mixed methods research in that inquirers draw liberally from both quantitative and qualitative assumptions when they engage in their research.	see Table 5.
Individual researchers have a freedom of choice. They are “free” to choose the methods, techniques and procedures of research that best meet their needs and purposes.	
Pragmatists do not see the world as an absolute unity. In a similar way, mixed methods researchers look to many approaches to collecting and analysing data rather than subscribing to only one way (for example, quantitative or qualitative).	

4. Truth is what works at the time; it is not based in a strict dualism between the mind and a reality completely independent of the mind. Thus, in mixed methods research, investigators use both quantitative and qualitative data because they work to provide the best understanding of a research problem.	see Figure 3
5. Pragmatist researchers look to the “what” and “how” to research based on its intended consequences where they want to go with it. Mixed methods researchers need to establish a purpose for their “mixing,” a rationale for the reasons why quantitative and qualitative data need to be mixed in the first place.	
6. Pragmatists agree that research always occurs in social, historical, political and other contexts. In this way, mixed methods studies may include a postmodern turn, a theoretical lens that is reflexive of social justice and political aims.	See Table 5

The epistemological rationale for mixed methods based on pragmatism is therefore that it offers an effective method for research (Symonds and Gorard 2008; Tashakkori and Teddlie 1998, Rocco, Bliss et al. 2003b:596, Creswell and Plano 2007, Creswell and Garrett 2008:327, Creswell and Plano Clark 2011:26;40-44;78). Apart from the critical theory (Guba and Lincoln 1994:163-194, Guba and Lincoln 2005) that was used under the rubric of what is known as transformative theory, it can be inferred from Figure 2 above (see Corbin and Strauss 2008:94) that grounded theory (see Calman 2006) was instrumental in the analysis of this study. As Cresswell et al. (2003) argue, grounded theory involves using multiple stages of data collection and the refinement focusing on interrelationships of categories of information (see Strauss and Corbin 1990).

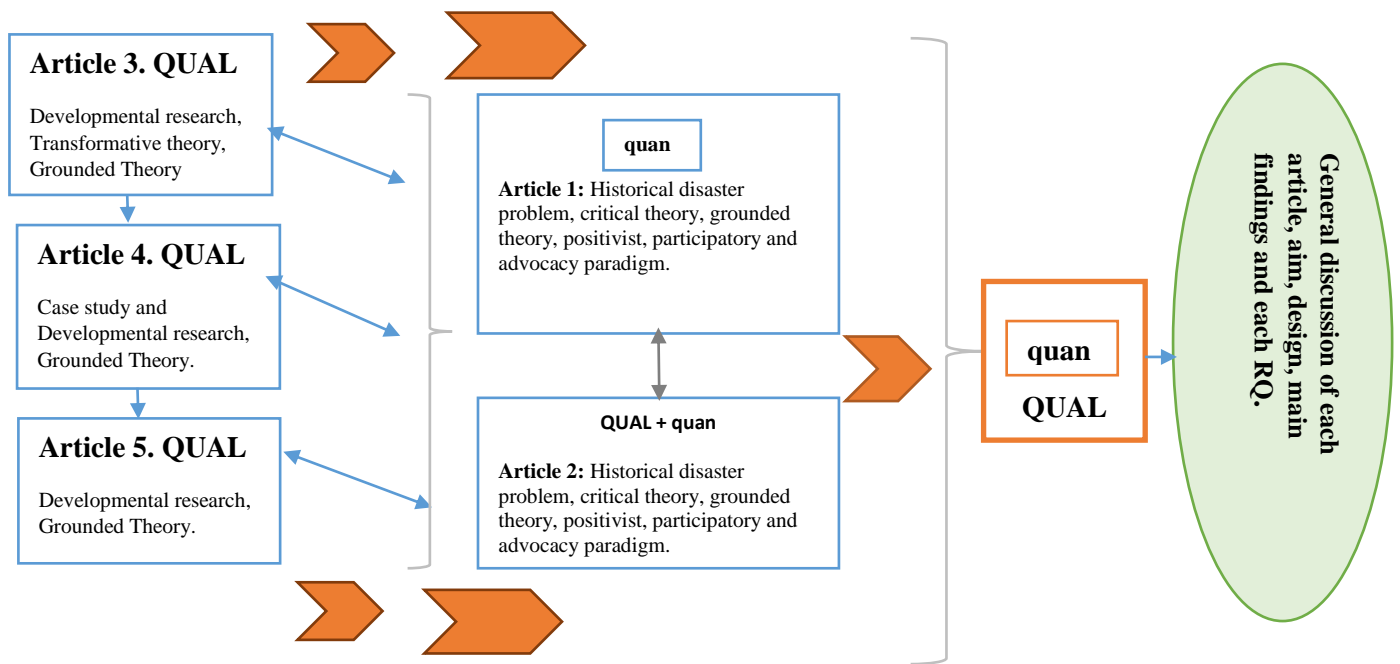
As for **Chapter 5**, a case study research method was used. As Zainal (2007) argues, this method involves examining reports of past studies and allows the exploration and understanding of complex issues such as vulnerability and power explained in terms of power and economic processes in risk management. That is, neglect, exclusion or exploitation in which variety of actors play in DRR coordination. In the subject under examination, namely DRR, which appeals to an holistic approach involving in-depth investigation of hazard, risk, and decades of disaster occurrences across time in Cameroon, it was necessary to carry out a longitudinal study. The

reason for the latter is that the holistic, in-depth approach is best suited by such a longitudinal study, because several observations of the same subjects were carried out by the researcher over a long period of time without interfering with the subjects. This permitted the author of the present thesis to detect developments and changes of DRR and DRM initiatives at the national and sub-national levels of disaster risk governance over a long period of time within Cameroon. It is under this grid that, the researcher could identify, analyse, and propose new DRR policies and legislations after establishing sequences of DRR efforts within the national territory. All of this involves a strategy known as a concurrent transformative design, adopted for the purposes of the present study and to be subsequently briefly discussed.

#### ***1.3.5.3. Mixed methods and the strategy of concurrent transformative design***

As mentioned, Morse (1991:122) states that the mixed method includes “the incorporation of various quantitative or qualitative strategies within a single project. The imported strategies are supplemental to the major or core method and serve to enlighten or provide clues that are followed up within the core method”. **Figure 4** illustrates an application of concurrent triangulation design mixed methods structure illustrating the concurrent transformative design.

The purpose of the strategy, in other words, is to obtain different but complementary data on the same topic in order to achieve a more comprehensive understanding of the research problem. This method is used when direct comparison of the results of the two methods is required. As can be seen below, this has been the case in the present study. The mixed method design moreover involves the collection, analysis and integration of quantitative and qualitative data in a single or multiphase study as presented in Figure 4 below.



**Figure 4.** Application of concurrent triangulation design mixed methods structure illustrating the concurrent transformative design. (Source: Author).

This figure presents the overall linkages between the five articles and the research approaches used for each article within this study. This gives an overall research design which, once more, boils down to the concurrent transformative design following the transformative theory mentioned above. The general discussion of findings in relation to the research question will however be presented in the concluding chapter of this study as indicated, again, in Figure 4.

### 1.3.5.3.1 Concurrent transformative design

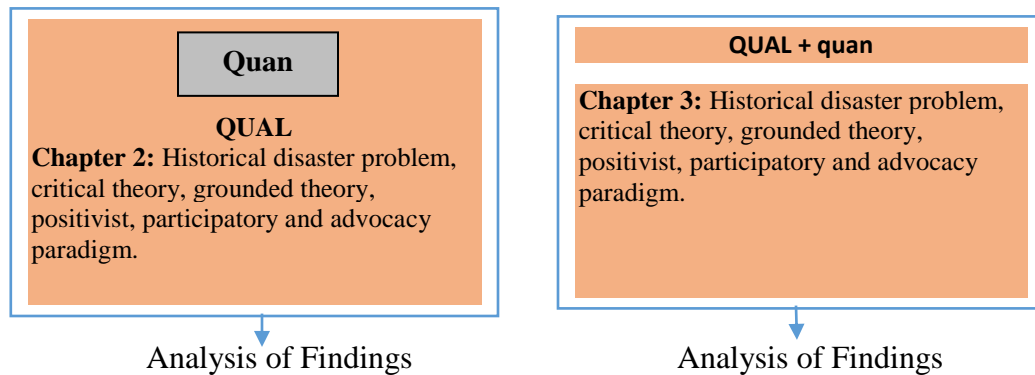
In this design, the transformative (critical advocacy/ participatory) theoretical framework was used to guide the concurrent transformative design. Concurrent procedures involve collecting both qualitative and quantitative data concurrently or at the same during the research process, while prioritising in this case the qualitative methods used in **Chapter 2 and 3**. That is, different research techniques were employed to collect different set of data independently, analysed, and mixing was done through merging for interpretation as shown in Figure 5 below. Figure 4 uses concurrent triangulation design considering that it is guided by theoretical frameworks of

transformation and participatory model. Results from **Chapters 2 and 3** were merged with those from **Chapters 4, 5 and 6** before interpretation in **Chapter 7**.

Figure 5 below presents the different types of concurrent transformative design used for **Chapter 2 and Chapter 3**. **Chapter 2** uses concurrent transformative embedded design, while **Chapter 3** uses concurrent triangulation.

### Concurrent transformative designs

Figure 5(a) embedded quantitative data      5b) quantitative data supports QUALITATIVE



**Figure 5. Source:** Adapted from Figure 10.3c in Creswell et al. (2003).

Figure 5 illustrates concurrent embedded model in figure 5(a). In this model, quantitative data are embedded from DRR commitments and are measured and rated using quantitative inquiry separately, while employing qualitative methods independently. In figure 5(b) the concurrent transformation was used while gathering data for both qualitative and quantitative methods.

Importantly, Johnson and Onwuegbuzie (2004) and Creswell (2009:213-216) point out different kinds of concurrent design: The present study made use of the following concurrent design.

- a) **Concurrent nested (embedded) design:** This design includes one phase of data collection in, which priority is given to one approach that guides the project, while the other approach is embedded or nested into the project and provides a supporting role. The embedded approach is often addressing a different question than the primary research question. This was used in **Chapter 2**.

- b) **Concurrent transformative design:** This method involves concurrent data collection of both quantitative and qualitative data. It is guided by a theoretical perspective in the purpose or research question of the study. This perspective guides all methodological choices and the purpose is to evaluate that perspective at different levels of analysis. This approach was used in Chapter 3, and the final research design employed the present thesis.

#### **1.3.5.3.2 Characteristics of transformative design**

Cresswell and Plano (2007:96-99) succinctly portray characteristics of transformative design according as follows:

- i) The researcher should decide how best to refer to and interact with participants.
- ii) The researcher also decides what sampling strategies will promote inclusiveness.
- iii) The researcher should decide how to actively involve participants in the data collection process.
- iv) The research may decide to use instruments that are sensitive to the cultural context of the group being studied.
- v) The researcher may have to decide how the data collection process and outcomes will benefit the community being studied.

In this research, the samples involved different individuals and different sample sizes, because participants or elites from the public sector had to be reached through diverse research instruments, techniques and surveys to gain in-depth understanding and validity of data. Different approaches in administering survey questions with a view to the collaborative characteristics of civil society, community groups, business and the private sector had to be employed. Figure 5 above in fact illustrates that two different methods were used in the cases of **Chapter 2** and **Chapter 3**.

As for the concurrent transformative method of the embedded kind, qualitative methods were dominantly used, while quantitative methods were embedded within them. Quantitative data survey ratings of DRR integration in Cameroon were thus embedded. Similarly, the goal scorecard, which assisted in identifying the position of Cameroon's DRR efforts within a

standard comprehensive scale, were employed. This is one of the reasons that makes clear why the transformative perspective was best suited to manage materials found in **Chapter 2. Chapter 5** involves a case where qualitative methods were concurrently supported by quantitative data. It was therefore evident that the use of qualitative and quantitative survey data was more suited to address the research questions and objectives of this study, of course within the context, as mentioned, of the epistemology and mechanics of a pragmatic paradigm.

Figure 4 demonstrates how this research attempted to summarize the various connections between all the chapters. Given that **Chapters 2 to Chapter 5** used qualitative methods, it was necessary to concurrently triangulate the chapters. This resulted in evidence-based programme analysis (see Creswell 2009:213-216) for Cameroon, entitled “A new implementation framework for DRR policy and legislation in Cameroon: designing policy for action.”

Having stated the complexity and intractability involved in policy implementation of DRR in Cameroon, which appealed to the use of the concurrent transformative design, this research carried out the following steps to address its research questions and objectives.

### **1.3.6. Steps involved in the process of addressing research questions and objectives**

The following steps were involved in the process of addressing research questions and objectives.

- Conducting a literature review study in regard to the multidisciplinary, multi-faceted and multi-sectoral nature linking DRR and other related fields, which provided a standard base within, which the researcher was involved to examine the effectiveness of DRR policy implementation and design in the study area called Cameroon;
- Identifying and harmonising standard indicators and questionnaires to measure minimum efforts and practices for DRR policy implementation. This was done by identifying and selecting specific policy implementation tools are (for example a checklist on DRR laws and legislations; United States Agency for International Development (USAID) Policy

Implementation Assessment Tool; HFA Priority 1 & 4; GOAL Scorecard; The Centre for Research on the Epidemiology of Disasters (CRED) 2016 online database; and the Local Government Self-Assessment Tool (LGSAT). These instruments successfully served the purpose of addressing research questions and objectives

- Requesting research authorization, which was granted within selected and identified public sectors, businesses, private sectors, community groups and members of the civil society (see Appendix C);
- Identifying different research methods, strategies and instruments for data collection and analysis within identified government sectors who granted research authorization as well as identifying interview techniques among selected sample of members of civil society;
- Validating and confirming the ineffectiveness of current DRR efforts, policies and legislations in use over the last fifty-two years as well as the last thirty two years of re-organization of the (DCP);
- Designing and developing a Green Paper for DRR policies and legislations in Cameroon.
- Presenting a new National Strategy for DRR policy and legislation in Cameroon, Plan of Action, 2019 – 2025.

### **1.3.7. Study area and population sampling**

This section discusses the study area (see Anna 2009 and Cameroon Civil Cabinet 2015:2-10) along with the population sample, type of study and the delimitation of the study. Figures 4 and 5 above indicate the type of research design that was used to answer the research questions and purposes of this study. As emphasised, qualitative and quantitative survey methods assisted this study in evaluating DRR interventions, programmes and performances that have been in place over the last fifty-one years in Cameroon. Further, it permitted recommendations and the development of new legislations and policy for Cameroon.



### ***1.3.7.1. Sampling methods***

Sampling methods for each of the four articles (article 1 – article 4) where empirical investigation was carried out for this thesis comprised basically of purposive sampling. To be more specific, extreme or deviant case, critical case, and expert or elites purposive sampling were frequently employed to evaluate and assess how and why DRR policies and legislations have failed or succeeded in reducing high risk prevalence and exposure to natural and anthropogenic disasters within the national territory. Snowball and quota sampling were also employed beside purposive sampling. These sampling techniques assisted the researcher to identify both the general category of population to be interviewed and the specific category which were precisely defined within the articles in question. These techniques therefore minimised the chances of systematic errors and sampling biases used based on the research design. Specific geographical regions in Cameroon where disaster occurrence is severe (Littoral, Far North, Centre, and South West Regions) constituted the focal point of this investigation. A total of 1836 respondents constituted the sample population (see section 1.3.7.3 below) for this study. This study was a longitudinal study rather than cross sectional due to the nature and outcome of data which the researcher needed to answer the research question of this thesis. The next section will highlight reasons why the research used a longitudinal study which provided sufficient data for the five articles used in achieving the objective/aim of the study.

### ***1.3.7.2. Longitudinal study vs cross sectional study***

A glance at the research questions of this study show the necessity of a longitudinal study rather than a cross sectional study (see Levin 2006). Study design depends greatly on the nature of the research question. In other words, knowing what kind of information the study should collect is a first step in determining how the study will be carried out, known by the umbrella term “methodology”. Although cross sectional and longitudinal studies both involve descriptive survey research, Levin (2006) rightly avers that cross sectional studies provide only a “snapshot” of the outcome and characteristics associated with it at a specific point in time. Hence, cross sectional studies are carried out at one time point. This type of study can be useful in certain contexts, but it offers no indication of the sequence of events involved in the study.

That is, if exposure occurred before, after or during the onset of the events, embracing factors that influence hazards, risks and exposure to disasters, this approach has a limited outcome. In certain contexts, longitudinal study must be used to address research questions. This has indeed been the case here, not least because the study clearly involves sequences of events and factors that influence disasters.

*Ex ante* and *ex post* analysis as discussed by McDavid and Hawthorn (2006) were therefore employed to measure the effectiveness of DRR policies from 1967 to 2017. The study's evaluation of programmes and performance over this period gave clear indications of a history and a sequence, thereby offering possibilities of inferring causality, that is, causal relations and effects between risk factors and vulnerability exposure within the national territory. That said, it was necessary for the researcher to select a sample population size to carry out interviews and administer questionnaires where necessary. It should be noted that the researcher has spent at least 15 years or more between 2001 and 2017 within the context of disaster risk studies as a participant observer (see Andriessen, Kluin et al. 2012) in Cameroon.

### ***1.3.7.3. Population sample***

The study population in this study consisted of active or retired civil servants and administrators (see appendix for research authorisation) working within the public sector (ranging from quarter heads, head of local municipal councils, government delegates, surveyors, departmental heads, sub directors, and chief of service) as well as a selection of civil society individuals affected by natural and anthropogenic disasters and community groups, state universities and private higher institutions in Cameroon. The sample size for all the foci (as presented in different chapters and articles) was 1836 as stated in **section 1.3.7.1** The research employed non-probability sampling (see Acharya, Prakash et al. 2013) since it involved programme evaluation where the probability that a given element or individual of population will be included in the sample is unknown (see Bless and Higson-Smith 2000:73). In this light, both purposive, quota and snowball sampling were applicable. Chapter 6 started out as a position policy paper cumulating analysis from all the other articles presented as chapters in the present thesis.

#### ***1.3.7.4. Delimitation of the study***

Given that the study involved a longitudinal type, it limited its geographical scope to the Far North, North, Littoral, South West, North West and Central Regions of Cameroon. United Nations partners in charge of support for DRR and DRM such as the United Nations Development Programme (UNDP) and United Nations Office for Coordination and Humanitarian Affairs (UN/OCHA) were not reachable through survey questionnaires, although the UNDP accorded a minimal face-to-face audience with the researcher (very little access to United Nations agency were available for direct interview towards this research). However, DRR and management activities operated upon either by United States International Development (USAID), World Food Programme (WFP), UN/OCHA, UNDP, International Federation of Red Cross (IFRC), International Committee for Red Cross (ICRC), United Nations Children Education Fund (UNICEF) and other related humanitarian agencies and partners such as International Civil Defense Organisation (ICDO), China and Japan, were retrieved either through their websites or indirectly through accessing materials of MINATD/DPC. As a self-sponsored researcher, it was however difficult to organize meetings to discuss the findings (see Appendix C) with relevant stakeholders, especially those within the government sphere such as MINAT/DPC. To enter and write into this lacuna, the researcher envisages presenting a formal Green Paper to the policymakers and government sectors directly involved in policy change within Cameroon on completion of this study.

#### **1.3.8. Relevance of the literature review in developing a theoretical framework**

**Consider here that section 1.3** of this study explains how the methodology was drawn from two broad categories: a) literature relating to Elmore's Organizational Model (Osborne 2002:23-148) and the third generation of policy implementation theories (Barett and Fudge 1981, Goggin, Bowman et al. 1990:18, Sabatier and Jenkins 1998) linking it to b) a methodological approach of mixed methods. This provided a pragmatic context for the development of a new DRR framework for implementation in Cameroon. The use and relevance of secondary data as

asserted by Johnston (2017:619-626) is to apply theoretical knowledge and conceptual skills to utilize existing data in order to address research questions. This was shown to be the case in the present study: developing research questions were the steps that led to the enquiry. The subject area within the status quo of political geography, where this study could be located, permitted it to consult multidisciplinary literature from political science, public administration, public policy, organizational change theory, economics, geography and DRR itself. The next section attempts to describe the process of secondary data inquiry application in this study.

### ***1.3.8.1. Description of the theme***

Daas and Arends-Tóth (2009:4) identify this process as one of the first steps necessary when it comes to carrying out secondary data analysis, especially when the academic area involves a multidisciplinary approach as in the case of this research. Daas and Arends-Tóth (2009:4) moreover convincingly show with three additional strategies to be applied within the context of this step, which are considered relevant for secondary data analysis. The three different secondary research strategies identified for theme description here are content analysis, secondary analysis and systematic review. This study heavily relied on these strategies. Content analysis, which involves various forms of human communication as stated by Daas and Arends-Tóth (2009:4), was used extensively as found in various sources such as Aide Memoires of MINATD/DPC, Journals from DPC, books, newspapers, news from TV reports, websites of related UN agencies and peer reviewed journals.

By furthermore employing a systematic review strategy or meta-analysis, this research investigated other related studies on DRR policy implementation and related scientific literature. Secondary analysis here involves using previously collected quantitative data collected by other researchers for different purposes. **Chapter 3** utilized secondary analysis to support its qualitative data.

### ***1.3.8.2. Statement of purpose***

The next step involved the statement of purpose. According to McCaston (2005:1) , having a well-defined purpose provides a clear understanding of why the investigator is collecting the data. She also stresses that this step helps the investigator focus on the kind of data to be collected and analysed and prevents the investigator from being overwhelmed with the volume of data available on the topic (see also Dale, Arber et al. 1988, Stewart and Kamins 1993, Doolan and Froelicher 2009). The purpose statement of this study was to examine the effectiveness of DRR policy and legislation in Cameroon.

### ***1.3.8.3. Formulation of the Research Questions***

Given the researcher's sustained curiosity over 15 years about DRR and DRM in Cameroon led to the clear perception that there was very little evidence for DRR programmes, impacts and intervention. This situation embodies one of the main reasons why a literature review was necessary for comparing and understanding the severity of the lack of DRR actions in the status quo and the implications for the Cameroonian population if these did not change. The most striking phenomena was the absence of Cameroon at the 5<sup>th</sup> Africa Regional Platform for DRR organized in Abuja by the UN/ISDR, AU in 2014. The researcher was present at this platform. To boot, a plethora of literature found online demonstrate that Cameroon was not implementing DRR policy and was facing a critical problem with its laws and regulation related to this policy. Having this in mind, secondary data published by Pülzl and Treib (2006:89) was consulted and it confirmed the position of reformulating the research questions and purpose guiding the theoretical framework of the present study. This guided the researcher towards indubitable confirmation that a critical lacuna has been in existence for a prolonged period in the laws and legal framework guiding DRR in Cameroon, leading to the impetus here to fill the lacuna with research on the legal and institutional factors that drive DRR implementation.

### ***1.3.8.4. Determine data context***

Coetzee (2016b) argues that data sets with similar focuses and operational definitions should be compared to ensure the relevance and accuracy of findings. In this study, data sets derived from

secondary analysis permitted the researcher to further analyse the original dataset to answer a different question (see Johnston 2017:619-626), namely in the form of a statement.

#### ***1.3.8.5. Research design***

It is necessary to outline what type of information is needed to collect data towards development of the theoretical framework. As mentioned above, the main theoretical framework that has been adopted here is policy implementation theory, which has been linked in chapters (and articles) by means of the appropriate methodology.

#### ***1.3.8.6. Sources of secondary data***

As McCaston (2005:1) points out, the next research step is to determine where to find secondary data. Requests for authorization were made to relevant public institutions and sectors directly involved with DRR and DRM in Cameroon to obtain data from official statistics collected by government through reports, action plans, disaster journals and reference books found within the national libraries of the various ministerial sectors consulted (see Appendix D). The data collected here assisted the researcher to develop and answer research questions.

The next section presents the thesis outline with a view to its various chapters.

### **1.4. THESIS ORGANIZATION**

**Chapter 1:** Introduction.

**Chapter 2:** A status quo analysis of DRR policies and legislation in Cameroon.

**Chapter 3:** Counting the cost and impact of natural and anthropogenic disasters in Cameroon: 2001-2016.

**Chapter 4:** Building national and local capacity for DRM in Cameroon.

**Chapter 5:** Decentralization and DRR in Cameroon: a critical analysis of the process in the Centre and South West Regions.

**Chapter 6:** Identifying new components for policy revision and legislation for DRR in Cameroon.

**Chapter 7:** Conclusions and recommendations.

## **CHAPTER 2**

# **A STATUS QUO ANALYSIS OF DISASTER RISK REDUCTION POLICY AND LEGISLATION IN CAMEROON**



# A status quo analysis of disaster risk reduction policy and legislation in Cameroon

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Abstract:

## **Purpose**

The purpose of this paper is to analyse the status quo of disaster risk reduction (DRR) policy and legislation in Cameroon.

## **Design/methodology/approach**

Using a qualitative method, this paper examines historical data from sectoral administrative reports, plans, declarations, commitments and speeches, texts and peer-reviewed journals on disaster and risk management in Cameroon for the period 1967–2017. Empirical data from ten selected government sectors were used to analyse the status quo, together with quantitative data collected by using four instruments (i.e. HFA Priority 1 & 4, USAID Toolkit, GOAL Resilience Score and the Checklist on Law and Disaster Risk Reduction).

## **Findings**

Findings show that Cameroon largely still practices disaster response through the Department of Civil Protection. Transparency and accountability are the *sine qua non* of the state, but the lack thereof causes improper implementation of DRR within development institutions. DRR is seen as an *ad hoc* activity, with the result that there is not effective institutional capacity for implementation. The need to develop a new national DRR framework is evident.

## **Originality/value**

Analysing the status quo of DRR in Cameroon could assist with the review and re-evaluation of a new DRR framework within the Cameroonian territory.

**Keywords:** Resilience, Disaster risk reduction, Cameroon

**Paper type:** Research paper

## **2. Introduction**

The concept of a “*disaster*”, or “*catastrophe*” is not new to the nation of Cameroon. Some of the first recorded disasters (MINATD/DPC, 2002) in Cameroon only dates back to three major disasters (the Lake Nyos gas disaster in 1986, Nsam Train Crash in 1998, and Mount Cameroon eruptions). Implicitly, this does not mean that economic and human costs of disasters were not experienced before this time. Two historical accounts of major natural hazards in Cameroon can

be traced back to significant recorded rainfall in Debunscha (one of the wettest places in Africa) (Frankham et al., 2002) lying at the foot of Mount Cameroon.

As far back as 500 BC, Hanno the Carthaginian observed a flame-like substance from Mount Fako (Mount Cameroon), thus one of the earliest recorded natural hazard events in Cameroon. He called and named Mount Cameroon “Chariot of The Gods” (Falconer, 1797; Walters, 2011). Considering the diverse disaster risk profile of Cameroon, one could argue that disaster risk reduction (DRR) would have progressed at a steady pace in this African nation. Disaster risk reduction aims at preventing new, and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore aims to the achievement of sustainable development (UN/ISDR, 2017). At an international level, Cameroon has attended and actively participated at several DRR commitments, conferences, and meetings to prevent and reduce the adverse effects of disasters, not only in Cameroon, but within the sub-region and Africa as a whole. However, on closer scrutiny of the status quo, it becomes clear that Cameroon is lagging behind its regional and African counterparts with disaster risk governance not enjoying the needed attention.

The aim of this article is to critically analyse the existing policies and legislation governing disaster risk management in Cameroon, as well as the actual DRR practices that have been implemented based on previous international commitments like the Hyogo Framework for Action (UN/ISDR, 2005) and now also the Sendai Framework for Disaster Risk Reduction. The status quo of DRR in the field of disaster research is very important as it sheds light on the existing state of affairs by means of a historical perspective (Kreps, 1984; Lawrence, 1984; Peek and Mileti, 2002; Rodríguez et al., 2007). As such, the aim of this article is to explore the status quo of DRR in Cameroon over a period of 50 years (1967–2017). In an effort to examine and analyse the status quo, this article relied on the historical approach to investigate DRR efforts and policies within the Republic of Cameroon. The research reviewed historical documents, speeches, declarations, plans, actions and activities carried out by the Cameroon government to reduce risk and disasters within its national territory. This article first introduces the disaster risk profile of Cameroon, followed by a historical account of civil protection. Current laws and structures governing DRR and civil protection also receive attention. A systematic analysis of the status quo of DRR in Cameroon follows, in which an analytical framework is applied to measure

the progress against international standards. The article concludes with a number of recommendations pertaining to addressing the challenges identified in the research.

## **2.1. Cameroon's historical hazard and disaster profile**

Figures 1 and 2 indicate that geological and hydrometeorological hazards are not the only categories of disasters that occur throughout the area of Cameroon. At the time this article was written, Cameroon's hazard and disaster profile (Aka et al., 2016) indicated an increase in natural hazards (seasonal floods) triggering landslides, mudslides, and to an extent, technological, and protracted conflicts (Figures 1 and 2).

Figure 1. **Indicators of Risk index in some regions in Cameroon.**

RISK INDICATORS IN SOME REGIONS IN CAMEROON	Physical exposure to flood	Land Degradation	Droughts probability and historical impact	Natural	Political violence	Conflict probability	Human	HAZARD	Development & Deprivation	Inequality
	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)
CM-ES	5.5	7.2	3.6	5.6	5	9.6	7.3	6.5	5.9	7.1
CM-EN	7.5	7.2	3.6	6.4	10	9.6	10	8.8	8.9	7.1
CM-LT	6.1	1.6	2.5	3.7	0	9.6	4.8	4.3	4.4	7.1
CM-NO	8.3	5	4.7	6.3	5	9.6	7.3	6.8	8.1	7.1
CM-NW	2.1	8.5	2	5.1	10	9.6	4.8	5	5	7.1
CM-WE	2.9	9.8	2.5	6.6	0	9.6	4.8	5.8	4.8	7.1
CM-SU	4.8	7.3	2.5	5.2	0	9.6	4.8	5	4.7	7.1
CM-SW	4.6	5.6	2	4.2	10	9.6	6.8	5.7	4.7	7.1

Source: Modified from INFORM Risk Model

**Legend:** Cameroon- CM  
 East - ES  
 Extreme North - EN  
 Littoral - LT  
 North - NO  
 North West - NW\*  
 West - WE  
 South - SU  
 South West - SW\*

**Note:** The Centre and Adamawa Regions were not included.

Figure 2. Indicators of Risk index in some regions in Cameroon (continued below).

Vulnerable Groups	VULNERABILITY			Socio-Economic Vulnerability	Uprooted people	Physical infrastructure	Access to health care	LACK OF COPING CAPACITY	RISK	RISK INDICATORS IN SOME REGIONS IN CAMEROON
(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	
6.9	6.1	5.2	6.9	5.1	8.8	5.5	6	6.1	6.2	CM-ES
7.7	7.2	5.2	6.9	6.6	8.8	5.5	5.9	6.2	7.3	CM-EN
2	3.3	5.2	6.9	4.4	0	5.5	6.5	6	4.4	CM-LT
4.4	5.4	5.2	6.9	6.2	3.6	5.5	5.9	6.2	6.1	CM-NO
1.4	3.2	5.2	6.9	4.7	10	5.5	6.6	6.1	4.6	CM-NW
1.5	3.2	5.2	6.9	4.6	0	5.5	5.9	6	4.8	CM-WE
1.7	3.2	5.2	6.9	4.5	0	5.5	6.1	5.9	4.6	CM-SU
1.9	3.3	5.2	6.9	4.5	10	5.5	6.3	6	4.8	CM-SW

Source: Modified from INFORM Risk Model.

**Legend:** Cameroon- CM

East	-	ES
Extreme North	-	EN
Littoral	-	LT
North	-	NO
North West	-	NW*
West	-	WE
South	-	SU
South West	-	SW*

**Note:** The Centre and Adamawa Regions were not included.

Affirming the results of Figures 1 and 2 in relation to the United Nations Office for Humanitarian Assistance (UN/OCHA) over 20 million people were projected to be in need of humanitarian assistance in 2014, including life-saving food security interventions, protection from conflict and violence, strengthening household and community coping mechanisms and supporting longer-term solutions for internally displaced people (IDPs) and refugees (OCHA, 2014). Among these populations, 11.3 million in 2013 were expected to be hosted in Northern Nigeria, Northern Cameroon and Senegal. As argued in other contexts (Field et al. 2012),

disaster risk and climate change extremes also present some of the most serious threats to inclusive sustainable socioeconomic development in Cameroon.

Furthermore, the Lagdo, Magda and Bamendjindans dams constitute major threats to the inhabitants of neighbouring countries and major towns in Cameroon. This could lead to excessive flooding along the course of the Benue River on lowland communities in north-eastern Nigerian states (of Borno, Adamawa and Taraba), especially those located downstream along the River Benue (Toro,1997). Recognizing the wide variety of hazards and potential disasters (Ayonghe, 2001; Ayonghe and Suh, 2002), coupled with the high prevalence of climate risks (Molua, 2007) within Cameroon's territory, a plethora of questions could thus be raised pertaining to the status quo of DRR in Cameroon.

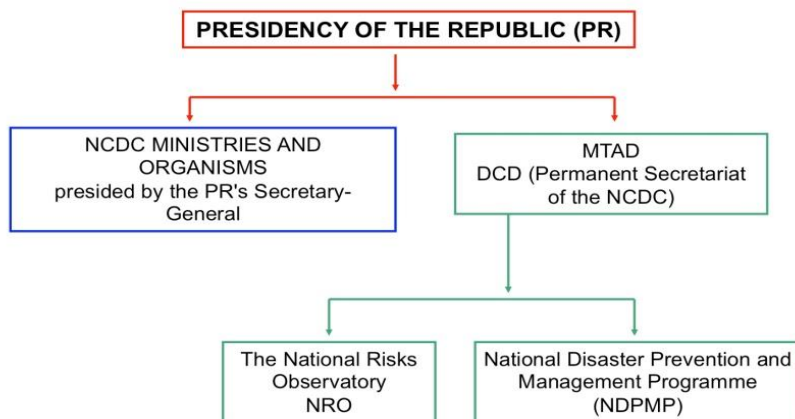
## **2.2. The concept of civil defence / protection in Cameroon**

The concept of civil defence/protection dates back to the general organization of civil defence under Law N°67/LF/9 of 12 June 1967, sect. 11 and 18 (MINATD/DPC, 2002). This law mandated the Ministry of Territorial Administration (MINAT) to implement and coordinate civil protection measures. These efforts concerned the risks incurred by the civilian population as a result of calamities such as fire, floods, cyclones, earthquakes, and the like. When the law was proclaimed, *la République du Cameroun* had just gained independence from France in 1960, while British Cameroon remained as a trusteeship mandate under the League of Nations. In France, General Charles de Gaulle, the then President of France, instructed the Prime Minister (Georges Pompidou) in 1964 to create an organization to unite all the forces contributing to the protection of civilian populations at the national level. Hence, the first National Federation of Civil Protection (FNPC) was created in France in 1965, while her former colony, Cameroon, mimicked her own Civil Protection laws in 1967 and 1968 respectively. The 1968, Presidential Instruction was more focussed on the safeguarding and protection of civil installations of vital importance (N°02/CAB/PR of 18 January 1968). Between the period of 1967 and 1972, Cameroon (East and West Cameroon) had a political turnaround from Federalism to a Unitary state (Chem-Langhëë,1995) while its first President, Ahmadou Ahidjo, was elected in 1972. This period also saw law N° 71/DF/381 of 11 August 1971 supplementing article 6 of law N° 71/DF/302 of June 1971 to organize the MINAT. At the international level, 1970 to 1986 saw the creation and evolution of the United Nations Disaster Relief Office (UNDRO) as part of the

United Nations Office for Humanitarian Assistance (UN/OCHA), and the International Decade for Natural Disaster Reduction, IDNDR 1990–1999, later extended from 2000 to 2010 as the International Strategy for Disaster Reduction (ISDR)[1].

### **2.3. Current DRR and civil protection laws and legislations (1986–present)**

21<sup>st</sup> August 1986 saw one of the deadliest disasters in the Lake Nyos region in Cameroon, with over 1 750 people killed, and thousands of livestock found dead after a sudden limnic eruption, releasing almost 300 000 tons of carbon dioxide into the region. It was as a result of these events that the 1986 structural legislative law N° 86/ 016 of 6<sup>th</sup> December 1986 – re-organizing the department of civil protection and disaster management in Cameroon – came into force. The National Council on Civil Protection was established (CNPC) by Decree 96/054 of 12 March 1996, two years before the Nsam Train Fire Disaster in 1998 (two trains collided, one carrying tons of oil), triggering Decree N° 98/031 of 9<sup>th</sup> March 1998 to organize emergency management and major risk relief plans. The disaster-driven reactive nature of Cameroonian policy is thus clear. During this time, the UNDP engaged in the National Disaster Prevention and Management Programme (NDPMP). The focus was on capacity building for disaster management with the support of the Cameroon government and the UN/OCHA in Geneva. Other important partner organizations that played a major role in Cameroon’s disaster management system are the International Civil Defence Organization (ICDO) of which Cameroon became a member in 2000. Reports show that Cameroon remains a proactive member of the ICDO, focusing on capacity building of staff of the Department of Civil Protection (DPC), the National Fire Brigade, and other government staff like Governors and Senior Divisional Officers. Furthermore, a decree from the Prime Minister’s Office (N° 037/PM 19<sup>th</sup> March 2003) saw the creation of the National Risks Observatory Commission (*Observatoire National des Risques – ONR*) seen in Figure 3.



**Figure 3.** Organizational chart linking the Presidency of the Republic to the NDPMP and the NRO.

The national operational arm of the Ministry of Territorial Administration / Department of Civil Protection (MINAT/DPC) is the National Fire Brigade (*Sappeurs Pompiers*), operating under law N° 2001/182 of 25<sup>th</sup> July 2001. As is the case in a number of countries, a number of significant disasters provided the impetus to change within the disaster and risk management domains. Specifically, in Cameroon, three disasters and incidents can be highlighted, namely the Lake Nyos disaster; the Nsam train incident, and the Mount Cameroon eruption. These key disasters and crises formed the beginning of crisis management and policy formation in terms of disaster risk management in Cameroon throughout the past decades. While appreciating the efforts of the President of the Republic of Cameroon for providing Emergency Relief Funds, the gap between disaster prevention, mitigation and emergency response still poses a serious threat to the implementation of DRR policies such as the Sendai Framework for Disaster Risk Reduction (SFDRR).

According to O'Brien et al., (2012), development planning and post-disaster recovery has often prioritized strategic economic sectors and infrastructure over livelihoods and well-being in poor and marginalized communities. This can generate missed opportunities for building local capacity and integrating local development visions into longer-term strategies for DRR and adaptation to climate change. This statement depicts the current situation in which Cameroon's Vision 2035, ongoing Poverty Reduction Strategy Papers (PRSPs), Debt Reduction Contracts (C2D), and Growth and Employment Strategy Paper (GESP), are all implemented with very little



considerations for climate change adaptation and DRR policies within the public sectors in Cameroon. One may systematically accede with Bruno(2011), who argue emphatically that “... on a legal level, the protection of populations is ensured in times of conflict or war by the principles from the Geneva Conventions. It is surprising that no agreement today will allow the protection of people in times of peace, even if this protection is the responsibility of States. However, many conflicts are closely linked to this basic principle and a clarification on this matter would therefore avoid crises. In addition, the protection of populations in time of peace by establishing general principles would ensure, on a global level, that a system of organizing the rescue, civil protection and crisis management provides assistance regarding minimum criteria” (Bruno2011).

It is with the aim of providing protection in times of peace that Bongo et al. (2013) argue for a rights-based approach to DRR. In practice, delimitations and weaknesses of some of these directorates of civil protection in developing countries like Cameroon is that they do not connect to the day-to-day risks and development practices of civil society. In order to address this dissociation, changes started at the level of states and institutions especially after the 2004 Indian Ocean tsunami (Rusydyet al., 2017). For this to happen, a paradigm shift from reactive to proactive (Jeggle, 2001; Twigg, 2004; Vermaak and Van Niekerk, 2004) was presented in 2005 in the form of the Hyogo Framework for Action (2005–2015). This implies policy change for disaster (risk) management at the multi-levels of disaster governance within institutions. How much of this policy change has affected Cameroon’s DRR/M policy at the national, sub-national, and community levels, is one of the questions this article would like to answer. This article focuses on the extent of integration (Mitchell et al., 2010; Llosa and Zodrow, 2011) of DRR laws and legislation into Cameroon’s public sectors and development planning using multiple criteria for measurements and evaluation.

#### **2.4. Research design and approach**

This research used both qualitative and quantitative research instruments. To answer the research questions: What is the status quo of DRR in Cameroon; How much of DRR commitments constitute an integral part of Cameroon’s development goals and Vision 2035; and is there an enabling environment for the existence of DRR policy and legislations in Cameroon, an exploratory study was carried out to test DRR policy implementation and performances in

Cameroon. In this study, the mixed method design was used, where both qualitative and quantitative data were gathered at the same time. This enabled the researchers to converge the data in order to provide a comprehensive analysis of the problem -that is, using the concurrent transformative design (Creswell et al., 2003).

Literature review and empirical data review involved learning and understanding the genesis and historical development of disaster and risk management in Cameroon from 1967 – 2017. Secondary data consisted of a historical analysis of past records from the Journals of Civil Protection in Cameroon, Status Report of the Civil Protection Department, four Aide Memoires, speeches, declarations, conference records and DRR related international meeting proceedings. Documentation from relevant Ministries which are mentioned below were also reviewed to obtain a detailed account of what happened in policy implementation against relevant frameworks and standard measuring scales used for DRR. The historical approach ensured credibility in assisting this study to examine and draw out evidence-based practices of DRR which the Cameroon government provided, or did not provide, to enable result-based analysis of DRR programmes. The DRR policy evaluation instruments used in this research included multiple criteria benchmarks and indicators to measure: 1) the uptake of DRR as an integral part of Cameroon's development planning, and Vision 2035; and 2) creating an enabling environment for DRR. To this end four policy instruments were used for the assessment of literature, which ranged from the Priority 1 and Priority 4 of the Hyogo Framework for Action (UN/ISDR, 2005), the USAID Policy Implementation Assessment Tool (PIAT) (USAID, 2010), the GOAL Toolkit for Disaster Resilience (GOAL, 2015), and the Checklist on Law and Disaster Risk Reduction (IFRC and UNDP, 2015).

This research targeted ten ministries (n=10/13) involved directly with DRR strategies, policies and actions. This was based on purposive criteria that some institutions (national focal points) had greater commitment and links to issues of disaster and risk management with MINAT than others. Ministries and institutions were selected based on the fact that some have more direct impacts and effects on the physical environment and human population than others (such as the Ministry of Environment, Protection of Nature and Sustainable Development, (MINEPDED), the Ministry of Agriculture and Rural Development (MINADER), the Ministry of Public Works (MINTP), and the Ministry of Scientific Research and Innovation (MINRESI). The second group

of role-players where chosen because of their involvement in development processes, governance and administration, prevention, preparation and coordination of crisis management and decentralization and humanitarian aid (e.g. the Ministry of Economy, Planning and Regional Development (MINEPAT), the Ministry of Territorial Administration and Decentralization (MINATD), the National Programme for Community-driven Projects (NPCDP), and the Ministry of Women's Empowerment and the Family (MINPROFF)[2]. A population sample of 280 was obtained. 180 men and 100 women were interviewed (Creswell et al., 2007). This was based on the fact that a limited number of people had expertise in DRR activities and policy formulation and implementation as a subject area in development planning. Diverse samples of population across the mentioned ministries were selected. This was based on the criteria of themes mentioned above, which was necessary to get respondents (both male and female) to share their expertise on the themes.

The questions were both open and closed ended, as semi-structured interviews were employed. The concurrent nested (embedded) design was used where priority was given to the qualitative approach as the main method, while quantitative approach through statistical survey instruments were nested or embedded into the qualitative methods.

#### **2.4.1. Empirical findings and results**

This section presents the discussion and results based on the literature review and empirical findings of the study. The findings are presented in terms of the extent of feasibility which are measurable through DRR policy instruments and practical implementation in Cameroon.

#### **2.4.2. Overview of DRR policy interventions in Cameroon**

Cameroon has a number of DRR policy intervention instruments in the public sector and ministries that could be used effectively in the national territory (on a decentralized basis). However, these DRR instruments found in different texts and legislations of different ministries are seldom implemented in the national territory. Technically, the problem lies at the level of MINATD/DPC, who are the centralized and bureaucratic coordinators for DRR/M for Cameroon. Documented studies consulted for this study demonstrate that MINATD/DPC are the sole coordinators in charge of implementing DRR strategies, policies and actions within

Cameroon. Hence this explains the centralized and bureaucratic nature of DRR implementation in Cameroon.

### **2.4.3. Gap analysis of disaster risk management in Cameroon**

The research found that there is lack of DRR initiatives and knowledge to coordinate and implement DRR activities at a national level. Since the inception in 1967 and re-organization of the DPC in 1986, one would have expected that the DPC would have systematically shifted its disaster management/civil protection paradigm from reactive to proactive as informed by the HFA Priority for Action 1 and 4. DRR-related activities and policies are found scattered across sectoral/ministerial documents. The Directorate of Civil Protection should have re-organized, assembled, and instituted these texts in conformity with the HFA Priority 1. These actions could have permitted Cameroon to develop a policy, legislation and institutional frameworks for DRR/M. Moreover, since 1998, the DPC has been predominantly relying on a reactive approach to disasters and crisis management. Hence, the National Contingency Plan and ORSEC Plan have formed the main instruments for disaster management. Substantial disaster reports from MINATD/DPC (2002) and field evidence confirm the absence of a strategic plan for DRR policy and civil protection for Cameroon.

### **2.4.4. Root causes of mainstreaming DRR into sustainable development for Cameroon**

Cameroon's Vision 2035 includes factors of climate change and environmental risks (MINEPAT, 2009). However, both Vision 2035 (MINEPAT, 2009) and the National Adaptation Plan (UNFCCC, 2016) do not have feasible action plans and programmes to integrate DRR as a development priority. Furthermore, there is weak evidence of collaboration in mainstreaming DRR across sectors within Cameroon. Climate change, sustainable development and DRR/M, are handled by different ministries. Hence, the Ministry of Environment and Forestry (MINEF), now separated from MINEPDED, for example, has identified and elaborated specific aspects of natural resources and natural risks in Cameroon under Project CMR/92/008 (MINEF and UNDP, 2008). Subsequently, three of five aspects proposed by MINEF together with the UNDP focusing on disaster management legislation and sustainable development are the following: 1) analyzing rural risks in Cameroon and determining risk zones; 2) taking stock of the regulatory and institutional frameworks in these different sectors; and 3) developing strategies and identifying

priority areas for action in sustainable development in a preserved environment. At the moment, the interventions and actions focused on disaster management and legislation identified above have not been implemented holistically or failed to become an integral part of development practices (Benson, 2009). Rather, they have been shelved or have become redundant as seen in Table I and Table II. This accounts for the dissociation between the implementation of DRR and emergency response and relief where the latter was actively practiced on post-disaster and -recovery bases over the last fifty-one years.

**Table I:** History of frameworks / reports on DRR implementation that Cameroon has agreed to. Source: **Authors**

<b>Framework / Report</b>	<b>Year</b>	<b>Evidence of actions from Cameroon</b>
IDNDR Yokohama	1994	Disaster management policy / Legislative framework
IDNDR "Cities At Risk"	1994	Media coverage and public awareness campaign
HFA	2005	Political commitments and institutional aspects
GPFDRR	2013	International / regional / national DRR report
HFA Report-1	2014	National report on the progress of HFA
Prep-Com 2	2014	International / Regional / National DRR report
AfRP Abuja	2014	Absent.
ICDO	2014	Capacity building for senior civil protection officials / mayors / prefects
SFDRR	2015	Influx of refugees and solidarity actions for EM.
1 <sup>st</sup> Sendai Kick-off Meeting	2015	Yaoundé SFDRR Declaration
ECCAS	2016	Evaluation of SFDRR in ECCAS countries
GPFDRR	2017	Political commitment to SFDRR

**Legend:**IDNDR (International Decade for Natural Disaster Reduction); HFA (Hyogo Framework for Disaster Risk Reduction); GPFDRR (Global Platform for Disaster Risk Reduction); AfRP (Africa Regional Platform); SFDRR (Sendai Framework for Disaster Risk Reduction); ICDO (International Civil Defence Academy); EM Emergency Management.

