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STRENGTHENING DISASTER RESILIENCE AND RESPONSES

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Harnessing Parliamentary Diplomacy for the Realization of Global Solidarity, Equality, and Sustainability

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LIST OF ACRONYMS AND ABBREVIATIONS

AU:	African Union
CBDM:	Community-based disaster management
CBDRR:	Community-based Disaster Risk Reduction
CCA:	Climate Change Adaptation
CEDAW:	Convention on the Elimination of All Forms of Discrimination Against Women
CoP:	Conference of the Parties
COVID-19:	Coronavirus Disease 2019
DRR:	Disaster Risk Reduction
DWYPD:	Department of Women, Youth, and Persons with Disabilities
EWS:	early warning systems
GBV:	Gender-Based Violence
GDP	Gross Domestic Product
GEYODI:	Gender Equality, Youth, and Disability
GRDP:	Gender Responsive Disaster Risk Reduction Strategic Plan
IPU:	Inter-Parliamentary Union
KZN:	KwaZulu-Natal
MPs	Members of Parliament
NDMC:	National Disaster Management Centre
NDMF:	National Disaster Management Framework
NGOs:	Non-governmental organisations
PRU:	Parliamentary Research Unit (SA)
SADC:	Southern African Development Community
SDGs:	Sustainable Development Goals
SFDRR:	Sendai Framework for Disaster Risk Reduction
UN:	United Nations
UNDRR:	United Nations Office for Disaster Risk Reduction
WCDRR:	United Nations World Conference on Disaster Risk Reduction
WorldGBC:	World Green Building Council

ABSTRACT

Disasters, whether natural or human caused, have intensified in frequency and intensity over recent decades due to climate change, urbanisation, and geopolitical conflicts. Scientific evidence indicates that climate change is increasing the frequency and intensity of certain extreme events, such as floods, cyclones, and heatwaves, while also amplifying cascading impacts across various systems and sectors. Vulnerable populations, including women, children, older persons, people with disabilities or underlying health conditions, and marginalised ethnic groups, bear the brunt of disasters, owing