**Table II:** National policy papers to alleviate the impact of disasters in Cameroon. Source: **Authors**

<b>Framework / Report</b>	<b>Year</b>	<b>Evidence of Actions from Cameroon</b>
National Adaptation Plan	2015	Integration of CCA into relevant new and existing policies / programmes
Compendium (La Coffret)	2012	Compendium Report of the Civil Protection in Cameroon
National Contingency Plan	2011	Emergency management in case of major disasters/risks
Growth Employment and Strategy	2009	Accelerating growth, creating formal employment and reducing poverty
Cameroon Vision 2035	2009	Cameroon: an emerging, democratic and united country in diversity
Poverty Reduction Strategy	2008	Macroeconomic / social policies / growth / poverty reduction

Table I presents the history of international frameworks, conferences, actions and reports for disaster management that Cameroon has endorsed. Others, like the MDG 7 (assuring sustainable development); the Johannesburg Declaration (2002); the Strategy 4 of the Poverty Reduction Strategy Paper (PRSP) of 2003, which stipulates measures to reduce risks and disasters of

geological origin, were all taken into account for analysis in this research. Specific environmental ratifications since 1968 to date were also considered (MINTP 2014). Finally, Cameroon's diplomacy with her international humanitarian partners plays a strong role in emergency relief, since disaster response is an ad hoc activity (Guha-Sapir et al., 2004).

To date, efforts and guidelines proposed for mitigating disaster risks have been implemented at a slow pace or have largely remained inactive.

#### **2.4.5. Integrating DRR as a function of resilience**

The concept of resilience within the context of DRR in Cameroon could be describe as any action that fall within the prevention and the creation of risk, the reduction of existing risk and strengthening of economic, social, political and environmental resilience through the adoption and implementation of national and local disaster risk reduction strategies and plans, across different timescales with targets, indicators, and timeframes (UN/ISDR, 2015).

In the literature of DRR in Cameroon, the concept of resilience is used sparingly or does not exist at all. It is virtually absent from day-to-day reports, plans and actions of DRR in Cameroon. Two aspects can be deduced: there is either a lack of knowledge and the applicability of the concept of resilience is problematic; or there is voluntary denial to apply resilience (Manyena, 2009). As such, resilience as a function of DRR in Cameroon rates very poorly. In reference to the GOAL Toolkit Disaster Resilience Score (2015), DRR as a function of resilience in Cameroon falls under "Minimal Integration - Little awareness of the issue(s) or motivation to address them. Actions limited to crisis response" (GOAL, 2015). The next section presents the empirical findings in relation to the results of the evaluation.

### **2.5. Discussion of the empirical research**

The results from table III from the data analysis indicate that majority of the respondents 95% strongly agree that policies and legislation governing DRR in Cameroon are ineffective and need review. Likewise, less than 15% attest to the fact that DRR commitments actually constitute an integral part of Cameroon's development goals, and Vision 2035. More than 80% agreed that there is not an enabling environment for the DRR policy and legislation in Cameroon. According to the GOAL Toolkit, respondents were asked to rank Cameroon's DRR integration and

performances. The majority of the respondents (98%) ranked Cameroon under minimal integration with less than a 20% score.

**Table III:** Assessment of Cameroon’s disaster risk management laws and legislation with the Checklist on Law and Disaster Risk Reduction. Source: **Adapted from The Checklist on Law and Disaster Risk Reduction (2015).**

S/n	DRM laws and legislation indicators against DRR country law	Presence of indicator
1.	Does your country have a dedicated law for disaster risk management that prioritizes risk reduction and is tailored to your country’s context?	No
2.	Do your country’s laws establish clear roles and responsibilities related to risk reduction for all relevant institutions from the national to the local level?	No
3.	Do your country’s laws ensure that adequate resources are budgeted for disaster risk reduction?	No
4.	Do your country’s relevant sectoral laws include provisions to reduce existing risks and prevent the creation of new risks?	No
5.	Do your country’s laws establish clear procedures and responsibilities for conducting risk assessments and ensuring risk information is considered in development processes?	No
6.	Do your country’s laws establish clear procedures and responsibilities for early warning?	No
7.	Do your country’s laws require education, training and awareness-raising to promote a whole-of-society approach to disaster risk reduction?	No
8.	Do your county’s laws ensure the engagement of all relevant stakeholders including civil society, the private sector, scientific institutions and communities, in risk reduction decisions and activities?	No
9.	Do your country’s laws adequately address gender considerations and the special needs of particularly vulnerable categories of persons?	Yes
10.	Do your country’s laws include adequate mechanisms to ensure that responsibilities are fulfilled and rights are protected?	No

## 2.6. Cameroon National Platform for Disaster Risk Reduction (PN2RC)

As pointed out in the HFA toolkit for Africa (Westgate, 2010), DRR and related fields in Cameroon require a holistic and multi-sectoral approach to the planning and implementation of DRR strategies, actions and policies. Secondly, the toolkit also recommends that national coordinating mechanisms that are part of government structures are critical in addressing the challenges of DRR. Such structures therefore contribute to the sustainable development of countries. The results of the checklist reveal substantial geo-political alienation (Kobtzeff and Gardner, 2016; Tummers, 2012) of English-speaking DRR professionals, lack of risk institutionalization, absence of evidence-based practices for DRM, a lacuna in local and national strategic capacity building for DRR / CCA, and non-multi-sectoral and multi-disciplinary approaches that impede DRR strategic implementation plans in Cameroon.

## **2.7. Setbacks in Cameroon's DRR national platform**

Cameroon's DRR platform lacks the involvement of multiple stakeholders (Government of Cameroon, 2011; MINATD/DPC, 2002; MINATD/DPC, 2016b) that can combine the knowledge, skills and resources required for DRR and its mainstreaming into development policies, planning, and programmes (PN2RC). The national platform also encounters bureaucratic bottlenecks during relief operations (Bang, 2013), alienation of English-speaking professionals from DRR policy, and a lack of capacity to respond before, during and after a disaster strike (Westgate, 2010). Any DRR approaches, sustainable development, and even the climate change adaptation plan of action proposed by MINEPDED are themselves questionable if DRR actions are absent. Technically, DRR is not a national or local priority in Cameroon according to the research findings.

## **2.8. Putting Policy in Action: The Challenge of Service Delivery in Cameroon**

Putting DRR strategy and policy into action appears to be a challenge for service delivery in Cameroon. Despite the fact that DRR programme evaluation is a relevant mechanism to improve disaster risk management interventions within institutions, it is also true that reforms in the part of the public sector in charge of disaster risk management have not been able to translate best practices into achievable outcomes in Cameroon.

This, in turn, has created new risks (e.g. famine, 10,000 refugees fleeing to Nigeria, lack or poor quality housing in safe locations, insufficient income and livelihoods opportunities for particular categories of persons, lack of social protection) and exacerbated the vulnerability of specific groups within the civil society (for instance English speaking Cameroonians living in the North West and South West Regions), businesses, and private sector to shocks and stresses (e.g. homeless families, people abandoning farmlands, lost of livelihoods, children become orphans, jobless males and fear of the unknown) of various magnitudes within the national territory (see Blaikie et al. 1994; Oliver-Smith, 2009; Moncrieffe and Luttrell, 2005). It can be argued that this is due to the failure to put policy into action for DRR. This has caused immense setbacks and weak political commitment to mainstream DRR into development planning for Cameroon.



## **2.9. Challenges that Cameroon face in the implementation of DRR practices**

The research highlights principal challenges that Cameroon faces in the implementation of DRR plans, laws and legislation at the national level. These DRR plans either failed to involve multiple stakeholders, were implemented without the consultation of DRM professionals, did not consider or align with the international framework governing DRR, or focused on the reactive and humanitarian approach, not capable enough to be holistic and broad in its functions and operations in risk reduction and prevention. In fact, some of these documents do not embrace the principal UNISDR definition of risk. Basically, Cameroon demonstrates emergency management practices and humanitarian response rather than risk reduction in its institutional framework. The findings of this research also reveal that Cameroon scores poorly with regard to the integration of DRR when measured against the GOAL Scorecard (GOAL, 2015), with a score of 20%, indicating minimal integration. With a critical geopolitical challenge within the framework of the national platform, Cameroon has the task of reviewing its exclusion of DRR English-speaking professionals. The concept of the DRR national platform by definition is multi-sectoral and is not meant for a chosen few political elites. Marginalized groups and professionals should be recommended to get involved to improve DRR results and align with international standards where necessary. Secondly, over-centralized and bureaucratic DRR coordination and implementation efforts (Bang, 2013; Gaston et al., 2012) should be limited and decentralization by devolution should be an alternative solution.

The lacuna in the DRR approaches in Cameroon cannot be replaced by the current reactive and contingency plan for emergency response. With the lack of a multi-sectoral model, the efficiency of Cameroon's DRR needs a critical shift from disaster response (ORSEC plans) to a multi-sectoral and multi-stakeholder DRR platform where it would become inclusive and polycentric in practice. This statement aligns with Twigg's hypothesis that individuals could push through significant innovations, even in large organizations, if there is sufficient space within institutional structures and systems (Twigg, 2004). Without changes in the paradigm from disaster response to DRR and resilience building in Cameroon's policy and legislation, vulnerability reduction and exposure, as this article argues, will remain a threat to development gains within Cameroon's institutional planning and processes, as the case of the ongoing social protracted crisis in the Anglophone regions. Cameroon's present policy and legislation does not

in any way adhere to the HFA (Priority 1 and 4), which constituted part of this paper's evaluation. In fact, Cameroon needs a new DRR policy and legislation capable of enabling the SFDRR (Priorities 1- 4) and the National Adaptation Plan (NAP) into action within Cameroon's institutional framework.

## **2.10. Conclusion and recommendations**

The findings of this article show that DRR strategies, actions, and policies in Cameroon are relatively ineffective (Bang, 2014; Ndille and Belle, 2014) within the day-to-day development framework of the Cameroonian territory. This research sampled ten administrative sectors in Cameroon to measure how much of the DRR practices, actions, and policy had been integrated into institutional planning and development processes within the past 50 years since disaster risk management laws were re-organized in Cameroon.

Cameroon's approach to DRR following decrees on the general re-organization of civil protection throughout the national territory; to organize emergency response, major risk and relief plans; establishing of the National Platform for DRR (PN2GC); creation and functioning of the National Risk Observatory; tackle high-risk prevalence (fire outbreaks, seasonal floods, landslides, drought, uprooted populations, sudden outburst of internal displaced persons and refugees) has not been effectively implemented and scores very low in terms of a DRR integration. Cameroon's DRR actions are limited to emergency response plans (ERPs). At the local level, DRR plans have not yet materialized as part of the decentralization reform. There is a lack of trained personnel and a lack of capacity in DRR implementation within the national territory.

Cameroon did not succeed in implementing DRR frameworks like the Hyogo Framework for Action and will probably not succeed in implementing the Sendai Framework (2015-2030) if things remain the same without a paradigm shift from event focus to processes.

There is a need for Cameroon to change its DRR strategies and improve on the current laws within the national territory. Holistic and multi-sectoral approaches are best suited for DRM within the Cameroonian territory. Future research should look at the impact of natural and technological hazards in Cameroon, as well as national capacity building for disaster prevention and management. This research used a historical approach to analyse the status quo of DRR in

Cameroon's development sectors, something that is not covered in previous disaster risk management literature. Overall, Cameroon's DRR problem stems from the lack of risk reduction policies, and the inability to resolve risk components in its DRR regulations. Resilience-building does not form part of Cameroon's DRR framework. This article concludes that designing a comprehensive national disaster risk management plan or strategic framework to guide DRR implementation within Cameroon should be the way forward, taking into cognizance multi-sectoral and multi-disciplinary perspectives on DRR.

## Notes

[1] Available online from UN/ISDR. "Milestones in the History of Disaster Risk Reduction." Retrieved 20th March 2018, from <https://www.unisdr.org/who-we-are/history#60s>.

[2] Readers should note that names of selected Ministries and sectors used in this study from Cameroon were written in English while in most cases abbreviated in French for convenience. Except otherwise mentioned in English.

Table 1a & 1b. below presents Risk indicators of some Regions in Cameroon as illustrated with INFORM Risk index.

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## **CHAPTER 3**

# **COUNTING THE COST AND IMPACT OF NATURAL AND ANTHROPOGENIC DISASTERS IN CAMEROON: 2001-2016**

# Counting the cost and impact of natural and anthropogenic disasters in Cameroon: 2001-2016

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## Abstract:

By employing a cost-benefits analysis framework for Disaster Risk Management (DRM), this article provides a total cost estimate analysis of the impacts of natural and anthropogenic disasters in Cameroon. This research survey indicates that anthropogenic disasters such as technological failures and protracted social conflicts are more likely to cause fatalities than natural hazards. In their turn, impacts caused by natural hazards are more severe in economical and financial terms. This article uses an historical approach by comparing disaggregated data from the CRED's online database on generic categories of disasters as well as robust field evidence based on observations made from 2001-2016. Using a historical qualitative research approach, data was collected through purposive sampling among 1,206 informants. Quantitative data complemented the qualitative analysis using mixed method from concurrent triangulation. The INFORM RISK model was consulted for analysis to provide a clear account of losses caused by disasters in Cameroon. This paper furthermore advances EM-DAT's generic approach to disaster risk trends when it comes to evaluating the impact of natural and anthropogenic disasters.

**Keywords:** Disaster risk reduction, impacts, natural and anthropogenic disasters, cost-benefits analysis, Cameroon.

**Paper type:** Research paper

## 3. Introduction

The United Nations International Strategy for Disaster Reduction UN/ISDR (2015) working session on Global Risk Trends (WCDRR, 2015) pointed out that disaster risk reduction strategies, policies and actions need to be based on evidence of disaster loss and risk patterns and trends as well as future projections of global, social and environmental change, including a good understanding of the underlying risk factors; Integrated Research on Disaster Risk (IRDR, 2015).

The nation of Cameroon has been exposed to diverse risks, hazards and vulnerable conditions where thousands of deaths were registered while millions were affected and livelihoods, assets and critical infrastructures destroyed as a result of natural and anthropogenic disasters (Aka et al. 2016; Molua and Lambi, 2007). A critical look at the enabling environment for disaster risk reduction (DRR) in Cameroon shows that there are no supporting policies, laws or regulations in place for it to function (Bang, 2014; Ndille and Belle, 2014; Aka et al. 2016) There is a further lack of institutional structures to support national and local capacity for Disaster Risk Management (DRM) that could have augmented future disaster losses.

Cameroon has experienced at least forty-seven geo-physical hazards as well as disasters within its volcanic line (Aka et al. 2016) coupled with civil unrest (De Soysa, 2002; Mbu and Mbu, 2006; Argenti, 2008; Bloom, 2009; Lange and Dawson, 2009) and insurgencies (OCHA, 2014; UNHCR, 2016; UNICEF, 2016) that promote the escalation of anthropogenic disasters such as socially protracted conflicts within the national territory. The rise in insurgencies has made Cameroon one of the main centres for refugee and humanitarian relief in the Sahel Region (Cameroon Civil Protection, 2013; OCHA, 2012). In spite of these increasingly disastrous impacts, the government has not made a commitment towards establishing a disaster loss database (Ayonghe et al. 2002; Molua and Lambi 2007; Balgah and Buchenrieder, 2013).

Furthermore, the absence of a DRR policy framework to support a loss database, as will be argued within this article, has partially led to government's reactive / crises management approach to disasters over the last fifty-one years. Loss estimates and the cost of natural and anthropogenic disasters have been undermined and vulnerable groups such as the youth, women, the elderly, children and the marginalized have been exposed to complex shocks and uncertainties (Bloom, 2009). This negligence of a loss framework, including lack of finances to support such a framework, economically has accounted for poor integration of DRR policies in developmental sectors of the economy, where policy does not inform practice. This is seen especially in the case of integrating DRR into development policies and programs at the national and local levels to reduce the impact of disasters.

The aim of this article is therefore to carry out a systematic assessment of the impacts of natural and anthropogenic disasters in Cameroon. This will be done by investigating the cost of disasters by using a loss estimate framework. To this end, the article will firstly introduce the importance,

scope, definitions and concepts of what such a framework entails and, secondly, relate empirical findings and results. Finally, it presents its methodology, followed by a discussion and conclusion.

### **3.1. Importance of loss estimation**

A loss estimate framework for Cameroon should be linked to the national disaster loss databases of the Department of Civil Protection (DPC) which, until now, did not possess a reliable database for estimates of losses caused by natural and anthropogenic disasters. Although efforts have been made by the UN/ISDR to train stakeholders in charge of the DPC as well as civil servants involved in managing disaster risks, no single study and research from Cameroon has conducted a large-scale cost estimate of losses caused by disaster within the national territory (Okuyama, 2008). The present article writes into this lacuna, which presents considerable challenges such as establishing a systematic loss measurement for some hazards in order to follow up for Sendai Framework for Disaster Risk Reduction (SFDRR) target (c). It is within this context that curbing the increase in economic losses due to disasters, could a case for enabling policy and institutional arrangements be made to policy makers for DRR investments. The importance of counting the cost of natural and anthropogenic disasters has been asserted in the SFDRR (UN/ISDR, 2018a, UN/ISDR, 2018b).

Furthermore, it has been implied that measuring and monitoring targets for disaster risks cannot be the responsibility of government (Mitchell et al. 2014). This could be explained to the fact that instead, non-governmental organizations, groups and individuals are not encouraged to get involved in assessing and monitoring targets for DRM within their communities. In effect, this is partially adduced to the fact that disaster risks do not constitute an integral part of development planning in Cameroon. Consequently, research and data collection on human losses and destruction of livelihoods are poorly managed, and skewed. Accurate loss estimates are non-existent. Therefore, the accuracy of Cameroon's disaster loss database requires improvement. The latter will ensure better decisions based on evidence of loss estimation and the avoidance of creating new risks (Wallemacq et al. 2015b).

It is by employing these means that targets for the SFDRR could be translated into action at national, subnational and community levels. Further, these policy statements call for UN member states to prevent new risks and reduce existing disaster risks (Hallegatte et al. 2017), as the SFDRR indeed states with regard to Targets 1 to 4 (UN/ISDR, 2015).

### **3.1.1. Scope of loss measurements used in this study**

Given the considerations posed above, disaster loss baseline definitions as formulated by Hallegatte and Przyluski (2010) remained within the UN/ISDR and CRED/EM-DAT generic categories of disasters where mentioned (Guha-Sapir et al. 2014). This article covered mainly geo-physical and hydro-meteorological natural disasters such as earthquakes, volcanic eruptions, floods, flash floods, landslides and mudslides. In the case of anthropogenic disasters, this article covered two categories: i) technological disasters such as fires, air disasters, land disasters, disasters at sea, industrial / technological accidents and pollution as well as ii) social disasters such as protracted conflicts, displaced populations, displaced persons and refugees. CRED's database for loss measures uses three indicators: economical losses, the number of people affected (100 people or more should be reported affected) and the number of people killed (at least 10 or more people reported killed) and a state of emergency declaration. These will be used in the present article. It should be noted here that CRED furthermore uses these two generic categories, namely natural and technological disasters but as argued in UN/ISDR (2018a), in the context of Cameroon focussing on technological disasters will obscure and limit the usage of the Local Disaster Index (LDI) and the Prevalent Vulnerability Index (PVI) as indicators of loss measurements. The argument raised here is applicable to Cameroon disaster risk indicators where disasters are socio-environmental by nature and their occurrences result from challenges on the level of the social construction of risk (Cardona, 2005).

Reducing these challenges and concomitant disasters must be part of the decision-making processes when it comes to DRM. It is on this basis that the article employs the term *anthropogenic disasters* referring to both technological and protracted social conflicts that either cause or are related to long-term disasters (IFRCRCS, 1993).

### 3.1.2. Loss estimate approach: the process

DRM, which constitutes an important tool for risk reduction and prevention, is not based on a systematic approach to reduce risk as an integral part of sustainable development within the Cameroonian context. Consequently, this study relied on distinctive features for loss estimation within this country following a loss estimate process that included i) a CRED database for natural disasters in Cameroon), ii) *La Coffret de la Protection Civile du Cameroun* (the Status Report of Cameroon's Civil Protection) iii) extensive documentation studies combined with longitudinal analysis of more than 15 years' worth of participant field observations from 2001-2016 and iv) an INFORM model.

Approaches based on total cost estimate employ the methodological loss estimate framework to measure units of economical losses. This process requires information about the true costs of benefit-cost analysis (Okuyama, 2008; Rose 2009; Balbi et al. 2013). This cost benefit analysis of disaster impacts is represented in economical terms by stocks and flows that include damages to human as well as economical capital. For example, the Mount Cameroon eruption of 1999 destroyed hectares of crops, farmland and a major highway road towards the West Coast in Bakingili village (Suh et al. 2011) see Figure 2. These damages are referred to as stocks. That is, there was a decline in stocks due to damage of the main road from Limbe to Idenau. Other authors (Rose, 2004) have argued that stocks in this context refers to the quantity of goods or capital at a single point in time such as properties, and infrastructures. While flows refer to the amount of output from business interruption over time. The damages in stocks along the Limbe – Idenau sea port interrupted business activities from Cameroon to Nigeria which led to losses. The time taken to deviate the road towards Idenau led to business interruption and flow of services. These economical losses incurred during the period of road deviation caused by lava deposition along the highway are known as flows.

In their turn, decades of lava depositions since the 1900s had rendered the Fako Region naturally fertile for extensive agricultural practices and industrial farming. These are called actual or potential benefits of the volcanic activity of Mount Cameroon since 1900, resulting in considerable increase in dark, clayey, good chemical properties (Favalli et al. 2011).

Less than 1% impact has been registered when it comes to the human toll directly or indirectly caused by these volcanic eruptions in Cameroon, compared to hydro-meteorological impacts

throughout the nation of Cameroon. Homes constructed by the Germans before WWI around former German Residential Areas in Buea (GRA) and Bokwango village have withstood seismic shocks and earthquakes of various magnitudes since Germany's annexation of the country around (1914 – 1918). These earthquake resistant homes in Buea were retrofitted to withstand geo-physical and seismic shocks located directly at the foot of Mount Cameroon thereby securing economic growth and investments over 1000 years. Mileti (1999) and Rose (2009) accounts how engineers dominate the mitigation of physical infrastructures and property damage due to the fact that they laid emphasis on tangible property (see Table 1) including the benefit as in the case of early warning seismography (Twigg, 2004).

Indeed, structural improvement to prevent direct damage impacts have dominated Cameroon's DRM prevention measures. However, *anthropogenic disasters* have therefore been neglected, that is, vulnerability to natural hazards and disasters in Cameroon have played second fiddle in DRR policies and the creation of resilience mechanisms within the national territory. It is important to consider here that loss estimation on income, poverty and economical impacts of natural or anthropogenic disasters can be described as *indirect* damages, economically. They may therefore be overlooked, reinforcing the neglect of the impacts of anthropological disasters, which surely have an impact, albeit negatively, on cost benefits. For example, Natural and technological hazards (Natech) caused by human failures triggered the Eséka 2016 train disaster. To be specific, natural hazards (heavy rains) had separated Douala, the economical capital of Cameroon and Yaoundé, its political capital, because the road was damaged, incurring costs such as the re-construction and maintenance of the highway road from Douala to Yaoundé. Literally, funds that could have been spent to improve long-term development gains and infrastructures (roads and railways) were diverted for relief, reconstruction, and emergency response activities during these Post-disaster and recovery phases of the crises. It is under these circumstances and cases that this paper writes under Sendai Framework target (c) recommending that the Cameroon government should ensure that development planning should limit the creation of new vulnerabilities and reduce hazards exposure.

*Table 1. Summary of cost for DRM projects in Cameroon (1986-2002)*

*Source: Compiled from the Status Report of Cameroon Civil Protection, 2002.*

<b>Program</b>	<b>DRR Impact</b>	<b>Sector</b>	<b>Implementing Partner(s)</b>	<b>Amount</b>
Lake Nyos Project	Nyos Road/Rehabilitation	MINATD	UNDP, others	\$42,712,992

Mt Cameroon	10seismographs installed	MINATD	Cameroon	\$329,728.17
Limbe 2001 Flood	Rehabilitation/Recovery	MINATD	Cameroon	\$88,985,400
France DRR support	DRR intervention sectors	MINAT/MINEE	Cameroon	\$2,847,532.8
Douala 2000 Flood	Rehabilitation/Recovery	MINAT	Cameroon	\$23474.35
Diamare 2000 Flood	Bridge Reconstruction	MINTP	Cameroon	\$25627.8

Legend: Ministry of Territorial Administration and Decentralization (MINAT/D); Ministry of Mines, Water and Energy (MINEE); Ministry of Public Works (MINTP).

Table 2 below reflects CRED's 10 year moving average for hazards, deaths, and economical losses suffered between 2005 and 2014. Similarly, Table 3 reflects macro-economical indicators showing Average Annual Loss (AAL) caused by hazards suffered in Cameroon for 10 years.

**Table 2.** Source: CRED, 2015: CRED's 10 year moving average for losses (2005-2014).

<b>10-year moving average 2005-2014</b>	
Events	1
Deaths	6
Economical loss (in 000US\$)	0

Macro-economical indicators showing Average Annual Loss (AAL) by hazard in Cameroon shown in Table 3 below.

**Table 3. Source:** CRED, 2015: Average Annual Loss (AAL) by hazard

Hazard	Absolute [Million US\$]	Capital stock [%]	GFCF [%]	Social exp [%]	Total Reserves [%]	Gross Savings [%]
Earthquake	9.88	0.012	0.183	0.637	0.292	0.343
Flood	74.86	0.092	1.385	4.826	2.214	2.600
Multi- Hazard	84.74	0.104	1.568	5.463	2.507	2.943

\* Values for hazard are reflected in millions of US\$

Macro-economical indicators used by CRED in the 10-year moving average for 2014 consisted of the Gross Domestic Product (GDP), GDP per capita, capital stock, the Gross Fixed Capital Formation (GFCF) and social expenditures incurred. At the hand of robust field data gathered between 2001 and 2016, the present research critically examined the impacts of natural and anthropogenic disasters as provided by CRED for the years 1900 to 2016.



### **3.2. Methodology**

As mentioned, the article follows an approach that compares disaggregated data from 1) the CRED online database's country profile for Cameroon, 2) *La Coffret de la Protection Civile* (The Cameroon Civil Protection Status Reports on Disasters) for the years between 2002 and 2012), 3) the 2017 version of the INFORM RISK index and 4) a cross sectional survey and empirical observation (2001-2016). Primary data was collected from 1206 respondents through questionnaires and face-to-face interviews (206 participants). Ten Focus Group Discussions (composed of youths, disabled, men, women, academicians, the public and private sector workers) were conducted to examine disaster losses in risk hotspots. Empirical data was collected between 2001 and 2016. Qualitative and quantitative data were simultaneously collected from different individuals with quantitative data supporting qualitative analysis. The data was collected from two independent sources and converged for analysis. With authorization from the Ministry of Territorial Administration and Decentralization (MINATD), this research consulted the Cameroon Civil Protection Status Reports on Disasters (2002-2012) as well as the Focal Point of the National Risk Observatory (NRO) in Cameroon. The Four Aide Memoire of MINATD / DPC (2015-2016) was also consulted for disaster risk trends. Updated facts on refugee management and the humanitarian response in the Sahel were retrieved from each the official humanitarian response websites representing Cameroon (UNOCHA, UNICEF, WFP). As such, the INFORM RISK index (INFORM, 2017) was also consulted to provide a risk profile and vulnerability analysis of different regions within the nation of Cameroon.

### **3.3. Empirical findings and results**

In their application to study weather related disasters in the Netherderlands, Visser et al. (2012) used CRED's approach to summarize three indicators: economical losses, the number of people affected and the number of people killed. Using the same historical approach along with indicators for disaster occurrences in Cameroon, the present article assesses the impacts of historical disasters presented from 1900 to 2016 as found in CRED's database for Cameroon.

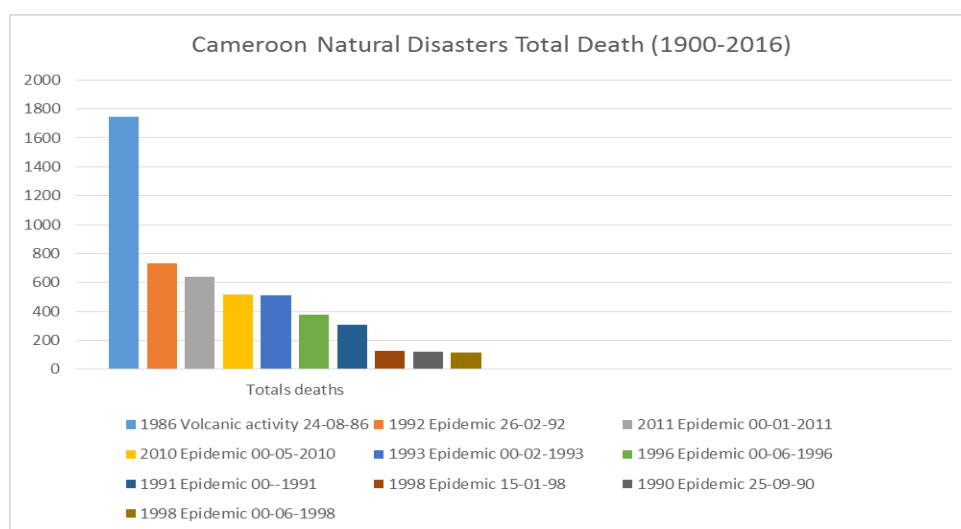
### **3.4. Historical overview of geological hazards/ disasters in Cameroon since 1800**

Table 4 below presents a historical overview of geological hazards/ disasters in Cameroon since 1800 (see Tchindjang, 2007). It constitutes an updated version of geological hazards / disasters in Cameroon from 1800 to 2016.

### 3.5. CRED’s Natural Disaster Country Profile for Cameroon (1900-2016)

Figure 3.2 below presents CRED’s recorded natural disaster total number of deaths in Cameroon from 1900 to 2016. Volcanic activities appear to lead the trend but these Figures are less than those registered from survey and statistics of the Civil Protection Report. The table includes the number of disasters and deaths recorded in the Compendium Report of the Civil Protection in Cameroon (Cameroon Civil Protection Report, 2002).

**Figure 3.2** Cameroon Natural Disasters Total Number of Death (1900-2016). Source: Modified from CRED, 2016.



The results in Figure 3.2 and Table 5 below demonstrate that there are missing datas for natural disasters and the total number of affected people between 1900 and 2016. The article compared CRED’s results with those of the Civil Protection Reports (Cameroon Civil Protection, 2002) as reflected in Table 7 based on a field survey that was conducted from 2001 to 2016. The discrepancies in CRED’s results indicate critical omissions when it came to handling disaster loss data from the original source. A critical analysis of these results will be made in the discussion towards the conclusion of this article.

**Table 5.** Total Number Affected by Natural Disasters (1900-2016) \* Modified from CRED, 2016.

Disaster Year	Disaster Type	Date	Total affected
1971	Drought	00-01-1971	400,000
2014	Flood	21-08-2014	250,000

1990	Drought	00-1990	186,900
2012	Flood	25-08-2012	31, 980
2015	Flood	22-06-2015	30,000
2008	Flood	00-07-2008	25,000
2012	Flood	27-08-2012	20,000
2011	Epidemic	00-01-2011	16,708
1986	Volcanic activity	24-08-1986	10,437
2007	Flood	02-08-2007	10,296
Grand Total			<b>981,319**</b>

Data of economic damage caused by natural disasters between 1900 and 2016 as reflected in Table 6 does not match the findings and results of the data presented in Table 3. Table 7 calls attention to inaccurate results as presented in Figure 3.2, Table 2, Table 5 and Table 6, also to be discussed in brief further detail towards the conclusion of the article.

**Table 6.** Economical Damage Natural Disasters (1900-2016). Modified from CRED, 2016.

Disaster Year	Disaster Type	Date	Damage ('000US\$)
1998	Insect infestation	10-07-1998	1700
1971	Drought	00-01-1971	1500
Grand Total			<b>3,200**</b>

Table 7 below presents a comprehensive summary of results recorded from the Status Report of Civil Protection between 1900 and 2002. Empirical observations based on original findings in the survey conducted between 2001 and 2016 such as flash floods in Limbe as well as findings made by preceding authors. see (Fogwe and Lambi, 2001; Ayonghe et al. 2004; Che et al. 2011; and Fon and Mbella, 2015) were corrected from CRED's current disaster database for Cameroon.

**Table 7.** Summary of Natural Catastrophe in Cameroon as identified in the Status Report of Cameroon Civil Protection (1900-2002), and the findings of this study. **Source:** DPC / Authors

Disaster type	Region	Town	Location	Month	Year	Death
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Landslide	North West	Nwa	Ndonga Mantung	November	2000	2
	North West	Wum	Menchum	September	2000	-
	South West	Limbe	Mabeta	-	1989	-
	South West	Limbe	Mawo	-	1989	-
	North West	Bamenda	Awae	-	1992	-
	Centre	Yaounde	Mvog- Betsi	January	2000	-
Landslide/Flood/MudSlide	South West	Limbe	Kaolin,Balengou Mabeta Newlayout		<b>*2001</b>	23
	South West	Limbe			1996	3
Earthquake Volcanic/techtonic activities	Littoral	Kribi		July	2002	
	Adamaoua Centre East	Akonolinga	Daba-Bozoum	October	1913	
Tremor		Yokadouma		September	1945	
		Batouri		September	1945	
		Garoua- Boulai			1986	
		Kettè		December	1994	
		Kettè		January	1995	
Volcanic activities Volcanic/techtonic activities			Moungo			
	West	Foumban		April	1987	
		Magba		April	1987	
	South West	Limbe			1946	
		Limbe			1947	
Volcanic/Toxic gas/Crater Lake		Limbe			1948	
	North West	Wum	Manoun	August	1984	1200
	North West	Nyos	Lake Nyos Volcanic Crater lakes	August	1986	1800
Volcanic Eruption	South West-	North West				
	South West	Buea	Bakingili	March	1999	
	South West	Buea		May	2000	
Floods	South West	Buea			1957	
	Littoral	Douala		August	<b>*2001</b>	
	Centre	Yaounde		October	<b>*2001</b>	
	Littoral	Douala		April	<b>*2001</b>	
	Centre	Yaounde	Nkoldongo, Mvog Ada			1
	North West	Bamenda		August	<b>*2001</b>	
	Extreme North	Maroua		August		2
	East	Bertoua	Nkongle, Faro Down Beach,	March	<b>*2001</b>	
	South West	Limbe	Clerks quarter	June	<b>*2001</b>	
						104

Storms/Tornados	Centre	Yaounde	Nsimeyong	March	<b>*2001</b>
	Centre		Monatélé	April	<b>*2001</b>
	Centre		Akonolinga		<b>*2001</b>
	Centre		Makénéné		<b>*2001</b>
	Centre		Mbam,Mfou	April	<b>*2001</b>
	North West	Wum		August	<b>*2001</b>
	Littoral		Moungo		<b>*2001</b>
	Centre		Mbalmayo		<b>*2001</b>
	North West	Wum	Mbère		<b>*2001</b>
	Centre		Haut-Nyong	April	<b>*2001</b>
Floods	North		Lagdo	October	1999

**Legend:** **\*2001** signifies the year with the highest number of hydro-meteorological disasters in Cameroon.

It is clear, again, that discrepancies occur in Figures around natural disasters, total deaths, total affected and economical damages as reported by CRED when compared to the present survey results and those extracted from the Status Report of the Civil Protection in Cameroon. This is exactly why it is relevant for the present article to compare and triangulate the most recent publication from CRED, since the discrepancies point to incomplete and omitted data for total affected, deaths, and economical damages in CRED and the Status Report of the Civil Protection in Cameroon.

### **3.6. Anthropogenic disasters in Cameroon: an overview**

Anthropogenic disasters comprise both technological and protracted social conflicts (see IFRCRCS 1993) within Cameroon's territory.

#### **3.6.1. Technological hazards**

Technological disasters (Krejsa, 1997) show great frequency in Cameroon and the results of the survey confirm a high-risk ranking of 76%. The probabilities of fatalities in terms of death rates are greater than natural hazards / disasters in Cameroon. Although natural hazards / disasters are a problem for Cameroon, technological disasters especially in the transport sector, ranging from air to road accidents, have increased more than natural disasters over the last two decades. Loss estimates of risk patterns and trends associated with technological disasters in Cameroon cannot be fully demonstrated due to the absence of decentralized DRR mechanisms and emergency planning and the absence of formal local or municipal registries that would have recorded critical

sectoral problems like road accidents witnessed on a daily basis in Cameroon. Furthermore, disasters are not integrated into developmental processes. For these reasons, Quarantelli (1994) rightly advocates for a holistic approach to hazard management to recognize the need to approach accidents and natural disasters with better emergency planning. This should entail improved implementation of regulatory processes to reduce the numbers and consequences of technological accidents and the impacts of some natural disasters.

*Figure 3.3-1 Total death in technological disasters in Cameroon*

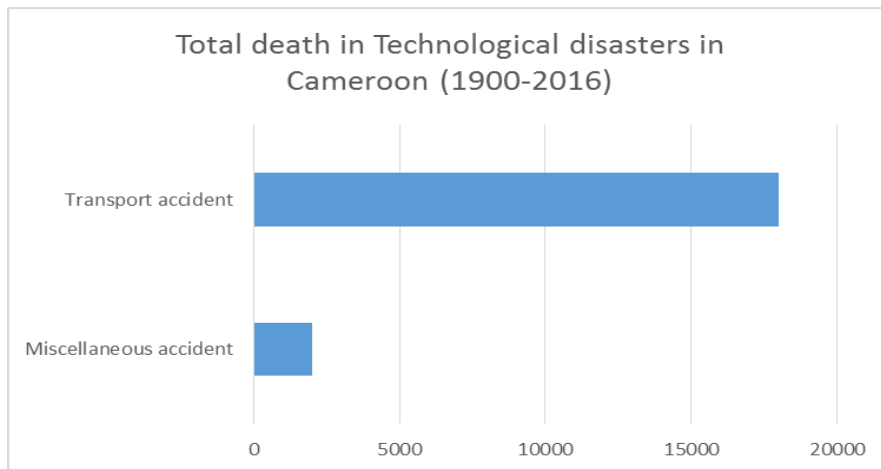


Table 3.3-1 indicates CRED’s account of technological disasters in Cameroon from 1900 to 2016. Transport accidents draw attention to risk probability and the mortality rate in Cameroon as caused on the whole by technological disasters that result from accidents. Also, technological disasters related to transport hazards have high probability of occurrence, with more deaths registered within the last decade than natural hazards in Cameroon.

### **3.7. Impacts of protracted social conflict in Cameroon**

Field surveys on disaster risk in Cameroon demonstrate that protracted social conflict has been neglected within the social and environmental risk policy response to disasters. The negligence to measure and manage underlying risks such as those related to Boko Haram, as found within particular regions in the Extreme Northern Region (see OCHA, 2014; UNHCR, 2016) and the crisis in Cameroon’s English-speaking regions (Atabong, 2017) could be partially blamed for

increase in protracted conflicts. This, as informants emphasized, is due to an accumulation of years of economical deprivation, marginalization and inequality in the appointment of public administrative positions (Leoni et al. 2011). Though this topic is not the central theme of the present research, it is an important aspect of its focus on the role of neglect in DRM (see Wisner and Gaillard, 2009), in particular within the framework of understanding risk and underlying factors of risk in the context of Cameroon. Neglect has led to extreme social and economical fragility among populations and this has generated a considerably damaging impact on the country’s development. The article therefore presents a summary of the impacts of prevalent vulnerability indicators on the economical and financial situation in Cameroon. Figures 3.4-1, 3.4-2 and Figure 3.4-3 below presents Bohlund (2017) illustration on the impacts of neglect, fragility and damages on Cameroon’s economy growth caused by protracted conflicts.

Figure 3.4-1 (Source: Bohlund, 2017)

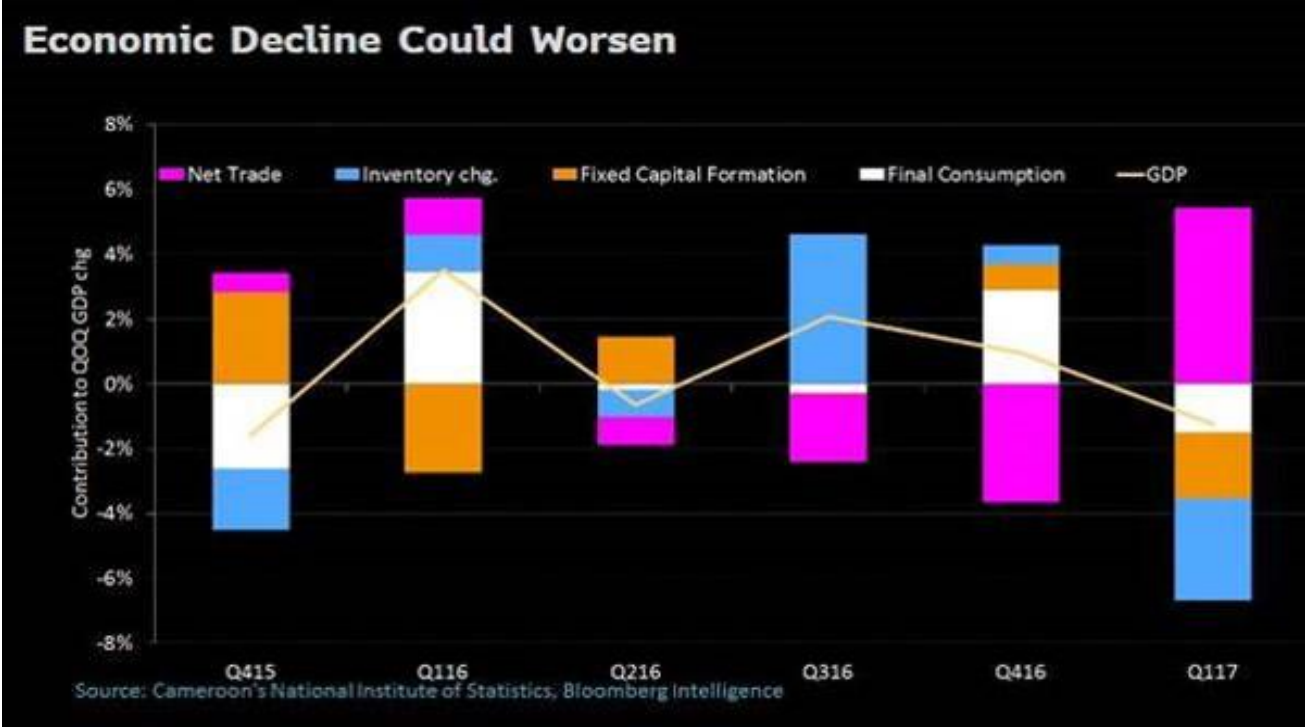


Figure 3.4-1 demonstrates how the current social conflict in the North West and South West Regions is likely to exacerbate economical decline in Cameroon. Coupled with the insurgencies in the Far Northern Region dominated by the Boko Haram group, Cameroon is now faced with a double crisis within its national territory. It has to manage the insurgencies on top of the political crisis in the Anglophone regions.

Figure 3.4-2 (Source: Bohlund, 2017)

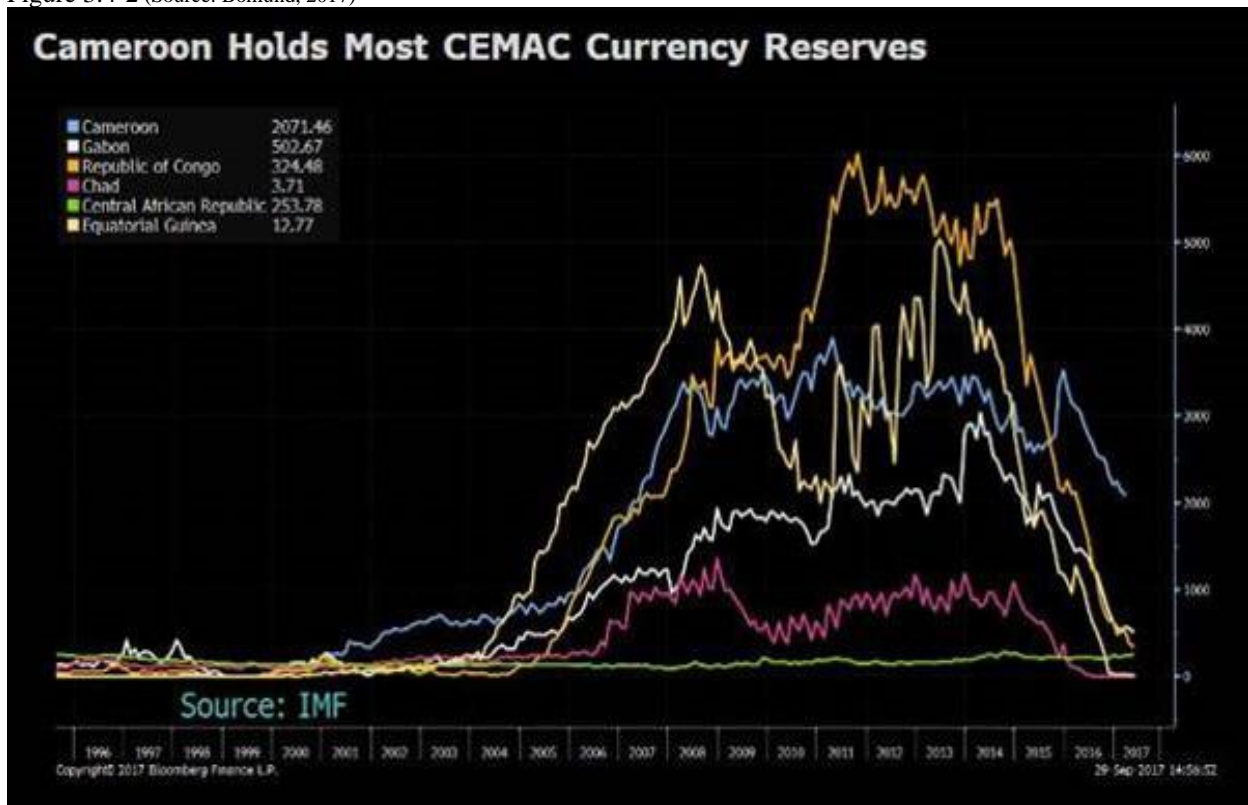


Figure 3.4-2 demonstrates that Cameroon holds most CEMAC currency reserves in terms of Bohlund (2017) who has argued that the current political violence is likely to exacerbate a slowdown in Cameroon’s economy. Real GDP contracted by 1.3% in seasonally adjusted quarter-over-quarter terms in 1Q, in contrast to growing by an average of 5.3% in 2012 to 2016.

### 3.8. INFORM RISK Country Profile for Cameroon

To ensure the reliability, validity, and credibility of the methods, procedures and databases consulted to draw conclusions in this research, an INFORM RISK model was employed. This model analyses and ranks components of risk using a multi-sectoral approach to DRR. Key conceptual frameworks in DRM such as hazard and exposure, vulnerability and lack of coping capacity form the three dimensions of INFORM components at the local and national level, in this case within the Cameroonian territory.

The INFORM index below, presented in Figure 3.6 reflects the indicators used to measure the mentioned three risk dimensions from sub-national to the national levels in Cameroon.



Cameroon ranks 18<sup>th</sup> out of 191 countries on the INFORM index. According to the INFORM index, the further the ranking from 1 to 191, the less probable it will be for a country to be at risk of humanitarian crises that would likely demand international support and humanitarian assistance. Cameroon’s INFORM risk rank indicates risk that is as great as that of its neighbouring Central African countries including Burundi positioned 16<sup>th</sup>, the Central African Republic at the third position, Chad at the fifth and the Democratic Republic of the Congo, which occupies the eighth position in these rankings. A scale of 0 to 10 was developed from the context of INFORM RISK to measure risk indicators and their likelihood within the sub-national and national territories.

**Figure 3.5** INFORM RISK country profile for Cameroon

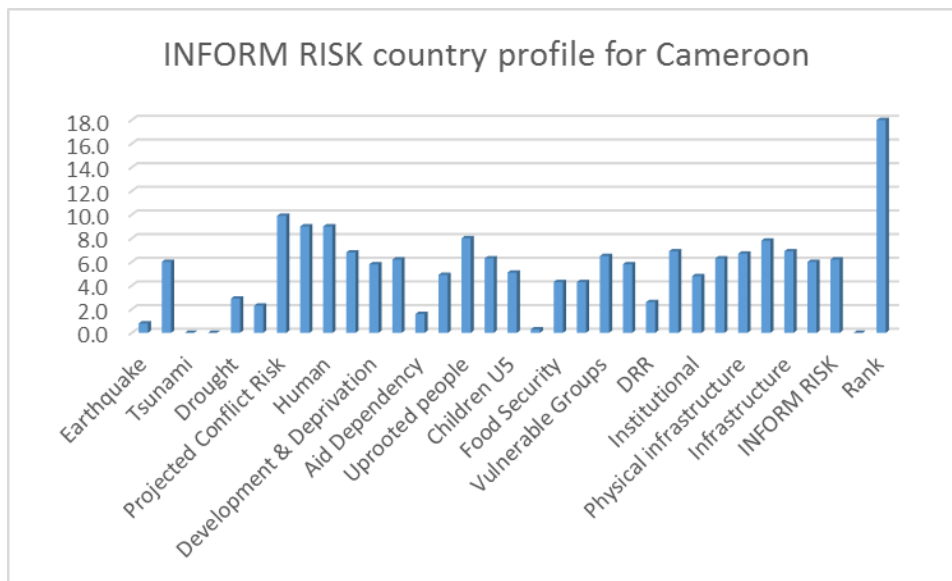


Figure 3.5 above indicates the likelihood of a flood against that of an earthquake, illustrating higher risk associated with hydro-meteorological hazards, since these indeed present themselves annually in strategic regions of Cameroon, confirming the results and findings reflected in Table 7. The mortality rate impact would accordingly be less than in the case of earthquakes, since houses are located at least 30 kms away from the risk zones around Mount Cameroon. Furthermore, due to climate change impacts, increases in coastal floods can be expected in the Sahel Region. DRR implementation shows a low rate of 2.6 for Cameroon on the whole and this spells a challenge for DRM of climate change impacts.

Table 8 below presents 19 of 27 indicators found in the INFORM index used here to demonstrate Cameroon 's risks.

**Table 8.** Illustrating specific INFORM RISK indicators applied in this article. Source: INFORM RISK, 2017

<b>INFORM RISK indicators</b>	<b>INFORM RISK index (0-10)</b>
DRR Implementation	2.6
Projected Conflict Risk	9.9
Flood	6
Drought	2.9
Current High Violent Conflict Intensity	9
Earthquake	0.5
Development & Deprivation	5.8
Inequality	6.2
Socio-Economical Vulnerability	4.9
Natural Hazards	2.3
Human induced	9
Uprooted people	8
Food security	4.3
Other Vulnerable Groups	4.3
Vulnerable Groups	6.5
Governance	6.9
Institutional	4.8
Physical Infrastructure	6.7
Infrastructure	6.9
Rank	18 <sup>th</sup>

Source: **INFORM RISK, 2017**

These are the specific indicators used in this article. Projected Conflict Risk, Current High Violent Conflict and Human Induced Hazards measure highest on the index. This could be accounted for with the rise in humanitarian crises within the Lake Chad Basin especially in countries like Nigeria, Chad and the Central Africa Republic where insecurity, armed conflicts and insurgencies are causing triple humanitarian crises (UNICEF, 2017). Indicators like Development and Deprivation, Inequality and Socio-Economical Vulnerability are not properly considered by INFORM RISK model. Political violence relating to national unity exacerbates social vulnerability to disasters. As such, regions mapped as low risk according to the INFORM index in Cameroon are now suffering under intense protracted conflicts with the state in the South West and North West Regions. With more than 10 people dead, more than 100 people affected and a state of emergency declared from 2016 to the present, it had already been categorised under the disaster definition of CRED (UN/ISDR, 2009). As reflected in table 8

above, all 19 indicators selected from the INFORM RISK index show that Cameroon has a long way to go in terms of implementing DRM laws and legislation within its territory. This is reflected in Figures 3.2 and Figure 3.3-1 in the ratio of the mortality rate to natural hazards and disasters, which could be represented as 1:100 in relation to anthropogenic disasters.

### **3.9. Interpretation of results**

Table 2, which presents CRED's ten-year average for losses between 2005 and 2014 was found to be a cumbersome indicator for loss estimates. Between 1900 and 2016, the total number of deaths reported in Cameroon were 5187 and the total number affected were 981,319 people as reported in CRED. It further reported that economical damages amounted to \$3,200.00 (see Table 6). These figures are questionable and contradict empirical results observed in the present field survey of 2001 to 2016 as well as the INFORM model. Results from Table 8 indicate that natural hazards, earthquakes, floods and drought have lower probabilities of occurrence with low mortality rates registered, while variables for anthropogenic disasters demonstrate a greater number of fatalities while, paradoxically, natural hazards had been given more attention than anthropogenic disasters. Findings show that the total number of deaths by natural disasters were 5,187, while it amounted to 20,011 for technological disasters and more than 5000 for protracted conflicts between 1900 and 2016. Cameroon's Volcanic Lake (Lake Nyos) appear to an extent to be the deadliest threat, showing 1800 deaths registered as seen in Figure 3.2. but, anthropogenic hazards (disaster related to accidents and protracted conflicts) are likely to cause deaths than natural hazards and disasters.

Table 1 and Table 3 present results that are more valid than those presented in Table 2, Table 5 and Table 6 when it comes to Cameroon's Annual Average Loss (AAL) and economical damages caused by natural hazards and disasters. Combining figures in Table 1 and Table 3 shows that natural hazards are costlier in economical terms than protracted social risks or conflicts. Anthropogenic disasters, which can be identified as underlying risks, has not been integrated into Cameroon's DRM framework as potential hazards, while it is likely that anthropogenic disasters may increase the severity of the mortality rate in years to come precisely due to failures to address these underlying risk factors. This reduces Cameroon's chances of attaining the SFDRR Target (a) to Target (d). Empirical results as reflected in Table 3 demonstrate that natural disasters do cause more economical damages and a greater number of

people affected within the Cameroonian population than anthropogenic disasters. The results of these findings show that Cameroon's efforts in achieving the SFDRR Target (b) and Target (c) are questionable in the absence of effective measures to prevent new and existing disaster risks throughout its sub-national and national territory. With a population of 981, 319 that has been affected by natural disasters and \$84,740 000 for economical damages, empirical results over the last three decades reinforce the recognition that natural disasters induce a greater extent of economical damage and affected people than anthropogenic disasters in Cameroon.

### **3.9.1. Missing data in loss estimate**

The missing links which affected the results of this article are as follows:

Disaster missing link of Cameroon Natural Disasters total death from CRED database, 2016 edition, as found in Figure 3.2: total number of deaths 5,187 underestimates deaths at least for those gathered within the context of this article. Location of missing link which this article found were, but not limited to the following;

- I. 1996: 3 death on Flash floods (Found in Table 7, absent in Table 5).
- II. 2001: Flash floods and landslides in Limbe on 26 and 27 June 2001: 23 deaths recorded. Not reported in Table 2 and Table 5. This amounts to a missing link because most disasters in 2001 were not reported in Table 5.
- III. 1984: Lake Manoun poisonous gas of 15 August 1984: 37 deaths recorded. Found in Table 7, absent in Table 2 and Table 5. This amounts to a missing link because this figure was never reported.
- IV. Cameroon Natural Disasters: total affected as can be seen in Table 5: missing links include absence of data for 2005 and 2013 fluvial floods in Limbe.
- V. Apart from missing links in Figure 3.2, Table 2, Table 5 and Table 6, where total deaths were not recorded, the numbers of total affected people are expected to have risen above the actual numbers provided. These figures are therefore not valid as presented in the source materials form which EM-DAT (2016) was gathered for publication.

### **3.10. Disaster risk reduction gaps in Cameroon**

There are no formal institutions in charge of recording disasters within Cameroon. The country therefore does not possess sufficient capacity to handle DRR as a multi-sectoral activity. Vulnerability as per INFORM RISK index projects crises on a high level due to armed conflicts

and insecurities faced by some regions in Northern Cameroon, as has been indicated. Areas such as the North West and South West Regions presented significant results with indicators ranging from regional inequality, development and deprivation, socio-economical vulnerability, political violence and the problem of national unity. These factors have proved to be thorns in the flesh for the Cameroon government. Thus, socio-political risks were not considered properly into the INFORM index as possible hazard indicators in these regions.

### **3.10.1. Hydro-meteorological disasters featuring as possible threats for global warming and climate destabilization in Cameroon.**

Table 7 demonstrates that the year 2001 marked one of the highest recorded years for disasters in Cameroon when hydro-meteorological disasters reached its peak, occurring in 16 different locations across Cameroon. With the increase in global warming and climate change set to induce coastal floods (Molua and Lambi 2006; Munji et al. 2013), populations living five meters above sea level, especially in the cases of Limbe and Douala, should be prepared for the resulting impacts in their communities. Limbe (old name was Victoria) found in the South West Region of Cameroon is barely 5 meters above sea level. This city of Limbe is bounded by the Atlantic Ocean in the South, experiences torrential rains, severe inundations, landslide, and mudslide owing to its basin-like topography along the West African Coast, Gulf of Guinea. Following analysis from the figures on natural hazards presented within this article, the last eight years from 2001 to 2018 have been recorded as the period with the most severe natural hazards and disasters within the Limbe community, with houses, roads, colleges, and vehicles constantly being submerged during the heart of raining seasons. The coastal city of Douala which is the economic capital enjoys constant flooding and inundations for more than three decades. Economic growth like business interruptions constantly affects these two coastal towns demarcated largely by their geographical and economical activities by the Atlantic Ocean. Other regions like the Centre, Extreme North, North, the East and Adamawa should also be prepared for climate destabilizations as identified by means of INFORM RISK indicators.

### **3.11. Conclusion**

The aim of this study was to carry out a systematic assessment of the impacts of natural and anthropogenic disasters in Cameroon. The findings demonstrated that anthropogenic disasters are more likely to cause fatalities in terms of the mortality rate than natural disasters or hazards. This

fact could be represented in a ratio of 1:100. Moreover, natural hazards and disasters are costlier in economical terms than anthropogenic disasters. Disaster mitigation and prevention is still addressed on an ad hoc basis in Cameroon where disaster loss estimates are sparingly collected or inaccurately presented for official purposes.

Importantly, Cameroon did not possess a disaster loss database at the time during which this study was carried out. The study therefore employed a loss estimate approach to measure and monitor targets for disaster risks at sub-national and national levels. CRED's attention is drawn to discrepancies caused by missing data within Cameroon's disaster loss database for natural and technological disasters. For Cameroon to lay claims on disaster prevention and mitigation, it is important for the government to strengthen its DRR laws and regulatory policies so as to monitor and measure disaster risks by developing a reliable disaster loss database on a national level.

The most significant potential contribution of this article however resides in analysing and expanding a loss estimate framework at the national level, adding to previous geo-physical and engineering approaches.

The study furthermore attempted to address relevant aspects of the SFDRR Target (a) to Target (d) for Cameroon, finding that it is important to recommend attention to Target 7. Future research should therefore look at how to strengthen capacity building for DRM institutions in Cameroon at local, sub-national, and national levels. Finally, the results and analysis of this study could be used in the development of new DRR strategies, policies and action plans for Cameroon over the next five years.

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## **CHAPTER 4**

# **BUILDING NATIONAL AND LOCAL CAPACITY FOR DISASTER RISK MANAGEMENT IN CAMEROON**

# **Building national and local capacity for disaster risk management in Cameroon**

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## **Abstract**

A new framework to support the national and local capacity building plan for disaster risk management in Cameroon is presented. For the past thirty years, after the general re-organization of the civil protection department, capacity building programmes for disaster risk management (DRM) has been solely carried out for and by the Ministry of Territorial Administration (MINAT) and the Department of Civil Protection (DPC). The exclusion of businesses, civil society and community participation, among others, has been the main obstacle to capacity building programmes undertaken for DRM. Based on interviews conducted among 200 informants by means of a process of participatory monitoring and evaluation as well as a duo capacity building workshop for DRM held in August 2017 in Yaoundé, this article evaluated existing capacity building programmes for DRM in Cameroon. Findings show that the greater portion of government representatives within the public administration lack capacity to address DRM initiatives at the local and national levels of governance. While recommending DRM programmes as a necessity for integration within civil administrative curriculum, this article proposes six elements to address capacity building gaps for DRM in Cameroon. The present research concludes that it is a matter of changing mindsets and attitudes for an enabling environment in which to build capacity for DRM within Cameroon is imperative.

## **Key words:**

*Capacity building, Capacity development, Disaster risk reduction, Disaster risk management Sustainable change, Cameroon*

## **4. Introduction**

The involvement of business and civil society (Hutter and O'Mahony, 2004) in building national and local capacity for disaster risk management (DRM) (Brinkerhoff, 1999) is critical if governments in developing countries are to improve the transparency, quality and effectiveness of their policies (OECD, 2003; Vian et al. 2017). Considerable problems related to coordination and cooperation among stakeholders (Head and Alford, 2015) for efforts towards capacity building for DRM, legislative processes related to risks, disasters, and uncertainties, cannot simply be tackled by shared diplomacy, protection of national unity, and bureaucratic politics while, to date, these have been the *modus operandi* in Cameroon (Webler and Renn, 1995; Hai Do, 2010). However, stakeholders within the state who are responsible for co-ordination and

implementation of DRM capacity building programs (Shaw and Oikawa, 2014; Ubels et al. 2010; UN/DRR 2004; UN/DRR, 2018) tend to become weak and ineffective (Khan and Gray, 2006) because of high levels of intractable uncertainties engrained within public policy and administrative sectors in Cameroon (Bratton, 1994; Van Asselt and Renn, 2011; Waarden, 2013). This argument is confirmed with Khan and Gray (2006) who argue that evidence for poor state weakness is a crucial factor for development in developing countries in Africa.

Although disaster risk reduction (DRR) is acclaimed for its all-of-society engagement and partnership approach, involving inclusive, accessible and non-discriminatory participation of gender, age or disabled persons as presented in the Sendai Framework for Disaster Risk Reduction (SFDRR) (Sections 19e and 19d), governments are nonetheless expected to be the ultimate stakeholders responsible for capacity development at national and local levels (UN/DRR, 2015; UN/DRR, 2017). This statement should certainly also hold true for “democratic” developing countries who intend to adhere to capacity development initiatives (UN/DRR, 2007; UN/DRR, 2018) towards reducing disaster risk. Despite the various claims mentioned, though, the reverse may be true for Cameroon where political and institutional capacities regulating and restraining collective group or society activities in risk governance (Renn et al. 2011) have neglected (MINAT/DPC, 2017a; MINAT/DPC, 2017b) participation of civil society (see GNDR, 2012:3) and other relevant stakeholders within the national territory (Bellamy and Hill, 2010; Edwards, 2004). Therefore, robust evidence of state-centric approaches, with command-and-control locus of power (Renn et al. 2011) has been the dominant paradigm until date when this article was written for DRM capacity development efforts in Cameroon. This article will therefore take a critical look at capacity development initiatives (CDI) implemented to reduce disaster risk in Cameroon, recognizing the intractability and complex nature of DRR implementation as the case with *Plan d’Action du Programme Pays 2013-2017 (CPAP)* – Country Programme Plan of Action for 2013-2017 carried out between the Cameroon Government and UNDP. This project was executed through *Effet Amélioration de la Résilience des Populations face aux Effets du Changement Climatique (REPECC)*, and a host of other capacity building support programs between MINAT/DPC and international partners in risks and disaster management within the national territory. To achieve this, over 70 resources discussing capacity building programmes were identified, reviewed and analysed concurrently with workshops A and B, as part of the literature review in this project.

The purpose of this article is to provide knowledge and potential guidelines for capacity building of DRM institutions in Cameroon at the national, sub-national and local levels with a view for sustainable change defined in this context as frameworks, tools, techniques and skilled change which leaders, members of a community or group, could employ during a change process. The skilled change leaders and stakeholders must be familiar with the frameworks, tools and techniques available in order to use the appropriate ones given a particular circumstance.

The present article therefore focuses on DRR capacity at the national, sub-national and local levels by analysing DRM efforts in Cameroon (see UNDP, 2017). The potential practical applications of this article will contribute to the existing framework called the National Disaster Prevention and Management Programme (NDPMP) that has been established through UNDP's support project of the National Capacity Building Program for Disaster Management (NCBPDM) in Cameroon over the periods of 1997 to 2002) and 2003 to 2007. The NDPMP represents an important framework initiated by the UNDP from 1997 to the present to support Cameroon's capacity for disaster management. Within this broader framework, this article focuses on the following questions: how can Cameroon's DRR platform strengthen its national and local capacity with a view to DRM? Subsequently, the focus will shift to a discussion of the conceptual framework and results obtained by extensive literature search and field survey.

#### **4.1. DRM capacity building**

The historical development of the phrase "capacity building" with the international development community as Tiwari (2015) argue dates back to the post-World War II era. This development provided intriguing and important perspectives on the subject matter of capacity building (CB) which consists of external aid and international assistance towards poverty reduction in poor countries as undertaken by donor countries and international partners (DAC, 2006). Although Beazley et al. (2004) present their case tracing the reminiscent of the phrase capacity building to Arnstein's view on public participation (Arnstein, 1969), Beazley et al. (2004) accede that much attention on the effectiveness of capacity building is insignificant. This is because much focus has been on how capacity building operates as a popular conceptual idea with several interpretations (Hagelsteen and Becker, 2013) from different stakeholders and organizations (see Whyte, 2004; OECD, 2006; JICA 2007; UNDP, 2009; World Bank, 2009; USAID, 2011) having

different definitions on CB. This article will employ UNDP definition of capacity building which defines it as the creation of an enabling environment for DRR with appropriate policy and legal frameworks for institutional development, including community participation, human resources development and strengthening of managerial systems (UNDP, 2008). This definition of capacity building by implication places the phrase CB as a long-term, continuing process in which all stakeholders need to participate, including ministries, local authorities, non-governmental organizations, professional associations, academics and others. This article poses in relation to UNDP (2008) definition above that the long-term view of CB is not yet feasible within the Cameroonian context of risks and disaster management. To justify this argument, Few et al. (2016) argue that fewer studies in low-and middle income countries have conducted empirical studies examining CB interventions within these nations. With specific focus for Cameroon in the ranks of low- and middle-income countries, strengthening capacity building for DRM need to be a key success factor in DRR integration at the national and local levels. This is important in order to achieve the Sendai Framework for Disaster Risk Reduction (SFDRR, 2015-2030) targets in Cameroon. Consequently, the relevance of the present study on CB for DRM in Cameroon attempts to close the gap in managing risks and disasters from reactive towards a proactive approach in hazards and disaster planning. The article also contributes to the NCBPDM in Cameroon. Literature on CB for DRM in Cameroon either in French or in English-language is scarce or not readily available. The reasons could be explained here in two dimensions. Firstly, CB interventions in Cameroon as presented in the next section possess exclusive approaches within the longer-term objectives of specific development sectors. For example, those related to the Convention on Climate Change, the Global Environment Facility (GEF) and the United Nations Environment Programme (UNEP) operating under the Ministry of Forestry and Wildlife; the Ministry of Environment, Nature, and Sustainable Development (MINEPDEP); and the Ministry of Public Works (MINTP). Secondly, the centralised political and bureaucratic context of CB interventions is exclusively limited to the Civil Protection Department (DPC), and civil administrators all concentrated in the political capital, Yaoundé.

It is against this back drop of un-sustained capability to plan for and undertake DRM interventions and approaches to reduce risk in Cameroon that this article poses on four definitions from Capacity for Disaster Reduction Initiative (CADRI). CADRI's four view on capacity entails the following as applicable to this context: a country's overall capability to



manage its own development process; developing capacity as an ongoing process of change that needs to take place over time; the recognition that the country's developmental path should possess capacity issues and priorities, that is, no blue prints for capacity) and, lastly, recognizing that capacity issues are multi-dimensional and complex in nature and relate as much to broader societal challenges and systematic issues as they do to training, skills development and the transferral of technology (CADRI, 2006). An essential element in the literature of capacity (in relation to DRR) as emphasized by the UNDP (2009:6) is that of transformation of individuals, organisations and societies generated and sustained by individuals, leaders, organisations, and societies, within which the change is meant to benefit over time. It is in this light of transformation and change seen through the lens of organizational capacity and disaster management that Kusmassari et al. (2010) raised critical arguments pertaining to disaster management and its potential to attract political attention with Birkland (2006). Expounding on the same argument in view of organisational capacity and disasters, the account of Kusmassari et al. (2010) further poses with Schwartz and Sulitzeanu-Kenan (2004) stressing that “although disaster draws political attention, policy change becomes a prerequisite for problem identification and is in need of an enabling environment such as hierarchical accountability and a conducive political climate”. By implications within the context of this article, the United Nations Disaster Risk Reduction (UN/DRR, 2017:58) alludes that CB for DRM initiatives is expected to draw the attention of local governments to reduce risk and disasters in Cameroon. To achieve this, emphasis is placed on strengthening institutional capacity for DRM at the local and national level, with the active participation of multiple organisations and stakeholders committed to reduce risk and disasters within the national territory. The article will hence present an overview of capacity building and DRR approaches in Cameroon. A brief discussion on capacity development (CD) and DRR approaches in Cameroon is provided in the section below. The essence is to draw attention on the genesis and evolution of capacity development initiatives (CDI) which were expected to facilitate the integration of DRR in Cameroon.

#### **4.2. Overview of capacity development and DRR approaches in Cameroon**

For developing countries in Africa, (CDI) could be traced with strategic stakeholders such as the UNDP, UNEP the Global Environmental Facility (GEF) and the World Bank (see Bellamy and Hill, 2010). In view of this global environmental management program, Cameroon ratified three major conventions Rio Conventions on Biodiversity, Climate Change and Desertification and

was selected among the 153 eligible countries out of 166 that benefitted from the National Capacity Self-Assessments (NCSA) funding, Ministry of Environment and Protection (MINEP, 2007). Within the same framework of the United Nations Framework Convention on Climate Change (UNFCCC, 2014), National Adaptation Plans (NAPs) for climate change were developed and submitted as Cameroon complied with its own NAP in 2016 (MINEPDEP, 2015). Although the second objectives of NAP under the UNFCCC places emphases on integration of CCA into relevant new and existing policies, programmes and activities in development planning processes and strategies, DRR was absent as an integral part of Cameroon's NAP (MINEPDEP, 2015: 98). In effect, Cameroon's NAP lacked priority to DRR integration related to climate change adaptation (CCA). It could therefore be argued within the context of this article that, Cameroon's efforts in curbing climate could be itself questionable as well as DRR integration into development planning processes and strategies. Robust evidences from the literature on disaster management in Cameroon (MINAT/ DPC 2015) confirms that Cameroon relies extensively on her National Contingency Plan and its famous French Relief Organisation - *Organisation de la Réponse de Sécurité Civile, ORSEC*).

In the developmental context, a closer look at the capacity development strategic framework in Cameroon shows that one of the vital forces for capacity development has been the National Community Driven Development Programme (PNDP) in collaboration with the New Partnership for Africa (NEPAD) (Kamga, 2011; PNDP, 2018). PNDP occupies the centre of Cameroon's development processes and programmes, in collaboration with the Ministry of Economy, Planning, and Regional Development (MINEPAT) possessing key mandate for capacity development with local councils, municipalities, villages, and community development projects within the national territory. Unfortunately, DRR has seldom been integrated into development programs and sectors within the country. Congruently, there exist no link between PDNP, MINEPAT, and the Department of Civil Protection (DPC) who happen to be mandated as coordinator and implementers of DRR within the national territory. Therefore, there is an absolute dissociation between CD in Cameroon and CB for DRM initiatives in Cameroon.

Twenty-one years after the launching of the NDPMP in cooperation with local and international partners including UN/OCHA, the French government, INGOs and NGOs, the Department of Civil Protection (DPC) and other Cameroonian ministries, there is not much progress in capacity

development for DRR in Cameroon (MINAT/DPC, 2002). Part of the reasons are centralized and bureaucratic policies for capacity development initiatives have seldom gone beyond reinforcement of the managerial and coordination capacities of DPC staff and, to an extent, local governments authorities (see Bang, 2014). Although Cameroon has enjoyed excellent partnership and cooperation with international organizations through its main unit (DPC), the majority, if not all capacity building programmes, strategies, activities, and conferences have seldom or never involved public participation and multiple stakeholders. A greater portion of CB for DRM in Cameroon indicates that occasionally CD for DRR consider civil society, businesses, the private sector, academics, disabled, and vulnerable groups to improve mechanisms relating to disaster prevention and management in Cameroon. A closer look at CB executed either by the International Civil Defence Organisation (ICDO) to Cameroon, points their limitation and its impact centralized within specific government staffs and sectors. Further, the NDPMP mentioned above, limits itself to build capacity only for the government in disaster planning, prevention and management as its overall objectives. Although one of NDPMP implementing objectives indicates need for capacity building with communities, it is yet to be executed following Cameroon governments efforts to be proactive and effective in reducing risks and disasters within the national territory. Capacity development initiatives as seen from this context in Cameroon, are present in some action plans and objectives, but, do not involve the civil society participation, and multiple stakeholders at the local level of disaster risk governance. This, has made CB for DRM in Cameroon poorly implemented, increased in local vulnerabilities to hazards, and low adaptative response to risks and natural hazards within the national territory.

Although two main local capacity development sources that discuss DRR in Cameroon do exist, Gaston et al. (2012) and Bang (2013) acknowledge the need to empower local government where a lack of strong national and local institutions cause challenges (UN/DRR, 2017). A common need to build national and local capacity at the community and local levels in the national territory also exist. Indeed, the two texts mentioned above acknowledge this lack. The challenge continues despite the acknowledgement of their existence, however this article clearly contributes to two dimensions: the article engages and critically analyses redundant projects and areas of the NDPMP which Cameroon and UNDP proposed to implement within the national territory in relation to CB for DRM in Cameroon; secondly, aligns the study with the UN/DRR

strategic approach for capacity development towards the implementation of the Sendai Framework (see UN/DRR, 2018).

Six important elements of the literature review were extracted. These six factors were tested within the national territory in accordance with the methodology (that will be described immediately below). The elements are 1) comprehension /implementation of DRR terminology, 2) inclusive risk governance and multi-stakeholder partnerships, 3) historical legacies, power relations and interest of good governance, 4) decentralization and risk reduction 5) functional capacity 6) education and DRR. These elements are vital when it comes to supporting Cameroon's action plan for capacity development in DRR. It ties in with the efforts of Cameroon's government, undertaken since 1997 in collaboration with the UNDP and other international partners, to achieve the implementation of the Sendai Framework (2015-2030). At the time this article was written, UNDP was committed to support the Cameroon government strengthen its national capacities for the prevention of catastrophes and its integration into development processes. Out of these six elements, the third and fourth factors will be clarified briefly, in relation to CB. Full explanation of these six elements is provided in the discussion section of this article. The third factor (historical legacies, power relations and interest of good governance) is employed in this context as an aid to CB stemming from Wittenberg (2011) discussions between "good" and "bad" historical institutionalism as agent of change. This article used historical legacy to mean change from bad to a good power relations, interest and good governance recommended in UN/DRR (2004) as one of the fundamental factors influencing disaster risk. In the same context on historical legacy, CB is argued in terms of a movement from tradition and custom towards higher levels of rationality, from centralised to decentralised state systems for DRR. Decentralisation and risk reduction on the other hand, facilitates CB through context-specific solutions tailored to meet the needs, wants and capabilities of local communities (Garschagen, 2015). For example, the Sendai Framework for Disaster Risk Reduction (SFDRR), UN/DRR, 2015 advocate the empowering of local authorities as a prerequisite for good disaster governance. This fourth element is linked to inclusion and participation of stakeholders listed as a second factor to support CB for DRM. Functional capacity-according to Few et al. (2015:58) involves development of DRM policies and legislations, coordination mechanisms for decision-making, and mainstreaming of DRR in development planning at different scales.

### 4.3. Methodology

A literature review was conducted based on 70 resources that were analysed to identify CD programmes within the national territory of Cameroon. Using qualitative methods, key interviewees from selected administrative sectors within the government were interviewed. These interviewees were drawn from national, regional and municipal levels of local governments to evaluate and examine CB interventions at each level of disaster risk governance. The interviewees were asked to report on capacity development initiatives for DRR by the coordinating ministry and department MINAT/DPC. By employing questionnaire surveys, semi-structured interviews and observations based on direct participation by the authors, data were collected from 200 interviewees from administrative sectors and units. The credibility and validity of this research is underpinned by the timing of two capacity building workshops, (A and B) on disaster management and responding to emergencies held in 2017 by MINAT/DPC in tandem with the ICDO and few local authorities based within the political capital, Yaoundé. Attention was given to participants in these meetings who were rather exclusively civil administrators from selected municipalities in the Centre region. Consequently, this validated almost all six elements tested in the field for CB. The workshops permitted the authors to test the six elements directly, examining critical building blocks towards the enhancement of local capacities for DRM and DRR capacity development in Cameroon.

Private higher educational institutions like the Pan African Institute for Development-West Africa (PAID-WA) also served as a platform for disaster management training. In the process of the literature review, and further underscoring the validity of the present study, secondary data sources such as DRR action plans, programmes, reports, *Aide Memoire* and peer review articles that provide analyses and evidence for capacity building programmes undertaken towards DRR and DRM as well as climate change adaptation were consulted. These provided a design for the theoretical framework of the project as a whole and the present article in particular.

To provide baseline data and indicators programmes for CB programmes undertaken towards DRM, the article tried to identify and analyse specific examples of programmes. Such programmes, for instance were absent of clear evidence and results on CB for DRR/ DRM programmes in Cameroon. For example, most CB approaches and interventions indicated one or more of the following interventions: humanitarian relief efforts to assist populations affected by

disasters such as those undertaken by the European Union (EU) in 2016 and United States Agency for International Development / Office of U.S. Foreign Disaster Assistance USAID/OFDA in 2017, in addition to engineering processes undertaken for risk mitigation (see Bang, 2012; MINTP; 2014; MINTP, 2015). To avoid generalization of the research focus and make it specific to evidence-based DRM intervention programmes, this article differentiated sectoral DRR related interventions such as those of UNEP and GEF in 2001, the World Bank in 2012, Masanga in 2014 and REPECC and UNDP in 2015 from direct DRR/ DRM policy interventions).

#### **4.4. Discussion and empirical findings**

Analysing the interviews of 200 informants from selected administrative sectors and civil society in terms of the six elements identified within the conceptual framework, empirical findings will be presented below including further discussion of the mentioned six elements as generated in terms of the theoretical framework in this research.

##### **4.4.1. Comprehension /implementation of DRR framework**

The research indicates a significant lack of comprehension or implementation of a DRR framework for Cameroon's national, sub-national and local levels. Out of the 20 laws that regulate civil protection in Cameroon, the six that are in regular use, namely Law No. 86/016 of 6 December 1986, Decree No. 96/054 of 12 March 1996, Decree No. 98/031 of 9 March 1998, Decree No. 2005/104 of 13 April 2005, Presidential Instruction No. 02/CAB/PR of 18 January 1968 and Order No. 037/PM of March do not mainstream DRR into national development planning or public sectors. None of these regulatory measures legally binds national, sub-national or local structures to ensure CB for DRR. Heavy reliance on a centralized system and reactive processes pertaining to risk management as found, for instance, in the ORSEC and National Contingency Plans, has caused acute deficiency of CB for DRM impacts. Further, there are no indications within Higher National Institute of Magistracy and Administration (ENAM) curricula that civil administrators, who are appointed as sole implementers and therefore maintain a monopoly of DRR within Cameroon, received and form of training in DRM. This demonstrates that a greater portion of government authorities who are civil administrators within ENAM, CEFAM and so forth, should be enrolled in DRM modules, thus to allow DRR to be

mainstreamed by means of ENAM. In their turn, 98% of MINAT /DPC consist of such civil administrators. Therefore, DRM modules should be an integral part of training for DPC staffs, governors, senior divisional officers (SDO), divisional officers (DO), mayors, and other government staffs at the sub-national, regional, and sub-regional levels of disaster governance which do not exist yet, in Cameroon if civil administrators are the first to implement and coordinate risks reduction activities at all levels.

This article argues that proper inculcation of comprehension of DRM as a concept among officials is a prerequisite for CB towards DRM. For example, this article found that the joint crisis committee (JCC) expected to be created either by these civil administrators mentioned above (SDO or Governor) constitute a core instrument influencing disaster management at the sub-regional or regional levels of disaster governance. Paradoxically, DRR is not part of these institutions and political structures set up to coordinate relief and report on what the French call “*catastrophe à moyens dépassés*, (CMD) (all available means and resources have been engaged and proven insufficient in a major disaster), before appeal for external relief is made following prescribed norms owing to the ORSEC Plan (French Relief Oriented Plan). The Republic of Cameroon relies basically on the ORSEC Plan for disaster management which has even been criticised because of incompatibility (see sections above) with NAP, and DRR integration across development planning. Towards this end, appropriate administrative structures should be put in place from the local to the national levels in Cameroon.

#### **4.5. Inclusive risk governance / Multi-stakeholder Partnership**

Surveys indicate that disaster risk plans and programmes in communities, municipalities and neighbourhoods exclude business, civil society organizations communities and individuals that are at risk. A clear example could be seen from the acclaimed CB workshops A and B organised by MINAT/DPC mentioned above in Yaoundé. Analysis from these two CB workshops demonstrated clearly that CB programmes organised by DPC did not, and seldom possess DRM professionals, academicians, business, civil society, and the private sector. In fact, public participation is not part of DPC CB plan of action in Cameroon. Secondly, although natural and anthropogenic hazards such as floods, landslides, transport related disasters, health risks and mass-movements, marginalisation, inequality and deprivation, high violence and conflicts,

complex emergencies, negatively affects human and economic development in Cameroon, very little has been carried out in terms of capacity building of vulnerable communities to prepare them for emergencies and crisis within the national and sub-national levels. Generally, DRR programmes that build the capacity of vulnerable communities, municipalities, and local councils do not create separate finances for DRR initiatives. 98% of interviewees outside MINAT/DPC confirm they have never been trained, sensitised, nor educated in risks reduction and disaster prevention activities although some of the interviewees lived in risks prone areas as the case in Limbe.

Despite this situation, most CB programmes aimed at DRM continues to focus only on reinforcing the managerial and coordination capacities of personnel working in the DPC. Civil society, the private sector, disaster management professionals and community participants such as youths, academicians, disabled, and vulnerable groups were also not involved in CB programmes organized by MINAT/DPC. It is important to underline, nonetheless, that DRR is everyone's business. In Cameroon, unfortunately and as mentioned, MINATD/ DPC has monopolized DRR, which has resulted in a failure to involve the community or integrate competent individuals and institutions in risk-related decisions (Webler and Renn, 1995; Pahl-Wostl, 2002; Edwards, 2009; Renn and Schweizer, 2009; Scolobig et al. 2015). Shiroyama et al. (2012) therefore rightly accede that institutionalization of DRR capacity for national and local authorities cannot be confined to a single ministry or coordinating office (see also Assmuth et al. 2010). Consider that the concept of "inclusion" means that risk governance should be viewed as a multi-actor process that must be facilitated as such (Van Asselt and Renn, 2011a; Renn et al. 2011b).

A multi-sectoral/multi-partnership approach to DRM should consider an enabling environment within which new partnerships towards emergency response, long-term recovery and risk reduction should be developed and sustained. This will result in the strengthening of capacity for DRM within all sectors and units to make an effective contribution to Cameroon's national DRR platform. Co-operation and coordinated actions within MINAT/ DPC are not adequate for addressing all forms of risks and disasters on the various levels in Cameroon. Responding to the impacts of disasters and mitigating risks is not effectively coordinated due to lack of multi-sectoral partnerships in DRM programmes. This multi-sectoral / multi-stakeholder partnership



approach as expounded by Van Nierkerk (2007) entails that that MINATD/ DPC cannot retain sole responsibility for CB to strengthen DRR/ DRM within Cameroon's development planning and administrative units. Without such partnerships, the use of available resources, skills and potential talents to improve the status quo of DRR in Cameroon would be marginalized, wasted and redundant. A successful multi-sectoral DRR national platform therefore requires the knowledge, capacities and inputs of a wide range of sectors UNDRR/AR (2010). For an enabling environment for DRM CB programmes to be implemented successfully, this article posits that a rationale and normative framework for democracy and participation is needed (see Aitsi et al. 2015).

#### **4.6. Historical legacies, power relations and interests of good governance**

The third factor mentioned above, historical legacies, power relations and interest of good governance, which enhances CB for DRM in this context streams from Wittenberg (2011) discussion between "good" and "bad" historical institutionalism as agent of change. This change as confirmed from 75% interviewees significantly act as a building block for CB initiatives. This consists of political change and commitment to understanding the local context, cultural heritage, social justice movements, and community awareness. For example, weak governance finds its roots causes from poor living conditions, in adequate infrastructure, marginalised groups, and social inequalities. Power relations and interests of good governance, as findings reveal for CB efforts, could rely on building marginalised groups like those in the English-speaking areas through social justice organisations. These social justice movements will contribute to building effective power relations, create cultural change within communities and societal change likewise. According to UN/DRR (2004) "good" or "weak" governance for DRR implementation is one of the fundamental factors influencing disaster risk. However, CB for DRM can be carried out with adequate institutional, policy and legal frameworks which are all linked to power relations and interests of good governance. In the same context on historical legacy, CB is argued in terms of a movement from tradition and custom towards higher levels of rationality (Wittenberg 2011), from centralised disaster planning and response to multi-stakeholder partnership, from in equality, exclusion, marginalisation and deprivation, to social justice systems for DRR.

English speaking DRR/ DRM professionals at DPC are insignificant, not because DRM professionals from English zones in Cameroon are absent, but weak governance for DRR capacity development has exclusively denied access to Anglophone speakers into the coordination and response to natural hazards and disasters in Cameroon. This marginalisation of English speakers in DRR efforts causes serious imbalance in French-English DRR procedures and programmes. Recruitments to MINATD/ DPC are based mostly on godfathers, partisan politics and tribalism, as far as the present research could determine, and not on competence. These considerable challenges entangled as they are with marginalization and inequality when it comes to apportioning administrative positions as well as the barrier that arises for English speakers cause weak performance in risk reduction and CB programmes aimed at DRM. 80% interviewees indicated that these factors cause weak public sector performance, poor service delivery and a lack of accountability. Similarly, these challenges appear to be the root cause for poverty and vulnerability to natural hazards in addition to risks encountered at the sub-national and local levels where these English-speaking Cameroonians live. Moncrieffe (2004) in fact confirms that historical explanations for challenges around risk management are rooted in linguistic barriers, barriers caused by cultural norms and geopolitical differences as well as regional development skewed towards French speaking regions in Cameroon.

Political ownership is however imperative for risk reduction processes, and Van Niekerk (2005) argues that every government has a moral obligation to ensure the safety and well-being of its citizens. Therefore, the absence of political will and clear policy guidelines to ensure that the necessary DRR/ DRM programmes are implemented will lead to further risk, institutional vulnerability and unsustainable development practices as is the case in current Cameroon. Understanding historical legacies, power relations and political interests is a key aspect that should guide effective risk reduction processes in Cameroon.

#### **4.7. Decentralization and risk reduction**

Dozens of texts, workshops and efforts regulating the transfer of authority and responsibility from the national to the local levels that actually impede institutional change towards improved risk reduction processes exist in Cameroon (see MINAT/DPC, 2002). During the duo capacity building workshops in 2017 that were aimed at reinforcing the capacity of civil administrators at

MINATD/ DPC, a survey conducted for the present study found a need for DRR policy reform. These workshops aimed at ensuring the transfer of powers to local governments but failed to sensitize the attendees to DRR /DRM responsibilities that were to be devolved to the sub-national and local levels of government. 90% interviewees confirmed that decentralization would provide quality of services, transparency, effectiveness, accountability, equitable planning and development by means of an open democracy and greater community participation. DRR regulations in Cameroon could, however, be described as inactive.

To ensure expertise at a local level that will be able to undertake DRR activities and efforts successfully, the government has to mandate specific development partners who would serve as instruments of decentralization and governance such as the Participatory Community Development Programme (PNDP), Community Development Support Programme (PADC), National Governance Programme (PNG), and Decentralization and Local Development Support Programme (PADDL), thus to integrate DRR as part of their regime. By these means local representatives like mayors could be empowered to manage and coordinate disaster risks in their constituencies. One interviewee mentioned that to obtain disaster risk reduction by means of local development programmes, parliamentarians could be empowered to mobilize and sensitize their communities to the relevance of such reductions to their particular environments.

#### **4.8. Functional Capacity**

The research found a disregard for road safety and building codes, unplanned urban settlements on a large scale, lack of emergency exits and or fire extinguishers in top administrative buildings among the challenges. According to the survey from 95% respondents, DRR policies and legislation as well as effective coordination mechanisms in decision making and the mainstreaming of DRR into developmental plans are essential in handling risks of this nature.

Given that DRR is poorly mainstreamed, the article recommends the expansion of functional capacity in accordance with Few et al. (2015) as actions which involve development of DRM policies and legislations, coordination mechanisms for decision-making, and mainstreaming of DRR in development planning at different scales.

Few et al. (2015:58) call upon transcending technical training within CB programmes towards functional capacity. Implementing this recommendation would ensure that CB programmes are undertaken aimed at DRM planning, policy design, implementation and reforms on the various mentioned levels in Cameroon. These factors are called functional capacities which include but not limited to: development of DRM policies and legislation; coordination mechanisms for decision-making; and mainstreaming of DRR in development plans.

Interviewees from the survey (PNDP) expounded that technical capacity could be combined with functional CB to the extent where sub-national and local governments could be empowered to act as hosts to refugees, stateless persons and asylum seekers with knowledge of how to handle displaced and vulnerable populations. Similarly, technical capacity can only be provided across administrative sectors and units by experts and professionals trained in DRM. This would challenge public sectors to improve and provide sustainable change rather than the current outcome where several joint inter-ministerial, regional, municipal, and village committees end up without impact in the national territory.

#### **4.9. Education and DRR**

The research further indicates that ENAM and other state higher institutions that embody main entry points for public administration and civil servants in Cameroon, have not incorporated DRR into their educational programmes. However, the University of Buea and few private institutions (PAID -WA) have done so reluctantly, with the result that prospects for understanding and implementing key concepts necessary for risk reduction and sustainable development (SD) on national and local levels are diminished. Shaw and Oikawa (2014) re-affirm that non-formal education offers the ideal entry point on the level of education for sustainable development and DRR Education (DRRE). Among the existing gaps pointed out as obstacles to SD resides the fact that disasters are still being looked upon in the context of emergency responses, while knowledge about the gap between vulnerability and development is absent in Cameroon. Over and above efforts to focus on climate change education, this article encourages DRRE to run alongside that focus in schools, universities and developmental

institutions such as the Pan African Institute for Development-West Africa (PAID-WA). Findings indicated that the University of Buea in Cameroon recently entered a partnership agreement with Periperi U, a pan-African partnership of universities aimed at risk management. Despite these positive developments, funding mechanisms and human resources are still needed to run particular programmes in DRR / DRM courses on national and local levels. There is a critical need for academia to engage, in the form of conferences, articles, debates and educational course such as DRR Mainstreaming at the national and local levels, in efforts and measures required to address natural and anthropogenic hazards so as to strengthen capacity within the public and private sectors. This will lead to improved capacity for DRM and the accumulation of expertise towards designing innovative solutions for DRM interventions.

#### **4.10. Conclusion and recommendations**

This article attempted to delineate six new elements crucial to supporting a CB framework aimed at DRM within Cameroon. The two questions that this study attempted to answer were: how can Cameroon's platform for DRR strengthen its capacity for DRM at national, sub-national and local levels, and what would be the necessary indicators and baseline standards to support a national CB aimed at DRM in Cameroon. The aim and focus have been to develop strategic applicable guidelines and principles of evidence-based practices and policies to support UNDP/ government CB programmes aimed at DRM, which, to date, has been non-existent or receding. The mentioned six new elements that have been proposed, undergird current and future DRR frameworks. These will, if implemented, transform leaders and managers, communities and organizations from the inside with a view to nationally determined priorities, policies and the desired results as reflected in UNDP, (2009a) and UNDP (2009b). Furthermore, relating to the six key areas applicable in the context of Cameroonian DRR and DRM, discrepancies were witnessed where drivers of development were not equipped or mandated with a capacity plan for interventions. Future research could therefore look at decentralization of DRM and attempt to understand how the political economy influences risk reduction processes at local levels of governance. In full recognition of the NDPMP programme, the findings suggested here adds important factors that impact CB for DRM in Cameroon, and these should be implemented within the NDPMP policy and its normative rationale. The results of this present article demonstrate critical gaps in CB aimed at DRM, especially where single ministry or department

monopolises DRM. The findings should provide the government with a useful tool to review its national strategy for a Disaster Reduction Policy (DRP) and the drawing up of a national intervention plan.

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## **CHAPTER 5**

# **DECENTRALIZATION AND DISASTER RISK REDUCTION (DRR) IN CAMEROON: A CRITICAL ANALYSIS OF THE PROCESS IN THE CENTRAL AND SOUTH WEST REGIONS**

# Decentralization and Disaster Risk Reduction (DRR) in Cameroon: a critical analysis of the process in the Central and South West Regions

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## Abstract

There is a need to develop new and effective policies for DRR on national and sub-national levels in Cameroon so as to reduce the loss of lives and destruction of livelihoods. This article provides a critical analysis of the implications of decentralization with a view to Disaster Risk Reduction (DRR) in Cameroon with focus in the Central and South West Regions. This article examines the extent of decentralization of government responsibility for Disaster Risk Management (DRM) policies at different levels, and the challenges / stumbling blocks of decentralization when it comes to DRR. A framework is proposed to support government's actions towards decentralization into different administrative units. Employing the political economy approach to gain insights why and how government is investing or under investing in DRR, of decentralization of DRR were identified. The challenges range from excessive reliance on the *Organisation de la Réponse de Sécurité Civile* (ORSEC plan) and the Joint Crisis Committee (JCC), lack of knowledge about DRR initiatives, excessive dependence on military and humanitarian aid for relief, substitution of public goods for DRR at the expense of maintaining political power, marginalization of English speakers in DRM decisions and positions within the central governments, and the centralized nature of the focus on disaster risk coordination.

**Paper type:** Research paper

**Key words:** Decentralization, Disaster Risk Reduction (DRR), Disaster Risk Management (DRM), disaster management, Cameroon.

## 5. Introduction

Kusumasari et al. (2010) and Smoke et al. (2013) indicate that decentralization is a *sine qua non* for DRR in general, and this holds true for Cameroon. According to the African

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Union's Programme of Action for the implementation of the Sendai Framework for Disaster Risk Reduction (SFDRR) in Africa, and reports and statistics on progress made by African states in reducing risk, show that disasters continue to have a negative impact on the African region (AU 2016). While the African Union (AU) heads of state, parliamentarians and decision-makers in various part of the African continent have expressed strong commitments towards implementing the SFDRR, there are still ground left to cover by many African countries, including Cameroon, in terms of the achievements recorded from its predecessor, the Hyogo Framework for Action (HFA) (UN/ISDR 2005). Notwithstanding this concerning fact, the SFDRR clearly articulates its Priority 2 the need to strengthen disaster risk governance to manage disaster risk (UN/ISDR 2015).

In the same vein, fewer studies in developing countries have carried out empirical studies and reported on how decentralization can strengthen DRR at the local level (see Scott and Tarazona, 2011). Drawing evidences from four countries, the report of Scott and Tarazona (2011) argue that decentralization in view of DRR encounters pertinent obstacles among which are low capacity at a local level and accountability structures. Makarigakis et al. (2015) in their turn, argue from a developing state perspective on the importance of decentralization for DRR in states with significant levels of cultural and ethnic diversity, which determine socioeconomic characteristics and hazards distribution within the national territory. Cultural heritage and ethnic diversity are among the complex socioeconomic issues affecting decentralization for DRR in Cameroon. In Cameroon, Bang's (2013) account makes the case for increased local-level risk reduction through the empowerment of local government, while Akoh (2018) moves a step further to suggests the need for the fortification of capacities of workers in decentralised institutions, and devolution of powers to local governments for DRM in Cameroon. This article advances the works of these two authors who lay emphasises on the importance of decentralization for DRR in Cameroon. This research takes into consideration the deep institutional and regulatory lacunae of decentralization for DRM which is usually manifested through fragmented texts, irrelevant crisis committees called the Joint Crisis Committee (JCC), excessive reliance on *Organisation de la Réponse de Sécurité Civile* (ORSEC plan) (French Relief Organisation), and lack of knowledge to implement DRR. The main contribution of this article adds to the few literatures covering disaster risk and management in Cameroon. Although Gaston et al. (2012) and Bang (2013) provided earlier works on the need to empower local

authorities for DRR at the local levels, none of the works examined disaster risk management tools employed to handle risks and disasters throughout the Cameroonian territory. A need therefore arises as Makarigakis et al. (2015) argue, to optimize decentralization, since it plays a key role in mainstreaming DRR policy, processes, and strategies at the national and local levels (UN/ISDR, 2005; UN/ISDR, 2015). This article will hence focus primarily on the extent to which decentralization of government responsibility determines DRM policies at different levels in Cameroon as well as the challenges/ stumbling blocks that prevent decentralization when it comes to DRR. Proponents in this field of decentralization (Garschagen, 2015 and Hermansson, 2018) have accepted the fact that the success of decentralization in a state depends on the political culture [and economy] and decision-making structures in relation to the society.

### **The political economy of disasters in Cameroon**

It is generally accepted that disasters are costly (see Kellett, 2012). However, Cohen and Werker (2008) argue that although natural hazards may lead to disasters beyond control, the level of government preparedness and response to these natural hazards determines the extent of shocks on affected population after the disaster. DRR which aims at reducing risk of disasters and the adverse impacts of natural hazards are public policy solutions (UN/ISDR, 2002:23). Scott and Tarazona (2011) highlighted five points linking disaster prevention and risk reduction as a public policy issue. The main theory employed in this article to better understand disaster prevention and response as a public policy process (see Wilkinson, 2012) is known as political economy (PE). This theory is very important to the Cameroonian context of disaster prevention and risk reduction. In this light, this article relied on the definition of political economy defined as analysis that focuses on the institutions through which policies are developed and on understanding the links between politics and the economy, with a focus on power relations, incentives, and the influences within formal and informal processes (Collinson, 2003; Williams, 2011). In practical sense, Wilkinson (2012) highlights the theory of PE to both developmental change (for example: decentralization), and lack of DRM initiatives by national governments, with insignificant policies and funding for implementation. This focus on power relations, incentives, and the influences within formal and informal processes of PE is also viewed as a function of decentralization (Eaton et al., 2011). This is so because decentralization by

devolution aims at providing responsibility for service to elected local authorities to improve the delivery of services to the local population (see Robinson, 2007). DRR is therefore linked to decentralization (UN/ISDR, 2005; UN/ISDR, 2015) as a public policy good, and service which political and bureaucratic actors may, and may not, implement. In the context of Cameroon, PE is manifested in local government efforts for disaster prevention and management through a rather vertical mechanism (see Gaston, et al. 2012) called the ORSEC plan and Joint Crisis Committee (JCC). These efforts are, however, emergency relief efforts rather than DRR initiatives.

On assessment of relevant government documents, it became evident that there are no funds allocation for disaster prevention and management at the national levels of disaster risk governance in Cameroon as confirmed with MINATD/GIZ (2013). Cameroon uses what is called in French, *budget d'urgence* (emergency fund) when capacities at the municipal, sub-regional, divisional, and regional levels have been engaged in a disaster, and proven insufficient (MINATD/DPC, 2002). An appeal is therefore made for external relief to the Department of Civil Protection (DPC). However, this reactive and crisis management model has been severely criticised within DRR coordination and implementation practice, but still features as Cameroon's approach to risk reduction and prevention. Cameroon does not possess legislature and political institutions which handle disasters and natural hazards at the community or subnational levels of risk reduction (see Gaston et al. 2012 and Bang 2014). This has accounted for increase in vulnerability to natural and human-made hazards like the train disaster in Eseka which occurred on the 21<sup>st</sup> October 2016, killing over 79 people and more than 600 injured (JournalduCameroun.com, 2018). This disaster showed that insignificant preparedness, and lack of resilience to shocks and external stressors at various levels of disaster planning in Cameroon is evident. Further, the absence of DRR within decentralization texts and regulatory framework makes it difficult for clear roles and responsibilities related to risk reduction to be integrated in all relevant institutions from the national to the local level. According to the discussions from UN/ISDR, (2015), disaster risk should be taken into account in the daily decision making of governments, companies, investors, civil society organizations as well as households and individuals, without which the efforts to reach sustainable development may be compromised. For example, investment should be done in risk awareness and assessment including hazard analysis and vulnerability/capacity analysis across different regions, and geopolitical



environments where people's livelihoods and coping strategies have been weak. This statement falls in line with Le Billon, (2000) analysis on PE where vulnerability and power are explained in terms of power and economic processes (i.e. neglect, exclusion or exploitation). For instance, neglect and exclusion of English-speaking Cameroonians in DRR coordination and implementation at the Department of Civil Protection, has not only exposed these regions to new risks, it has deliberately blocked or marginalised Anglophones from the two English-speaking regions from participating in knowledge development acceded by InternationalCrisisGroup (2017) and Konings, and Nyamnjoh (1997). This includes education, training, research and information sharing for DRR within the national territory. Furthermore, analysis from Collinson (2003:3) on PE asserts that, "a political economy approach should incorporate a wide historical and geographical perspective, explain why the relative power and vulnerability of different groups changes over time, [as the case of disaster prevention and risks reduction among various groups, culture, geopolitical positions, and even national identity that may be exposed to violence [disasters]" (Le Billon, 2000). Revision and implementation of new DRR laws and regulations in Cameroon constitute an important task to be fulfilled, as has been amply demonstrated in the present study. For instance, improving mechanism relating to decentralization and DRR, through vulnerability and power issues related to neglect, exclusion of DRR English-speakers, among others, increases vulnerability of certain groups and creates new risks. The statement of Sen (2014) aptly sums this up:

"authoritarian rulers, who are themselves rarely affected by famines [...] tend to lack the incentives to take timely preventative measures. Democratic governments in contrast have to win elections and face public criticism, and have a strong incentive to undertake measures to avert famines and other catastrophes (Williams 2011)."

Viewed from a political economy theoretical perspective, it must be acceded that Williams' statement carries a certain truthfulness. In the case of Cameroon, for instance, authoritarianism has led to weakened DRR and DRM, which translates into further dire economical consequences for the population. For instance, funds for disaster mitigation, planning, and relief are sometimes diverted for private pockets, exposing the poor to shocks, and stressors at different scales in the society (Bang, 2013). Also, factors such as inequality, deprivation, and marginalisation of English-speakers in DRR activities tend weaken DRR activities. This brings into focus again the

important matter of decentralization. In the spirit of compliance with the law, which guarantees efficiency and effectiveness, proper monitoring DRR processes in Cameroon will take a back seat for as long as decentralization does not occur.

## **Decentralization and the SFDRR Priority Area 2**

Much, indeed, has been written about decentralization and local governments in Africa since the colonial period (Massoi and Norman 2009; Opare, Egbenya et al. 2011; Mbuagbor 2012; Faguet 2014). These scholars convincingly argue that the political character of processes of decentralization in developing countries has been underestimated. In Cameroon, as in other African countries and elsewhere on the globe, decentralization should be the process by which the state transfers some of its powers to regional and local authorities with corresponding resources (MINATD/GIZ 2013). Extending this definition, powers should be transferred from the state to distinct institutions such as, regional and local authorities. This should be done under the supervision of the state. Decentralization is widely lauded as a key component of good governance and development (White, 2011). In this context, good governance may be defined as the:

“adoption and promotion of robust and sound policies, legislation, coordination and mechanisms and regulatory frameworks, and the creation of an enabling environment that is characterized by appropriate decision making processes to allow effective participation of stakeholders, complemented by the appropriate allocation of resources.” (Malalgoda, Amaratunga et al. 2010:).

The United Nations Development Program (UNDP) good governance concept entails participation, accountability, transparency, equity and effectiveness. These are rightfully required to achieve inclusive and sustainable DRR outcomes (UNDP 2015). Nonetheless, it can be mentioned in the work of White (2011) and Cheka (2007) that the process of decentralization in a given context is probably unavoidably fraught with complexity and potential failure. Indeed also in the case of Cameroon, The SFDRR Priority Area 2 engages governments to strengthen disaster risk governance employing gender-response DRR policies, strategies, plans and legal frameworks precisely on the levels of sub-regions, divisions, municipalities and communities.

This notion thus dovetails well with the notion of decentralization. The SFDRR in alignment with the Africa Strategy for DRR (ARSDRR), constitute a definite “action plan” with deliverable outcomes within its programme of action, as illustrated below in Table 1 which reflects materials directly related to Priority 2 at national and sub-national levels.

This article reviews the complex matter as postulated by Touo (2014) that, although claims have been made in Cameroon of strong and stable republican values embedded in democratization, and indeed that order and decentralization have been consolidated since 1990, it nonetheless remains true that conspicuous failures of centralized public sector management have continued to occur in public service delivery when it comes to DRR in particular. For example, for over 31 years a monopoly that controlled and skewed DRR efforts has proven to be highly centralized and bureaucratic in nature within the national territory. Decentralization therefore *appeared* not to have worked, because no real decentralization has in fact occurred, and this muddles the perception of the importance of the process of decentralization. To make matters worse, the elite political culture involving the so-called “*Mon beau – Jumbo*” style of recruitment into the public service and administration, does not leave room for disaster management experts who are English speakers to provide constructive inputs towards DRM policies. It is when these matters are seen in their combined effects that a clearer picture emerges of just how complex the challenges are that face Cameroon’s process of decentralization in terms of delivering much-needed and effective DRR and DRM to its people. For instance, ironically Cameroon hosted the first high level meeting after the adoption of the SFDRR in Japan, where the “*Yaoundé Declaration on the Implementation of the Sendai Framework in Africa*” was adopted. The aim of this meeting was to kick-off the SFDRR as a global policy for implementation (UN/ISDR/AF, 2015). This continental meeting was to push forward the Sendai Framework in Africa, and it was also expected to have transformed and shifted DRR approaches in Cameroon from excessive bureaucracy and centralisation to decentralised, participatory and inclusive approach towards DRR coordination. Until date, although a series of international commitments have been endorsed by Cameroon stressing the importance of DRR priorities, a shift of focus from reactive to proactive has never occurred. This explains why decentralization of DRR structures are absent. This centralised system of DRR governance has placed populations, communities, households, and individuals more at risk in face of external shocks. Van Niekerk (2005) rightly postulates that in the absence of political will and clear policy guidelines to ensure that DRR

measures are implemented, further risk creating behaviours and unsustainable development practices will only increase.

## **Methodology**

Data were collected from 2011 to 2017 in two strategic regions in Cameroon: the (Central Region and the South West Region. This was because these two regions experience similar types of natural hazards and disasters but are found in the different geographical regions, and with different urban growth and regional development. It enabled the researchers to analyse and critically examine determinants of DRM in view of decentralization in Cameroon. The article used mainly qualitative methods to explore the implications of decentralization and its potential and actual impacts on DRR in Cameroon. Aligning this article's framework with the UN/ISDR campaign to local governments on *Building resilient cities*, the researchers therefore adopted the Local Government Self-Assessment Tool (LGSAT) for disaster resilience for data collection (UN/ISDR 2010). LGSAT was adapted to examine the extent of decentralization of government responsibility for DRM policies, and was used to assess the implications of decentralization for DRR. The LGSAT was employed as its framework aims to set baselines, identify gaps, plan actions and illustrate comparative data across local government systems in Cameroon. Moreover, the key questions of LGSAT are aligned to the HFA (and also now the SFDRR) priority areas and core indicators. Moreover, this has the advantage of being linked with the ten essentials of *Making Cities Resilient Campaign* which supports activities that promote resilience, sustainable urban development and increased understanding of disaster risks by stakeholders in their respective localities.

### ***Data collection and analysis techniques***

To examine the influence of decentralizing DRR, it is important to rely on secondary data and interviews, because data were gathered from a larger project committed to design DRR policy and legislation in Cameroon. The Ministry of Territorial Administration/Department of Civil Protection (MINAT/DPC) also hosted major disaster management training workshops during the last quarter of 2017, which assisted in the analysis of the empirical study of this article, since the

researchers interviewed participants on the outcomes of disaster management workshops (named A and B for reference in this article) hosted in Yaoundé, Cameroon. Two out of the ten administrative units, called regions, were selected: Central and South West Regions. The objective was to explore the implications of decentralizing DRR. These two regions constitute 13 divisions: 7 are from the Central region and 6 from the South West. The 13 divisions in turn have 71 local government councils in the Central Region and 33 councils in the South West Region. This study covered the Municipal Councils of Yaoundé 1 to Yaoundé 7, with specific attention to the Yaoundé 6 Council (based on the laudable DRR performances of the UN/ISDR DRR Communities in 2015). This international award from the UN/ISDR to Local Communities is given in recognition of good practices according to certain criteria of DRR assessment. In the South West, councils in Limbe and Buea were covered. Selection criteria were based on the specific natural hazards and risks exposed by the two regions. For example, Yaoundé and Limbe Urban Council (LUC), upgraded to Limbe City Council (LCC), features as a case study for hydro-geological hazards and disasters, because of its low-lying topography and constant inundations during the rainy seasons, while Buea was chosen for seismic risks and disasters, since its famous for volcanic activities from Mount Cameroon since 500 B.C.

These regions were chosen also because they were practically accessible for research. Finally, in these regions the influence of decentralizing government responsibility as well as stumbling blocks in the way of DRR efforts could be measured significantly. There was enough substance for analysis, because at the time this survey was carried out, significant disagreements sparked latent conflict in relation to centralised planning, intervention, and control. Likewise, existing research on decentralization in Cameroon were readily available from administrative units in charge of decentralization with various councils.

The first part of this survey covered 100 interviewees and resource persons from administrative councils, while the second part covered 50 interviewees from organizations in charge of decentralization within Cameroon. The study selected specific local indicators from the Ten Essentials Key Questions so as to align with HFA Priority 1 and Priority 4. The reason for this was that it permitted the study to focus on indicators that influence decentralization such as: 1) improved levels of human conditions and livelihood for people living with risks, 2) governance,

public participation, and inclusion, 3) equity and service delivery, 4) transparency and accountability, and 5) resource allocation for DRR.

Secondary data on the governance status of DRR in Cameroon indicated that Cameroon's legal and institutional framework has been covered to an extent by preceding research. LGSAT was therefore employed to identify gaps analysis. This was done, moreover, to examine the extent of decentralizing local government's responsibility towards DRM policies. Given that one of the goals of the LGSAT framework is to assist local governments to engage with different stakeholders so as to map and understand existing lacunae and challenges of DRR in their municipality, the research team identified technical tools employed for disaster risk analysis in Cameroon.

### **Critical analysis of decentralizing DRR in Cameroon**

This section presents empirical findings from interviews and literature reviews to be discussed in relation to the implications of decentralizing DRR in Cameroon. In the attempt to provide answers to this question, this article will provide suggestions and proposals on how local government can influence DRM at the sub-national and local levels. The section consists of two parts. The first part focuses on legal instruments of decentralization applicable to the concepts of DRR policies and examines administrative guidelines employed to support government influence on DRR. The second part proposes three frameworks for decentralising DRR processes in Cameroon.

This article employed a critical analytical approach based on empirical evidence on how the current decentralization reform agenda embodied in Law No 2004/17 of 22 July 2004, Law N° 2004/18 of July 2004 and Law N° 2004/19 of 22 July 2004 influenced DRM policies in Cameroon. These legal instruments whose influence on decentralization has been treated by, among others Cheka (2007), Mbuagbor (2012) and Touo (2014) have been measured against DRM policies and practices at different levels in Cameroon. It has been argued that, with the exception of South Africa, many countries in sub-Saharan Africa do not have public sector legislation on DRR which instils adequate capacity to cope with natural hazards and disasters.

## Overview of legislative text and guidelines

The machinery through which decentralization of government responsibility influences DRM policies at different levels in Cameroon is provided by consulting and synthesising general texts such as “*Texts and Regulatory Guiding Decentralization in Cameroon*”, as well as DRR legal frameworks used in Cameroon since 1967. These legal frameworks are as follows:

- a. *Legislative and regulatory text on decentralization in force according to;*
  - *Law No. 96/6 of 18 January 1996 established Cameroon as a decentralized unitary state*
  - *Law No. 2004/017 of 22 July 2004 on the Orientation of Decentralization.*
  - *Law No. 2004/018 of 22 July 2004 to lay down Rules Applicable to Council.*
  - *Law No. 2004/019 of 22 July 2004 to lay down Rules Applicable to Regions.*

*Other regulatory relating to local government and DRM policies includes:*

- *Law No. 2011/008 of 6 May 2011, Article 6, Article 7 and Article 8 on the Orientation for Planning and Sustainable Development of the Cameroonian Territory.*
- b. *Legislative and regulatory texts on DRR in Cameroon have already been treated in preceding disaster research streams and would not be articulated here.*

Careful examination of these texts reveals that DRR laws and legislation in Cameroon require that the state (central government) and sub-national (regions, sub-regions, municipality, council, villages) “local government” rely on the procedures and instruments put in place by the central government for disaster risk analysis of local government systems. Accordingly, regional and local authorities, are at the centre of the development process, while the state remains the centralized, that is, first level of government. In this instance, the state is centralized and expected to provide public goods and services such as DRR, while sub-national governments are managed from the capital, Yaoundé. This is the current status quo of DRR governance and coordination in Cameroon. In contrast, the theory of a decentralized unitary state, would devolve DRM responsibilities to autonomous local communities, subject to state supervision. However, recently updated lists of sectors where government responsibilities are transferred in the spirit and action of decentralization such as MINAT, Ministry of Economy, Planning, and Regional Development (MINEPAT), and a host of others, shows that DRR processes are not listed among government responsibilities for devolution. Cross sectoral linkage between regulatory and monitoring bodies of decentralization such as the Inter-ministerial Committee for Local Services, (ICLS) and the National Decentralization Council (NDC), chaired by MINAT and the Prime

Minister respectively, do not have correlated agenda in common with DRR. Moreover, it is contradictory that the same sectoral / ministerial unit or bureau for decentralization / DRR are headed by MINATD and the Prime Minister.

Other relevant sectors such as the Ministry of Economy, Planning and Regional Development (MINEPAT), National Community-Driven Development Programme (PNDP), Decentralization and Local Development Support Programme (PADDL) and the United Councils and Cities of Cameroon (UCCC) should be viewed as cross sectoral units that the current regime could work with and devolve powers to first. Arguing with Kusumasari et al. (2010), the question that emerges is that of the resource capability for managing disaster risk in local government. The general approach to analysing risks in Cameroon focuses on activities before, during and after disasters. These activities offer a framework for supporting disaster risk analysis in Cameroon, but they are based on the ORSEC plan and the JCC considered as the baseline institutions from which governmental actions to reduce risk at the state and sub-national levels of local government should be undertaken.

### **The ORSEC plan in Cameroon**

In Cameroon, disaster risk analysis is implemented through Law No<sup>o</sup>. 98/031 of 09/3/1998 to organize emergency and relief plans in case of disasters or major risk (Républiquefrançaise 2018). This reactive and ineffective administrative procedure is ironically covered by the ORSEC plan (MINATD 2011). It is ironic, because ORSEC is assumed to replace DRR processes and practices at the national and sub-national levels.

Each administrative unit is expected to have an annual ORSEC plan but this is not feasible to have ORSEC plans for each region conducted every year, given the cost attached to such exercise. In addition to these challenges, the failures of establishing disaster risk databases in Cameroon find their root causes in the methods of risk analysis employed. For instance, the methods used were tailored towards post-disaster management as guide for administrative authority on disaster management which led to dormant, continuing centralised control



intervention for disaster management. The ORSEC plan nonetheless claims to cover the main responsibility of government on the state and sub-national levels of local governance. As such, local development does not make any provisions for DRR budgeting and planning, since decentralizing reforms have yet to take place, devolving authority to sub-national governments.

### **The Joint Crisis Committee (JCC)**

The JCC is set up during post-disaster management but in the mode of crisis management. The JCC has moreover not implemented legislative texts or laws around DRM. It barely acts in response to the gravity of disasters that occurred within given regions such as the Limbe floods of 2001 and 2018. It should be noted that the JCC is a temporary post-disaster management structure set up after crisis have occurred in a region or sub-region which local capacities and resources are proven insufficient. This, too, has played a role in the outcome that the state and sub-regions of local government authorities do have specific roles or structures in their councils to avert disaster risk.

### **Challenges, limitations and pitfalls of the ORSEC plan and the JCC**

To propose amendments and change for a new DRR and DRM strategic framework in Cameroon, favourable conditions should be put in place to devolve responsibility from the central government to sub-national governments according to the subsidiarity principle. It is therefore necessary to put out, categorically in what follows, challenges and stumbling blocks that stand in the way of decentralizing DRR, before subsequently providing suggestions for a shift of focus from disaster response to prevention and reduction.

### **Delimitations of the ORSEC plan and the JCC**

As its generic name implies, the ORSEC plan is an emergency plan to be triggered in case of a major disaster. Moreover, every region or municipality (French *département*) cannot submit an ORSEC plan every year, for it would be too laborious and costly for the state. The Cameroonian

government's expectation as per the ORSEC plan that every *département* must indeed submit such an annual report, is therefore unrealistic, and it simply undermines the efficiency of DRR and DRM in the long run. Here again one finds ample reason for devolvement of authority, that is decentralization, because DRR structures would handle disaster planning and prevention from their regions instead of from the command and control intervention from the national level.

The National Contingency Plan which is an extension of the ORSEC Plan headed from the Presidency remains a disaster response activity, especially in cases where great disasters strike the national territory and/ or massive influxes of refugees occur in the Extreme North.

As the name implies, ORSEC is not a long-term plan, it counts on the mobilization of resources and partners for short term capacity so as to respond to disasters when local means are insufficient. ORSEC actually consists of more of an emergency plan and does not consider the crucial ex-ante issues of risk prevention and reduction. These are critical components of DRR, and it goes without saying that they should be included. The JCC's ad hoc committee that should be aimed at post-disaster management limits itself to processes of response and recovery. Generally speaking, ORSEC and the JCC fall short of sustainable development practices as they do not represent DRR activities; neither are their activities related to decentralization reforms.

Government responsibility is too centralized and hence focused on bureaucratic structures that entrench a command and control system of order within the national territory. This entails an enormous loss of involvement in disaster risk in the daily-activities of the population, even as the central government claims that it is protecting them. In addition, sadly, social vulnerability assessment to natural hazards and disasters is seldom mentioned within the civil protection report. Lastly, vertical coordination for disaster risk in the context of decentralization and DRR does not warrant the DPC to consult sectoral partners in charge of decentralization within the national territory.

### **Proposed framework for the implementation of decentralizing DRR processes in Cameroon**

Acknowledging the challenges, limitations and pitfalls of ORSEC and the JCC, as outlined above, this article proposes the following suggestions to support government influencing decentralization of DRR and DRM.

### *Compatibility of legislative text and policies*

Adhering to regulatory and legislative texts on decentralization that are already established, especially Law No. 2011/008 of 6 May 2011, Chapter II, and Article 6, has become critically important. Article 6, ensures conformity to global development strategies (Sustainable Development Goals, SDGs) such as Goal 11, to make cities and human settlements inclusive, safe, and resilient. Article 6 implements national policies on urban development, construction, design and follow-up national policy on decentralization. This law integrates various laws of decentralization and environmental protection. It is also applicable to urbanization and construction. Article 7 of the texts relates to environmental degradation, which embraces the support of specific laws such as urban development, relates to ecologically fragile zones, destructible urban zones, heavily degraded zones, socio economic activities and activities on the frontiers that should be curbed, for example creation of the technical operating unit (TOU)-level intervention strategies which has helped to improve biodiversity conservation in Cameroon. The same article promotes coherence of developmental strategies put in place at sub-regional and regional levels as well as environmental preservation and the fight to reduce negative effects of climate change. In addition, Article 8 specifically enumerates reduction in spatial inequality on the basis of local needs for equipment and infrastructure through a differential intervention of problems linked to desertification, flooding, landslides, pollution and poverty.

Therefore, although the rest of the applicable legislative texts identified in this research, namely Articles 9-26, were found generally compatible with DRR processes and frameworks, Articles 6-8 were specific and directly concerned with government's influence on decentralization and DRR. That government should influence this crucial link between decentralization and DRR is of great importance, not least because DRR policies are indispensable for decentralization. As 75% interviewees confirmed: public policies in relation to unplanned housing settlement patterns, poor disposal of urban waste (causing drainage problems), lack of respect for public laws that

restrict the efficiency of garbage disposal, delays in obtaining land titles, regional imbalances and underdevelopment of some regions, marginalization and inequality restricting access to public goods and services constitute the complexity of developmental problems attached to poor service delivery and decentralization. All of these problems fall under the government's responsibilities, and they all have an influence on DRM policies, as has been demonstrated. However, it is not clear that progress is being made in terms of the DPC and its horizontal coordination with partner ministries around decentralization and DRR. In fact, the DPC does not embark on operational activities related to DRR within their developmental agenda at all. Depending on the sector affected, it waits for disasters to happen before reacting. DPC, as is the case with a considerable number of institutions mentioned in this article, also limits itself to response and recovery such as those carried by the ORSEC and JCC.

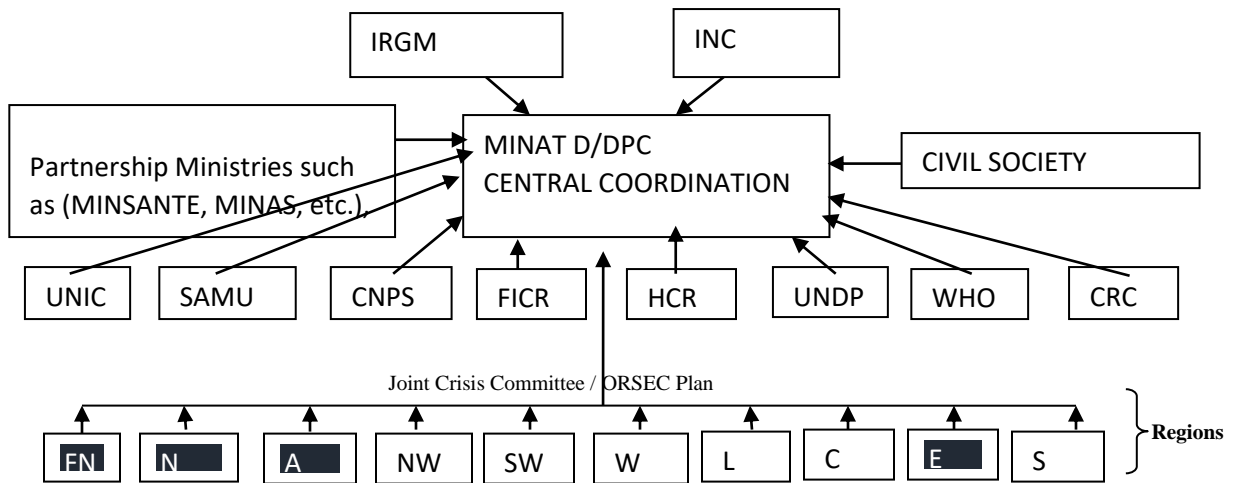
Civil protection organs should therefore review their use of the ORSEC plan and the JCC to replace or amend its operations in such a manner that they would include the developmental agenda and processes, with special emphasis in devolution.

### ***Organizing a national multi-sectoral and multi-stakeholder meeting to discuss DRR***

Seventy-five percent of the interviewees express the need for the central coordinating administrative sector, that is, the MINAT/DPC, to organize, mobilize and plan for a multi-sectoral, multi-stakeholder meeting of national experts on DRR. Such a National Conference for DRR in Cameroon should be able to define roles of experts drawn from their regions and sub-regions to contribute to specific areas of intervention. For over 31 years local government's role in DRR has excluded civil society, the private sector, local DRR experts and individuals and community-based groups in disaster risk reduction. The government of Cameroon could create localized structures in charge of disaster management and DRR to operate alongside the formal coordinating department of civil protection. By so doing, Cameroonian citizens could be trained and empowered to handle risks and disasters within their municipalities.

### ***Substituting centralized governance of emergency response operations with decentralized DRM local government structures***

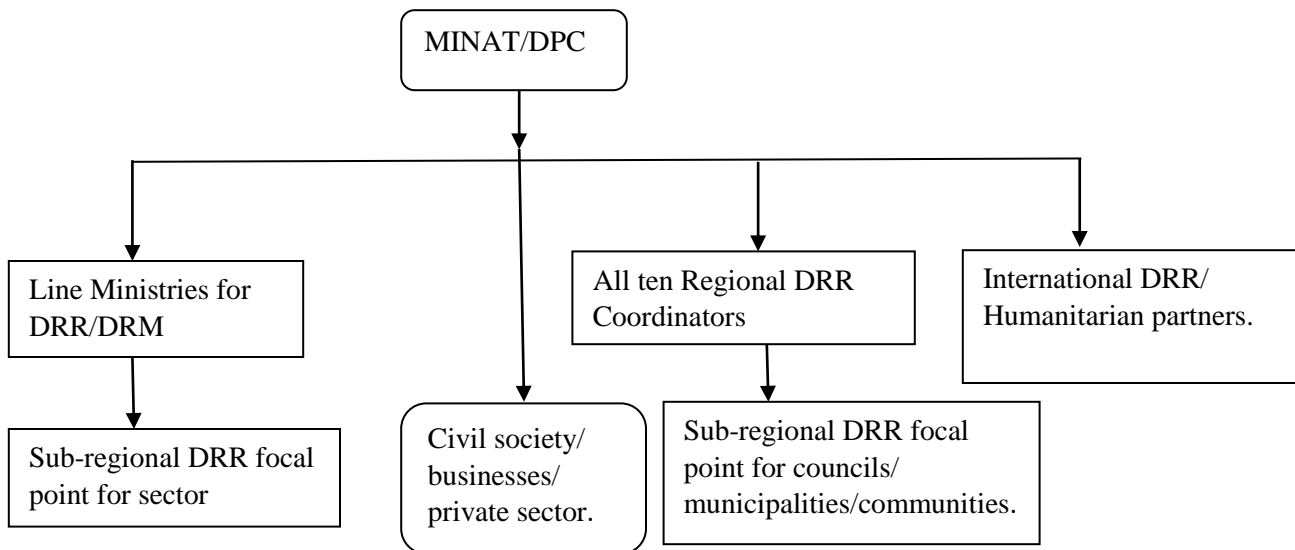
Figure 1 illustrates the link between the central coordinating MINAT/DPC with various administrative structures and international partners engaged in response and recovery to major risks and disasters.



**Legend:** Regions in Cameroon; Far North (FN), N (North), A (Adamawa), NW (North West), SW (South West), W (West), L (Littoral), C (Central), E (East), S (South), Institute for Geological and Mining Research (IRGM). National Institute for Cartography (INC), United Nation Information Centre (UNIC), Emergency Service System (SAMU), National Social Insurance Fund (CNPS), International Federation of Red Cross (FICR), United Nation High Commission for Refugee (UNHCR), United Nation Development Programme (UNDP), World Health Organisation (WHO), Cameroon Red Cross (CRC). Ministry of Public Health (MINSANTE), Ministry of Social Affairs (MINAS).

**Figure 1.** Disasters and emergency management intervention structures in Cameroon  
Source: **Adapted from DPC 2004**

Based on this Figure a case can be made for substituting centralized governance of emergency response with decentralized systems of local governance. This should be built on effective participation of all citizens when it comes to making DRM decisions that are linked to local development agendas on the first and second levels of government as seen in Figure 2.



**Figure 2.** Proposed decentralised DRR local governance structure for Cameroon.

Research in this field has indeed argued in favour of dividing up competences where the central government no longer has a monopoly over governance of DRR (Lacambra Ayuso, Rogers et al. 2015). Given this, consider that the integration both vertical and horizontal coordination, as proposed here, leads to a decentralized scenario where local and regional governments increase their capacity to formulate and implement policies. There has been structural resistance to such decentralization, however, seventy-percent interviewees concurred with Williams’s account, for example, which points out that problems surrounding political incentives, which hold back decentralization despite all appearances, inevitably affect DRR (Williams 2011). It is worth considering this matter in brief. Williams (2011) argues that political interest depends on the strategies used by power holders to win, use and remain in their positions as well as their concomitant calculations around whether DRR will contribute to these aims. Here one needs to consider the exact and conspicuous fact that coordination of governance aimed at DRR has been poorly administered and weak in Cameroon, as has been factually and qualitatively demonstrated in the present research. This governance lacks capacity and knowledge to implement DRR processes on sub-national, regional, departmental, and local government levels. The research therefore proposes this framework aligned with the SFDRR (see Table 1) to achieve inclusivity and decentralization of DRR in Cameroon.

**Table 1:** SFDRR Priority 2 as seen in terms of national and sub-national levels in Cameroon  
(Adapted from AU 2016)



<b>SFDRR Priority 2: Strengthening decentralized disaster risk governance to manage disaster risk in Cameroon</b>					
<b>Level</b>	<b>Strategic Area of Intervention</b>	<b>Priority Activity</b>	<b>Timeframe</b>	<b>Outputs</b>	<b>Lead/Primary Institutions</b>
<b>National</b>	Formulate, improve and sustain policies, strategies, plans and legal frameworks for DRR and integrate them into sustainable development strategies with specific emphasis on devolution of powers	1. Formulate gender-response DRR policies, strategies, plans and legal frameworks in line with the Sendai Framework, Paris Agreement, Sustainable Development Goals, (SDGs) to ensure risk-responsive development and decentralization.	2020	1. Policies, strategies, plans and legal frameworks are adopted and implemented to reduce risk and strengthen resilience and ensure DRR decentralization  2. Strengthened coherence between climate change adaptation strategies, DRR and ecosystem-based management with emphasis on local levels.	National institutions Stakeholder groups Local authorities Communities
		2. Operationalize institutional frameworks with authority, capacity, financial resources and tools by building local level governance capacities.	Continuous		
		3. Create or reinforce multi-stakeholder and multi-sector national and sub-national DRR and DRM platforms	2020		
		4. Formulate or reinforce regulations, standards and codes to incorporate DRR and improve legal and regulatory environment for enhanced DRR appropriate for rural and urban areas	Continuous		
<b>National</b>		5. Enhance awareness, sensitization and support compliance and enforcement of public regulation measures with a view to localised DRR	Continuous		
		6. Align (and integrate where possible)	2020		

		<p>climate coordination and DRR coordination mechanisms at local government level.</p> <p>7. Translate policies and strategies into practical tools for local decision makers and practitioners to facilitate implementation of the Sendai framework at local government level</p>			
		8. Develop national mechanisms to identify ecosystems critical for DRR and modalities for their protection and management, with the assistance of local levels and communities.	2020		
<b>Sub-National</b>	Decentralize powers and resources to catalyse DRR actions at the sub-national/local level	1. Replicate national level platforms and initiatives to the sub-national/local level (as practicable as possible)	Continuous	1. Policies, strategies, plans, institutions and legal frameworks are put in place and operationalized to reduce risk and strengthen resilience at sub-national and local levels	National DRM agencies National and sub-national actors Stakeholder groups Communities
		2. Establish, manage and enhance community based/ DRR and DRM	Continuous		
		3. Develop the leadership and capacity of sub-national and local authorities to work with community structures, civil society and other local partners to advance local DRM			
		4. Increase participation of local actors, including women, youth and other stakeholders in DRR and DRM activities			
		5. Allocate and facilitate investment of dedicated, adequate and predictable resources and capacity to engage with communities at risk and implement local initiatives			

Again, the research confirms Williams' work, this time in relation to his arguments around disincentives towards public goods provision, which emphasizes that:

“public goods for disaster risk reduction offer significant collective benefits, yet they are typically underprovided by governments [...]. [T]his applies to autocratic systems where leaders depend on maintaining military and business elite loyalty, and to certain types of democratic systems in which winning votes depends on buying support by distributing benefits to particular sections of the electorate.” (Williams 2011:).

Evidences presented in the article points to the fact that Williams' description above in all probability holds true for Cameroon. For instance, although shifts in DRR paradigms has been emphasised continually for UN member states to implement this global policy which eventually leads to prevention and risks reduction, coordination of relief still relies on the delegation of the military.

As has been indicated in this article, the central government rely heavily on her French colonial relief organization called ORSEC. With France being a developed, industrialized country, the use of ORSEC and other logistics for emergency response should be reviewed and changes made to effectively mainstream DRR progress through a decentralised basis. The review and changes recommended here cannot be made urgently enough: they should include, in particular, setting up a multisectoral partnership bilingual commission with competent DRR experts to deliberate and present blue prints and guide how decentralizing DRR can create local structures of DRM in Cameroon.

## **Conclusion**

This research examined the implications of decentralizing DRR in Cameroon. This was done by studying the procedures and instruments put in place by the central government for disaster management in two sub-national government systems. A framework was developed and proposed to support a shift from a centralized to decentralized state perspective around public

policies in DRM. This was done to substitute current, insufficient approaches with an alternative mode to solve challenges arising from DRR policies and regulations in Cameroon. The research concludes by emphasizing that it is high time for the Cameroonian government to buy into DRR as a critical form of public service goods within its policies and programmes. This will enable the designing and implementation of comprehensive DRM for resilience and sustainable development. Decentralization is ironically central to the success of this crucial endeavour where no less than the lives and livelihoods as well as the economic health of Cameroon are at stake.

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## **CHAPTER 6**

# **IDENTIFYING NEW COMPONENTS FOR POLICY REVISION AND LEGISLATION FOR DISASTER RISK REDUCTION IN CAMEROON**



# Identifying new components for policy revision and legislation for disaster risk reduction in Cameroon

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## Abstract

Building on prospects identified in the joint United Nations Development Programme (UNDP) and Cameroon Government programmes of activities since 1998, the present article discusses new components to update existing policies and legislation for disaster risk reduction (DRR) and disaster risk management (DRM) in Cameroon, Cameroon Government. This is the first policy position article for DRR and DRM emerging from Cameroon. Employing a multiple policy design model to develop this policy position article, this article argues that Cameroon's DRR and DRM laws and legislation need revision and a major change of perspective from emergency response/ humanitarian intervention to risk reduction and prevention within the national territory. In spite of the dominant National Contingency Plans and the *Organisation de la Réponse de Sécurité Civile* (ORSEC Plan) on which the Cameroon Government has largely depended since the inception of the Civil Protection ideology in 1967, DRR and DRM have not been implemented efficiently. This article therefore argues that Cameroon should urgently shift its focus, as other African countries such as South Africa have done, by reviewing and endorsing a National Strategy for Disaster Risk Reduction and Plan of Action 2019-2025. Findings demonstrate that the current DRR policy employed by Cameroon is ineffective and obsolete, not least since it poorly integrates DRR activities, Climate Change Adaptation (CCA) and Sustainable Development Goals (SDGs). To address these issues, this study proposes critical components for review and updating the existing DRR legal and institutional framework that has suffered from centralization, reactivity and bureaucracy.

**Key words:** Disaster Risk Reduction (DRR) laws and legislation, policy revision, Cameroon, policy change.

## 6. Introduction

Over the past three decades, the Republic of Cameroon has lagged behind in terms of policies and legislation to support Disaster Risk Reduction (DRR) as a national priority. Indubitably, since 1986 the status quo of DRR in Cameroon has not witnessed a single review or revision of

the laws and regulations that have been in force since (CameroonReport, 1999; CameroonGovernment, 2008). Moreover, it has continually failed to usurp standard frameworks such as the Hyogo Framework for Action (HFA), which the Cameroon Government jointly endorsed in 2005 at Kobe, Japan (CameroonReport, 2005). In the case of Sendai, Cameroon was the first host country to organize the drive for the Sendai Framework for Disaster Risk Reduction (SFDRR) four months after the World Conference for Disaster Risk WCDR 2015 was launched in Yaoundé, the country's capital (UNISDR AF, AU et al. 2015) . Contradictorily, the system merely mimics the form of this framework on the surface; it remains weak underneath (Hai, 2010; Tiwari 2015). Wilwhite et al. (2005) therefore rightfully suggest that past attempts to manage disasters and its impacts through a reactive crisis management approach have been ineffective, poorly coordinated and untimely. The problem has not been restricted to Cameroon: reports on DRR progress in Economic Community for Central Africa States (ECCAS) and other African countries demonstrate that the reactive/ humanitarian approach has been very much solicited over risk reduction and prevention processes (Manyena, Mavhura et al. 2013). Nonetheless, the fact that other countries have struggled in the same manner does not diminish the challenges faced by Cameroon and since the latter has been early to adopt the various frameworks mentioned, it stands to reason that it could play a leading role in adjusting its approach to the critical issues of DRR and DRM.

### **Summary of DRR status quo measurements as found in Cameroon**

In the categorization of International Federation for Red Cross, IFRC and the United Nations Development Programme, (UNDP), (see IFRC and UNDP, 2014) as to whether a given country's DRM laws established an effective framework for DRR, Cameroon falls out rightly as a low priority country and, indeed also with reference to DRR integration ratings using the GOAL Scorecard, where it falls under minimal integration, which is still the lowest score. To clarify the indicators above, this low priority signifies that DRM laws are primarily focused on emergency management and preparedness such as an approach dominated merely by response and recovery. Minimal integration of DRR thus indicates little awareness of these critical issues or the motivation to address them. Further, actions are also limited to crises responses. In Cameroon, this can be seen at sub-national, regional and divisional levels. Recognizing even the

historical legacies of power and political self-interest (see Moncrieffe, 2004), that is, satisfying political loyal elites at the expense of public goods such as DRR (see Williams 2011), it may not be an easy task to witness the highly necessary and urgent “paradigm shift” proposed in this article as part of an overarching project consisting of several articles and a PhD study. Instead, reinforcing of past practices is more likely (Boin and 't Hart 2003; Head and Brian 2008) until such time as a crucial intervention (brought about by external or internal forces) forces a review and the implementation of new DRR policies and legislation. Consider here that it is widely accepted by the international community that legal frameworks are critical tools for governments to shape these kinds of choices (Lassa, 2010; Van Nierkerk, 2005). The present project therefore focuses on these legal frameworks as part of its drive for changing the approach to DRR and DRM in Cameroon. One needs to emphasize that it is perhaps to be expected that the Cameroon Government should adopt the second, improved option of an approach based on DRR and DRM since it has endorsed the Hyogo Framework for Action (HFA) and more recently, as indicated, the Sendai Framework. At stake here are crucial matters such as loss of life, safer communities and economic security.

The present article, then, pertinently addresses issues in view of the second policy option of renewing and updating Cameroon’s DRR laws and regulatory framework towards providing answers to the main question of this study, namely *what the critical components necessary for DRR policy revision and legislation in Cameroon*. This question is addressed considering 1) resistance to polycentric governance in understanding and implementing DRR issues, 2) lack of DRR initiatives and knowledge for turning policy into practice; 3) isolation of DRR policies and strategies not consistent with international standards and 4) historical legacies, power and political self-interest.

### **Impact and importance of DRR policy revision in Cameroon**

The impact and importance of DRR policy revision in Cameroon is spelled out thoroughly in the National Disaster Prevention and Management Program (NDPMP) coordinated by the UNDP and the Cameroon Government since 1998. This action plan for policy revision on disaster management has not been carried out , leaving open lacunae when it comes to DRR activities and policies which, until date, Cameroon has consistently approached in reactive and emergency response manners, as mentioned. While policy statements and action plans of

governments and institutions have emerged over the years as pillars in building regional, national and community efforts for disaster risk reduction, policy statements and reports made by Cameroon at several global platforms and conferences between 2007 and 2017 (see UNISDR AF, AU et al. 2015) barely present a commitment and change policy or put even existing policies into proper action. Meanwhile, the UN/ISDR has emphasized the role of regional platforms to support political commitments within the context of the Sendai Framework. Practitioners and stakeholders actively involved in supporting the implementation of this framework in their region have also been spurred on to carry out actions that identify core DRR priorities and lacunae and towards creating an action plan to support the implementation of a regional strategy (UN/ISDR, 2017). It is on this basis that this article attempted to identify core DRR priorities and lacunae to provide a position article towards developing a National Strategy for DRR and Action Plan for Cameroon. Despite this central focus on the regional aspect within these vital contexts, Cameroon has not been able to act in terms of DRR on that level, a point to which the present article returns occasionally.

The article advances the argument that a new implementation framework for DRR policies and legislation in Cameroon is imperative. It is a matter of emergency that the ex-ante and ex-post status of risks and disasters within Cameroon's territory should be tackled. Towards undergirding this imperative on a scientific basis, the article's empirical analysis relied on multiple policy design approaches, namely those of event history, political economy and policy evaluation and implementation to examine and propose new components with a view to DRR policy revisions and legislative amendments. The article also acknowledges limitations in data collection. For example, data from international agencies concerned with disaster management in Cameroon were retrieved from their websites rather than by means of a survey. The reason for this was because rarely do UN resident organisations in Yaoundé accept or allow access to external non-UN members into their working environments, even when research protocol are being conducted to facilitate policy to action. Similarly, economic impacts of natural and anthropogenic disasters in Cameroon have been poorly documented until date, therefore leaving a gap in the data that cannot be filled properly. This was alleviated to the greatest extent possible by conducting longitudinal studies while relying on participatory observation from 2001-2016 for accurate data within Cameroon.

The fact is that Cameroon faces various challenges when it comes to its current DRR policy model. These involve various barriers and obstacles in the way of improvement, discussed briefly below.

## **Current challenges to improving DRR policies**

### ***6.1.1. Resistance to polycentric governance***

Acknowledging the multisectoral and multistakeholder nature of DRR initiatives (see Webler and Renn 1995, Pahl-Wostl 2002, Reed and McIlveen 2006, Edwards 2009, Scolobig et al. 2015) and the need for policy on *polycentric* governance (Ostrom 2010; Araral and Hartley, 2013), it should be taken into consideration that, DRR and DRM does not belong solely to the government or in one unique Ministry or department such as, in the case of Cameroon, the Ministry of Territorial Administration or Department of Civil Protection (DPC).

The Cameroon Government's inability to collaborate and implement DRR policies and actions (see Lassa 2009; Renn and Schweizer 2009) over the last fifty one years of disaster management has been a failure (see Püzl & Treib, 2006:89), thus underscoring that a single government or ministry cannot take centralized responsibility for these matters, not least because there are no stakeholders (civil society, businesses, private sector, academia, gender, and the disabled engagement in DRR processes and strategies in Cameroon. There are no prospects as of when this article was written to decentralised DRR into various development sectors irrespective of Cameroons commitments to implement the SFDRR. The exclusion of the private sector, NGOs, civil society, youth and vulnerable populations living at risk in different parts of Cameroon has rendered the current DRR policy and legislation ineffective. It has entrenched uncertainties around attaining international DRR-related agendas.

These centralized state bureaucratic politics favour a problem oriented, reactive and response focus on disasters (see Rondinelli et al. 1983; Faguet 2014), and the risk that this will occur in Cameroon is considerable for various reasons unpacked here and in articles and chapters related to the present project overall. Resistance to polycentric governance of DRR shows a strong correlation with policy design and implementation. In contrast to centralization around that design, there is a need for the principles of good governance such as participation,

accountability, transparency, equity and effectiveness to achieve inclusive and sustainable DRR outcomes (see UNDP, 2015). Polycentric governance is also linked to establishing a multisectoral and inter-disciplinary DRR national platform where knowledge, capacity and the input of all stakeholders are considered instead of limiting it exclusively to particular political elites, tribes, departments or ministries, as is the case in Cameroon. The overcoming of the considerable challenges related to bureaucratic politics and centralization of risk governance would ensure the efficiency and effectiveness of policies, rules or methods and the monitoring of policy statements within the strategic planning process of a country (see Head and Alford 2008; Carabine and Wilkinson 2016). Wilkinson (2012) and Williams (2011) have found that governments should encourage multistakeholder activities, since DRM requires coordinated action by public and private stakeholders. Polycentric governance of DRR should therefore be immediately encouraged in Cameroon. As has been rightly stated in everyday parlance, DRR is “*everybody’s business*”.

### ***6.1.2. Lack of DRR initiatives and knowledge***

Obviously, the lack, as such, of DRR initiatives and knowledge to turn policy into practice significantly affects the revision and implementation of a new DRR regulatory framework in Cameroon, but crucial obvious phenomena sometimes go by unnoticed. Evidence of this lack of DRR initiatives and knowledge in Cameroon is abundant in the discussion on mainstreaming DRR into development. For instance, since the HFA was adopted, between 2005- and 2015, evidence show that Cameroon has not been able to implement the noble and crucial ideals of the HFA due to a lack of initiatives and knowledge. One would have expected that the country would have shifted her approach to disaster management from a military and reactive focus to a pro-active and holistic approach of managing risks and disasters at the national and sub-national levels but, alas, this has not occurred.

It is of great importance here to state the necessary but often neglected relationship between DRR and development. As Benson et al. (2007) rightly indicate, there has been a major need, especially since the 1990s, to mainstream DRR into development institutions, while some development institutions, states and organizations have indeed made concrete progress in this respect. Again, this has not been the case in Cameroon, where various kinds of risks and

disasters have been ravaging the national territory with massive loss of lives and property. It is regrettable and strange that she has remained reactive with a limited focus on emergency planning and response. Once more, it is important to stress that the reason for this is partly related to the lack of DRR initiatives and knowledge to mainstream DRR into development institutions, policies and strategic plans within the national territory.

Other African countries such as South Africa, Botswana, Namibia, Malawi, Mozambique, Kenya, Algeria, Nigeria and many others, have in the meantime developed more effective laws and legislation for DRR (see IFRC & UNDP, 2014), moving away from centralization. One would have expected Cameroon, which has been described as an Africa in miniature, to have followed suit. But instead of experiencing a policy review aimed at DRR laws and legislation, the Cameroon Government has preferred to remain stuck in its practices of a narrow approach based on relief and humanitarian response to risk prevention and reduction (see MINEPDED, 2015). The urgency of the case made here of proposing urgent and in-depth change when it comes to policy and implementation around DRR in Cameroon is underscored by the recognition that in fifty-two years of disaster management there has been little progress. Instead, there has been poor integration of disaster preparedness, mitigation and prevention measures into policy development and planning (see Guha-Sapir et al. 2004).

The situation is compounded by the fact that there have been few empirical studies, with the exception of (Bang, 2014) and (Gaston et al. 2012) from Cameroon that have bothered to deal with DRR and DRM as a permanent development problem (Pearce 2003; Cardona 2004; Blaikie, Cannon et al. 2014), pointing again at the challenges posed by the lack of solid relationships between DRR, knowledge, decentralization and a change in approach that would lead to new and effective legislation. Indeed, Cameroon is the perfect example of relief topping funding in the Sahel and Africa (EU 2016; USAID/OFDA, 2017). As Guha-Sapir et al. (2004) have demonstrated, decision makers and development programmers in Cameroon have neglected the importance of disaster reduction not only due to a lack of convincing analyses of trends and estimated losses, but also that there are no supporting policies, laws or regulations in place for it to function neither are there institutional structures to support national and local capacity for Disaster Risk Management (DRM) that could have augmented future disaster losses.

Concomitant with the notion of decentralization discussed here is a need to shift focus to prevention planning and community preparedness. Decentralization of government responsibility must therefore occur at the regional and municipal levels of local governance. Yet another factor that compounds the challenges around DRR activities is that they have been rarely funded because they are not viewed as a policy priority either among national governments or at the UN and other development institutions. This has been the case exactly in Central Africa states and Cameroon has unfortunately been a case study in this regard. To conclude, the lack of DRR initiatives and knowledge, which acts as a major challenge in relation to the revision and implementation of a new DRR regulatory framework in Cameroon, should be alleviated and advanced in the nearby future by effective policy and implementation and better legislation and that will result, crucially, in safer communities, as new DRR policies are designed for action within Cameroon's public policy and administration.

### ***6.1.3. Isolation and incoherence of DRR and DRM policy with international agendas***

Over and above these two major areas of challenge—namely resistance to polycentric governance in tandem with lack of initiatives and knowledge—a third challenge area when it comes to the current disaster management policy emanates from isolation strategies not consistent with international standards set by either the HFA, SFDRR or SDGs with a view to climate change integration. As discussed in other outputs of the overall present project of which the present article forms part, DRR should not be implemented in an isolated manner. It should include international standards and frameworks given the interconnections between climate change, sustainable development and DRR. These interconnections CCA have been identified as priority issues since global consultations in 2012 with a view to the post-2015 framework aimed at DRR (Field, Barros et al. 2012). According to the National Adaptation Plan, (NAP) submitted to the UN Framework Convention on Climate Change UNFCCC (2016) Project Nr 2 Cameroon's particular version of NAP clearly denotes the absence of climate change integration in regards to the ORSEC plan (that is, the *Organisation de la Réponse de Sécurité Civile*). This increases vulnerability to climate change in the nation of Cameroon.



The ORSEC plan, triggered for relief and emergency within administrative units in the country, has demonstrated ineffectiveness and a lack of coherence integration with DRR strategies, standards and policies (Wilwhite et al. 2005). Even as the employment of ORSEC is therefore commendable and potentially constructive in principle as a priority instrument for DRR and CCA, that employment has unfortunately remained highly incoherent and inconsistent with climate change integration into development planning. Considering the interconnections discussed during the consultation meeting with the IPCC in 2012, the future of DRR laws and legislation is expected to integrate two principal objectives of CCA: Firstly, to reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience and, secondly, to facilitate the integration of CCA, in a coherent manner, into relevant new and existing policies, programmes and activities, in particular development planning processes and strategies, within all relevant sectors and at different levels, as appropriate (UNFCCC, 2018).

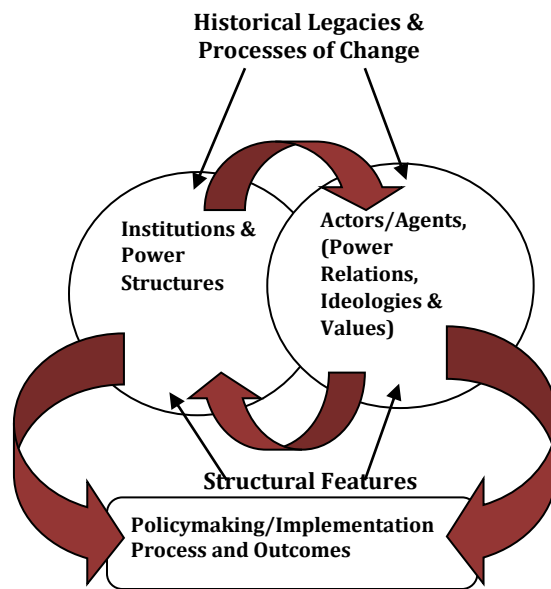
The fourth strategic goal of the National Adaptation Plan (NAP), namely integration and adaptation to climate change in strategic policy and sectoral levels within the national territory, is not compatible with the ORSEC plan. Hence, there is a need to develop a new plan or policy that will integrate DRR and CCA as a priority instrument for development planning. ORSEC itself is not a development instrument for DRR. Thus, Cameroon cannot use ORSEC to integrate DRR and CCA. The fact that Cameroon frequently drifts away from the truth that her disaster management intervention plan does not consist of DRR but humanitarian relief and response is itself a problem. According to the NAP project (see UNFCCC, 2016), Cameroon has embarked on two implementation objectives: to revise the national contingency plan (2018 version) and to support institutions in charge of disaster management through the emergency operation fund. The consequences for disaster management in Cameroon according to these two implementing plans from the NAP implies that, Cameroon prefers to stick within her emergency and crisis management approach while its population are exposed on daily bases to natural and man-made disasters within the national territory.

Congruently, there are two important alternatives in for Cameroon's risk and disaster management: continue with emergency relief and humanitarian aid or risk enter the new, crucial terrain of reduction and prevention. The latter involves integrating climate change into development planning and budgeting, whereas the former would merely continue to mime the

form of a better approach on the surface, as usual, along with pretences held regularly in global DRR/CCA meetings and platforms, while these remain disconnected from daily risks and calamities of its population and vulnerable groups. On application of the integration approach to DRR and CCA, it is believed that the likelihood of making DRR and CCA a priority in a new DRR policy and legislative framework is imperative for Cameroon's sustainable development goals achievement.

#### ***6.1.4. Historical legacies, power and political self-interest***

A fourth challenge in the current DRR policy that should be examined in relation to the revision and implementation of a new DRR regulatory framework in Cameroon is the aspect of historical legacies, power and political self-interest. These are drivers for policy implementation. Empirical evidence supports the fact that the ORSEC plan was originally clouded by issues of historical legacies, power and political self-interest with a view to its bilateral commitments pertaining to one of its former colonial administrations, France. Even the NAP, discussed above, identifies issues of top-down governance, conflicting interests and bottlenecks, and problematic value and beliefs held by the stakeholders involved along with limited resources put in place by the system for DRR implementation, and these are related to the institutions and political power structure of a continuing French bias due to the particular colonial heritage of Cameroon. Top-down governance, for instance, stems from this heritage, and this impacts directly on the effectiveness of risk and disaster management. It would indeed be catastrophic if the Cameroon Government continued its resistance to DRR policy change and implementation. It needs to recognize, despite its historical legacy and tendency towards self-serving and exclusionary tactics, to the pitfalls, deficiencies and ineffectiveness of the current DRR policies and legislation outrightly. The status quo is however supported firmly by the current bureaucratic and centralized state regime (Shafritz and Hyde, 2016), whose focus remains on satisfying, recruiting and protecting its political loyal elites within particular tribes, regions or divisions and municipalities in French speaking zones in Cameroon. As stated, disaster resilience cannot be effective under these circumstances, not to mention DRR components and guidelines that form an essential part of risk governance. Figure 1 below presents historical legacies, power and political self-interest in relation to determining policy implementation in Cameroon.



**Figure 1.** Factors that could influence DRR policy review and policy change in Cameroon (Source: Adapted from Moncrieffe & Luttrell, 2005).

This figure presents a framework adapted from Moncrieffe and Luttrell (2005), which emphasises how historical legacies, power and political self-interest can influence processes of change in relation to policy design and implementation. With colonialism, historical legacies of the French and English ideologies and values of governance, have had and continue to have a lasting influence on Cameroon’s public policy and administration. With eighty percent consisting of the government structures under French-speaking domination and only the remaining twenty percent therefore occupied by English speakers, DRR has seldom seen its implementation improved. This is accounted for partially because the majority of Cameroon’s policy making and implementation is centred on the context of business compensation for political loyal elites and protecting the current unitary state administration and republican values (Touo, 2014). This explains why the ORSEC plan, French in origin, was borrowed and made official as a law and regulatory framework guiding disaster management and emergency relief until date. Adopting standards, processes and policies aimed at effective DRR would definitely be determined by *who* has power to change the policy and *what* exactly the interest of this change of policy is. That the present article is written in English therefore gains extra important and significance, working against the grain of centralization and

exclusion, as in the case of the WFP's Country Strategic Framework (WFP, 2018), and the DRR Action Plan for Cameroon 2019-2025. The critical components identified for policy review and policy change in this article would serve as standards to design a final National Strategy for DRR Plan of Action in Cameroon 2019-2025. Written in English, these materials are bound to stand the test of time in relation to the said fourth challenge in developing successful DRR policies and legislation in Cameroon. This is because Cameroon's DRR excessive focus on centralised governing elite who strive for the maintenance of power, [mostly those from the Francophone zones in Cameroon], while keeping afloat appearances or insist on loyalty to kin, tribesmen, and comrades of the same political party (see Blanton et al. 1996; Oliver-Smith 2009) analysis. In practical terms, accepting a new DRR policy and legislative text written in English as the case presented in this article would imply pulling own limitations and barriers of inequality, deprivation, and marginalisation of English-speakers in DRR activities that have tend to exclude and block DRR English texts from being implemented at different scales in Cameroon.

These matters bring into focus the question about *who* those in favour of changing the current DRR policies are, and *why* the policy should be changed. Apart from flaws and limitations discussed in this article, scholars cited in Table 1 (below) emphasise the need to change current DRR policies. Some of the reasons raised range from lack of capacity in support of DRR and DRM to the incompatibility of Cameroon's DRR laws and legislation with the ORSEC plan. Before identifying critical components for policy review and policy change aimed at proper DRR, as found in the subsequent section of the present article, consider the table below, which presents, as mentioned, arguments and frameworks of scholars' positions in advocating for a policy change in DRR laws and legislation in Cameroon.

**Table 1.** Summary of frameworks and research outcomes in favour of DRR policy change in Cameroon.

<b>Author(s)</b>	<b>Framework</b>	<b>Research Outcome</b>
Zogning, et al. (anon.)	Scientific/technical approach to the evaluation of natural risks in Cameroon	ineffective approach to natural disaster management.
Bang (2014)	General overview of disaster management in Cameroon	reviews critically disaster management in Cameroon and examines the various legislative, institutional and administrative frameworks.
Ndille & Belle (2014)	Managing the Limbe Floods: Considerations	a strong political will is needed to move from disaster response to disaster prevention, mitigation and preparedness, also that reform is a matter of urgency.
Aka, Buh et al. (2016)	Disaster prevention...disaster risk management in Cameroon	expected results have not been attained, over-centralization and reactive, rather than a proactive approach to disaster risk managements.

## **Alternative solutions for the revision and implementation of DRR policy in Cameroon**

Here the four challenges outlined above and the preceding frameworks advocating for policy change in DRR legislation are transposed into practical solutions for action in Cameroon.

**Table 2.** Current DRR and DRM policy model and its alternative solutions

<b>Current policy model</b>	<b>Design for policy (DRR policy options)</b>
Resistance to polycentric governance in the coordination and implementation of DRR initiatives and actions.	Decentralize and provide multisectoral and multi-stakeholder model of risk governance
Lack of DRR initiatives and knowledge to implement and coordinate DRR practices within the national and local levels of government	Build national and local capacity for DRM
Isolation and incoherence of DRR and DRM policy with international agendas	Revise and change policy institutional framework to enable mainstreaming of DRR and DRM, CCA and SDGs
Historical legacies, power and political self-interest	Identify and mainstream competent DRR and DRM and CCA professional elites from marginalize Anglophone zones of the national territory.

**Source:** Authors.

In the subsequent section the article proposes a draft of critical components necessary for consideration when carrying out DRR policy revision and implementation in Cameroon. Cameroon has never developed a National Strategy for DRR Plan of Action for Civil Protection since independence in 1960. It has possessed several disaster management laws since 1967, relying on the National Contingency Plan of 2011 and now 2018. For the reasons outlined here, this article however proceeds to identify new components necessary for policy revision and legislative amendments in Cameroon’s DRR legal and institutional framework.

### **Critical components necessary for DRR policy revision and legislation in Cameroon**

In view of UNDP’s environmental programme called Natural Disaster Management and Prevention (NDMP) in partnership with the Cameroon government since (1997-2002) and (2003-2007), updating existing legislation governing disaster management in Cameroon has been a prerequisite for the Cameroon Government’s programme of activities jointly sponsored by the UNDP and related partners like the United Nations Office for Humanitarian Affairs

(UN/OCHA), several ministries, the DCP, French institutions of cooperation as well as various other international and NGOs. This present article normatively provides a policy revision framework against the backdrop of these developments and their results.

According to Workable (2018), policy elements could be reviewed based on certain factors among which a change of legislation may be required following an evaluation and review. Building on this, the policy revision process proposed in this article involves major or important changes around the policy stages of Cameroon's DRR legal and regulatory framework as articulated in terms of various activities by Workable such as altering established procedures, processes or other daily operations, modifying the scope or objectives of the policy, relating to changes in legislation, correcting serious inconsistencies and rewriting the entire policy. Given that change is highly necessary while it is considered to be a major problem within the DRR context of implementation, the present article purposely play its role as part of an overarching project aimed at revising and updating the Cameroon Government's efforts to align the country's DRR coordination and implementation towards achieving the Sendai Framework and related international commitments such as SDGs and CCA.

### **Design and layout of the proposed components for policy revision and changes within Cameroon's DRR legislative framework**

Table 3 below presents a new model for the design and layout of policy revision and changes to be effected into Cameroon's DRR and DRM framework. It is presented in such a manner that the Green Paper, which will be the final strategic document or action plan, could be developed based on the model proposed below in this table.

**Table 3:** Proposed model and components necessary for policy revision and change within Cameroon's DRR policy and legislation 2019-2025.

<b>Clause 1</b>	<b>Current laws and proposed components for new policy and legislation in Cameroon.</b>	<b>Purpose</b>	<b>Status</b>	<b>Cost</b>	<b>Time Period</b>
<b>Headline banner</b>	Provide an official title page and replace former Preamble of the Constitution / Articles with headline banners, with the following inscribed on the front page: <b>The Republic of Cameroon’s Emblem and Logo written in French and English at the top centre of a new page.</b>	Indicates legal ownership by the Republic of Cameroon and the Coat of Arms.	OAL	N/A	2019
	Inscribe new title of policy document as follows: <b>“National Strategy for Disaster Risk Reduction and Plan of Action 2019-2025”, Republic of Cameroon.</b> Also, include <b>the issuing date and the identification block (policy number, page number appearing in each of the policy pages), effective date of approval and endorsement, office of origin and approval authority.</b> The footer of each of the pages may also carry the <b>policy title and issuing date</b> of the policy.	Clear title	OAL	N/A	2019
	Repeal Law Nr 86/016 of December 1986 in the general re-organization of the civil protection <b>“A New Law of DRR and the Civil Protection Act of (date policy is approved).</b>	To align with Sendai Framework and related International DRR agendas	OAL	N/A	2019-2020
	Replace Decree Nr 98/031 of 9 March 1998, organisation of emergency and safety plans in case of disasters and major risks protection with <b>“A New Law of DRR and Civil Protection Act of (date policy is approved).</b>	To mainstream DRR in development planning and enhance decentralization of DRR	OAL	N/A	2019-2025
<b>Clause 2</b>	Messages from the Prime Minister and Foreword from the Minister of Territorial Administration and Decentralization (MINATD) where policy document was approved.	Comments on the New Legislation	OAL	N/A	2019-2025
<b>Clause 3</b>	<b>Table of Contents</b>	Indicates topics covered within the policy.	ARQ	N/A	2019-2025
<b>Clause 4</b>	<b>List of Abbreviations</b>	Acronyms used within the policy.	ARQ	N/A	2019-2025
<b>Clause 5</b>	<b>Executive summary</b>	Summarizes the policy document.	ARQ	N/A	2019-2025
<b>Clause 6</b>	<b>Chapter 1. Context</b>	Statement of problem, background, methodology and justification of policy.	ARQ	N/A	2019-2025



<b>Clause 7</b>	<b>Chapter 2.</b> Strategic Framework for DRR and Plan of Action.	Vision	ARQ	N/A	2019-2025
		Goals	ARQ	N/A	2019-2025
		Guiding Principles	ARQ	N/A	2019-2025
		Scope: For example, (2020-2024), or (2019-2025).	ARQ	N/A	2019-2025
		Four to five Strategic Goals and Priorities for Actions.	ARQ	N/A	2019-2025
<b>Clause 8</b>	<b>Chapter 3.</b> Dilemma of DRR National and International Funded Projects	Financial Arrangement for the Strategy	ARQ	N/A	2019-2025
<b>Clause 9</b>	<b>Chapter 4.</b> Applicable Lessons Learned	International best practices for DRR policy and legislation applicable to Cameroon.	ARQ	N/A	2019-2025
<b>Clause 10</b>	<b>Chapter 5.</b> Status Quo of DRR in Cameroon	DRR legal and institutional system for DRR in Cameroon	ARQ	N/A	2019-2025
<b>Clause 11</b>	<b>Chapter 6.</b> Monitoring and Evaluation	Compliance of Strategy with international standards.	ARQ	N/A	2019-2025
<b>Clause 12</b>	Bibliography	Materials consulted in the policy document.	ARQ	N/A	2019-2025
<b>Clause 13</b>	Implementation Plan	Fulfilling the multisectoral approach, paradigm shift from reactive to risk reduction prevention and the Sendai Framework (2015-2030).	ARQ	N/A	2019-2025

**Legend:** OAL -On approval of new legislation  
ARQ -Available on basis of request as draft document  
N/A –Not available

### ***6.1.5. Presenting the case for the DRR Policy Paper in Cameroon***

The central diagnostic provided in this Policy Paper is that Cameroon’s DRR and Civil Protection strategies and actions have been poor and ineffective due to a model dominated by a reactive and emergency response of crises management approach (CameroonReport 1999; CameroonGovernment 2008). This new Policy Paper proposes a shift in paradigm with feasible components necessary for policy revision and changes within Cameroon’s DRR policy and legislation 2018-2022. Further, it is obvious that the reactive, humanitarian or military approach cannot sustain Cameroon’s long-term vision of addressing natural and anthropogenic hazards, CCA and sustainable development. The current policy model used by Cameroon is similarly incompatible with its National Adaptation Plan and Vision 2035. In the quest to fill the lacunae in Cameroon’s DRR Strategic Framework and action plan 2018-2022 the present article hence proposes a full version of the said Policy Paper on request from the Cameroon Government.

### ***6.1.6. Construction of the Policy Paper***

The construction of this Policy Paper builds its case on a systematic evaluation of the DRR and DRM institutional and legal framework in Cameroon since 1967. The case for the paper is therefore built on solid arguments to increase awareness of the importance of DRM as an integral part of sustainable development and disaster resilience (see Pusch, Bedane et al. 2016) in Cameroon’s Vision 2035.

### **Conclusion**

*Why is research on implementation needed?  
“Neglecting implementation challenges  
costs lives and money.” (David et al. 2013:)*

Policy revision and legislation with a view to DRR in the Republic of Cameroon (2018) has been presented in this article, arguing that updating and revising Cameroon’s DRR legislation and

regulatory framework is imperative to align its strategies, policies and practices towards the achievement of the Sendai Framework and related international commitments. It is expected that this article will assist in the design of a Green Paper known as the National Strategy for DRR and Action Plan, 2019-2025. The present article has discussed current DRR policy challenges and alternative solutions for these policies. It has discussed the strengths and possible challenges of implementing new policy options or alternative components towards changing DRR policy in Cameroon. It has identified debilitating flaws inherent in the current DRR policy framework with the support of empirical research on DRR in Cameroon. It has moreover discussed possible ways in which these problems can be solved.

Overall, it was argued that although current laws and legislation in charge of DRR in Cameroon had served on the basis of emergency responses and crises management since 1967 and later 1986, these policies are outdated and ineffective when it comes to addressing disasters and climate risks, which pose serious threats to the Cameroonian population. Only through policy revision and a proper implementation framework aligning Cameroon's strategic vision to advance the implementation of DRR activities, can a proper and effective standard process be achieved in Cameroon, Africa and the world at large. This article contributes to previous work, as identified in Table 1 above, stressing a paradigm shift from a reactive approach (as described by Bhavnani et al. 2008; Dia 2015) to community preparedness, prevention and risk reduction. Most significantly, the article identifies critical components necessary for DRR policy review without which Cameroon stands very little chances to shift away from event focus (crisis management and humanitarian aid) to disaster prevention and risk reduction. Never in the history of Cameroon has DRR strategies and processes been so overtly expounded and emphasised laying down holistic and pro-active DRR actions and activities necessary for policy revision and implementation within the national territory since its inception in 1967. It is therefore imperative that, Cameroon stands a better chance to reduce the cost of disasters by prevention and planning, rather than wait for the disasters to happen before triggering the so-called ORSEC and its unnecessary Joint Crisis Committee who show up only during Post-disaster recovery phases.

### ***6.1.7. Implications and recommendations***

This article recommends that the Cameroon Government should take positive action towards policy change and implementation aimed at DRR and DRM. Consequently, political will by political leaders will be necessary for this policy change to occur. Cameroon should not wait for a major disaster to strike the population before sitting around the table to design policies or make changes. A National DRR Strategy and Plan of Action 2019-2025 as to mainstream DRR and DRM activities in Cameroon could provide the country's future around DRR and DRM with a standard, strategic and well-defined process and mechanism to address risks and natural hazards within her territory.

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## **CHAPTER 7**

# **CONCLUSION AND RECOMMENDATIONS**

## **CHAPTER 7:**

### **7. Conclusion and Recommendations**

In its quest to answer the main question that the present thesis has posed, namely which strategy, processes and standards should be put in place to design a new implementation framework for DRR policies and legislation in Cameroon, especially considering the top-bottom governance system, bureaucracy and considerable challenges around public policy towards DRR implementation, including lack of knowledge and initiatives to implement DRR activities, the present thesis found that six more specific research questions were raised which, in their turn, gave rise to the proposal of four areas for policy design. All the articles contributed to the design and development of Cameroon's DRR policy and its Civil Protection Regulatory Act. While the overall aim/objective of this thesis, as stated, was highly normative in relation to the development of a new implementation framework for DRR policies and legislations in Cameroon, conclusions drawn from the entire five articles put together makes the case clearly that the current DRR/M policies and legislation used to coordinate and implement DRR in Cameroon is ineffective and does not possess an enabling environment to integrate DRR at the sub-national, national, and local levels in Cameroon. As such, this thesis therefore attempted rigorously to design a concrete DRR policy model which can be used as a Green Paper to decision and policy-makers in Cameroon in order to change and review the current DRR/M policies in place over fifty-two years of existence. For this change to occur on the ground, this thesis made several new revelations for policy to include within the new framework ranging from replacing the reactive approach to the pro-active, that is using an-all society approach to DRR/M rather than the traditional bureaucratic and event focus approach to DRR/M experienced in Cameroon within the last fifty-two years of existence.

The theoretical framework drawn from street level discretion, involving a bottom-up approach, in unison with the third generation of implementation theories were found to be highly useful for analysing failed DRR policy and legislations. This policy and action approach formed the underlying theory used to achieve the aims and answer the research questions in this thesis. The approach also assisted in designing policy into action. As such, pragmatism was found to be unequivocally suited and useful for closing the lacunae and excesses when it comes to implementation of public goods, in this case in particular DRR efforts in Cameroon. The action and policy research established in this thesis revealed that there are different methods and possibilities of updating and performing policy design to

improve the practices, effectiveness, trends and risk patterns of institutions and organizations within a specific geographical location, again in this case in Cameroon in particular. For example, the author has been committed in the mobilisation of the civil society, NGOs, businesses, private sector, academics, and the central government to organise sub-regional and national DRR meetings, working in collaboration with Periperi U at the University of Buea, and other developmental sectors in Cameroon such as MINAT/DPC.

All five articles were co-authored with clear indications of the present author's contribution, namely whether the author's input was *major* (more than two thirds of the work), *medium* (one to two thirds) or *minor* (less than on third). The input has been of the *major* kind, since the present author contributed more than two thirds in each of the articles and hence also in each of the chapters here.

## 7.1. Conclusions set out per research article

The section below presents a summary of the conclusions of each article in terms of an aim, the design, results and how findings corresponded to research questions. (See Figure 4.)

### ***7.1.1. Article 1: R.E.A. Ashu, Dewald Van Niekerk, (2019) "A status quo analysis of disaster risk reduction policy and legislation in Cameroon", Foresight, <https://doi.org/10.1108/FS-06-2018-0060>***

This article presents a status quo analysis of DRR in Cameroon over the past fifty-two years. The aim was to investigate two research questions: ***RQ 1: What is the status quo of DRR in Cameroon? RQ 2: How much of DRR commitments constitute an integral part of Cameroon's development goals and Vision 2035, and RQ3: Is there an enabling environment for DRR policy and legislations?*** The article performed an extensive cross examination of historical data concerning DRR implementation drawn from government reports, commitments, aide memoires and peer reviewed journals, while relying on ten selected government sectors for empirical data. The main aim was to measure DRR efforts in Cameroon from 1967 to 2017 and assess the extent of implementation based on previous international commitments like the Hyogo Framework for Action and then also the Sendai Framework for DRR. Quantitative survey questions assisted the qualitative data through employment of four instruments, as mentioned, namely HFA Priority 1 & 4, the USAID Toolkit, the GOAL Resilience Score and the Checklist on Law and DRR. These instruments led to analysis that found the following: a) Cameroon largely still practices disaster response through the department of civil protection, b) transparency and accountability are the *sine qua*

*non* of the state and c) the lack of the latter causes improper implementation of DRR within development institutions. The results show that DRR is as an *ad hoc* activity that lacks effective institutional capacity for implementation. The results of article 1 are similarly discussed in relation Cameroon's unsuccessful implementation of DRR frameworks such as, once more, the Hyogo Framework for Action, while Article 1 further argues a high probability exists that the country may not succeed, either, in the case of the Sendai Framework if matters remain the same, that is, if a paradigm shift from a focus on events to processes does not occur. The article thus identified the need to develop a new national DRR framework.

**7.1.2. Article 2: Ashu, REA. and van Niekerk Dewald (2018). *Counting the cost and impact of natural and anthropogenic disasters in Cameroon: 2001-2016.***

This article presents a total cost estimate analysis of the impacts of natural and anthropogenic disasters in Cameroon. Using the cost-benefits analysis framework for DRM, disaggregated data was compared from the following sources: 1) the CRED online database, 2) The Cameroon Civil Protection Compendium Reports on Disasters (2002-2012), 3) the INFORM RISK index (2017 version) and 4) a cross sectional survey and empirical observation made between 2001 and 2016. Over 1200 interviews were conducted by means of questionnaires, face-to-face discussions and phone calls to informants who were unreachable for questionnaires or interviews. 3 Focus Group Discussions were conducted to examine disaster losses in risk hotspots within Cameroon. The aim of the article was to provide an update on the cost and impact of natural and anthropogenic disasters in Cameroon by counting the cost inflicted in terms of the human toll and destruction of livelihoods in this country and its neighbours. While recognising the efforts of UN bodies such as UN/OCHA, UNHCR, UNICEF, and so forth as well as international partners such as the EU, USAID, France, Japan and China in providing humanitarian assistance and relief to Cameroon and the Sahel region, the article aimed at presenting a comprehensive result on the cost and impact of natural and anthropogenic disasters.

As the analysis of documentation showed, the impact of natural hazards and disasters within Cameroon has been poorly documented. The article therefore attempted to cross examine various sources by comparing existing data with field observations made between 2001 and 2016. The purpose was to ensure that DRR strategies, policies and actions should be based on evidence of disaster loss, risk patterns and trends in addition to a good understanding of the

underlying risk factors in Cameroon in the knowledge that this would ensure appropriate policies for decision makers to improve and address natural hazards and disasters where possible.

The results show that Cameroon has never possessed a reliable database for natural and anthropogenic disasters, thus confirming the results and findings of Article 1 and emphasizing that disaster risks do not constitute an integral part of development planning in Cameroon which, consequently, results in a situation where research and data collection around the human toll and destruction of livelihoods are poorly managed and skewed, not providing accurate loss estimates of the consequences of natural hazards and disasters.

The results of Article 2 further demonstrate that anthropogenic disasters notably technological ones and protracted social conflicts are more likely to cause fatalities than natural disasters, while natural disasters impact more severely in terms of economic and financial terms than anthropogenic disasters. The probability of death from accidents and protracted conflicts is more likely than in the case of natural hazards and disasters with a ratio of 1:100. Consequently, EM-DAT's attention was drawn towards a re-evaluation of the source of statistics for disaster risk trends in Cameroon.

### ***7.1.3. Article 3: Ashu, REA. and van Niekerk, Dewald (2018). Building national and local capacity for DRM in Cameroon.***

The question of how Cameroon's platform for DRR can serve to strengthen its national and local capacity for DRM and what the necessary indicators and baseline standards are to support National Capacity for DRM (**RQ 5**) came into special focus within this article. To address this question, an extensive literature review and in-depth interviews with 200 persons were conducted to test the six principles that were identified by using qualitative methods. The informants were drawn from three levels, namely sub-national municipal and local ad hoc committees where the ORSEC Plan and the Joint Crisis Committee are expected to be operational. The objective was to evaluate specific capacity building programmes for DRM carried out in Cameroon through the Civil Protection Department after re-organising the department thirty years after its inception. The six principles identified were 1) comprehension/ implementation of DRR terminology, 2) inclusive risk governance and a multi-stakeholder partnership approach, 3) historical legacies, power Relations and interest, 4) decentralization and risk reduction, 5) functional capacity and 6) education and DRR. The

characteristics of these six principles were all applicable to [...complete], since they centre on reviewing existing cultural, social, institutional and political issues within the DRR legislative framework in Cameroon.

The results showed that the exclusion of businesses, civil society, the community, DRM professionals who are English speakers and DRR texts in English were root causes of challenges around capacity building programmes undertaken for DRM. This implies that critical lacunae of capacity building for DRM are being monopolized by a single ministry or department. The article therefore discusses the results in terms of changing “mindset” [has long since been spelled without a hyphen due to frequency of use] and attitudes for an enabling environment and a successful process of capacity building for DRM to be generated. The article suggested in conclusion that future research should be conducted on decentralization and DRR in Cameroon, to which Article 4 (discussed below) embodies a critical response.

***7.1.4. Article 4: Ashu, REA. and van Niekerk, Dewald (2018). Decentralization and DRR in Cameroon: A critical analysis of the process in the Centre and South West Regions.***

The article presents a framework to support government influences for decentralizing DRR into different administrative units within Cameroon. With the aid of the Local Government Self-Assessment Tool (LGSAT) for disaster resilience, this article provides a critical analysis of the implications of decentralizing DRR in Cameroon, with special focus on the Central and South West Regions. In addition to two disaster management training workshops held during the last quarter of 2017 in Yaoundé, two out of the ten administrative units referred to as regions were selected comprising of the said regions. The survey was moreover divided into two parts. The first part mainly covered informants and resource persons from the administrative councils, while the second involved informants from organizations in charge of decentralization. The study selected specific local indicators from the Ten Essentials Key Questions aligning it with HFA Priorities 1 and 4. The reasons for this was that it permitted the study to focus on indicators that influence decentralization. This further permitted the analysis of **decentralising** government responsibility and stumbling blocks in the way of measuring DRR efforts significantly with enough substance for analysis. Employing the political economy approach to gain insights into why and how government has been investing or underinvesting in DRR, the article identified key challenges. These challenges ranged from

over-reliance on the ORSEC Plan and Joint Crisis Committee, lack of knowledge on DRR initiatives, too much dependence on military and humanitarian aid for relief, substitution of public goods for DRR for the sake of maintaining political power and satisfying loyal business elites in the same party as well as marginalization of English speakers in DRM decisions and positions within the central government , amounting to the considerable challenge of centralized focus on disaster risk coordination.

To propose amendments and change for a new DRR and DRM framework in Cameroon, the article shows that favourable conditions should be put in place to devolve responsibility down from the central government to sub-national governments in accordance with a subsidiarity principle that should be implemented. This would enable a shift of focus from disaster response to risk prevention and reduction.

***7.1.5. Article 5: Ashu, REA. and van Niekerk, Dewald (2018). Identifying new components for policy revision and legislation for DRR in Cameroon.***

New components for updating existing policies and legislations for DRR in Cameroon are the focal points of this article. This was done by addressing a summary of all the research questions, namely: what are the critical components necessary for DRR policy revision and legislation in Cameroon? (**RQ 7**). The aim of the policy paper on which this question and Article 5 are based was to identify and update DRR policy and legislation in Cameroon. In essence, this policy paper endeavoured to fulfil part of the strategic objectives, that the NDPMP (coordinated by the UNDP and the Cameroon Government since 1998) had laid redundant.

The empirical analysis undergirding this article relied on multiple policy design approaches: event history, political economy, policy evaluation and implementation analyses to examine and propose new components for DRR policy revision and legislative amendments.

The article does not only present critical analyses of DRR issues that need to be revisited and updated but, as Article 5 indeed shows, it presents major reasons and theoretical frameworks that justify and contend for a change in DRR-related legislation as in terms of a feasible solution and plan. The paper delineates the design and layout for DRR policy revision and legislation. Workable strategies for implementing the action plan are presented in Annexure (**pg.226**)

In the process of building this article and others, three main points emerged that connect Research Questions 1 to 5: 1) the historical origin of the DRR policy issues were to be identified including determining the importance and involving policymakers to address the problem from a legislative position, 2) the most up-to-date research had to be conducted and recommendations were to be developed for these articles in relation to the policy paper and 3) the implications of these articles (1 to 4) were to be formulated with a view to the design and conduct of policy.

The paper's introductory section emphasises the choices and consequences of each policy option should the issue of DRR remain unaddressed within Cameroon. Current policies and their consequences from 1967 to 2017 are presented as well as alternative policy options to address the problem of DRR implementation. At its conclusion, the article presents a new model for the design and layout of policy revision and changes to be made into Cameroon's DRR and DRM framework, as seen in Table 3. The policy model in Article 5 is presented in such a manner that the Green Paper, which is the final strategic document or action plan, could be developed on its basis.

## **7.2. Significance of findings and contribution to society and science**

The significance, value and validity of this thesis is demonstrated by the following aspects it found in but not limited to the following areas:

- It is the first study to design a **National Strategy for DRR and an Action Plan** for Cameroon (See Annexure, pg.226).
- The study reviews, revitalizes and proposes a **position policy paper** for DRR and DRM efforts in Cameroon to *manage* risks instead of creating and promoting new ones (See Article 5).
- The study challenges the current pattern and practices of DRM present in Cameroon since 1967 (See Article 1 – Article 5).
- It addresses specific aspects of how Cameroon's Vision 2035 can be implemented to incorporate related international agendas such as the CCA, SD and the Sendai framework (See Chapter 1, Section 1.1.3.2).



- it advances **implementation theories** within the domain of public policy and administration (See **Chapter 1, Section 1.2**).
- It contributes to the body of knowledge in Geography (Political Geography) and **Disaster Risk Science** (See **pg. 50**).
- It translates policies and strategies into practical tools for decision-makers and practitioners to facilitate implementation of the Sendai Framework in Cameroon (See **Action Plan for Sendai Framework 2015-2030 in Africa. pg. 21, Priority 2, Priority Activity No. 7**).
- It aligns with and integrates **three** of the **seven** proposed targets of the NDPMP (See **Article 3**).

### **7.3. Contribution to knowledge: national Strategy for DRR and Plan of Action 2019-2025**

The most significant contribution of the findings of this thesis entails the proposed Plan of Action drafted for Cameroon to implement the Sendai Framework referred to as the “**National Strategy for DRR and Plan of Action 2019-2025**” in line with:

#### **Sendai Framework for Disaster Risk Reduction Target (e):**

*“Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020”.*

In a quest to ensure that the Sendai Framework for DRR 2015-2030 (SFDRR) adopted at the Third World Conference for DRR gets implemented in Cameroon, a strategy and action plan has been developed to tackle the high-risk prevalence of Cameroon’s exposure as seen in **Chapter 3**. The proposed strategy newly proposed here aligns with the NDPMP that has been redundant since 1998 (See **Chapter 4**). Furthermore, the strategy attempts to strengthen Cameroon’s DRR platform to achieve international commitments such as the SFDRR, the CCA and the SDGs.

#### **7.3.1. The new DRR framework and Sendai principles.**

Building this new DRR framework under the guiding principles of the SFDRR entails aligning it with the following Sendai guiding principles:

**SFDRR 19(b):** DRR requires that responsibilities be shared by central governments and relevant national authorities, sectors and stakeholders, as appropriate to their national circumstances and systems of governance.

**SFDRR 19(d):** DRR requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible and non-discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest. A gender, age, disability and cultural perspective should be integrated in all policies and practices and women and youth leadership should be promoted. In this context special attention should be paid to the improvement of organized voluntary work of citizens;

**SFDRR 19(e):** DRR and management depends on the coordination mechanisms within and across sectors and with relevant stakeholders at all levels and it requires the full engagement of all state institutions of an executive and legislative nature at national and local levels and a clear articulation of responsibilities across public and private stakeholders, including business and academia, to ensure mutual outreach, partnership, complementarity in roles and accountability and follow-up.

**SFDRR 19(f):** While the enabling, guiding and coordinating role of national and federal State Governments remain essential, it is necessary to empower local authorities and local communities to reduce disaster risk, including through resources, incentives and decision-making responsibilities, as appropriate.

**SFDRR 19(g):** DRR requires a multi-hazard approach and inclusive risk-informed decision making based on the open exchange and dissemination of disaggregated data, including sex, age and disability, as well as on easily accessible, up-to-date, comprehensible, science-based, non-sensitive risk information, complemented by traditional knowledge.

**SFDRR 19(h):** The development, strengthening and implementation of relevant policies, plans, practices and mechanisms need to aim at coherence, as appropriate, across sustainable

development and growth, food security, health and safety, climate change and variability, environmental management and DRR agendas. DRR is essential to achieve SD.

**SFDRR 19(i):** While the drivers of disaster risk may be local, national, regional or global in scope, disaster risks have local and specific characteristics that must be understood for the determination of measures to reduce disaster risk.

**SFDRR 19(j):** Addressing underlying disaster risk factors through disaster risk-informed public and private investments is more cost-effective than primary reliance on post-disaster response and recovery and contributes to SD.

### *7.3.2. Cost benefits of the new DRR framework*

A significant reduction of the original financial incidence of the NDPMP (which stood at **140.2 billion CFAF**) over a period of three years to carry out relevant sectorial studies in Cameroon has been achieved thanks to the efforts of the present strategy.

### *7.3.3. The paradox of the new DRR framework in Cameroon*

As argued in the introductory section of this thesis, the future of DRR policy and legislation has been presented to the Cameroon government with a view to two choices when it comes to the period of 2019 to 2025:

- either the DPC in Cameroon government sustains an illogical stance (see **Chapter 2**) keeping a blind eye on critical underlying risks, hazards and vulnerability conditions within the national territory (see **SFDRR 19(j) above**), or
- it accepts policy change and reviews DRR laws (see **Chapter 6** and SFDRR 19(h); SFDRR 21 & SFDRR 23-Priority 1; SFDRR 26 & 27 (a-k)) within which a Green Paper for a National Strategy for DRR and Plan of Action (2019-2025) has been proposed as a way forward within this thesis (see **Annexure pg.226**) for full draft framework).

The results, analyses and findings of the present thesis strongly suggest choosing option two, which entails that the new DRR Framework in Cameroon will be endorsed and validated by parliamentarians, academia and decision and policy-makers. This will ensure a change in the

status quo of DRR towards putting policy into action as a part of Cameroon's new approach to DRR and DRM.

Further clarity about this important second option comes into view when one considers the findings made by the present thesis in terms of the research questions posed, which set of relations will be discussed below.

#### **7.4. Finding per research question**

**Research Questions 1, 2 and 3** involved historical disaster problems in Cameroon. Results presented in response to these questions were therefore based on the identification of a need for historical knowledge as presented in Table 5. This entailed collecting as much data as possible about the problem that the thesis poses.

##### ***7.4.1. Research Questions 1, 2 and 3***

Article 1 attempts to address themes related to measuring the DRR status quo and commitments between 1967 and 2017 in Cameroon with answers provided in respect to historical problems and efforts made by the government to integrate DRR. **RQs 1 and 2** were as follows: ***RQ 1: What is the status quo of DRR in Cameroon?*** ***RQ 2: What extent of DRR commitments constitutes an integral part of Cameroon's development goals and Vision 2035 and RQ 3: Is there an enabling environment for the existence of DRR policy and legislations in Cameroon?*** The RQs were tested against standard instruments and international frameworks. This was carried out using both qualitative and quantitative data collection methods to identify and quantify DRR commitments and extent to which Cameroon's development goals and Vision 2035 could provide an enabling environment for related international agendas mentioned within the article such as integration of CCA into relevant new and existing policies/programmes. Generally, findings related to **RQ 1, RQ2 and RQ3** show that Cameroon is lagging behind in terms of effective implementation and does not possess an enabling environment for international commitments such the Sendai Framework, CCA, or SDGs, implying the need for changing the relevant legislation.

##### ***7.4.2. Research Question 4***

Article 2 also uses historical interpretation around themes centring on cost estimates of natural and anthropogenic disasters in Cameroon. The question this article answered was: *What are the impacts and cost of natural and anthropogenic disasters in Cameroon?* These led again to the use of historical research to address loss estimates through qualitative and quantitative methods. The verification and authenticity of the findings reside in methods of disaggregated empirical and secondary data gathered from four sources, namely CRED, INFORM model, Civil Protection Status Report and field observations made between 2001-2016. The findings show that the probability of an increased mortality rate is higher in the case of anthropogenic disasters when compared to natural hazards and disasters. As has been stated in this regard, CRED's attention was drawn towards re-examining the source of Cameroon's statistical trends on disasters.

#### **7.4.3. Research Question 5**

The main theme in Article 3, namely building national and local capacity for DRM in Cameroon, involves developmental research by design. As can be seen in Table 5, addressing developmental research of this nature demands that researchers establish attempts to answer their principal question, namely how to build a something to address a problem. As a result, it has not been possible to align **RQ 5** as a testable theory, since the researchers could not know what solution was to be tested, as **RQs 1 2 & 3** above in fact indicate. Following a normative approach, six theoretical frameworks were developed towards capacity building for DRM that could contribute to strengthening mechanisms, frameworks and sustainable change in Cameroon. Articles 3 and 5 discuss a developmental research attempt to answer RQs relevant to them, namely **RQ5 & RQ7**. However, **RQ 5** that is discussed in Article 3 and **RQ 7** in Article 5, focus on complex, innovative solutions (as presented in Figure 1) that are based on accepted design and development principles in tandem with grounded theories.

#### **7.4.4. Research Question 6**

Article 4 employs a case study approach with a view to the main themes of decentralization and DRR in Cameroon, addressing the RQ reading *to what extent should decentralizing government responsibility determine DRM policy at different levels in Cameroon?* The article presents empirical findings from interviews and literature reviews, which are discussed in

relation to the implications of decentralizing DRR in Cameroon. Evidence was drawn from political and legal frameworks of decentralization and DRR in Cameroon. The results attested to considerable failures of centralization, bureaucratic coordination and implementation of DRR in Cameroon, demonstrating a need for policy review to devolve authority and powers to the first and second levels of government. It was found that this would ease the problem of relying excessively on the military and the ORSEC/Joint Crisis Committee, which are no more than ad hoc emergency response mechanisms.

#### **7.4.5. Research Question 7**

Article 5 embraces **RQ 7**: *What are the critical components necessary for DRR policy revision and legislation in Cameroon?* Answering this question involves developmental research as in the case of **RQ 5** (discussed in Article 3). **RQ7** acts as a summary of the remaining five questions addressed in Articles 1 to 4. The findings made in response to it therefore embody a summary of the theoretical frameworks, literature reviews, innovative models and empirical findings in those articles towards revising and updating Cameroon's DRR policy and legislation after fifty-two years of re-organization.

### **7.5. Recommendations and future research**

This thesis has identified four critical components necessary for policy revision and change of legislation providing a model for amendment within a new DRR framework in Cameroon. Theoretical frameworks drawn from the street level (entailing a bottom-up approach) and the third generation of implementation theories assisted this thesis to design policy for action within Cameroon's legislative and regulatory framework assisting in achieving the main aims. Based on its results of, the following recommendations for future research emerged from its findings:

- Having developed a policy proposal plan to review and update Cameroon's DRR legislative instruments and framework in **Chapter 6**, the formulation of a workable National Strategy for DRR and Plan of Action is imperative. The policy plan designed in Article 5 will be expanded into a full policy draft for policy makers in Cameroon to deliberate as a Green Paper (see **Annexure**).

This thesis successfully established three out of the seven sectorial studies set aside by the Cameroonian government and UNDP through the NDPMP (see **Chapter 4**). In a quest to assist the government of Cameroon with a proactive vision capable of making its actions more effective in disaster prevention and management, the NDPMP identified priority targets among, which the following three have been treated and presented here: 1) revision of laws and regulations, 2) drawing up of an intervention national plan of action, and 3) research on natural and technological risks and disasters. It is recommended that future research could look at the other targets such as 4) drawing up of a training programme for civil protection personnel and civil society, business, the private sector, NGOs and experts who are directly concerned with DRR and DRM in Cameroon. This plan was originally limited only to civil protection personnel, resulting in limitations in coordination and implementation of DRR efforts in Cameroon, 5) studying the transport sector and governance of disaster risk in relation to disaster prevention and management, 6) focusing on the health sector and national sensitization programme, 7) drawing up a national transmission plan on disaster prevention and management.

- Studies are needed to enhance cross sectional collaboration of DRR. This would facilitate the implementation of DRR related frameworks in relation to CCA and SDSGs across sectors and ministries in Cameroon.
- This thesis recommends that 1% of Cameroon’s annual budget be allocated for major disaster research and programmes as a prerequisite to address major risks and disasters throughout the territory.

It needs to be underscored that it seems unlikely that Cameroon will attain recently endorsed international commitments made towards SDGs, CCA, and the SFDRR without a change in its DRR policy and legislation. This thesis has rigorously presented a framework for policy revision, within which a National Strategy for DRR and Plan of Action, 2019-2025 has been established as presented in the Annexure. Three of the seven implementing objectives set aside for improving the pro-activeness and effective action of the Cameroon DPC were addressed within this thesis. This activity enabled the study to achieve its validity and credibility within the fields of DRR and management. As

mentioned, this has culminated in a policy paper and the new National Strategy for DRR and Plan of Action, 2019-2025 in Cameroon is expected to be submitted to decision takers and policy makers for deliberation as a Green Paper.



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## **ANNEXURES**

**REPUBLIQUE DU CAMEROUN**  
\*\*\*\*\*  
Paix-Travail- Patrie  
\*\*\*\*\*  
**MINISTERE DES**  
**(RRC)**  
**Cadre des Risques de Catastrophe**  
\*\*\*\*\*  
SECRETARIAT GENERAL



**REPUBLIC OF CAMEROON**  
\*\*\*\*\*  
Peace- Work- Fatherland  
\*\*\*\*\*  
**MINISTRY IN CHARGE OF**  
**(DRR & REFUGEE)**  
**DISASTER RISK REDUCTION**  
\*\*\*\*\*  
SECRETARIAT GENERAL

**Draft Document**  
**“Proposal”**  
**National Strategy for Disaster Risk**  
**Reduction and**  
**Plan of Action 2019-2025**

**May 2019**



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# 1. Introduction

## 1.1 Background information on DRM in Cameroon

This National Strategy for Disaster Risk Reduction and its Plan of Action, 2019 – 2025 is designed from the parent document titled “*A new implementation framework for disaster risk reduction policies and legislation for Cameroon, Designing policy for Action*”. This guide or proposal attempts to fill the lacunae for Sendai Framework for Disaster Risk Reduction (SFDRR) target (e), and, the National Disaster Prevention and Management Programme (NDPMP or PNPGC<sup>3</sup>) whose priority targets articulated the need to draw up a national action plan and sectorial plans on disaster prevention in Cameroon. Empirical analysis from evidenced-based practices for disaster risk reduction and management (DRR/M) in Cameroon, influenced the development of a position policy paper to review and update disaster risk reduction policy and regulations in Cameroon.

The strategy<sup>4</sup> attempts to design a **National Strategy for Disaster Risk Reduction and Plan of Action, 2019-2025** in order to strengthen Cameroon’s DRR Platform in achieving the Sendai Framework for Disaster Risk Reduction (SFDRR) Target (e) ‘**Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020**’.

Thirty-two years (1986-2018) after the re-organization of the Civil Protection Department (DPC) in Cameroon, Cameroon is critically lagging behind in terms of establishing relevant policies<sup>5</sup> and a National Strategy for Disaster Risk Reduction and Action Plan within the national territory.

Although Cameroon<sup>6</sup> was the first nation to host the drive for the Sendai Framework for Disaster Risk Reduction (SFDRR) four months after SFDRR was endorsed by 187-member states in Japan, Cameroon is exposed to serious anthropogenic disasters which consist of both social (protracted conflicts, terrorism, and technological risks); and to natural hazards which consist of (hydro-meteorological, seismic, and climate change) affecting populations within its national territory, and neighbouring countries.

To tackle the above high-risk prevalence, the *Strategy* aligns with the NDPMP laid redundant since 1998, to draw up a National Strategy for Disaster Risk Reduction and Plan of Action for Cameroon which did not exist until date. Among the priority targets identified for implementation in the NDPMP in relation to this *Strategy* are:

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<sup>3</sup> Programme Nationale de Prevention et de Gestion de Catastrophes

<sup>4</sup> Herein referred to as *National Strategy for Disaster Risk Reduction and Plan of Action, 2019-2025*.

<sup>5</sup> Law No. 67/LF/9 of 12/6/67 on the general organization of defense, sect.18; Law No. 86/016 of 06/12/1986 on the general reorganization of civil protection; Decree No. 98/031 of 09/3/1998 to organize emergency and relief plans in case of disaster or major risk; Decree No. 96/054 of 12 March 1996 to lay down the general structure and the National Council on Civil Protection; Decree No. 2005/104 of 13 April 2005 to organize MINATD; Presidential instruction No. 02/CAB/PR of 18 January 1968 on the safeguard and protection of civil installations of vital importance; Order No. 037/PM of 19 March 2003 on the Creation and functioning of a National Risk Observatory.

<sup>6</sup> Cameroon is stretched between the second and the thirteenth degree latitude North, and between the eighth and the sixteenth degree longitude East. The country has shaped of a triangle of 475000km surface area of which the height of approximately 1200km extends from Lake Chad to the Gulf of Guinea and a base of 800km, is spread from the Atlantic Ocean at the border with the Central African Republic.

- a legal framework relating to the prevention and management of emergency situations;
- a national action plan and sectorial plans on disaster prevention

Cameroon is described as Africa in miniature. With her dual colonial heritage (French and English), Cameroon plays a major role in humanitarian assistance and refugee response recovery plans within the sub-Sahara Region. At the Continental level, the nation of Cameroon plays a centre role for hospitality to refugees and Internal Displaced Populations (IDPs). Cameroon therefore has laudable diplomacy with the UN and other nations based within its role in peace, humanitarian aid, refugee management and response plan for vulnerable groups and displaced persons especially in times of human-induced or anthropogenic disasters.

Existing sectorial plans and institutional framework served as basis of analysis and consultations for the design of the *Strategy* through the parent document titled “*A new implementation framework for disaster risk reduction policies and legislation for Cameroon*”.

Analysis based on the gaps, strengths, and recommendations from relevant ministries and sectors served as basis in the development of the *Strategy*. The institutions are as follows: Ministry of Territorial Administration - Decentralization<sup>7</sup> (MINAT-D), Ministry of Environment, Protection of Nature and Sustainable Development, (MINEPDEP), Ministry of Agriculture and Rural Development (MINADER), Ministry of Public Works (MINTP), Ministry of Scientific Research and Innovation (MINRESI), Ministry of Economy, Planning and Regional Development (MINEPAT), National Community-Driven Development Programme (NCDP/PNDP), Ministry of Social Affairs (MINAS), Inter-ministerial Committee for Local Services, ICLS, the National Decentralization Council NDC, Decentralization and Local Development Support Programme, (PADDL), United Councils and Cities of Cameroon (UCCC), United Nations Development Programme UNDP, United Nations Office for Humanitarian Assistance UN/OCHA, United Nations Children Fund UNICEF, United Nations High Commission for Refugees UN/HCR.

The National Strategy for Disaster Risk Reduction 2019-2025 is the first in Cameroon after fifty-one years based on several sectorial studies on disaster prevention and management, Aide memoire, and Status Report of the Civil Protection. Literally, the *Strategy* draws from the following sectoral plans and studies to align with international frameworks such as Sendai Framework (2015-2030). These studies are but not limited to the following:

- National Disaster Prevention and Management Programme (NDPMP/PNPGC) by UNDP and the Cameroon Government: Priority targets (1 – 3).<sup>8</sup>
- COP 21, Paris 2015<sup>9</sup>

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<sup>7</sup> The Ministry of Territorial Administration (MINAT) has been renamed using its original acronym with the separation from, and creation of the Ministry of Decentralization and Local Development following decree N°2018/190 of 2 March 2018.

<sup>8</sup> Cameroon Civil Protection Journal Report

<sup>9</sup> Cameroon Civil Cabinet (2015). "COP 21, Paris 2015 Press Kit. 30 November - 11 December ". Retrieved 25th March, 2018, from <https://www.prc.cm/files/77/4c/4c/9584250bbcbf369871637ffb85a93c08.pdf>.

- Cameroon Vision 2035<sup>10</sup>.
- Creation, organisation et fonctionnement de l’Observatoire national sur les changements climatiques<sup>11</sup> (ONACC).
- Elaboration of a strategy to integrate training on adaptation to climate change within the educational system of Cameroon<sup>12</sup>
- MINEPDEP, National Capacity Self-Assessment in Global Environment Management (ANCR/NCSA Process).

## 1.2 Cost benefit ratio (CBR) of Strategy

A significant reduction off-the original financial incidence of the NDPMP which stood at **140.2 billion CFAF** over three years to carry out relevant sectorial studies in order to establish a study of this nature has therefore been achieved thanks to the efforts of this *Strategy*.

The development of the National Strategy for Disaster Risk Reduction 2019-2025 is based on the Programme of Action (PoA) for the Implementation of the SFDRR 2015-2030, in line with the Africa Regional Strategy for Disaster Risk Reduction (ARSDRR)<sup>13</sup>. Strategic aims and specific objectives were developed in line with the ARSDRR to achieve the purpose of the Plan of Action.

The Strategy is developed with the hope that it will serve as a framework document for members within the Central Africa region.

## 1.3 Potential obstacles to the Action Plan

It has been emphasized that DRR is a crosscutting issue that requires an all-of-society approach rather than being monopolized by a single Department and Ministry as the case in Cameroon where ‘only’ the Civil Protection Department, have held DRR hostage without mainstreaming risk reduction activities across line Ministries. This has been addressed in this strategy through the Sendai Framework.

Too much dependence on the ORSEC / National Contingency Plan between 2011 and 2018, and their development have resulted to the negligence of a National Strategy for Disaster Risk Reduction and Plan of Action. This has promoted excessive dependence on reactive rather than pro-active process for disaster risk reduction and management; and the attainment of the Hyogo Framework for Action (2005-2015).

Moreover, historical legacies, power and interest would by and large determine the adoption and implementation of the strategy. Never in the history of Cameroon has a strategy been drafted towards DRR policy implementation. Literally, this is one of the first DRR strategic

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<sup>10</sup> MINEPAT (2009). Cameroon Vision 2035 DPPS. Yaounde: 61.

<sup>11</sup> MINEPDED (2009b). Creation, organisation et fonctionnement de l’Observatoire national sur les changements climatiques Yaounde: 10.

<sup>12</sup> Programmes D’approches Intégrée et Globales D’adaptation Aux Changements Climatiques (PACC), Reference No. 002/08/2001/TACC of 29/08/2011, Project No: 00072824, Yaoundé, January 2012

<sup>13</sup> [https://www.preventionweb.net/files/49455\\_poaforsendaiimplementationinafrica.pdf](https://www.preventionweb.net/files/49455_poaforsendaiimplementationinafrica.pdf)

national policy and plan of action proposed for Cameroon, written in English, fifty-one years after establishing disaster management laws within the civil protection Department in Cameroon.

To this end, in reference to the Third UN World Conference for Disaster Risk Reduction (WCDRR)<sup>14</sup> where Cameroon was fully represented, Cameroon also featured as the first nation to organize the Sendai drive after its endorsement in Japan<sup>15</sup>. It was logical and practically feasible that Cameroon's DRR Strategy and Action Plan should be designed in coherence with the SFDRR which the government of Cameroon has endorsed as a statutory member of the United Nations.

## 1.4 Methodology

The methodology used in the development of the Strategy was based on extensive documentation and consultation studies; empirical analysis from field-based research over 15 years; and consultancy with professional experts within various focal points at the National Platform for DRR (PN2GC) in Cameroon. The Strategy also benefitted from expertise with professionals from the African Centre for Disaster Studies (ACDS) in South Africa.

The structure of the Strategy followed a standard process similar to other EU countries, and the guide prescribed by the World Bank in preparation of a National Strategic Plan.

## 1.5 Context of DRR in Cameroon

The 7<sup>th</sup> Africa Working Group (AWG) Meeting on DRR which came together 21 – 23 July 2015 in Cameroon<sup>16</sup> marked further international efforts in rekindling DRR initiatives in Africa, and Cameroon as a whole. The Fourth High level meeting on Disaster Risk Reduction organized by the African Union and the Regional Africa Office of the United Nations was held in Yaoundé, four months after the Sendai Framework was launched in Japan. This provided impetus once again to the nation of Cameroon who had preferred to be rather reactive to disasters until date when this Strategy was prepared.

Cameroon's efforts towards disaster risk reduction and management has been based on the ORSEC / National Contingency Plan operating in favour of emergency response and spontaneous Joint Crisis Committees (JCC) at the Ministerial, sub/national and local levels of disaster risk management. Response capacities are triggered except when evaluated by the administrative authority like the Divisional Officer or Governor to the forces of law and order. Except when available means are insufficient before appeal is made to the central unit at MINAT/DPC to react where necessary<sup>17</sup>.

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<sup>14</sup>[www.wcdrr.org](http://www.wcdrr.org)

<sup>15</sup> <https://www.unisdr.org/archive/45209>

<sup>16</sup> <http://www.preventionweb.net/go/43907>

<sup>17</sup> This approach has been severely criticized since the endorsement of the HFA, 2005-2015 calling for National Platforms to integrate risk reduction and prevention as a development aspect rather than an add-on mechanism.

At the international level Cameroon has records of participating in DRR meetings, Platforms<sup>18</sup> and conferences as a member of the United Nations, and the ICDO respectively. Cameroon has been an active participant of the International Decade for Natural Disaster Reduction (IDNDR), the HFA (2005 – 2015), and the current SFDRR, 2015-2030.

The major problem suffered by Cameroon's legal and statutory DRR instruments has been the in capacity to translate strategies, policies, and plans into action<sup>19</sup> within the context of implementing DRR as an integral part of its development planning. Based on this gap, the strategy attempts to use a normative approach to address specific hazards linked to Natural and Anthropogenic disasters within Cameroon's territory. Geo-physical hazards like volcanic eruptions, earthquakes, and tremors are active within the national territory.

Increase in fatalities, vulnerability, and exposure to anthropogenic disasters (protracted conflicts, technological risk, economic deprivation and underdevelopment) placed Cameroon on the "brink of triple crisis" within the last couple of years rank number 18<sup>th</sup> as a high-risk country according to the INFORM Risk model.

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<sup>18</sup> <http://preventionweb.net/go/2209>; <http://preventionweb.net/go/10033>

<sup>19</sup> [https://www.preventionweb.net/files/49455\\_poaforsendaiimplementationinafrica.pdf](https://www.preventionweb.net/files/49455_poaforsendaiimplementationinafrica.pdf)

## 2. The cost of disasters in Cameroon

### 2.1 Hazard and risk profile

This strategy deals with two of CRED's main generic categories of disaster types namely natural and anthropogenic disasters. Studies indicate that natural hazards, earthquake, flood, and drought have lower probabilities of mortality rate than anthropogenic disasters. The ratio of mortality rate can be represented as 1:100.

Estimated total numbers of deaths by natural disasters are 5187, while total number of deaths by technological disasters are 20011 and more than 5,000 by protracted conflicts (1900-present). Although Cameroon's Volcanic Lakes (Lake Nyos, and Lake Manoun) to an extent appear to be the deadliest threat (1800 & 37) deaths registered, studies illustrate that anthropogenic disasters (technological accidents and protracted social conflicts) possess more probability of fatalities than natural hazards /disasters.

Studies reveal that natural hazards combined are costlier in economic terms than social protracted risks or conflicts. Impacts in human-induced or anthropogenic disasters are projected to double as a result of insurgencies posed by the deadly Boko Haram group and the ongoing civil violence around specific regions in the South West and North West in Cameroon. To this end, natural hazards and disasters do cause more economic damages, and more affected population in Cameroon than anthropogenic disasters. The economic devastation and mortality rate incurred during the current civil strife and political violence in Cameroon from October 2016 – present when this strategic plan for DRR in Cameroon was drafted were not included.

### 2.2 Inventory of some risk types in Cameroon

In the Republic of Cameroon, each of the ten regions are exposed to various types of risks as follows: **Far North** (Flood, Ecological, Technological, Health); **North** (Flood, Ecological, Technological, Health, Mass movements); **Adamawa** (Seismic, Technological, Health, Mass movements); **North West** (Major Technological, Flood, Ecological, Seismic, Health, Mass movements); **South West** (Major Technological, Flood, Ecological, Seismic, Health, Mass movements); **West** (Seismic, Health, Ecological, Mass movements); **Littoral** (Major Technological, Flood, Health, Mass movements); **Centre** (Major Technological, Flood, Seismic, Health, Mass movements) **East** (Technological, Flood, Ecological, Seismic, Health) **South** (Ecological, Seismic, Health)<sup>20</sup>.

#### 2.2.1 Comparison of natural and anthropogenic disasters

In the first segment of table 1 below, variables such as Conflict probability, Political violence, Human-induced risk, Development and deprivation, and Inequality indicates high-risk indicators within Regions selected to illustrate effects and cost of disasters in Cameroon.

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<sup>20</sup> Journal of Civil Protection in Cameroon.

Table 1 below presents Risk indicators of some Regions in Cameroon as illustrated with INFORM Risk index.

Table 1. Indicators of Risk index in some regions in Cameroon.

RISK INDICATORS IN SOME REGIONS IN CAMEROON	Physical exposure to flood	Land Degradation	Droughts probability and historical impact	Natural	<sup>21</sup> Political violence	Conflict probability	Human	HAZARD	Development & Deprivation	Inequality
	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)
CM-ES	5.5	7.2	3.6	5.6	5	9.6	7.3	6.5	5.9	7.1
CM-EN	7.5	7.2	3.6	6.4	10	9.6	10	8.8	8.9	7.1
CM-LT	6.1	1.6	2.5	3.7	0	9.6	4.8	4.3	4.4	7.1
CM-NO	8.3	5	4.7	6.3	5	9.6	7.3	6.8	8.1	7.1
CM-NW	2.1	8.5	2	5.1	10	9.6	4.8	5	5	7.1
CM-WE	2.9	9.8	2.5	6.6	0	9.6	4.8	5.8	4.8	7.1
CM-SU	4.8	7.3	2.5	5.2	0	9.6	4.8	5	4.7	7.1
CM-SW	4.6	5.6	2	4.2	10	9.6	6.8	5.7	4.7	7.1

Source: Modified from INFORM Risk Model

**Legend:** Cameroon- CM  
 East -ES  
 Extreme North -EN  
 Littoral -LT  
 North -NO  
 North West -NW\*  
 West -WE  
 South -SU  
 South West -SW\*

**Note:** The Centre and Adamawa Regions were not included.

In the second segment of table 1 below, high risk indicators within Regions such as the Extreme North, North, and the East demonstrate higher probabilities of risk occurrences within Cameroon. Considering the triple crises occurring around these Regions (Natural

<sup>21</sup> Increase in civil strife and political violence in the SW / NW Regions since 2017 resulted to severe economic damages and loss of livelihoods\*.



Vulnerable Groups	VULNERABILITY			Socio-Economic Vulnerability	<sup>22</sup> Uprooted people	Physical infrastructure	Access to health care	LACK OF COPING CAPACITY	RISK	RISK INDICATORS IN SOME REGIONS IN CAMEROON
	DRR	Governance								
(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	(0-10)	
6.9	6.1	5.2	6.9	5.1	8.8	5.5	6	6.1	6.2	CM-ES
7.7	7.2	5.2	6.9	6.6	8.8	5.5	5.9	6.2	7.3	CM-EN
2	3.3	5.2	6.9	4.4	0	5.5	6.5	6	4.4	CM-LT
4.4	5.4	5.2	6.9	6.2	3.6	5.5	5.9	6.2	6.1	CM-NO
1.4	3.2	5.2	6.9	4.7	10	5.5	6.6	6.1	4.6	CM-NW
1.5	3.2	5.2	6.9	4.6	0	5.5	5.9	6	4.8	CM-WE
1.7	3.2	5.2	6.9	4.5	0	5.5	6.1	5.9	4.6	CM-SU
1.9	3.3	5.2	6.9	4.5	10	5.5	6.3	6	4.8	CM-SW

hazards, insurgencies, food insecurity), projected increase in Uprooted populations is expected. With the projection of climate change, the government has carried out environmental protection measures called the “Operation Green Sahel” to plant 1.5 million trees to curb the effects of climate change encroaching the Northern part of Cameroon.

Table 1. (continuation). **Indicators of Risk index in some regions in Cameroon.**

Source: **Modified from INFORM Risk Model.**

**Legend:** Cameroon- CM

- East -ES
- Extreme North -EN
- Littoral -LT
- North -NO
- North West -NW\*
- West -WE
- South -SU
- South West -SW\*

**Note:** The Centre and Adamawa Regions were not included.

Macro-economic indicators showing Average Annual Loss (AAL) by hazard in Cameroon shown in table 2 below.

<sup>22</sup> Increase in political violence in the SW / NW Regions since 2017 led to Uprooted populations\*.

**Table 2. Source:** CRED, 2015: Average Annual Loss (AAL) by hazard

Hazard	Absolute [Million US\$]	Capital stock [%]	GFCF [%]	Social exp [%]	Total Reserves [%]	Gross Savings [%]
Earthquake	9.88	0.012	0.183	0.637	0.292	0.343
Flood	74.86	0.092	1.385	4.826	2.214	2.600
Multi- Hazard	84.74	0.104	1.568	5.463	2.507	2.943

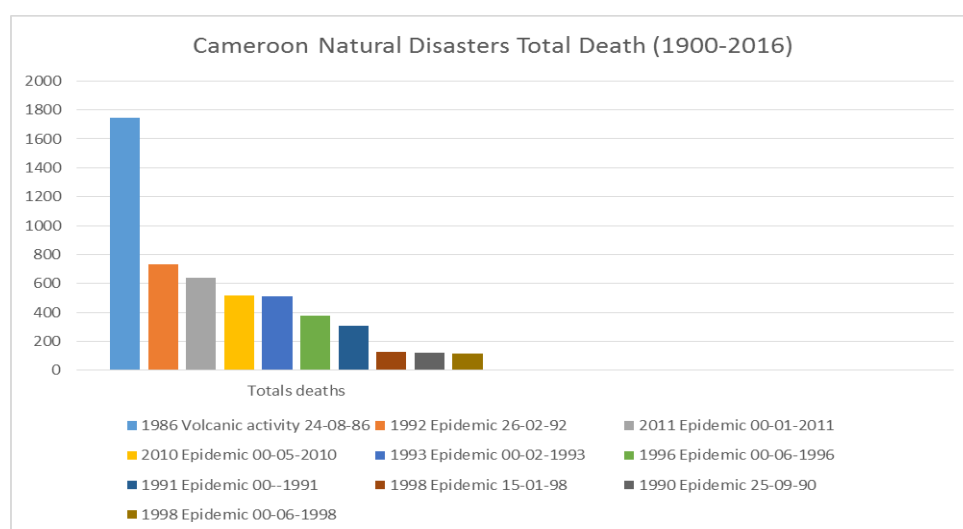
\* Values for hazard are in million US\$

The nation of Cameroon is prone to flood risk considering the topographical differences within some areas located 5m above sea levels, dam burst in Northern Regions, informal and unplanned settlements, and poor waste disposal in urban towns. With the support of international partners, major drainage infrastructure for flood prevention has been carried in its political capital, Yaoundé. It is expected that the government extends these initiatives to other flood affected regions in the country. A compilation of volcanic eruptions in Cameroon is presented below.

Table 3. **Geological hazards/disasters (1800-present) Source:** Authors / Zogning, A. / (MINATD/DPC 2002).

Year	Place
1800-1815	Mapanja
1835	Not localized
1838-1839	Fako
1852	Towards the West
1868	North-East
1908	Okoli Crater
1922	Mateer, Fako
1925	Mount Fako Summit
1954	Gèze subactif crater
1959	Ekona
1982	South West
1999	Limbe –Idenau
2000	NE-SW

Apart from the Lake Nyos disaster which occurred on the 21<sup>st</sup> August 1986, CRED’s statistics for mortality rate illustrate very low figures for death rate through natural hazards, and disasters as seen in figure 1. This does not cancel the fact that sudden onset of natural hazards from volcanic eruptions, droughts, floods, flash floods may not cause fatalities. Studies show that hydro-meteorological hazards and disasters could increase, with climate change projected to increase the variability of the temperatures in Africa<sup>23</sup>.



**Figure 1.** Cameroon Natural Disasters Total Number of Death (1900-2016). Source: Modified from CRED, 2016.

Physical exposure to flash floods, and land degradation are the most common types of natural hazards in Cameroon. Studies show that areas with accelerated degradation of the environment were the Extreme North, West, South West, and Littoral.

It is within this context of the disaster risk profile of the Republic of Cameroon that this Strategy endeavours to align Cameroon’s DRR Strategies and plans with the Sendai Framework in order to implement the Framework at the national, sub-national, and local levels by prioritizing developmental activities.

## 2.3 The Sub-Regional DRR Context

The sub-regional level of Central Africa member states had developed an Action Plan for preparedness and response to natural disaster in Central Africa: 2011 – 2016. This is inscribed only within three of the twelve priority targets of the general policy framework within the domain of environment and natural resource management of Central Africa member states.

<sup>23</sup> IPCC, 2012

The priority targets for disaster management which were drawn from environment and natural resource management at the level of ECCAS are:

- Priority target strategy 4 related to conservation and management of forestry resources in Central Africa
- Priority target strategy 5 fight against climate change in Central Africa
- Priority target strategy 11 “Evaluation and rapid response to manage natural or human-induced disasters.

The Action Plan for preparedness and response to natural disaster in Central Africa: 2011 – 2016, however contains five priority areas which are provided within strategic areas<sup>24</sup> following the consultation meetings of 10 member states in Central Africa, and other international organizations such as FICR, OCHA, WHO, and ISDR. In relation to this strategy, the SFDRR separates activities to be implemented at the different levels ranging from the Continental and Regional levels, and the national and sub-national local levels. The SWOT analysis therefore will focus on the national and sub-national local levels of DRR implementation efforts in Cameroon to align with the ARSDRR, PoA, Guide 3<sup>25</sup>.

### 2.3.1 SWOT Analysis

Common achievements, problems, and failures detected within DRR efforts in Cameroon could be summarized but not limited to the following factors.

**Table 4. SWOT Analysis**

<b>Strengths:</b>	<b>Weaknesses:</b>
1. Most of the speeches and documentations endorse the legal instruments for DRR adopted at the international, Regional, Sub-Regional and National Levels.	1. Documentation on DRR laws and legislations was not drawn following DRR-M framework from international instruments such as the HFA 2005-2015.
2. Sectoral and Contingency Plans exist in all countries of the Sub-Region,	2. ORSEC \ National Contingency Plans remain very inefficient and insignificantly operational due to weak mechanisms and coordination, and lack of financial resources. The Plans are mostly focus on emergency management.
3. Several sectorial texts in Cameroon possess efforts to carry out DRR within the mandates of their Ministries and segments. But, these texts have been laid redundant.	3. DRR is not a priority for action in government’s plans and policies. Lack of DRR funds for prevention and capacity building at the community and local levels of risk reduction.
4. Cameroon has demonstrated cooperation and collaboration towards DRR in relation to international cooperation with several partners like the ICDO, IFRC, OCHA,	4. Lack of coherence of DRR policies and framework with international standards. Lack of multi-sectoral collaboration. Historical legacies, power, and interest.

<sup>24</sup> Plan d’action de préparation et de réponse aux inondations et autres catastrophes naturelles en Afrique central :2011-2016.

<sup>25</sup> DRR must be based on contextualized and local measures.

UNHCR, WFP, USAID, EU, French Cooperation, China, Japan and Russia.	
5. Completion and setting-up of a civil protection regional centre in Yaoundé. Development support of an emergency intervention plan.	5. Most DRR actions are more ad hoc disaster response to catastrophes and it is being triggered only on Post-Disaster Management. They do not therefore have an anticipation approach predictable events and a preparation to deal with the disasters.
6. CFAF 1.5 Billion given by France to Cameroon to carry out civil protection activities; prevention, crisis management, information and management in disaster prone areas.	6. The lack in risk anticipation denotes a lack of policies and strategies, legislations, institutional frameworks, allocation of necessary resources, trained staffs and coordination structures within member states.
	7. Lack of DRR initiatives and knowledge to implement, and coordinate DRR practices within the national and local levels of government.

<b>Opportunities:</b>	<b>Threats:</b>
Cameroon was the first nation to organize the Sendai drive, 2015-2030.	Consistent amplification of reactive approaches to disasters and crises management may cause slow paradigm shift from emergency management to prevention measures in disaster risk management in Cameroon.
Cameroon benefits extensively from international assistance in relation to disaster response, relief, and rehabilitation of refugees and humanitarian assistance of displaced populations and vulnerable groups.	The Joint Crisis Committee (equivalent of the divisional or provincial joint committee) is not a DRR structure relevant for coordination and implementation of DRR programmes within the national, sub-national, and local levels.
Presence of seismography, and Whether related instruments to detect earth movements from Mt. Cameroon, and Whether updates.	Redundancy of the NDPMP jointly sponsored by the UNDP, and the Cameroon government may cause setbacks in DRR integration into development sectors.
The protection of Nyos and Manoun areas.	Focus on engineering solutions in the construction of the Nyos Road and Rehabilitation, 10 seismographs installed, treating of river banks and rehabilitation projects after the 2001 floods, does not necessary meet DRR requirements and international standards of implementation.
Cameroon ratified the ICDO framework in 2002.	Capacity building of staff trained by the ICDO focus only with the Department of civil protection, National Fire Brigade, and other government staffs. This action leaves a

	centralized and bureaucratic DRR practice which does not reflect pluralism and inclusion of other stakeholders. Absence of polycentric governance in DRR platform is highly prominent within this form of intervention in Cameroon’s DRM policy.
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### 2.3.2 Reviewing current DRR/M actions in Cameroon

Table 5 below presents a summary of the current DRR/M policy and the alternative DRR policy options proposed for policy design. The proposed components for policy design will be matched with the SFDRR.

**Table 5.** Current DRR/M policy model and its alternative solutions

<b>Current policy model</b>	<b>Design for policy (DRR policy options)</b>
Over-centralization, bureaucracy, and resistance to polycentric governance for DRR actions.	Decentralize, and provide multi-sectoral and multi-stakeholder model of disaster risk governance.
Lack of DRR initiatives and knowledge to implement, and coordinate DRR practices within the national and local levels of government	Strengthen national and local capacity building for DRM, to ensure resilience building and integration of DRR into development planning and budgeting.
Isolation and incoherence of DRR/M policy with international agendas	Revise and change policy institutional framework to enable mainstreaming of DRR/M, CCA, and SDGs.
Historical legacies, power, and interest	Identify and mainstream competent DRR/M, and CCA professional elites from marginalize Anglophone zones of the national territory.

**Source:** Authors.

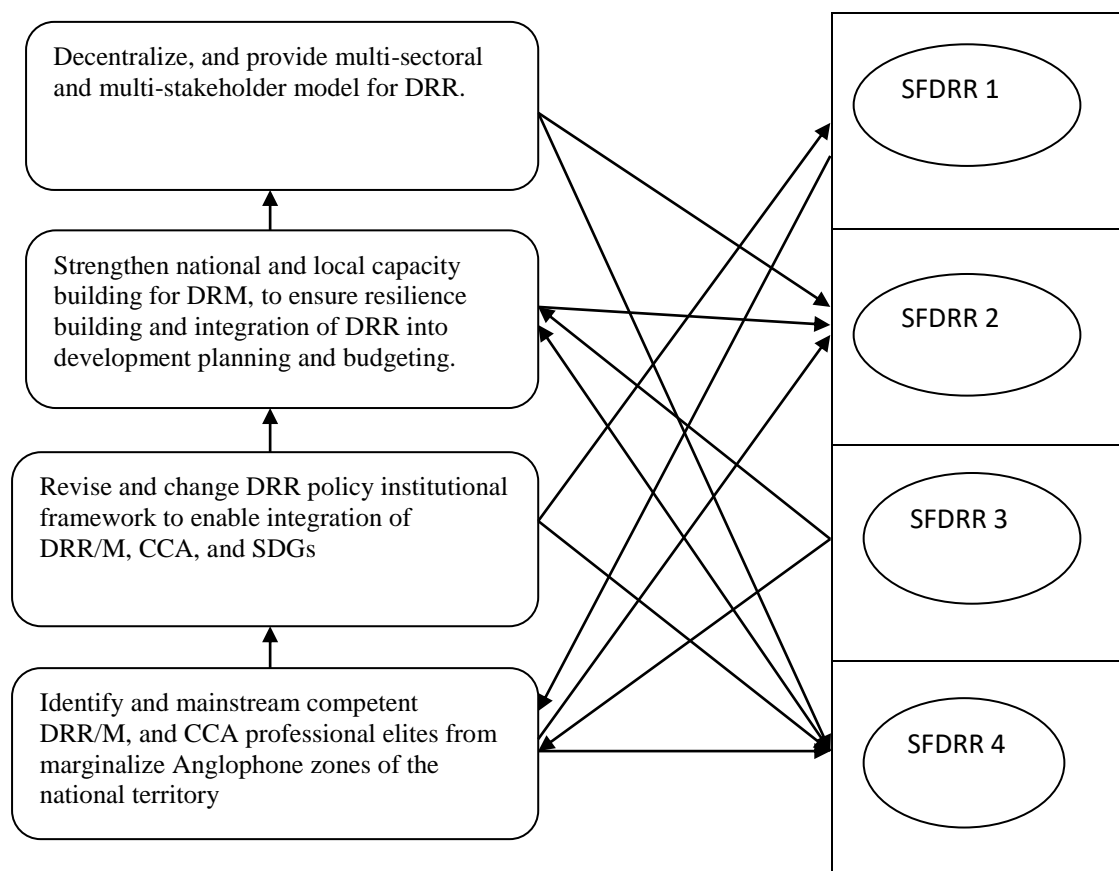
### 2.3.3 Linking the design policy for Cameroon’s DRR and the SFDRR

Identified components necessary for DRR policy revision and change in Cameroon’s disaster laws reveal pertinent areas which could align with the SFDRR. The diagram below attempts to link the proposed policy components (CMRDRR)<sup>26</sup> to the SFDRR.

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<sup>26</sup> CMRDRR-Used in this context to mean “Proposed DRR policy for Cameroon”.

**[Figure 2 below: illustrates the links between CMRDRR and the SFDRR.]**



**Figure 2 attempts to illustrate the links between CMRDRR and the SFDRR.**

In figure 2 above, the alternative proposed DRR policy (CMRDRR) shows link between the design policy and the SFDRR. Some of the proposed components for policy review could align directly with the SFDRR while additional activities are expected to be followed to align with the SFDRR at the national and local levels in Cameroon.

### 3. NATIONAL STRATEGY FOR DISASTER RISK REDUCTION AND PLAN OF ACTION

#### 3.1 Purpose, Vision, Mission, Objectives, Guiding Principles

**PURPOSE** - The purpose of this Strategy is to provide the Department of civil protection in Cameroon with a rigorous strategy which is pluralistic, proactive, and transparent; which takes into consideration the participation of all stakeholders both French and English speakers; the civil society; businesses, NGOs, Youths; vulnerable groups; and the private sectors; to

- achieve
- coordinate
- implement
- examine and
- evaluate

relevant DRR practices, disaster risk trends, policies and projects that may lead to the attainment of the strategic goals and framework of this National DRR Strategy and Plan of Action within the Republic of Cameroon.

**VISION** – improve Cameroon’s commitments to address natural and anthropogenic hazards and disasters, while integrating National and international disaster response guidelines in achieving the sustainable development goals.

**MISSION** –enhance an effective and integrated coordination of disaster risk reduction and management programme, while establishing an enabling environment to address natural and anthropogenic hazards and disasters in Cameroon.

**OBJECTIVES** –of the framework is to

- i. improve mechanisms relating to disaster prevention and management, while
- ii. integrating disaster risk reduction within development planning and budgeting in Cameroon’s efforts to address risks of all categories.

**GUIDING PRINCIPLES** –

The Strategy develops 6 guiding principles upon which the Action Plans will be implemented based on these principles.

- i. The strategy recognizes that the concept of civil protection is a mission and service, which consists in permanently ensuring the protection of persons,



- property and the environment against the risks of serious accidents, calamities, or disasters and their impacts.
- ii. Although the primary responsibility to prevent and manage disasters lies within the mandate of the State, through the Department of civil protection the strategy will promote cross sectoral cooperation as follows:
    - The state, through the Ministry of Territorial Administration and other Ministries involved in disaster risk reduction and sustainable development;
    - The Municipality, which is responsible for the improvement of the living environment of its administered people and has practical knowledge of the local realities;
    - The population, whose sense of civic responsibility, awareness of the “prevention culture” and participation in intervention efforts in major crisis, and disaster situations constitute the primary beneficiaries of Civil Protection services; and
    - Non-Governmental Organizations (NGOs) and humanitarian Organizations whose assistance and humanitarian interventions support government action in favour of vulnerable communities.
  - iii. The drawing up and implementation of this National DRR Strategy and Plan of Action comprises of a major priority target, among the seven components identified by Ministries, and stakeholders involved in civil protection (UNDP, OCHA) through the National Disaster Prevention and Management Programme (NDPMP).
  - iv. Repeal and revise Civil Protection Law N° 86/ 016 of 6<sup>th</sup> December 1986 and Law N° 98/031 of 9<sup>th</sup> March 1998 as to replace with the National DRR Strategy and Plan of Action, and sectorial plans on disaster risk reduction addressing an inclusive risk-informed and multi-hazard approach.
  - v. The strategy will enable the establishment of an integrated legal framework relating to the prevention and management of emergency situations focused at the Municipal and local levels of DRM interventions within the states.
  - vi. Recognizing Cameroon’s political heritage and dual colonial constitutions of the French and English systems, increase in the levels of political violence, protracted conflicts, inequality, and unemployment stand as obstacles to challenge Cameroon’s efforts to integrate DRR and build resilient mechanisms at all levels within the national territory.

### 3.1 Scope

The framework will focus only on natural and anthropogenic disasters affecting the Republic of Cameroon. The scope of this framework does not cover insurgencies of national security but appeals for cross sectoral collaboration with other development sectors as mentioned above. Sectorial areas such as HIV/AIDS, climate change adaptation, are not covered in this strategy since these sectors have already submitted a strategic plan or are in the process of submitting a sectorial strategy. Cameroon’s effort for HIV/AIDS has laudable attention of her government and international partners for more than a decade. While the National Adaptation Plan (NAP) for

climate change in Cameroon has gaps in integrating ORSEC or the National Contingency Plan currently in use by Cameroon's civil protection Department.

### 3.2 Anthropogenic hazards or disasters:

The term anthropogenic hazards or disasters are used in this context to mean all (man-made or human-induced) hazards and disasters. In relation to the UN\ISDR scope<sup>27</sup>, the term anthropogenic hazards includes social protracted conflicts risk, civil strife, political violence, tensions, inequality, and instability as seen in table 1 of the strategy. The term also includes technological hazards since it is considered as human-induced or man-made disasters within the UNISDR terminology<sup>28</sup>.

### 3.3 Strategic Areas and Interventions

In a bid to fill the existing gap, and draw up an intervention plan of action identified as a priority target by the Cameroon government and the UNDP during the NDPMP since 1998, the Strategy aligns with the four (4) key priority areas (KPAs) of the SFDRR; and the ARSDRR and its Plan of Action (PoA) to implement the SFDRR at the national, sub-national, and local levels in Cameroon.

This is based on results of the empirical studies as seen from figure 1, identification of gaps using SWOT analysis, and translating some priority targets of the Department of civil protection with agreed specific objectives of international partners into guiding principles. The Strategies and strategic actions are aligned with the SFDRR at the national, sub-national, and local levels as key priority areas (**SFDRR KPA**) as seen below:

**SFDRR KPA 1: Understanding disaster risk**

**SFDRR KPA 2: Strengthening disaster risk governance to manage disaster risk.**

**SFDRR KPA 3: Investing in disaster risk reduction for resilience.**

**SFDRR KPA 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.**

To achieve the above KPAs, it has been emphasized that a shift in paradigm from managing disasters to preventing them with a focus on managing disaster risk actions as an essential factor to integrate risk reduction across development planning and budgeting at the national, sub-national, and local levels in Cameroon.

The Cameroon government has demonstrated political cooperation at the international level towards disaster risk reduction and management since the IDNDR – SFDRR, and now, the ICDO. It is only a change in policy and legislation within Cameroon's approach towards disaster risk reduction and management in reference to the NDPMP that an enabling environment and means of implementation could translate the Sendai Framework into action at all levels within the national territory.

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<sup>27</sup> [https://www.unisdr.org/files/54012\\_manmadetechhazards.pdf](https://www.unisdr.org/files/54012_manmadetechhazards.pdf)

<sup>28</sup> <http://www.preventionweb.net/english/professional/terminology/>

The achievement of this strategy is therefore seen in its efforts to curb the original financial incidence within the NDPMP which could be re-directed to finance and fund this Strategy within the next five years.

For this Plan to succeed, the participation of all citizens: parliamentarians, municipal authorities, traditional rulers, opinion leaders, and citizens are expected to support the action plan irrespective of tribe, religion, race or political leaning.

### **KPA 1: Understanding disaster risk**

**SFDRR (23):** Revision of laws and regulations in force in order to repeal Law No. 86/016 of 06/12/1986 on the general reorganization of civil protection, and Law N° 98/031 of 09/3/1998 to organize emergency relief plans in case of disaster or major risk is the first step to enable an appropriate national mechanism in Cameroon to institutionalize risk assessment and analysis in all sectors as seen from table 5 above.

The lack of DRR initiatives and knowledge in ensuring efforts for understanding risk and its effects is explained within Cameroon's poor policies and practices for DRM employing the ORSEC Plan. Neither the ORSEC or the National Contingency Plan drawn up in 2011 and revised in 2018 within the civil protection Department can function as a national mechanism to collect, analyse and disseminate disaggregated information on disaster losses and risk, with sex, age, and disability which has been neglected within Cameroon's efforts to address disaster risk within its national territory.

The National Strategy for Disaster Risk Reduction should, therefore ensure that efforts for understanding disaster risk are not limited to emergency response, geological, and structural mitigation efforts from engineers, but a multi-hazard focus of disaster risk, and an 'all of society approach' to implement the Sendai Framework<sup>29</sup> at the national and local levels is needed to address natural and anthropogenic disasters. Firstly, MINAT/DPC *'must'* ensure means to strengthen/establish inclusive participation of all stakeholders in coordinating disaster risk within the national platform (PN2GC).

The strategy will therefore ensure a New DRM policy framework for Cameroon should be drawn which will replace the ORSEC Plan and the National Contingency Plan (2011 & 2018). This is to ensure technical structures and committees are established at the sub-national and local levels to collect, manage, and strengthen DRR data bases with reliable information.

**SFDRR 24(a): Promote the collection, analysis, management and use of relevant data and practical information and ensure its dissemination, taking into account the needs of different categories of users as appropriate;**

The importance of disseminating information for early warning is necessary in reducing losses and ensuring lives are safe from natural hazards. In Cameroon, this is linked to the national disaster loss databases of the department of civil protection (DPC), under Decree No.

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<sup>29</sup> [https://www.preventionweb.net/files/57989\\_591d1dd3ca1becasregionalplanforsen.pdf](https://www.preventionweb.net/files/57989_591d1dd3ca1becasregionalplanforsen.pdf)

037/PM of 19 march 2003, Article 2, under the functions of the National Risk Observatory (O.N.R) “*Observatoire National des Risques*”, and the Ministry of Transport. These have not been integrated into development policies and plans since risk reduction is not mainstreamed as a priority.

To improve data collection, analysis, and dissemination to all categories of users, the strategy will ensure that the need to provide an early information system should be put in place. This will improve a reliable transmission and communication to take proactive measures for evacuation and disaster prevention. Under the NDPMP, drawing up of a national transmission plan on disaster prevention and management has been ear-marked as one of the priority targets.

**Strategic action:**

- a) Support and ensure the collection of sector specific risk information for analysis and dissemination.
- b) Create an enabling environment to collect, analyse and disseminate data on loss and damages within the national territory for disaster risk.
- c) Provide sector early warning systems to different sectors.
- d) Mobilize resources to support and strengthen capacity building for understanding disaster risk and its effects at the national and local levels of disaster risk management.
- e) Establish and strengthen disaster loss databases and its effects as an institutional structure from the local and Municipal levels of government.
- f) Develop sub-national, and local Disaster Risk Management Information and Communication Systems to ensure the collection, analysis, management and dissemination of relevant data and information.

**SFDRR 24(b): To encourage the use of and strengthening of baselines and periodically assess disaster risks, vulnerability, capacity, exposure, hazard characteristics and their possible sequential effects at the relevant social and spatial scale on ecosystems, in line with national circumstances;**

The Cameroon Government has adhered to several international legislative instruments concerning the environment amongst which are the following:

The Basle Convention on the Transboundary Movements of Dangerous Waste and their Disposal (February 2001); Convention on Biodiversity in 1992; United Nations Framework Convention on Climate Change (1992); United Nations Convention to combat Desertification (1994); The Vienna Convention on the Protection of the Ozone Layer and Its Montreal Protocol on Ozone Layer Depleting Substances; The Rio Convention in 1992 and 2012 respectively; and many others not mentioned within this strategy. Cameroon’s statutory within these Conventions provides an auto-evaluation of their national capacity and needs/self-assessment (nca) for global environmental protection in line with the Global Environment Facility (GEF)<sup>30</sup> and the three world conventions on biodiversity, climate change and desertification/soil degradation.

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<sup>30</sup> <https://www.thegef.org/sites/default/files/nca-documents/nca-cameroon-fr-ap.pdf>

This strategy will therefore encourage efforts in understanding risk and its impacts are not limited to the scope of the geologists, environmental sciences, and civil engineers where risk assessment and effects have been prioritized without sufficiently assessing disaster risks, exposure, capacity, and the social impacts within the national territory. The strategy will ensure assessment that contributes to anthropogenic and natural disasters at the national and local levels.

***Strategic action:***

- a) Encourage the understanding of disaster risk efforts and its impacts through a multi-sectoral warning system
- b) Improve social understanding of disaster risks and its impacts across development sectors and activities in order to integrate climate change adaptation threats and the SDGs at the national and sub-national levels
- c) Support assessment of ecosystem management and understanding risks through the National Biodiversity Strategy and Action Plan (NBSAP), ANCR/NCSA Process, land tenure, urban and regional planning, and sustainable management of forest
- d) Establish/strengthen assessment of anthropogenic hazards especially those linked to economic deprivation, protracted social conflicts, civil strife, political violence, refugees, and armed conflicts which indicate high risk prevalence in the national territory.

**SFDRR 24(c): To develop, periodically update and disseminate, as appropriate, location-based disaster risk information, including risk maps to decision makers, the general public and communities at risk of exposure to disaster in an appropriate format by using, as applicable, geospatial information technology;**

Developing and up-dating a national multi-hazard risk map in understanding risk and its impacts is essential to provide an effective early warning system at the national and sub-national levels for policy makers, the general public and communities at risk. This is due to the exposure and location of the site as the case of the Lake Nyos, dam burst in the North, and seismic risks across specific locations in Cameroon. The strategy will ensure the periodical update of maps in high risk areas.

***Strategic action:***

- a) Up-date and improve information management and communication systems based on multi-hazard risk maps.
- b) Ensure a comprehensive risk, vulnerability, and a multi-hazard assessment of both natural and anthropogenic disasters is carried out and a hazard-risk map is produced within the national and sub-national levels of disaster risk management.
- c) Promote the production of a detailed hazard-risk map, highlighting the disaster risks in each local council.
- d) Prioritize contemporary management of risks based on potential risk, frequency and intensity of hazards rather than on political control of the local government area.

**SFDRR 24(d): To systematically evaluate, record, share and publicly account for disaster losses and understand the economic, social, health, education, environmental and cultural heritage impacts, as appropriate, in the context of event- specific hazard-exposure and vulnerability information;**

The Government should ensure the systematic evaluation, recording, and sharing of disaster losses in view of counting the cost and impacts to the general public, businesses and the public-sector institutions on specific event leading to hazard-exposure and vulnerability factors.

The strategy will therefore improve the recording and assessment of risk information within Cameroon's disaster loss database in relation to event-specific hazard-exposure and identification of vulnerable population.

***Strategic action:***

- a) Evaluate disaster losses while counting the cost and impacts in terms of economic, social, health, education, environmental and cultural heritage.
- b) Review the guide on post-disaster management which is linked to the ORSEC Plan carried out annually at the sub-national levels.
- c) Create public awareness on disaster losses through risk mapping for communities and local authorities.

**SFDRR 24(e): To make non-sensitive hazard-exposure, vulnerability, risk, disasters and loss disaggregated information freely available and accessible, as appropriate;**

The Government should develop a non-sensitive hazard-exposure, vulnerability, risk, disasters and loss disaggregated information to improve the accuracy of Cameroon's disaster loss data base. This will ensure decisions and evidences of loss estimation to be provided in order to reduce, and avoid creating new risks.

***Strategic action:***

- a) Facilitate and ensure multi-hazard risk and disaggregated disaster loss information is accessible to identified communities and relevant stakeholders.
- b) Establish and strengthen relevant institutional structures regularly to provide free disaster loss information accessible to authorities and the public at large.

**SFDRR 23(f): To promote real time access to reliable data, make use of space and in situ information, including geographic information (GIS), and use ICT innovations to enhance measurement tools and the collection, analysis and dissemination of data;**

To promote real time access to reliable data, the strategy will improve efforts of the UN/ISDR Training Workshop held in the late quarter of 2017 to build the national disaster risk management database using ICT innovations. The Government should encourage the use of space measurement tools for data collection, analysis, and dissemination to provide hazard maps of various disaster hotspots within the national territory.

***Strategic action:***

- a) Review national disaster risk management information and communication database in view of providing CRED/EMDAT with accurate and reliable data.
- b) Strengthen knowledge and investments in scientific and technical capacities to promote maximum access to valid data.



- c) Promote use of all technologies available to disseminate disaster risk information.
- d) Implement sophisticated systems of collection, analysis, and dissemination of statistical information on disasters, their consequences, losses and causes.

**SFDRR 24(g): To build the knowledge of government officials at all levels, civil society, communities and volunteers, as well as the private sector, through sharing experiences, lessons learned, good practices and training and education on DRR, including the use of existing training and education mechanisms and peer learning.**

The Cameroon Government should not be limited as the case has been until the development of this strategy to build knowledge on good practices, education and training, and experience sharing only of government officials in the civil protection Department, National Fire Brigade, and other government staffs. Within the framework of the NDPMP, the general objectives focus on managerial, material and logistical capacity building of the government in disaster planning, prevention and management. Likewise, the ICDO training workshops tailored only for staffs in the civil protection Department.

The strategy will endeavour an inclusive capacity building and knowledge sharing actions, good practices and training at all levels of the civil society, communities, volunteers, as well as the private sector on DRR efforts.

***Strategic action:***

- a) Promote and build knowledge on DRR efforts on good practices of both government staff of services involved in disaster prevention and management, and those of the civil society, communities, volunteers and the private sector.
- b) Improve the sensitization, education and mobilization of communities, and the civil society in disaster prevention and management.
- c) Build national and local capacity for DRR knowledge through Universities and research institutions especially in the field of prevention and management, as well as climate change adaptation.

**SFDRR 24(h): To promote and improve dialogue and cooperation among scientific and technological communities, other relevant stakeholders and policymakers in order to facilitate a science-policy interface for effective decision-making in DRM.**

The promotion of science-policy interface for effective decision-making in DRM had experience a poor cooperation and implementation within public policies where social, economic, and institutional factors addressing vulnerability and disaster risk assessment do not inform policy and practices. The strategy will endeavour to enhance decision-making in DRM is based on the participation and cooperation of technical and scientific communities as well as relevant stakeholders in understanding disaster risk.

***Strategic action:***

- a) Encourage and improve science-policy interface ensuring that relevant stakeholders and policymakers engage in risk assessment and understanding concepts and terminologies in disaster risk reduction.

**SFDRR 24(i): To ensure the use of traditional, indigenous and local knowledge and practices, as appropriate, to compliment scientific knowledge in disaster risk assessment and the development and implementation of policies, strategies, plans and programmes of specific sectors, with a cross-sectoral approach which should be tailored to localities and to the local context;**

Scientific knowledge and engineering have dominated disaster risk assessment in Cameroon although the results and projects end up futile, or on the shelves of the government. The use of traditional, indigenous and local knowledge and practices occasionally feature within ORSEC's Plan for disaster risk assessment. The ORSEC Plan does not cover cross-sectorial policies and plans in development practices as such strategies and programmes of specific sectors do not take into consideration standard approaches in disaster risk assessment to reduce vulnerability factors at all levels. The strategy will ensure the improvement of these indigenous knowledge and practices across sectors especially in the acquisition of land and urban settlement patterns.

The Government should ensure traditional and indigenous knowledge and practices compliment disaster risk assessment in relation to scientific approaches and civil engineers working to reduce disaster risk at the sub-national and local levels.

***Strategic action:***

- a) Recruitment of social / cultural experts at the national and sub-national levels to work in line with local development councils and committees and intervene in disaster risk assessment
- b) Strengthen traditional and indigenous knowledge and practices relating to disaster risk reduction and in risk profiling, monitoring and assessment at the local level.

**SFDRR 24(j): To strengthen technical and scientific capacity to capitalize on and consolidate existing knowledge and to develop and apply methodologies and models to assess disaster risks, vulnerabilities and exposure to all hazards.**

Assessment of disaster risks, vulnerabilities and exposure to all hazards has been limited in addressing methodologies models towards social, economic, and institutional factors contributing to risk in Cameroon. This strategy will ensure the promotion technical and Scientific capacity to harmonise disaster risk and vulnerability models towards all hazards.

***Strategic Action***

- a) Consolidate existing knowledge on volcanology tectonic movements, climate change, and Biodiversity.
- b) Improve research, and guidelines in the assessment of disaster risks, Vulnerabilities and exposure to all hazards.
- c) Encourage and facilitate any initiative in data interpretation by scientists provided by research institutions and centres, and other similar structures.
- d) To promote investment in innovation and technology development in long-term multi-hazard and solution-driven research in disaster risk management to address gaps, obstacles, interdependencies and social, economic, educational and environmental challenges and disaster risks.



**SFDRR 24(k): To promote investments in innovation and technology development in long-term, multi-hazard and solution-driven research in disaster risk management to address gaps, obstacles, interdependencies and social, economic, educational and environmental challenges and disaster risks;**

There are efforts carried out by the Cameroon government and its international partners in relation to investments in science, technology and innovation in few long-term solution-driven DRM programs (Degassing Lake Nyos, purchase of seismographs for earth quakes monitoring, several weather instruments, construction of levees) at the national and local levels of DRM.

Much is expected in terms of investing in long-term multi-hazard and solution-driven research to close social, economic, educational and environmental challenges and disaster risks within the national and sub-national levels in Cameroon.

**Strategic Action**

- a) Improve knowledge in science, technology and innovation at the local, and national level on how to take into account investments that addresses social, economic, educational and environment challenges and disaster risk which increases vulnerability.
- b) Encourage solution-driven research in DRM which addresses social, economic, educational and environment challenges and disaster risk aspects in the long-term.

**SFDRR 24(l): To promote the incorporation of disaster risk knowledge, including disaster prevention mitigation, preparedness response, recovery and rehabilitation informal and non-formal education, as well as in civic education at all level, as well as in professional education and training;**

The incorporation of disaster risk knowledge in formal and non- formal education, as well as in civic education, professional education and training has not been established at the sub – national and local levels in Cameroon. The strategy will ensure the strengthen of disaster risk knowledge existing in Universities programmes and Higher Professional education and training.

Climate change education and training in formal and non- formal education can be traced with sectorial programmes and interventions.

**Strategic Action**

- a) Encourage and promote the integration of disaster risk knowledge and disaster management in formal educational systems and informal research.
- b) Build national and local capacity of Universities and research Institutions in the field of prevention and disaster risks management as well as climate change.
- c) Integrated DRR into both basic, secondary, higher and professional higher institutes like the National Higher Institute of Magistracy and Administration (ENAM) where civil administrators could be trained with DRR Knowledge.

**SFDRR 24(m): To promote national strategies to strengthen public education and awareness in disaster risk reduction, including disaster information and knowledge, through campaigns, Social media and community mobilization, taking into account specific audiences and their needs;**

National strategies to strengthen public education and awareness in disaster risk reduction had remained insufficiently integrated into public education and awareness.

Recognizing the needs of Specific vulnerable groups and communities at risk in Cameroon the Strategy will develop and strengthen the integration of disaster risk reduction, and disaster information and knowledge to actors and relevant stakeholders where necessary.

#### *Strategic Action*

- a) Establishment of a technical committee to ensure strengthening of disaster risk reduction, and public education within the National Strategy for DRR in Cameroon.
- b) Strengthening of disaster information and knowledge into education curricula as recommended by the strategy.

**SFDRR 24(n): To apply risk information in all its dimensions of vulnerability, capacity and exposure of persons, communities, countries and assets, as well as hazards characteristics, to develop and implement DRR policies.**

The Cameroon government is conscious of the nation's exposure to a wide variety of high risks prevalence, but not all dimensions of vulnerability, capacity and exposure of persons, communities and assets had been integrated into its development plans and policies.

The NDPMP was set aside to:

- Revise laws and regulations in force;
- Draw up of an intervention national plan of action;

The National strategy for Disaster Risk Reduction implementation and its action plan will encourage the political and Institutional mechanisms and capacities of DRR responsible institutions at the policies through Centre of decision making and level for implementation of the strategy.

#### *Strategic Action*

- a) Prepare and submit a Green paper for a new framework for disaster risk management policy/ legislation for Cameroon and implement National Strategy
- b) Validate the New National Strategy for Disaster Risk Reduction and its action plan
- c) Identity DRR Strategic framework based on evidenced-based programs for implementation.

**SFDRR 24(o): To enhance collaboration amongst people at the local level to disseminate disaster risk information through the involvement of community-based organisations and NGOs.**

There is an appeal for civic responsibility and good citizenship call from the government to the Cameroonian population.

In view of the sudden onset and occurrences of disaster situations that involve in an unpredictable manner affecting vulnerable population irrespective of tribe, religion, race or political leaning, there is a wake-up call for every citizen to support the actions of through the civil protection in disaster prevention and management.

### **Strategic Action**

- a) Promote inclusion of vulnerable communities (the elderly, persons with disabilities, children, marginalise group etc.,) in disseminating disaster risk information;
- b) Engage and support involvements of English speaking DRR Professionals, staffs and text were necessary to provide disaster risk information
- c) Encourage and facilitate Community –based organisations and NGOs in DRR efforts at all levels of disaster prevention and management efforts.

## **KPA 2: Strengthening disaster risk governance to manage disaster risk**

**SFDRR (26):** Substantial empirical evidences on governance of disaster risks from Cameroon demonstrate the lack in political, economic, organizational, and administrative capacity in the management of disaster risk at all levels in Cameroon. Although UNDP which is the lead UN agency for strengthening national capacity for disaster management under the famous redundant project called the NDPMP, Cameroon’s in effective disaster risk governance structures and market mechanisms which ensures that government policies are implemented thereby strengthening the national DRR platform (PN2GC) receded until date. Evidences are seen in the failure to formulate public policy towards goods and services especially in risk reduction and disaster management. Rooted in its past dual constitutional history, over-centralization, bureaucracy, and resistance to polycentric governance has influence the way governance of disaster risk is coordinated and implemented at the national and sub-national levels with the exclusion of the (civil society, businesses, private sector, NGOs, media, and relevant stakeholders) expected to participate in DRR coordination and implementation in Cameroon. Strengthening disaster risk governance to manage disaster risk is therefore of great importance to improve market and institutional failures through decentralization, and the provision of multisectoral and multi-stakeholder model for DRR in Cameroon [CMDRR, 1].

**SFDRR (27a):** In a bid to strengthen disaster risk governance to manage disaster risk in Cameroon, the proposed policy [CMDRR, 3] to revise and change DRR policy and institutional framework will ensure the integration of gender, youths, the marginalized due to institutional barriers, vulnerable groups, IDPs, and their coherence with the Sendai Framework, CCA, and SDGs. At the Regional level ECCAS confirms that more Central Africa States are more ad hoc to disasters. They do not possess anticipatory approaches to risk. This therefore denotes a lack of policies and strategies, legislations, institutional frameworks, allocation of necessary resources, trained staffs and structures of coordination in DRR within member states as this is true for Cameroon.

### **Strategic Action**

- a) Create and support conditions for more political commitments to strengthen the integration of disaster risk reduction policies and implementation into development policies, plans, and programmes.
- b) Repeal and replace current disaster management laws re-organising the civil protection since 1986, and 1998 triggering the ORSEC Plan.
- c) Review status quo of disaster risk management to provide an enabling environment for the implementation of the Sendai Framework.
- d) Establish and develop a multi-sectoral and multi-stakeholder national DRR platform that ensures the inclusion of both French and English disaster risk management experts, and professionals, with the participation of various groups within the local, sub-national, and national levels where necessary.
- e) Prepare and adopt White paper for a New Strategy for Disaster Risk Reduction Policy and Legislation.

**SFDRR (27b): To adopt and implement national and local disaster risk reduction strategies and plans, across different timescales, with targets, indicators and time frames, aimed at preventing the creation of risk, the reduction of existing risk and the strengthening of economic, social, health and environmental resilience;**

Resilience as a tool in disaster risk reduction has not experience a favourable integration within Cameroon’s efforts in disaster prevention and risk reduction. The proposed DRR policy [CMDRR, 1; CMDRR, 2 and CMDRR, 3] stresses the importance of implementing and adopting these strategies and plans across different timescales to prevent the creation of new risks while strengthening livelihood policies, formal and informal settlements, public health, IDPs, and vulnerable groups within the national territory.

#### *Strategic Action*

- a) Encourage risk reduction strategies, plans and legal frameworks are integrated into national policies and strategies such as the Cameroon Vision 2035, Growth and Employment Strategy Paper (GESP, 2010-2020), Cameroon, Poverty Reduction Strategy Paper (PRSP) across line Ministries with Sendai Framework, Paris Agreement, SDGs, which addresses gender, children, health, vulnerable groups and internally displaced persons (IDPs) ensuring conditions for resilience are created for development.

**SFDRR (27c): To carry out an assessment of the technical, financial and administrative disaster risk management capacity to deal with the identified risks at the local and national levels;**

Majority of disaster management staffs within Cameroon in the civil protection Department are trained civil administrators with knowledge in public administration rather than disaster risk reduction and management. There is need for a national and local assessment of technical, financial, and administrative expertise in Cameroon in order to deal with identified risks at the local and national levels. Implicitly, this strategy will encourage the participation of trained and qualified stakeholders both from the public sector, civil society, NGOs and businesses.

#### *Strategic Action*

- a) Strengthen technical, financial and administrative capacity of local and national leaders and community representatives on risks identification and assessment.
- b) Formulation of an autonomous statutory National Disaster Risk Management Agency which will have a local community-driven bottom-top approach to disaster risk management, and disseminate resilience and disaster prevention framework.

**SFDRR (27d): To encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with the existing safety-enhancing provisions of sectoral laws and regulations, including those addressing land use and urban planning, building codes, environmental and resource management and health and safety standards, and update them, where needed, to ensure an adequate focus on disaster risk management;**

Cameroon possesses traces of sectoral related disaster risk reduction laws and regulations but have not been able to put together as a single document. The proposed alternative policy, strategy and action plan has endeavoured to address compliance, and harmonization of these laws and regulations to a single policy document for disaster risk strategies and plans for Cameroon. It is only after effective legal and regulatory mechanism have been put in place for integrating disaster risk reduction then appropriate mainstreaming of disaster risk reduction can occur across development sectors.

#### *Strategic Action*

- a. Endorse and implement newly proposed DRR legal and regulatory mechanism as a blue print document guiding DRR implementation across development sectors.
- b. Establish incentives that will lead to reinforce regulations, codes and laws prohibiting unhealthy management of the urban and rural areas.
- c. Support risk-sensitive land use planning and enforce regulations while improving political will and roles within authorities defined.
- d. Encourage community participation in local projects that integrate DRR activities.
- e. Improve the unhealthy, and unsustainable management of the urban and rural areas through concrete policy reinforcement.

**SFDRR (27e): To develop and strengthen, as appropriate, mechanisms to follow up, periodically assess and publicly report on progress on national and local plans; and promote public scrutiny and encourage institutional debates, including by parliamentarians and other relevant officials, on progress reports of local and national plans for disaster risk reduction;**

The translation of policies and strategies into practical tools are the basis of this strategy for decision-makers and practitioners to facilitate the implementation of the Sendai Framework in Cameroon. The cost benefit ratio for investment alone to design this national strategic plan for DRR has already been incurred at the expense of the redundant NDPMP in Cameroon. However, appropriate indicators to report on the progress at the national and local plans concerning DRR implementation is under the process of being developed and proposed for practical use in Cameroon.

#### *Strategic Action*

- a) Create Technical Working Groups at the national and local levels to periodically assess and report on the progress of DRR actions at all levels in Cameroon.
- b) Encourage institutional debates with the public and decision-makers.
- c) Establish standard tools and benchmark indicators to monitor the progress of DRR plans at the local and national levels.

**SFDRR (27f): To assign, as appropriate, clear roles and tasks to community representatives within disaster risk management institutions and processes and decision-making through relevant legal frameworks, and undertake comprehensive public and community consultations during the development of such laws and regulations to support their implementation;**

There are no community representatives, and disaster risk management institutions in Cameroon. The local council or Commune de XY, as well as the Post Disaster Joint Crisis Committee, acts as a support for local government at the subnational levels in case of disasters. But it is expected that with the current decree N°2018/190 of 2 March 2018 creating the Ministry of Decentralization and Local Development in Cameroon, disaster risk management will be decentralized to optimize DRR at the local and community levels in Cameroon. It calls for the annulations of the Joint Crisis Committee and ORSEC Plan existing within the Cameroon's DRR legal and institutional framework at the level of the civil protection.

#### *Strategic Action*

- a) Establish the creation of a focal point at the Ministry of Decentralization and Local Development.
- b) Create and decentralize national DRR platform to other subnational and local levels through Ministry of Decentralization and Local Development.
- c) Strengthen and support subnational and local levels community representatives and leaders how to perform roles in DRR in their work with the civil society.

**SFDRR (27g): To establish and strengthen government coordination forums composed of relevant stakeholders at the national and local levels, such as national and local platforms for disaster risk reduction, and a designated national focal point for implementing the Sendai Framework for Disaster Risk Reduction 2015–2030. It is necessary for such mechanisms to have a strong foundation in national institutional frameworks with clearly assigned responsibilities and authority to, inter alia, identify sectoral and multisectoral disaster risk, build awareness and knowledge of disaster risk through sharing and dissemination of non-sensitive disaster risk information and data, contribute to and coordinate reports on local and national disaster risk, coordinate public awareness campaigns on disaster risk, facilitate and support local multisectoral cooperation (e.g. among local governments) and contribute to the determination of and reporting on national and local disaster risk management plans and all policies relevant for disaster risk management. These responsibilities should be established through laws, regulations, standards and procedures;**

The National Risk Observatory (ONR) is expected to account for the collection, dissemination of information on natural, technological, industrial, and anthropogenic risks according to Decree No. 037/PM of 19 March 2003, Article 2 of its mandate. The ONR is



also expected to ensure relevant stakeholders are engaged at the national and local platforms for disaster risk reduction for implementing the SFDRR 2015-2030. Very little attention has been paid in strengthen disaster risk governance at the local levels in Cameroon. This is due to the need of establishing a policy change in order to improve institutional capacity for effective implementation of the SFDRR 2015-2030 at the national and local levels in Cameroon.

Building the capacity of local stakeholders at the national and local levels to manage disaster risk, identify sectoral and multisectoral disaster risk, and contribute to reporting on national and local disaster risk management plans and polices. This has been stated fully in the proposed policy [CMDRR, 1, CMDRR, 2 and CMDRR, 3].

Following Decree No. 037/PM of 19 March 2003, Article 4, the composition of the ONR has limited only representatives of Ministries and administrative sectors in Cameroon without any other stakeholder involve within the ONR.

### *Strategic Action*

- a) Build capacity of local stakeholders on DRR at the national and local levels.
- b) Ensure the national platform is multisectoral with relevant stakeholders from the national and local levels.
- c) Eliminate and remove bureaucratic approaches of disaster risk governance.
- d) Encourage and strengthen decentralization of disaster risk governance which brings about a multisectoral approach.
- e) Discourage the setting up of a command-and control posts as possible model established by the civil protection Department.

### **SFDRR (27h): To empower local authorities, as appropriate, through regulations and financial means to work and coordinate with civil society, communities and indigenous peoples and migrants in disaster risk management at the local level;**

The exclusion of the civil society, communities, businesses, and the private sector in disaster risk management at the local and national level has impeded disaster risk management at the national and local levels in Cameroon. Support for national and local capacity in managing disaster risk should therefore be reflected in the decentralization process with adequate resources, capacity for disaster risk management, and collaboration with the community, indigenes, and migrants.

### *Strategic Action*

- a) Establish collaboration across line Ministries like the Ministry of Finance, and the Ministry of Decentralization and Local Development.
- b) Strengthen policy and regulations to work with the civil society, communities and indigenous groups.
- c) Support cooperation of disaster risk management at the local levels with finances, effective policy for disaster risk management, and technical capacity to implement disaster risk reduction.

**SFDRR (27i): To encourage parliamentarians to support the implementation of disaster risk reduction by developing new or amending relevant legislation and setting budget allocations;**

Parliamentarians are at the forefront of enabling disaster risk reduction policies, strategies, and legislation for governance of disaster risk reduction at the national and local levels of prevention and disaster risk reduction. This strategy will ensure that the new disaster risk reduction policy and legislation developed in the new strategic plan for Cameroon *should* be endorsed by parliamentarians while integrating the policy into planning and budgeting within development sectors.

***Strategic Action***

- a) Create and lobby-in with parliamentarians for the validation and adoption of National DRR Action Plan 2019-2025 in Cameroon.
- b) Encourage and ensure parliamentarians understand the importance of disaster risk reduction policies, strategies, and legislations and its long-term benefits in Cameroon.
- c) Present Plan of Action for disaster risk reduction 2019-2025 to the Cameroonian parliament for deliberation and adoption setting budget allocations.
- d) Encourage a positive environment and climatic conditions for parliamentarians to adopt disaster risk reduction.
- a) Monitor progress of new disaster risk reduction legislation and regulations and make changes where necessary.

**SFDRR (27j): To promote the development of quality standards, such as certifications and awards for disaster risk management, with the participation of the private sector, civil society, professional associations, scientific organizations and the United Nations;**

There is need for improving the levels of disaster risk management standards in Cameroon. Encouraging community participation through awards like the cleanest city in Cameroon could be emulated for disaster risk reduction activities. Although Yaounde 6 had been awarded a DRR recognition in 2015 through the UN/ISDR, there are substantial activities concerning disaster risk management which are considered very low in quality.

***Strategic Action***

- a) Endorse National Strategic Framework for DRR to enable good practices.
- b) Support awards and certification programs mainstreaming DRR within the national territory.
- c) Encourage and ensure DRR is integrated into Higher Institutions, Secondary and Basic educational curricula.

**SFDRR (27k): To formulate public policies, where applicable, aimed at addressing the issues of prevention or relocation, where possible, of human settlements in disaster risk-prone zones, subject to national law and legal systems.**

The Cameroon government since 2004 has been actively involved in addressing issues related to habitat and urban development through its mandated Ministry (MINIDUH) according to Law No. 2004/003 of April 21 2004 governing urbanization and 5 other decrees which are applicable. It is therefore necessary to use incentives to ensure compliance within other



sectors in land use and urban planning, building codes, environmental resources management, and health, to incorporate DRR in urban and rural areas.

### *Strategic Action*

- a) Establish cross sectoral collaboration with line Ministries to relocate, or human settlements in disaster risk-prone zones.

## **KPA 3: Investing in disaster risk reduction for resilience**

**SFDRR 29:** Resilience is an essential component of disaster risk reduction, which needs to be functional within Cameroon's plans and actions in disaster prevention and risk reduction. Engaging both the public and private sectors to invest in disaster risk prevention and management is therefore important in building resilience within the context of implementing the Sendai Framework at the national and local levels in Cameroon.

**SFDRR 30(a): To allocate the necessary resources, including finance and logistics, as appropriate, at all levels of administration for the development and the implementation of disaster risk reduction strategies, policies, plans, laws and regulations in all relevant sectors;**

There are no funds allocated for financing disaster risk reduction in Cameroon as opposed to the funds for *urgence et secours* (emergency response and relief). The Ministry of Finance (MINFI), and the Ministry of Economic Planning and Regional Development (MINEPAT) do not fund most proposed DRR activities and initiatives. This has accounted for the heavy reliance on post-disaster response and recovery creating room for more risk and unsustainable practices within public and private sectors in Cameroon.

### *Strategic Action*

- a) Create an enabling environment for the incorporation of disaster risk reduction into national public investment and planning systems as well as the private sector.
- b) Establish sector specific investment projects for disaster risk management and climate change adaptation at the national and local levels.
- c) Review and change laws governing emergency response and disaster relief.
- d) Establish policies and regulations required to cover cost-benefit analysis for disaster risk management and climate change adaptation projects.

**SFDRR 30(b): To promote mechanisms for disaster risk transfer and insurance, risk-sharing and retention and financial protection, as appropriate, for both public and private investment in order to reduce the financial impact of disasters on Governments and societies, in urban and rural areas;**

The Cameroon government, local and international NGOs within and out of Cameroon have spent relentless efforts in providing disaster relief and assistance to affected population in the case of larger scale catastrophes during Post-disaster and recovery events. In the absence of DRR structures at the subnational levels, very little statistics on Damage Loss Assessment before and after a disaster happens is available. Most likely, insurance instruments, which are

only one of many options in managing risks of natural hazards, are out of reach to the Cameroonian population still living within the poverty line in Africa.

### *Strategic Action*

- a) Establish decentralized DRR structures at the subnational levels by investing in financial instruments that provide a comprehensive protection against the impacts of natural hazards and climate extremes within the national territory.
- b) Review investments on other financial schemes like disaster risk insurance.
- c) Register or activate membership with the African Risk Capacity programme to ensure pay-outs investments in public rehabilitation programmes.

**SFDRR30 (c): To strengthen, as appropriate, disaster-resilient public and private investments, particularly through structural, non-structural and functional disaster risk prevention and reduction measures in critical facilities, in particular schools and hospitals and physical infrastructures; building better from the start to withstand hazards through proper design and construction, including the use of the principles of universal design and the standardization of building materials; retrofitting and rebuilding; nurturing a culture of maintenance; and taking into account economic, social, structural, technological and environmental impact assessments;**

Cameroon is prone to natural hazards and climate shocks as such it is necessary for the public and private sector to invest in disaster-resilient structural and non-structural measures of risk prevention and reduction.

### *Strategic Action*

- a) Build new housing to provide settlement for the growing population within the next thirty years.
- b) Strengthen disaster risk reduction and resilience as an integral part of sustainable development within the economic, social, political, and environmental processes in Cameroon.

**SFDRR 30(d): To protect or support the protection of cultural and collecting institutions and other sites of historical, cultural heritage and religious interest;**

The BIOSphere and Heritage of Lake Chad (BIOPALT) project<sup>31</sup> is one of the most significant Heritage site protected by UNESCO within the Lake Chad Basin and its members with Cameroon as a beneficiary. Indications shows that the project activities aims to increase knowledge of Lake Chad, restore wetlands, rehabilitate wildlife migration corridors and promote sustainable income-generating activities. Other activities related to disaster risk reduction, climate change and sustainable development are establishing early warning system for droughts, floods, and the restoration of degraded ecosystems thereby contributing in poverty reduction.

### *Strategic Action*

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<sup>31</sup> <https://whc.unesco.org/en/news/1792/>

- a) Encourage and promote the BIOPALT activities of the Lake Chad BIOSphere Heritage project sponsored by UNESCO.
- b) Identify and encourage research projects within the Lake Chad BIOSphere tailored towards activities related to disaster risk reduction, climate change and sustainable development, which contributes in poverty reduction.

**SFDRR 30(e): To promote the disaster risk resilience of workplaces through structural and non-structural measures;**

It is necessary for disaster risk resilience to be incorporated into Cameroon’s development planning and across sectors. Through the integration of resilience, structural and non-structural measures of disaster risk reduction will be implemented.

*Strategic Action*

- a) Strengthen resilience in workplaces through structural and non-structural measures within the national territory.

**SFDRR 30(f): To promote the mainstreaming of disaster risk assessments into land-use policy development and implementation, including urban planning, land degradation assessments and informal and non-permanent housing, and the use of guidelines and follow-up tools informed by anticipated demographic and environmental changes;**

Most Cameroonian cities today currently suffer from outdated town plans (over 40 years), or no planning documents available as such unsustainable. As a result, during the 1980s, agricultural crisis forced demographic changes in the urban and rural population in Cameroon where people from the rural areas came to look for jobs in urban areas. This resulted to several people dwelling in crude slums and poverty infested areas within urban cities and towns<sup>32</sup>. The current civil violence in the South and North West regions of Cameroon has displaced several populations to Douala and Yaoundé for security purposes. Obviously, the government is expected to draft solutions for these urban housing problems in major cities and towns in Cameroon.

The Republic of Cameroon, under the Ministry of Housing and Urban Development (MINDHU) has successfully validated its major project entitled “Cameroon Inclusive and Resilient Cities Development Project, (P156210)”<sup>33</sup>. The project aims at improving urban management and access to infrastructure in selected urban areas, particularly for the poor neighbourhoods, and increase to natural hazards and other eligible crises within the subnational levels from 2017 - 2024. It is under these auspices that the government intends to implement laws and regulations in the housing and urban development sector in order to prepare Cameroonian cities for the future.

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<sup>32</sup> <http://www.theworldfolio.com/news/clobert-chatat-miniter-urban/657/>

<sup>33</sup> <http://documents.worldbank.org/curated/en/832091503626454254/pdf/CAMEROON-PAD-NEW-08032017.pdf>

### *Strategic Action*

- a) Promote strategies and policies for resilient cities and the application of sustainable growth approaches in urban and rural areas in Cameroon.
- b) Promote the establishment of city planning documents within all major cities and towns in Cameroon.
- c) Control urban and city development to prevent over-crowding and with people living in crude slums and below poverty line in cities.
- d) Encourage and ensure newly drafted laws are implemented and executed to regulate all aspects of estate management.
- e) Improve compliance for populations living in hazard prone zones within urban areas.
- f) Strengthen land-use planning and zoning with hazard risk information.

**SFDRR 30(g): To promote the mainstreaming of disaster risk assessment, mapping and management into rural development planning and management of, inter alia, mountains, rivers, coastal flood plain areas, drylands, wetlands and all other areas prone to droughts and flooding, including through the identification of areas that are safe for human settlement, and at the same time preserving ecosystem functions that help to reduce risks;**

Cameroon has ratified several environmental conventions<sup>34</sup>. Created with the focus on Rio 1992, the Ministry of Environment and Protection of Nature (MINEP) has been actively involve ensuring measures to better manage national and subnational environment in relation to the National Capacity Self-need Assessment process. This project covers all three global environment management conventions endorsed for implementation (Rio Conventions, Climate Change, and Desertification) within which efforts are being made at the international levels to mainstream biodiversity and ecosystems into development.

At the global level, the Sustainable Development Goals, clearly articulates in: Goal 6 (Target 6.6 of Target 14 on CBD of Aichi); Goals 14 and 15; Goals 2, 11, 12 and 13 are also related to water-related disasters, wetlands, Climate Action, Sustainable Cities and Communities, Zero Hunger, natural resources and resilience to climate change-related hazards and natural disasters)<sup>35</sup>.

It should only be within these global frameworks of the SDGs mentioned above and the Sendai Framework Priority 3, SFDRR 30 (g) that Cameroon should count on mainstreaming disaster risk reduction inter alia other environment conventions relating to biodiversity and ecosystems management.

### *Strategic Action*

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<sup>34</sup> see table 1 and table 2 of parent document “A new implementation framework for disaster risk reduction policies and legislation for Cameroon. Designing policy for Action.”

<sup>35</sup> <https://www.cbd.int/waters/doc/wwd-2016-press-brief-en.pdf>

- a) Establish and advocate for integration of the SFDRR 30(g) and the seven SDGs related Goals into the NCSA-ANCR project financed by GEF and implemented by UNEP and MINEPDEP.

**SFDRR 30(h): To encourage the revision of existing or the development of new building codes and standards and rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable within the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, survey and enforce such codes through an appropriate approach, with a view to fostering disaster-resistant structures;**

The Ministry of housing and urban development has drafted new laws to improve on standards of housing and building construction at the national and local levels in Cameroon. It is the wish of the marginal population living in informal settlements that disaster-resistant structures would be constructed and reinforced.

#### *Strategic Action*

- a) Identify and improve on the resilience of rural housing in hazard prone zones through the reinforcement of building codes.

**SFDRR 30(i): To enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary health care, especially at the local level; developing the capacity of health workers in understanding disaster risk and applying and implementing disaster risk reduction approaches in health work; promoting and enhancing the training capacities in the field of disaster medicine; and supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors, as well as in the implementation of the International Health Regulations (2005) of the World Health Organization;**

It has been acknowledged during the WCDRR that health is an essential element within the SFDRR<sup>36</sup> with biological hazards such as epidemics and pandemics added as a focus area in natural hazards for disaster risk management. The Cameroon government had demonstrated commendable health care activities within this sector at the local and national levels. With the current multisectoral based approach to disaster risk reduction, it is at the disposition of the government to mainstream resilient health systems at all levels into disaster risk management within the national territory. This strategy aims to ensure the integration of health into disaster risk reduction efforts in Cameroon.

#### *Strategic Action*

- a) Encourage mainstreaming of health in disaster risk reduction plans and actions at the national and local levels.
- b) Strengthen the multi-sectoral approach to implement health aspects in order to build resilient health systems.

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<sup>36</sup> [https://www.preventionweb.net/files/47606\\_healthinsendaiframeworkfactsheetuni.pdf](https://www.preventionweb.net/files/47606_healthinsendaiframeworkfactsheetuni.pdf)

**SFDRR 30(j): To strengthen the design and implementation of inclusive policies and social safety-net mechanisms, including through community involvement, integrated with livelihood enhancement programmes, and access to basic health-care services, including maternal, new-born and child health, sexual and reproductive health, food security and nutrition, housing and education, towards the eradication of poverty, to find durable solutions in the post-disaster phase and to empower and assist people disproportionately affected by disasters;**

This strategy endeavours to design the implementation of inclusive policies across sectors in Cameroon for the integration of community participation, livelihood programmes, health, housing and education, poverty reduction, as reduce vulnerability and increase economic resilience to affected population.

#### *Strategic Action*

- a) Monitor and improve on proposed strategy and policies for disaster risk reduction highlighting aspects of cross sectoral inclusion of economic empowerment of affected population with basic services.

**SFDRR 30(k): People with life-threatening and chronic disease, due to their particular needs, should be included in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-saving services;**

This strategy will ensure disaster risk reduction policies and plans to manage risks integrates people with chronic and life-threatening disease within the context of implementation of disaster risk reduction at the subnational and local levels disaster for resilient health systems.

#### *Strategic Action*

- a) Implement policies and legislations at all levels which taking into consideration people with chronic and life-threatening disease.

**(l) To encourage the adoption of policies and programmes addressing disaster-induced human mobility to strengthen the resilience of affected people and that of host communities, in accordance with national laws and circumstances;**

The effects of climate change in Cameroon has already began affecting local population from the Lake Chad Basin up the Extreme North witnessing depletion of natural resources, droughts, and floods within the last few decades. For areas located within the coastal zones like Douala and Limbe, it has become a regular routine to have coastal floods affecting socio economic gains within development sectors annually. It is envisage that some areas may possible submerge below sea levels if constant flooding occur due to climate change and destabilization. Demographic changes therefore due to natural hazards within these regions have possibly accounted for human mobility.

#### *Strategic Action*

- a) Strengthen research on natural hazards and migration within the educational sector

- b) Integrate programmes addressing migration of people affected by natural hazards and disasters where necessary with national laws and policies.

**(m) To promote, as appropriate, the integration of disaster risk reduction considerations and measures in financial and fiscal instruments;**

Until date, the Cameroon government has comfortably enjoyed reacting to the aftermath of a major disaster based on its emergency response and relief approach triggering Decree No. 98/031 of 09/3/1998 to organize emergency and relief plans in case of disaster or major risk. With changes in demography during these period of civil violence, fiscal and economic risk exposure of cities and towns is expected to increase crude slums and substandard houses to become vulnerable to natural hazards.

*Strategic Action*

- a) Improve resource mobilization for relief operations for risk financing at the national and subnational levels.
- b) Strengthen disaster risk maps which can assist the government to improve financial instruments in case of damages.

**(n) To strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction;**

The Ministry of Environment and Protection of Nature (MINEP) with its partners (GEF/ANCR) and UNEP, have been committed within the last few decades in strengthening Cameroon's capacities ensuring synergy between environmental conventions especially (Rio, Biodiversity and Desertification). In addition to the Rio Conventions, relevant frameworks which Cameroon also adheres to relating to the sustainable use and management of the ecosystems are: the PRSP, NEMP, DSDSR, PNDP, FESP, PANERP, PAN/LCD, PAU, the Convergence Plan of COMIFAC, the LCBC, the CBFP, ECOFAC, etc.,

It is within these environmental and natural resource management frameworks that Cameroon is expected to integrate and implement the Sendai Framework priorities and the transforming our world agenda of sustainable development.

*Strategic Action*

- a) Establish potential benefits of sustainable use and management of ecosystems for disaster risk reduction at all levels in Cameroon.
- b) Incorporate disaster risk reduction into the GEF/ANCR projects in Cameroon.
- c) Integrate and implement identified goals from the sendai framework, climate change and sustainable development at all levels in Cameroon.

**SFDRR 30(o): To increase business resilience and protection of livelihoods and productive assets throughout the supply chains, ensure continuity of services and integrate disaster risk management into business models and practices;**

There is need for the multisectoral and people-centered approach of disaster risk reduction within Cameroon. Businesses, the private sector, and NGOs have been left out of disaster risk



reduction in Cameroon. Risk assessment and mitigation strategies are all important for companies and firms in Cameroon to consider in order to establish their businesses and companies. Disaster resilience is meant for all types of private sectors to ensure business continuity. It is therefore necessary integrate disaster risk management into business models and practices at the national and local levels in Cameroon.

### *Strategic Action*

- a) Implement the multisectoral approach for disaster risk reduction in Cameroon.
- b) Design laws and legislations that can strengthen disaster resilience for all businesses and the private sectors into disaster risk management.

### **SFDRR 30(p): To strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds;**

The protection of livelihoods, which includes livestock, working animals, tools and seeds, has been considered at the global level<sup>37</sup> especially related to losses related to economic, social, and environmental aspects during disasters. In Cameroon, the Ministry of Livestock, Fisheries and Animal Husbandry, and the Ministry of Agriculture are mandated with these activities in Cameroon. Between 1980-2000, several cases of risks related to human-wild life disasters have been reported from straying of elephants, locust invasion with loss of 140 tons of cereals per year. Population in the Far North region also experience Floods, Famine, and droughts, which places most of their livestock and productive assets at risk to these natural hazards and disasters within the Northern part of Cameroon. It is to this end that that the Sendai Framework (target B) aims to reduce the number of affected people globally by 2030.

### *Strategic Action*

- a) Improve cross sectoral integration of disaster risk reduction into agriculture and livestock at the subnational levels
- b) Strengthen animal protection within plans, strategies and policies for disaster risk reduction implementation at all levels.

### **SFDRR 30(q): To promote and integrate disaster risk management approaches throughout the tourism industry, given the often heavy reliance on tourism as a key economic driver.**

Cameroon is exposed to a variety of disasters causing a high prevalence of risks, which, however, has not influenced the rise in tourist activities<sup>38</sup>. The Sendai Framework however recognizes the importance of the tourism industry in the economic development of a nation. The 1999 earthquake in Bakingili across the high way towards the West Coast district, consistent floods in the inner bowl of the Limbe Municipality, are examples of recent touristic sites and locations which natural hazards and disasters threatens their economic value.

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<sup>37</sup> : <http://www.fao.org/3/ai5128e.pdf>

<sup>38</sup> Civil Protection Journal of Cameroon.



### *Strategic Action*

- a) Integrate the Sendai Framework for Action on Disaster Risk Reduction with the context of disaster risk management to address possible hazards such as earthquakes, tremors, and floods.

## **KPA 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.**

**SFDRR 33(a):** To prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering climate change scenarios and their impact on disaster risk, and facilitating, as appropriate, the participation of all sectors and relevant stakeholders;

The National Contingency Plan for Cameroon was recently updated in 2018 from the 2011 version. The involvement of relevant institutions is however important to strengthen national and local capacity for disaster management emergency response within the national territory.

### **Strategic Goal:**

- a) Enhance cooperation among all sectors and more coordinated mechanism with the inter-agency standing committee (IASC) for disaster preparedness and emergency response.
- b) Establish relevant institutional structures for disaster preparedness at the local levels to reduce dependency on the ORSEC Plan.
- c) Strengthen partnership with donors, development partners, and implementing organizations for early warning and early action programmes in development and humanitarian interventions.

**SFDRR 33(b):** To invest in, develop, maintain and strengthen people-centred multi-hazard, multi-sectoral forecasting and early warning systems, disaster risk and emergency communications mechanisms, social technologies and hazard-monitoring telecommunications systems; develop such systems through a participatory process; tailor them to the needs of users, including social and cultural requirements, in particular gender; promote the application of simple and low-cost early warning equipment and facilities; and broaden release channels for natural disaster early warning information;

Efforts have been made by the government to purchase seismography and early warning systems handed to the Meteorological Department of the Ministry of Transport. Endorsement of the new DRR policy and legislative framework to monitor and measure indicators and impacts of disasters could strengthen Cameroon’s capacity to manage risks at all levels in the society.

### *Strategic Goal*

- a) Endorse and validate disaster risk reduction policy and legislation that promote multi-hazard- early warning systems.

- b) Identify and involve communities at risk including youths, women, children, the older persons, NGOs, and people with disabilities.
- c) Create awareness through public education.
- d) Ensure compliance of disaster risk reduction measures across all sectors of society.

**SFDRR 33(c):** To promote the resilience of new and existing critical infrastructure, including water, transportation and telecommunications infrastructure, educational facilities, hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disasters in order to provide live-saving and essential services;

It is necessary for resilience interventions to take a cross –sectoral approach as to strengthen local capacity for an integrated action. To ensure this integrated action, this strategy will advocate for access to safe hospitals, telecommunications, critical infrastructures, educational facilities, food, and water and live- saving services across sectors.

***Strategic Goals:***

- a) Support investment in critical infrastructures that reduce risks and essential services across sectors taking into consideration climate change.
- b) Establish and reinforce safety of schools and health facilities.
- c) Train personnels for rapid emergency response.

**SFDRR 33(d):** To establish community centres for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities;

Community awareness centres are expected at the local levels or commune where disaster management activities should be carried out. The Department of civil protection is expected to decentralize disaster risk management activities for stockpiling necessary materials to implement the rescue and relief services.

***Strategic Goal:***

- a) Identify community based-rescue and relief individuals among the population within the locality.
- b) Create and mobilize support for local response and recovery.
- c) Strengthen capacity building and volunteer for emergency response and disaster management.

**SFDRR 33(e):** To adopt public policies and actions that support the role of public service workers to establish or strengthen coordination and funding mechanisms and procedures for relief assistance and plan and prepare for post-disaster recovery and reconstruction;

The government of Cameroon has been committed in funding for relief assistance and humanitarian crisis within its national territory. It is necessary for public policies to strengthen public service workers to coordinate post-disaster recovery and reconstruction.

***Strategic goal***

- a) Promote emergency plans that are based on the support and mobilization of resources

for response and disaster recovery.

**SFDRR 33(f):** To train the existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies;

It is the role of local councils and institutions involve in disaster management to strengthen disaster response with technical and logistical capacities. It is therefore necessary to strengthen national and local capacity building of all stakeholders at the subnational levels for better response in emergencies.

***Strategic Goal:***

- a) Strengthen existing and new workforce for voluntary workers at the municipal and regional levels of disaster response and emergency planning.

**SFDRR 33(g):** To ensure the continuity of operations and planning, including social and economic recovery, and the provision of basic services in the post-disaster phase;

This strategy will ensure that emergency planning should be recognized as a continuing process. It is necessary for Emergency Operation Plans (EOPs) to be based on the different types of emergency planning as to improve continuity of operations in emergency assessment.

***Strategic Goal:***

- a) Facilitate EOPs in emergency planning to improve social and economic recovery in post-disaster phase.

**SFDRR 33(h):** To promote regular disaster preparedness, response and recovery exercises, including evacuation drills, training and the establishment of area-based support systems, with a view to ensuring rapid and effective response to disasters and related displacement, including access to safe shelter, essential food and non-food relief supplies, as appropriate to local needs;

Training and evacuation exercises should not be limited to specialised agencies but the participation of the civil society, women, youth, and children is also important.

***Strategic Goal:***

- a) Support and promote disaster preparedness, response and recovery exercises for all stakeholders including women, youths, internally displaced populations, and the older persons for rapid response.

**SFDRR 33(i):** To promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels, including affected communities and business, in view of the complex and costly nature of post-disaster reconstruction, under the coordination of national authorities;

The Cameroon government works in excellent partnership with international institutions such as the international Civil Defence Organization (ICDO), UNDP, IFRC have assisted in post-

disaster reconstruction especially protection within the Lake Nyos and Manoun areas, industrial contribution and technical support, training and capacity building.

**Strategic Goal:**

- a) Strengthen cooperation between the Civil Protection and international humanitarian and development agencies in mobilizing funds for post-disaster reconstruction.

## **4.0 Partnership and international cooperation**

The Cameroon government will continue to work in excellent partnership with international organizations and partners to carry out DRR/M. Implementation of the new DRR strategy and action plan will be based upon this partnership with all government departments, NGOs, Regional members and UN agencies in Cameroon. The ICDO, IFRCRC, UNDP, WFP, OCHA and the UN/ISDR will play a key role in support of the strategy. Within the NDPMP, the UNDP, OCHA, and UN/ISDR are expected to provide technical support to facilitate development objectives which comprises of the following:

- the improvement of mechanisms relating to disaster prevention and management;
- the drawing up of a national plan and sectoral plans on disaster prevention and management;
- the updating of legislative and statutory instruments;
- capacity building of staffs in the services involve in disaster prevention and management;
- the sensitization, education and mobilization of the communities in disaster prevention and management;
- capacity building in management, and coordination of the department Civil Protection;

The strategy will strongly recommend training of government staffs, as well as stakeholders committed to reduce disaster risk at the national, sub-national and community levels.

The strategy will strengthen partnership with the International Federation of Red Cross and the Cameroon Red Cross Society in the domain of training and preparedness / contingency planning.

At the Regional level, countries in the ECCAS region share similar hazard risk profile. Prior to the Yaoundé Declaration and other ECCAS regional agreements on DRR implementations, Cameroon is a major partner in regional cooperation schemes for disaster risk reduction and management.

## **5.0 Civil Protection Legal Framework in Cameroon**

This document is a “proposed strategy” (2019 – 2025) which falls in line with national and international plans and strategies following the endorsement of the Sendai Framework Target (e); Sendai PoA for Africa (2015 – 2030) Priority 2 (National Level, Priority Activity No. 7) under the Ministry of Territorial Administration where some twenty laws had been put in

place to regulate the DPC. The strategy will add to other plans and strategies like the National Capacity Self-Assessment programs (NCSA) sponsored under GEF, UNEP, UNDP, and the World Bank (2004 – present); UNDP Draft country programme for Cameroon (2018 – 2020); WFP’s country strategic plan for Cameroon (2018–2020); MINDHU’s major project entitled “Cameroon Inclusive and Resilient Cities Development Project, (P156210)”<sup>39</sup>. The project aims at improving urban management and access to infrastructure in selected urban areas, particularly for the poor neighbourhoods, and increase to natural hazards and other eligible crises within the subnational levels from (2017 - 2024). Cameroon has adhered to most international legal instruments in the field of environment like; The Basle Convention on Transboundary Movements of Dangerous Waste and their Disposal (February 2001);<sup>40</sup>

Originally, this strategy fills three of UNDP’s strategy under NDPMP for Cameroon; the improvement of mechanisms relating to disaster prevention and management; the drawing up of a national plan and sectorial plans on disaster prevention and management; the up-dating of legislative and statutory instruments. Currently, DRR legal frameworks in Cameroon are; Law No. 86/016 of 6 December 1986 on the general re-organization of the civil Protection; Decree No. 98/031 of 9 March 1998 to organize emergency disaster and major relief plans. The strategy is also based on the Programme of Action for the Implementation of the Sendai Framework for Disaster Risk Reduction (2015 – 2030) in line with the (ARSDRR).

At the national level, the Ministry of Territorial Administration is in charge and coordinates through the department of civil protection, disaster risk reduction and emergency management in Cameroon. It is under decree No. 96/054 of 12 March 1996 to lay down the structure and attribution of the National Council on Civil Protection that strategies, policies, programmes aiming to prepare, respond and mitigate risk to civil emergency situations are carried out. This strategy will ensure that DRR activities will be coordinated across each line Ministry in order to achieve better planning and implementation of the Sendai Framework targets in Cameroon. Below are line Ministries and their roles in DRR activities across each sector.

## 6. Financing of the strategy

The new strategy proposed that the financial incidence of the sectorial studies (NDPMP) which stood 140.2 billion CFAF for three years should be used in financing the National Strategy and Action Plan, together with bilateral and multilateral funds from partners and international partners. At the moment, there are little or no provisions for DRR funding in Cameroon and Plans except for emergency management and crisis management as in other States in Europe. The strategy has proposed a 1% amendment from the government budget to finance DRR activities across the national sub-national levels in Cameroon.

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<sup>39</sup><http://documents.worldbank.org/curated/en/832091503626454254/pdf/CAMEROON-PAD-NEW-08032017.pdf>

<sup>40</sup> see Table 1 and Table 2.

## 7. Action Plan for DRR (2019– 2025).

<b>SFDRR KPA 1: Understanding disaster risk</b>				
<b>Strategic Actions</b>	<b>Timeframe</b>	<b>Responsible institutions</b>	<b>Contributing Institutions</b>	<b>Cost</b>
<p><b>SFDRR 24 (a).</b></p> <p>1.1 Support and ensure the collection of sector specific risk information for analysis and dissemination.</p> <p>1.2 Create an enabling environment to collect, analyse and disseminate data on loss and damages within the national territory for disaster risk.</p> <p>1.3 Provide sector early warning systems to different sectors.</p> <p>1.4 Mobilize resources to support and strengthen capacity building for understanding disaster risk and its effects at the national and local levels of disaster risk management.</p> <p>1.5 Establish and strengthen disaster loss databases and its effects as an institutional structure from the local and Municipal levels of government.</p> <p>1.6 Develop sub-national, and local Disaster Risk Management Information and Communication Systems to ensure the collection, analysis, management and dissemination of relevant data and information.</p>	Continuous	Ministry of Scientific Research and Innovation, Ministry of Territorial Administration, Ministry of Higher Education.	Ministry of Finance, Ministry of Scientific Research and Innovation, Ministry of Territorial Administration, Ministry of Higher Education.	TBD
<p><b>SFDRR 24 (b).</b></p> <p>1.1 Encourage the understanding of disaster risk efforts and its impacts through a multi-sectoral warning system.</p> <p>1.2 Improve social understanding of disaster risks and its impacts across development sectors and activities in order to integrate climate change adaptation threats and the SDGs at the national and sub-national levels.</p> <p>1.3 Support assessment of ecosystem management and understanding risks through the National Biodiversity Strategy and Action Plan (NBSAP), ANCR/NCSA Process, land tenure, urban and regional planning, and sustainable management of forest.</p> <p>1.4 Establish/strengthen assessment of anthropogenic hazards especially those linked to economic deprivation, protracted social conflicts, civil strife, political violence, refugees, and armed conflicts which indicate high risk prevalence in the national territory.</p>	Continuous	Ministry of Scientific Research and Innovation, Ministry of Justice, Ministry of Economy and Regional Planning, Ministry of Environment, Nature Protection and Sustainable Development, Commission for Bilingualism, Ministry of Territorial Administration, Cameroon Red Cross.	All Ministries directly concerned, Ministry of Justice, Ministry of Economy and Regional Planning, Ministry of Environment, Nature Protection and Sustainable Development.	TBD

<p><b>SFDRR 24 (c).</b></p> <p>1.1 Up-date and improve information management and communication systems based on multi-hazard risk maps.</p> <p>1.2 Ensure a comprehensive risk, vulnerability, and a multi-hazard assessment of both natural and anthropogenic disasters is carried out and a hazard-risk map is produced within the national and sub-national levels of disaster risk management.</p> <p>1.3 Promote the production of a detailed hazard-risk map, highlighting the disaster risks in each local council.</p> <p>1.4 Prioritize contemporary management of risks based on potential risk, frequency and intensity of hazards rather than on political control of the local government area.</p>	1 year	All Ministries directly concerned, Ministry of Scientific Research and Innovation, Ministry of Territorial Administration, Cameroon Red Cross.	All Ministries directly concerned, Ministry of Scientific Research and Innovation, Ministry of Territorial Administration, Cameroon Red Cross.	
<p><b>SFDRR 24 (d).</b></p> <p>1.1 Evaluate disaster losses while counting the cost and impacts in terms of economic, social, health, education, environmental and cultural heritage.</p> <p>1.2 Review the guide on post-disaster management which is linked to the ORSEC Plan carried out annually at the sub-national levels.</p> <p>1.3 Create public awareness on disaster losses through risk mapping for communities and local authorities.</p>	6 months	Ministry of Public Health, Ministry of Scientific Research and Innovation, Ministry of Territorial Administration, Ministry of Higher Education, Ministry of Tourism	Ministry of Territorial Administration, Ministry of Higher Education.	TBD
<p><b>SFDRR 24 (e).</b></p> <p>1.1 Facilitate and ensure multi-hazard risk and disaggregated disaster loss information is accessible to identified communities and relevant stakeholders.</p> <p>1.2 Establish and strengthen relevant institutional structures regularly to provide free disaster loss information accessible to authorities and the public at large.</p>	1 year	Ministry of Territorial Administration.	Ministry of Decentralization	TBD
<p><b>SFDRR 24 (f).</b></p> <p>1.1 Review national disaster risk management information and communication database in view of providing CRED/EMDAT with accurate and reliable data.</p> <p>1.2 Strengthen knowledge and investments in scientific and technical capacities to promote maximum access to valid data.</p> <p>1.3 Promote use of all technologies available to disseminate disaster risk information.</p>	2 years	Ministry of Scientific Research and Innovation, Ministry of Territorial Administration.	National Institute of Statistics	TBD

1.4 Implement sophisticated systems of collection, analysis, and dissemination of statistical information on disasters, their consequences, losses and causes.				
<b>SFDRR 24 (g).</b> 1.1 Promote and build knowledge on DRR efforts on good practices of both government staff of services involved in disaster prevention and management, and those of the civil society, communities, volunteers and the private sector. 1.2 Improve the sensitization, education and mobilization of communities, and the civil society in disaster prevention and management. 1.3 Build national and local capacity for DRR knowledge through Universities and research institutions especially in the field of prevention and management, as well as climate change adaptation.	Continuous	Ministry of Territorial Administration.  Ministry of Higher Education.	All line Ministries directly involved.	
<b>SFDRR 24 (h).</b> 1.1 Encourage and improve science-policy interface ensuring that relevant stakeholders and policymakers engage in risk assessment and understand concepts and terminologies in disaster risk reduction.	Continuous	Ministry of Higher Education.	All line Ministries directly involved.	TBD
<b>SFDRR 24 (i).</b> 1.1 Recruitment of social / cultural experts at the national and sub-national levels to work in line with local development councils and committees and intervene in disaster risk assessment. 1.2 Strengthen traditional and indigenous knowledge and practices relating to disaster risk reduction and in risk profiling, monitoring and assessment at the local level.	3 years	All line Ministries directly involved.	Ministry of Culture, Ministry of Territorial Administration.	TBD
<b>SFDRR 24 (j).</b> 1.1 Consolidate existing knowledge on volcanicity, tectonic movements, climate change, and Biodiversity. 1.2 Improve research, and guidelines in the assessment of disaster risks, Vulnerabilities and exposure to all hazards. 1.3 Encourage and facilitate any initiative in data interpretation by scientists provided by research institutions and centres, and other similar structures. 1.4 To promote investment in innovation and technology development in long-term multi-hazard and solution-driven research in disaster risk	Continuous	Ministry of Environment, Nature Protection, and Sustainable Development,  Ministry of Scientific Research and Innovation.	Ministry of Environment, Nature Protection, and Sustainable Development	TBD



management to address gaps, obstacles, interdependencies and social, economic, educational and environmental challenges and disaster risks.				
<p><b>SFDRR 24 (k).</b></p> <p>1.1 Improve knowledge in science, technology and innovation at the local, and national level on how to take into account investments that addresses social, economic, educational and environment challenges and disaster risk which increases vulnerability.</p> <p>1.2 Encourage solution-driven research in DRM which addresses social, economic, educational and environment challenges and disaster risk aspects in the long-term.</p>	Continuous	<p>Ministry of Scientific Research and Innovation,</p> <p>Ministry of Higher Education.</p>	Ministry of Higher Education.	
<p><b>SFDRR 24 (l).</b></p> <p>1.1 Encourage and promote the integration of disaster risk knowledge and disaster management in formal educational systems and informal research.</p> <p>1.2 Build national and local capacity of Universities and research Institutions in the field of prevention and disaster risks management as well as climate change.</p> <p>1.3 Integrated DRR into basic, secondary, higher and professional higher institutes like the National Higher Institute of Magistracy and Administration (ENAM) where civil administrators could be trained with DRR Knowledge.</p>	Continuous	Ministry of Higher Education.	All Ministries line.	TBD
<p><b>SFDRR 24 (m).</b></p> <p>1.1 Establishment of a technical committee to ensure strengthening of disaster risk reduction, and public education within the National Strategy for DRR in Cameroon.</p> <p>1.2 Strengthening of disaster information and knowledge into education curricula as recommended by the strategy.</p>	2 years	Ministry of Higher Education.	National Council for Civil Protection	TBD
<p><b>SFDRR 24 (n).</b></p> <p>1.1 Prepare and submit a Green paper for a new framework for disaster risk management policy/ legislation for Cameroon and implement National Strategy.</p> <p>1.2 Validate the New National Strategy for Disaster Risk Reduction and its action plan.</p> <p>1.3 Identity DRR Strategic framework based on evidenced-based programs</p>	6 months	Parliamentarians, National Council for Civil Protection.	Ministry of External Relations.	TBD

for implementation.				
<p><b>SFDRR 24 (o).</b></p> <p>1.1 Promote inclusion of vulnerable communities (the elderly, persons with disabilities, children, marginalise group etc.) in disseminating disaster risk information;</p> <p>1.2 Engage and support involvements of English speaking DRR Professionals, staffs and text were necessary to provide disaster risk information.</p> <p>1.3 Encourage and facilitate Community –based organisations and NGOs in DRR efforts at all levels of disaster prevention and management efforts.</p>	Continuous	All line Ministries.	Commission for Bilingualism.	TBD
<b>SFDRR KPA 2: Strengthening disaster risk governance</b>				
<b>Strategic Actions</b>	<b>Timeframe</b>	<b>Responsible institutions</b>	<b>Contributing Institutions</b>	<b>Cost</b>
<p><b>SFDRR 27 (a).</b></p> <p>2.1 Create and support conditions for more political commitments to strengthen the integration of disaster risk reduction policies and implementation into development policies, plans, and programmes.</p> <p>2.2 Repeal and replace current disaster management laws re-organising the civil protection since 1986, and 1998 triggering the ORSEC Plan.).</p> <p>2.3 Review status quo of disaster risk management to provide an enabling environment for the implementation of the Sendai Framework.</p> <p>2.4 Establish and develop a multi-sectoral and multi-stakeholder national DRR platform that ensures the inclusion of both French and English disaster risk management experts, and professionals, with the participation of various groups within the local, sub-national, and national levels where necessary.</p> <p>2.5 Prepare and adopt White paper for a New Strategy for Disaster Risk Reduction Policy and Legislation.</p>	2 years	Ministry of Territorial Administration	All line Ministries.	TBD
<p><b>SFDRR 27 (b).</b></p> <p>2.1 Encourage risk reduction strategies, plans and legal frameworks are integrated into national policies and strategies such as the Cameroon Vision 2035, Growth and Employment Strategy Paper (GESP, 2010-2020), Cameroon, Poverty Reduction Strategy Paper (PRSP) across line Ministries</p>	2 years	Ministry of Economy and Regional Planning,	All line Ministries	TBD

with Sendai Framework, Paris Agreement, SDGs, which addresses gender, children, health, vulnerable groups and internally displaced persons (IDPs) ensuring conditions for resilience are created for development.				
<b>SFDRR 27 (c).</b> 2.1 Strengthen technical, financial and administrative capacity of local and national leaders and community representatives on risks identification and assessment. 2.2 Formulation of an autonomous statutory National Disaster Risk Management Agency which will have a local community-driven bottom-top approach to disaster risk management, and disseminate resilience and disaster prevention framework.	3 years	Ministry of Decentralization and local Development	Ministry of Economy and Regional Planning,	TBD
<b>SFDRR 27 (d).</b> 2.1 Endorse and implement newly proposed DRR legal and regulatory mechanism as a blue print document guiding DRR implementation across development sectors. 2.2 Establish incentives that will lead to reinforce regulations, codes and laws prohibiting unhealthy management of the urban and rural areas. 2.3 Support risk-sensitive land use planning and enforce regulations while improving political will and roles within authorities defined. 2.4 Encourage community participation in local projects that integrate DRR activities. 2.5 Improve the unhealthy and unsustainable management of the urban and rural areas through concrete policy reinforcement.	2 years	All line Ministries.	All line Ministries.	
<b>SFDRR 27 (e).</b> 2.1 Create Technical Working Groups at the national and local levels to periodically assess and report on the progress of DRR actions at all levels. 2.2 Encourage institutional debates with the public and decision-makers. 2.3 Establish standard tools and benchmark indicators to monitor the progress of DRR plans at the local and national levels.	1 year	Ministry of Territorial Administration	National Council for Civil Protection.	TBD
<b>SFDRR 27 (f).</b> 2.1 Establish the creation of a focal point at the Ministry of Decentralization and Local Development.	6 months	Ministry of Decentralization	Ministry of Territorial Administration	TBD

<p>2.2 Create and decentralize national DRR platform to other subnational and local levels through Ministry of Decentralization and Local Development.</p> <p>2.3 Strengthen and support subnational and local levels community representatives and leaders how to perform roles in DRR in their work with the civil society.</p>				
<p><b>SFDRR 27 (g).</b></p> <p>2.1 Build capacity of local stakeholders on DRR at the national and local levels.</p> <p>2.2 Ensure the national platform is multi-sectoral with relevant stakeholders from the national and local levels.</p> <p>2.3 Eliminate and remove bureaucratic approaches of disaster risk governance.</p> <p>2.4 Encourage and strengthen decentralization of disaster risk governance which brings about a multisectoral approach.</p> <p>2.5 Discourage the setting up of a command-and control posts as possible model established by the civil protection Department.</p>	Continuous	All line Ministries	DPC	TBD
<p><b>SFDRR 27 (h).</b></p> <p>2.1 Establish collaboration across line Ministries.</p> <p>2.2 Strengthen policy and regulations to work with the civil society, communities and indigenous groups.</p> <p>2.3 Support cooperation of disaster risk management at the local levels with finances, effective policy for disaster risk management, and technical capacity to implement disaster risk reduction.</p>	1 year	Ministry of Finance, and the Ministry of Decentralization and Local Development	Ministry of Territorial Administration.	TBD
<p><b>SFDRR 27 (i).</b></p> <p>2.1 Create and lobby-in with parliamentarians for the validation and adoption of National DRR Action Plan 2018-2022.</p> <p>2.2 Encourage and ensure parliamentarians understand the importance of disaster risk reduction policies, strategies, and legislations and its long-term benefits in Cameroon.</p> <p>2.3 Present Plan of Action for disaster risk reduction 2018-2022 to the Cameroonian parliament for deliberation and adoption setting budget allocations.</p> <p>2.4 Encourage a positive environment and climatic conditions for parliamentarians to adopt disaster risk reduction.</p>	1 year	Parliamentarians	Ministry of Finance	TBD

2.5 Monitor progress of new disaster risk reduction legislation and regulations and make changes where necessary.				
<b>SFDRR 27 (j).</b> 2.1 Endorse National Strategic Framework for DRR to enable good practices. 2.2 Support awards and certification programs mainstreaming DRR within the national territory. 2.3 Encourage and ensure DRR is integrated into Higher Institutions, Secondary and Basic educational curricula.	Continuous	Ministry of Territorial Administration, All line Ministries.	Basic Education	TBD
<b>SFDRR 27 (k).</b> 2.1 Establish cross sectoral collaboration with line Ministries to relocate, or human settlements in disaster risk-prone zones.	2 years	All line Ministries.	Ministry of Territorial Administration.	
<b>SFDRR KPA 3: Investing in disaster risk reduction</b>				
<b>Strategic Actions</b>	<b>Timeframe</b>	<b>Responsible institutions</b>	<b>Contributing Institutions</b>	<b>Cost</b>
<b>SFDRR 30 (a).</b> 3.1 Create an enabling environment for the incorporation of disaster risk reduction into national public investment and planning systems as well as the private sector. 3.2 Establish sector specific investment projects for disaster risk management and climate change adaptation at the national and local levels. 3.3 Review and change laws governing emergency response and disaster relief. 3.4 Establish policies and regulations required to cover cost-benefit analysis for disaster risk management and climate change adaptation projects.	Continuous	Ministry of Finance	Ministry of Environment, Nature Protection, and Sustainable Development.	TBD
<b>SFDRR 30 (b).</b> 3.1 Establish decentralized DRR structures at the subnational levels by investing in financial instruments that provide a comprehensive protection against the impacts of natural hazards and climate extremes within the national territory. 3.2 Review investments on other financial schemes like disaster risk insurance. 3.3 Register membership with the African Risk Capacity programme to	5 years	Ministry of Decentralization; Ministry of Territorial Administration	Ministry of Finance	TBD

ensure pay-outs investments in public rehabilitation programmes.				
<b>SFDRR 30 (c).</b> <b>3.1</b> Build new housing to provide settlement for the growing population within the next thirty years. <b>3.2</b> Strengthen disaster risk reduction and resilience as an integral part of sustainable development within the economic, social, political, and environmental processes in Cameroon.	Continuous	Ministry of Housing and Urban Development	All line Ministries	TBD
<b>SFDRR 30 (d).</b> <b>3.1</b> Encourage and promote the BIOPALT activities of the Lake Chad BIOSphere Heritage project sponsored by UNESCO. <b>3.2</b> Identify and encourage research projects within the Lake Chad BIOSphere tailored towards activities related to disaster risk reduction, climate change and sustainable development, which contributes in poverty reduction.	3 years	Ministry of Environment, Nature Protection, and Sustainable Development	Ministry of External Relations	TBD
<b>SFDRR 30 (e).</b> <b>3.1</b> Strengthen resilience in workplaces through structural and non-structural measures within the national territory.	Continuous	Ministry of Labour and Social Security.	All line Ministries.	TBD
<b>SFDRR 30 (f).</b> <b>3.1</b> Promote strategies and policies for resilient cities and the application of sustainable growth approaches in urban and rural areas in Cameroon. <b>3.2</b> Promote the establishment of city planning documents within all major cities and towns in Cameroon. <b>3.3</b> Control urban and city development to prevent over-crowding and with people living in crude slums and below poverty line in cities. <b>3.4</b> Encourage and ensure newly drafted laws are implemented and executed to regulate all aspects of estate management. <b>3.5</b> Improve compliance for populations living in hazard prone zones within urban areas. <b>3.6</b> Strengthen land-use planning and zoning with hazard risk information.	Continuous	Municipalities and Local Councils, Ministry of Economy and Regional Planning, Ministry of Housing and Urban Development	City Councils and PNDP	TBD
<b>SFDRR 30 (g).</b> <b>3.1</b> Establish and advocate for integration of the seven SDGs related Goals into the NCSA-ANCR project financed by GEF and implemented by UNEP	2 years	Ministry of Environment, Nature Protection and Sustainable Development	Ministry of Environment, Nature Protection and Sustainable Development	TBD

and MINEPDEP.				
<b>SFDRR 30 (h).</b> 3.1 Identify and improve on the resilience of rural housing in hazard prone zones through the reinforcement of building codes.	2 years	City Councils and PNDP	Ministry of Economy and Regional Planning,	TBD
<b>SFDRR 30 (i).</b> 3.1 Encourage mainstreaming of health in disaster risk reduction plans and actions at the national and local levels. 3.2 Strengthen the multi-sectoral approach to implement health aspects in order to build resilient health systems.	2 years	Ministry of Public Health	Ministry of Finance	TBD
<b>SFDRR 30 (j).</b> 3.1 Monitor and improve on proposed strategy and policies for disaster risk reduction highlighting aspects of cross sectoral inclusion of economic empowerment of affected population with basic services.	Continuous	DPC	Ministry of Territorial Administration	TBD
<b>SFDRR 30 (k).</b> 3.1 Implement policies and legislations at all levels taking into consideration people with chronic and life-threatening disease.	3 years	Ministry of Public Health, DPC	Ministry of Territorial Administration	TBD
<b>SFDRR 30 (l).</b> 3.1 Strengthen research on natural hazards and migration within the educational sector. 3.2 Integrate programmes addressing migration of people affected by natural hazards and disasters where necessary with national laws and policies.	2 years	Ministry of Public Health	DPC	TBD
<b>SFDRR 30 (m).</b> 3.1 Improve resource mobilization for relief operations for risk financing at the national and subnational levels. 3.2 Strengthen disaster risk maps which can assist the government to improve financial instruments in case of damages.	Continuous	DPC	Ministry of Finance	TBD

<b>SFDRR 30 (n).</b> 3.1 Establish potential benefits of sustainable use and management of ecosystems for disaster risk reduction at all levels. 3.2 Incorporate disaster risk reduction into the GEF/ANCR projects. 3.3 Integrate and implement identified goals from the Sendia framework, climate change and sustainable development at all levels.	Continuous	Ministry of Environment, Nature Protection, and Sustainable Development.	DPC	TBD
<b>SFDRR 30 (o).</b> <b>3.1</b> Implement the multi-sectoral approach for disaster risk reduction. 3.2 Design laws and legislations that can strengthen disaster resilience for all businesses and the private sectors into disaster risk management.	6 months	DPC	Ministry of Territorial Administration	TBD
<b>SFDRR 30 (p).</b> 3.1 Improve cross sectoral integration of disaster risk reduction into agriculture and livestock at the subnational levels. 3.2 Strengthen animal protection within plans, strategies and policies for disaster risk reduction implementation at all levels.	2 years	Ministry of Livestock and Fisheries.	DPC	TBD
<b>SFDRR 30 (q).</b> <b>3.1</b> Integrate the Sendai Framework for Action on Disaster Risk Reduction within the context of disaster risk management to address possible hazards such as earthquakes, tremours, and floods.	1 year	DPC	Ministry of Territorial Administration.	TBD
<b>SFDRR KPA 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.</b>				
<b>Strategic Actions</b>	<b>Timeframe</b>	<b>Responsible institutions</b>	<b>Contributing Institutions</b>	<b>Cost</b>
<b>SFDRR 33(a).</b> 4.1 Enhance cooperation among all sectors and more coordinated mechanism with the inter-agency standing committee (IASC) for disaster preparedness and emergency response. 4.2 Establish relevant institutional structures for disaster preparedness at the local levels to reduce dependency on the ORSEC Plan. 4.3 Strengthen partnership with donors, development partners, and implementing organizations for early warning and early action programmes in development and humanitarian interventions.	2 years	DPC, all line Ministries	Ministry of Territorial Administration.	TBD



<p><b>SFDRR 33(b).</b></p> <p>4.1 Endorse and validate disaster risk reduction policy and legislation that promote multi-hazard- early warning systems.</p> <p>4.2 Identify and involve communities at risk including youths, women, children, the older persons, NGOs, and people with disabilities.</p> <p>4.3 Create awareness through public education.</p> <p>4.4 Ensure compliance of disaster risk reduction measures across all sectors of society.</p>	6 months	Ministry of Social Affairs	All line Ministries	TBD
<p><b>SFDRR 33(c).</b></p> <p>4.1 Support investment in critical infrastructures that reduce risks and essential services across sectors taking into consideration climate change.</p> <p>4.2 Establish and reinforce safety of schools and health facilities.</p> <p>4.3 Train personnels for rapid emergency response.</p>	3 years	Local councils and Municipalities	All line Ministries	TBD
<p><b>SFDRR 33(d).</b></p> <p>4.1 Identify community based-rescue and relief individuals among the population within the locality.</p> <p>4.2 Create and mobilize support for local response and recovery.</p> <p>4.3 Strengthen capacity building and volunteer for emergency response and disaster management.</p>	2 years	Fire Service, Community Based DRM volunteers.	Municipalities and Local Councils.	TBD
<p><b>SFDRR 33(e).</b></p> <p>4.1 Promote emergency plans that are based on the support and mobilization of resources for response and disaster recovery.</p>	Continuous	DPC	All line Ministries	TBD
<p><b>SFDRR 33(f).</b></p> <p>4.1 Strengthen existing and new workforce for voluntary workers at the municipal and regional levels of disaster response and emergency planning.</p>	3 years	FEICOM/CVCC/DPC	Municipalities and Local Councils.	TBD
<p><b>SFDRR 33(g).</b></p> <p>4.1 Facilitate EOPs in emergency planning to improve social and economic recovery in post-disaster phase.</p>	Continuous	DPC	All line Ministries	TBD

<p><b>SFDRR 33(h).</b> 4.1 Support and promote disaster preparedness, response and recovery exercises for all stakeholders including women, youths, internally displaced populations, and the older persons for rapid response.</p>	2 years	All line Ministries	DPC	TBD
<p><b>SFDRR 33(i).</b> 4.1 Strengthen cooperation between the Civil Protection and international humanitarian and development agencies in mobilizing funds for post-disaster reconstruction.</p>	Continuous	DPC	All line Ministries	TBD

N:B. **To be Determined (TBD).**

<b>List of key institutions and their roles and responsibilities in DRR in Cameroon</b>	
<b>Ministry of Territorial Administration (MINAT)</b>	Guarantees security and civil protection to the nation. Principal Ministry with mandate to mitigate, prepare, respond to natural and anthropogenic disasters. Implements and has the responsibility to prepare and implement laws and regulations of the state. Key Ministry in charge of preventing and managing disaster risks in Cameroon.
<b>Ministry of Agriculture (MINAGRI)</b>	Constitutes the backbone of the economy of Cameroon. Provides support to civil society and populations affected by disasters through the following: Formulating, planning and implementing government programmes on agriculture and rural development. Implementation of DRR within this sector could be viewed from the context of coordination and management of agricultural crisis situation at the national and local levels with related Ministries. Climate change and disaster risk are likely threats to design strategies and modalities to guarantee the food security and food sufficiency in this sector.
<b>Ministry of Finance (MINFI)</b>	The Ministry of Finance manages government financial assets, proposes economic and financial policy, and coordinates and supervises the action by law. Its main function is to prepare the annual fiscal budget and issue adequate regulations for its execution. Provides available funds only in case of crisis management and emergency response. This sector can only finance implementation of DRR after bill on DRR has been passed from parliament as integral part of development.
<b>Ministry of Economy Planning and Regional Development (MINEPAT)</b>	MINEPAT is responsible for land use planning at the national level, public investments and the control and evaluation of development programs. Carries strong inter-ministerial collaboration with other sectors such as agriculture, forestry, fisheries and livestock. MINEPAT is not currently having cross sectoral links with DPC for risk reduction purposes. It was strongly recommended within the strategy for cross sectoral collaboration between MINEPAT and DPC likewise other related sectors mentioned above.
<b>Ministry of Energy and Water Resources (MINEE)</b>	This sector plays a very strategic role in the development process of Cameroon's effort to attain the SDGs. Considering that these objectives are found within the Growth and Employment Paper (GESP), the long-term vision of this sector in Cameroon's development is to work toward sustained double-digit growth. This will depend on developing diverse energy resources within the Energy Master Plan. Cameroon currently experiences high frequency of hydro-meteorological disasters which demands the

	collaboration of MINEE to provide high quantity of clean drinking water around the territory to prevent out breaks of diseases associated with floods and natural hazards.
<b>Ministry of Defence (MINDEF)</b>	Under the authority of the Minister of Defence, this Ministry performs the following functions: studying of the defence policy; implementation of the defence policy; coordination and the control of the forces of law and order; the organization of the military tribunal. The arm of the national defence forces in charge of disasters especially fire disasters is the National Fire Brigade. Works in collaboration with the DPC.
<b>Ministry of Environment, Nature Protection, and Sustainable Development. (MINEPDED)</b>	Conceived with the vision of Rio Earth Summit (1992), it controls, supervises, and co-ordinates activities related to the environment, especially biodiversity, climate change and sustainable development. MINEPDED's mandates and current strategic objectives is to drive sustainable development processes and the National Adaptation Plan for Climate Change (NAPCC) in Cameroon. This sector has challenges in integrating DRR within NAP due to ORSEC which is focus on emergency relief and crisis management.
<b>Ministry of Scientific Research and Innovation (MINRESI).</b>	Coordinates and controls inventory of acquired national research and innovation system which includes; institutional, scientific and technological policies; all what contributes to the use and dissemination of research and innovation results. The functions of this Ministry also include those linked to other organs such as the Institute for Geological and Mining Research (IRGM). Created in 1979, IRGM is supervised under MINRESI with mandate to define and execute research in geologic, mineralogy, hydrology, and energy in Cameroon. IRGM has been heavily involved in disaster prevention and risk reduction at the national and community levels.
<b>Ministry of Transport (MINT)</b>	This sector is responsible for the coordination and development of all transportation. MINT maintains and regulates the organization, and the function of air, rail, road and maritime transport. The sector formulates and implements legislative and statutory measures relating to transportation and safety. Research on natural and technological risks and disasters are linked to this sector. However, further study on the transport sector as concerns disaster prevention and management is imperative for this sector. This sector is the host of Cameroon's Meteorological services and there is need for consideration to integrate risk reduction across this sector to prevent high rates of road accidents across the national territory.

<b>Ministry of Public Works (MINTP).</b>	Placed under the theme: “Construction, maintenance and rehabilitation of infrastructures: strategies to improve efficiency”, the MINTP plays an important role based on results, execution within the timeframe, road maintenance by level services. DRR should also be integrated into this sector since MINTP deals with the built environment.
<b>Ministry of Higher Education (MINESUP)</b>	MINESUP is in charge of implementing and developing government policies and programmes in higher education system to national social and economic realities; Some Higher education institutions are in partnership with Peri Peri U.
<b>Ministry of Decentralization and Local Development (MINDLD)</b>	The newly created Ministry of Decentralization is expected to play a central at the sub-national, local and community levels. Disaster risk is expected to be handled first from the local levels before appealing for support from the national level.
<b>Ministry of Women’s Empowerment and the Family (MINPROFF)</b>	MINPROFF is the cluster lead for Water Hygiene and Sanitation (WASH) for the UN Humanitarian Affairs Coordination Office (OCHA).
<b>Ministry of Public Health (MINSANTE)</b>	The Ministry of Public Health is in charge of elaborating and implementing policies and strategies for the improvement of maternal, newborn and health. In the event of a disaster, medical conditions and health care to prevent, respond and rehabilitate disaster affected populations is carried out. MINSANTE is an active Ministry in Cameroon at all levels of health care and emergency management during and after disasters strike. Other partners include SAMU.

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**Appendix A:**  
Letters of authorisation  
from editors

**Sophie Barr** <sbarr@emeraldgroup.com>

28 May 2019, 14:21 (1  
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to me, Ozcan

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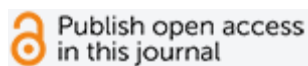
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<i>For journals</i>	<p>Surname, Initials (year), "Title of article", <i>Journal Name</i>, volume issue, pages.</p> <p>e.g. Capizzi, M.T. and Ferguson, R. (2005), "Loyalty trends for the twenty-first century", <i>Journal of Consumer Marketing</i>, Vol. 22 No. 2, pp. 72-80.</p>
<i>For published conference proceedings</i>	<p>Surname, Initials (year of publication), "Title of paper", in Surname, Initials (Ed.), <i>Title of published proceeding which may include place and date(s) held</i>, Publisher, Place of publication, Page numbers.</p> <p>e.g. Jakkilinki, R., Georgievski, M. and Sharda, N. (2007), "Connecting destinations with an ontology-based e-tourism planner", in <i>Information and communication technologies in tourism 2007 proceedings of the international conference in Ljubljana, Slovenia, 2007</i>, Springer-Verlag, Vienna, pp. 12-32.</p>
<i>For unpublished conference proceedings</i>	<p>Surname, Initials (year), "Title of paper", paper presented at Name of Conference, date of conference, place of conference, available at: URL if freely available on the internet (accessed date).</p> <p>e.g. Aumueller, D. (2005), "Semantic authoring and retrieval within a wiki", paper presented at the European Semantic Web Conference (ESWC), 29 May-1 June, Heraklion, Crete, available at: <a href="http://dbs.uni-leipzig.de/file/aumueller05wiksar.pdf">http://dbs.uni-leipzig.de/file/aumueller05wiksar.pdf</a> (accessed 20 February 2007).</p>
<i>For working papers</i>	<p>Surname, Initials (year), "Title of article", working paper [number if available], Institution or organization, Place of organization, date.</p> <p>e.g. Moizer, P. (2003), "How published academic research can inform policy decisions: the case of mandatory rotation of audit appointments", working paper, Leeds University Business School, University of Leeds, Leeds, 28 March.</p>

<p><i>For encyclopedia entries (with no author or editor)</i></p>	<p><i>Title of Encyclopedia</i> (year) "Title of entry", volume, edition, Title of Encyclopedia, Publisher, Place of publication, pages.</p> <p>e.g. <i>Encyclopaedia Britannica</i> (1926) "Psychology of culture contact", Vol. 1, 13th ed., Encyclopaedia Britannica, London and New York, NY, pp. 765-71.</p> <p>(For authored entries please refer to book chapter guidelines above)</p>
<p><i>For newspaper articles (authored)</i></p>	<p>Surname, Initials (year), "Article title", <i>Newspaper</i>, date, pages.</p> <p>e.g. Smith, A. (2008), "Money for old rope", <i>Daily News</i>, 21 January, pp. 1, 3-4.</p>
<p><i>For newspaper articles (non-authored)</i></p>	<p><i>Newspaper</i> (year), "Article title", date, pages.</p> <p>e.g. <i>Daily News</i> (2008), "Small change", 2 February, p. 7.</p>
<p><i>For archival or other unpublished sources</i></p>	<p>Surname, Initials, (year), "Title of document", Unpublished Manuscript, collection name, inventory record, name of archive, location of archive.</p> <p>e.g. Litman, S. (1902), "Mechanism &amp; Technique of Commerce", Unpublished Manuscript, Simon Litman Papers, Record series 9/5/29 Box 3, University of Illinois Archives, Urbana-Champaign, IL.</p>
<p><i>For electronic sources</i></p>	<p>If available online, the full URL should be supplied at the end of the reference, as well as a date that the resource was accessed.</p> <p>e.g. Castle, B. (2005), "Introduction to web services for remote portlets", available at: <a href="http://www-128.ibm.com/developerworks/library/ws-wsrp/">http://www-128.ibm.com/developerworks/library/ws-wsrp/</a> (accessed 12 November 2007).</p> <p>Standalone URLs, i.e. without an author or date, should be included either within parentheses within the main text, or preferably set as a note (roman numeral within square brackets within text followed by the full URL address at the end of the paper).</p>
<p><i>For data</i></p>	<p>Surname, Initials (year), <i>Title of Data Set</i>, Name of data repository, available at: Persistent URL</p> <p>e.g. Campbell, A. and Kahn, R.L. (1999), <i>American National Election Study, 1948</i>, ICPSR07218-v3, Inter-university Consortium for Political and Social Research (distributor), Ann Arbor, MI, available at: <a href="http://doi.org/10.3886/ICPSR07218.v3">http://doi.org/10.3886/ICPSR07218.v3</a></p>

\* 2017 Journal Citation Reports® (Clarivate Analytics 2018)

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## **Appendix C:**

Letters of permission from co-authors



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YUNIBESITHI YA BOKONE-BOPHIRIMA

**AFRICAN CENTRE FOR DISASTER STUDIES**

Unit for Environmental Sciences and Management  
Faculty of Natural and Agricultural Sciences

North-West University

Private Bag X6001

Potchefstroom

2520

South Africa

Tel: +27 (0)18 299 1634

Fax: +27 (0)87 231 5590

E-mail: [dewald.vanniekerk@nwu.ac.za](mailto:dewald.vanniekerk@nwu.ac.za)

Web: <http://acds.co.za>

21 May 2019

To whom it may concern,

**PERMISSION CONFIRMING USE OF CO-AUTHORED ARTICLES IN PHD THESIS**

This letter serves as confirmation that my PhD student, Mr. Richard Ekema Agbaw Ashu (27155420) may submit the following co-authored research articles as part of his PhD thesis entitled "A new implementation framework for disaster risk reduction policies and legislation for Cameroon: Designing policy for action".

- A status quo analysis of Disaster Risk Reduction policy and legislation in Cameroon.
- Counting the cost and impact of natural and anthropogenic disasters in Cameroon: 2001-2016.
- Building national and local capacity for disaster risk management in Cameroon.
- Decentralisation and disaster risk reduction in Cameroon: a critical analysis of the process in the Central and South West Regions.
- Identifying new components for policy revision and legislation for disaster risk reduction in Cameroon.

My co-authorship in the above-mentioned articles was mostly focused around study, leading duties, assistance in conceptualization and proof reading, and the student, Mr. Ashu, remains the main contributor to the academic work contained in the articles.



Kind regards and best wishes.

A handwritten signature in black ink, appearing to read 'Dewald van Niekerk', written in a cursive style.

**Prof. Dewald van Niekerk**  
**Head: African Centre for Disaster Studies**  
**Unit for Environmental Sciences and Management**  
**Faculty of Natural and Agricultural Sciences**  
**North-West University**  
**South Africa**



## **Appendix D: Letters of Authorization for Research**

Yaoundé the, \_\_\_\_\_

N° 00000000 /L/MINATD/DPC/SDCI/SAI

THE MINISTER OF TERRITORIAL ADMINISTRATION  
AND DECENTRALISATION -YAOUNDÉ

TO

Mr. ASHU RICHARD EKEMA AGBAW  
STUDENT AT THE NORTH-WEST UNIVERSITY  
POTCHEFSTROOM CAMPUS 2520,  
SOUTH AFRICA  
(Telephone: 679 572 910 / 679 611 288)



06 OCT 2016

Ref.: Y/L of 6<sup>th</sup> May 2016

Subject: request to carry out research in MINATD.

Sir,

In reaction to your letter quoted in reference above, relating to the subject cited at the margin,

I have the honour to inform you of my approval for your research to be carried out in the Department of Civil Protection for a period of one month from 10<sup>th</sup> September to 10<sup>th</sup> October 2016.

For that reason, you are requested to contact the said Department for practical modalities for your research.

Yours faithfully

REPUBLIQUE DU CAMEROUN  
Paix - Travail - Patrie

MINISTERE DE L'ADMINISTRATION TERRITORIALE  
ET DE LA DECENTRALISATION

DIRECTION DE LA PROTECTION CIVILE



REPUBLIC OF CAMEROON  
Peace- Work- Fatherland

MINISTRY OF TERRITORIAL ADMINISTRATION  
AND DECENTRALIZATION

DEPARTMENT OF CIVIL PROTECTION

## NOTE DE SERVICE INTERNE

\*\*\*\*\*

N° 000496 /NSI/MINATD/SG/DPC/SDCI/SAI.

Faisant suite à la correspondance N°00004073/L/MINATD/DPC/SDCI/SAI du 05 septembre 2016 autorisant Monsieur Ashu Richard EKEMA AGBAW, « student at the North-West University, POTCHEFSTROOM CAMPUS 2520, South Africa » à effectuer les recherches d'une durée d'un mois au sein de la Direction de la Protection Civile(DPC),

Il est établi un calendrier de passage de l'intéressé dans les différents services de la direction suivant le chronogramme ci-dessous :

STRUCTURES	RESPONSABLES	PERIODES	OBSERVATIONS
Observatoire National des Risques (ONR)	Point Focal Central	Du 24 au 27 Octobre 2016	
	Point Focal Central Adjoint	Du 28 au 31 Octobre 2016	
Cellule des Etudes et de la Prévention(CEP)	Cellule des Etudes et de la Prévention	Du 1 <sup>er</sup> au 04 Novembre 2016	
Sous-Direction de la Coordination et des Interventions (SDCI)	Sous-Directeur de la Coordination et des Interventions	Du 07 au 08 Novembre 2016	
	Chef de Service de la Coordination (SCOOR)	Du 08 au 09 Novembre 2016	
	Chef de Service de l'Assistance et de l'Intervention (SAI)	Du 10 au 11 Novembre 2016	
Secrétariat du Directeur de la Protection Civile (S/DPC)	Cadres	Du 14 au 21 Novembre 2016	

**NB** : L'intéressé s'entretiendra avec Madame le Directeur de la protection Civile au terme de ses recherches.

Ampliation : CAB/MINATD

SG/MINATD

CHRONO/AFFICHAGE



Tél/Fax : 2 22-21-46-06

Site web: www.minatd.cm/dpc

REPUBLIQUE DU CAMEROUN  
Paix - Travail - Patrie

MINISTRE DE L'ENVIRONNEMENT,  
DE LA PROTECTION DE LA NATURE  
ET DU DEVELOPPEMENT DURABLE

SECRETARIAT GENERAL

DIRECTION DES AFFAIRES GENERALES

00939 ✓

N° /LMINEPDED/SG/DAG/SDPSP/SPFS

Réf. : VL du 06 Mai 2016

REPUBLIC OF CAMEROON  
Peace - Work - Fatherland

MINISTRY OF ENVIRONMENT,  
PROTECTION OF NATURE AND  
SUSTAINABLE DEVELOPMENT

SECRETARIAT GENERAL

DEPARTMENT OF GENERAL AFFAIRS

Yaoundé, le 17 JUIL 2016

**LE MINISTRE**

A

MONSIEUR ASHU RICHARD EKEMA AGBAW  
ETUDIANT A L'UNIVERSITE DU NORD-OUEST  
PROTCHEFSTROOM CAMPUS 2520, AFRIQUE  
DU SUD

Téléphone : 679 572 910 / 679 611 288

**Objet : Autorisation de faire des recherches**

Monsieur,

En accusant réception de votre correspondance dont les références et l'objet sont repris en marge,

J'ai l'honneur de vous marquer mon accord pour faire des recherches, devant vous permettre de réaliser votre thèse de doctorat sur le thème : « **Developing a New Implemetation Framework for Disaster Risk Reduction Policies and legislation for Cameroon** », pour une période de six (06) mois, allant du 15 Juillet 2016 au 15 Janvier 2017.

A cet effet, vous prendrez attache, avec le **Chef de Centre d'Information et de la Documentation sur l'Environnement**.

Veuillez agréer, Monsieur, l'assurance de ma parfaite considération. /-

Pour le Ministre de l'Environnement,  
de la Protection de la Nature, et du Développement Durable  
et par Délégation  
Le Secrétaire Général





GIZ Rue 1 620, Quarter Saroua B.P. 7614 Yaoundé-Cameroun

**A**  
**Monsieur ASHU RICHARD EKEMA AGBAW**  
**Tél. : 679 57 29 10 / 679 61 12 88**  
**Email : [rekemaagbaw@yahoo.fr](mailto:rekemaagbaw@yahoo.fr)**

Yaoundé

Coopération Allemande au Développement  
Programme d'Appui à la Décentralisation et au  
Développement Local (PADDL)

Dr. Petra Zimmermann-Steinhart  
Rue 1 620, Quarter Saroua  
B.P. 7614 Yaoundé, Cameroun  
T +237 222 213 571 / 677 11 22 21  
F +237 222 212 829  
[Petra.zimmermann-steinhart@giz.de](mailto:Petra.zimmermann-steinhart@giz.de)

Votre référence : 12 Août 2019  
Note d'adresse : PADDL/PZD

16 Août 2019

**Objet: Votre demande d'autorisation relative à vos recherches**

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

Siège de la société  
Bismarck Platz 1, Allemagne

Friedrich-Floer-Allee 26 + 43  
531 13 Bonn, Allemagne  
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F +49 228 44 60 17 00

Tag-Teamstraße 1-5  
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E [info@giz.de](mailto:info@giz.de)  
T [www.giz.de](http://www.giz.de)

Tribunal d'instance (Amtsgericht)  
Bonn, Allemagne  
N° d'immatriculation au registre du commerce :  
HRB 16284  
Tribunal d'instance (Amtsgericht)  
Frankfurt-sur-le-Main, Allemagne  
N° d'immatriculation au registre du commerce :  
HRB 12284

Président du conseil de surveillance  
Dr. Inedine Kitchat, Secrétaire d'Etat

Directeur  
Tanja Gönner (présidente du directeur)  
Dr Christoph Dier (vice-président du directeur)  
Dr Hans Joachim Preuß  
Cornelia Richter

Monsieur,

Nous accusons réception de votre correspondance relative à l'objet susmentionné et vous en remercions.

Y faisant suite, nous vous prions de bien vouloir prendre attache avec la Responsable de Communication et de Gestion des Savoirs, qui mettra à votre disposition les informations et documents pouvant vous être utiles.

Veuillez agréer, Monsieur, l'expression de nos salutations distinguées.

*Pi*  
  
**Dr. Petra Zimmermann-Steinhart**  
Coordinatrice du PADDL  


REPUBLIQUE DU CAMEROUN  
Paix – Travail – Patrie

MINISTRE DE L'AGRICULTURE ET  
DU DEVELOPPEMENT RURAL

SECRETARIAT GENERAL

DIRECTION DES ETUDES, DES PROGRAMMES  
ET DE LA COOPERATION

CELLULE DES ANALYSES PROSPECTIVES  
ET DES POLITIQUES AGRICOLES



REPUBLIC OF CAMEROON  
Peace – Work – Fatherland

MINISTRY OF AGRICULTURE AND  
RURAL DEVELOPMENT

GENERAL SECRETARIAT

DIRECTION OF STUDIES, PROGRAMS  
AND COOPERATION

PROSPECTIVE ANALYSES AND  
AGRICULTURAL POLICIES UNIT

N° 004. /L/MINADER /SG/DEPC/CAPPA/CEAS/AH

Yaoundé, le 04 JAN 2017

LE MINISTRE DE L'AGRICULTURE ET  
DU DEVELOPPEMENT RURAL  
A

Mr. RICHARD A. EKEMA AGBAW, PH.D  
c/o North-West University,  
PUK Potchestroom Campus  
Private Bag, X6001, 2520, South Africa  
E-mail: [rekemaagbaw@yahoo.com](mailto:rekemaagbaw@yahoo.com)  
Tel: +237 679 57 29 10/ 679 61 12 88

**Reference :** Your letter of 07/12/2016

**Subject :** Research findings and suggestions for  
disaster risk reduction in Cameroon

Mr. RICHARD A. EKEMA AGBAW,

Following your report referenced and on the above mentioned  
subject,

I have the honour to appreciate you for all the effort and interest  
put in, to assure the wellbeing and success of the agricultural sector  
and Cameroon as whole, through research findings and suggestions  
for disaster risk reduction.

Do accept Mr. Richard A., my distinguished consideration.

Pour le Ministre de l'Agriculture  
et du Développement Rural  
et par délégation  
Le Secrétaire Général  
Jean Claude EKO'O AKOUAFANE  
Administrateur Civil Principal

MINISTÈRE DES TRAVAUX PUBLICS

SECRETARIAT GENERAL

CELLULE DE LA FORMATION

CHARGE D'ETUDES ASSISTANT N°1

CADRE D'APPUI/NMD



MINISTRY OF PUBLIC WORKS

SECRETARIAT GENERAL

TRAINING UNIT

ASSISTANT RESEARCH OFFICER N°1

N° **8853** L/MNTP/SG/CF/CEA/CA

Yaoundé, le **23 AOU 2016**

LE MINISTRE DES TRAVAUX PUBLICS

A

Monsieur Ashu Richard Ekema Agbaw  
doctorant à l'Université du Nord-Ouest  
en Afrique du Sud  
BP : 36 Tél : 679 57 29 10/ 679 61 12 88  
E-mail : rekemaagbaw@yahoo.com

-Buéa-

**Objet** : votre demande de collecte d'informations.

Monsieur,

Comme suite à votre correspondance dont l'objet est repris en marge,

j'ai l'honneur de vous faire savoir que j'ai marqué mon accord afin que vous puissiez mener les travaux de recherche, en vue de la rédaction de votre thèse portant sur le thème « **Developing a new Implementation Framework for Disaster Risk Reduction Policies and legislation for Cameroon** ».

A cet effet, vous êtes autorisé à solliciter auprès des responsables des structures ci-après désignées, des données nécessaires à la réalisation de ce travail, essentiellement d'utilisation d'ordre académique et dont copie devra me parvenir après approbation du Jury.

Il s'agit de:

- Le Directeur Général des Etudes Techniques;
- Le Chef de la Division des Affaires Juridiques.

Veuillez agréer, Monsieur, l'assurance de ma haute considération.

**POUR LE MINISTRE DES TRAVAUX  
PUBLICS ET PAR DELEGATION  
LE SECRETAIRE GENERAL**

**Copies :**

- DGET ;
- DAJ.



*Philemon Lo'o Lame*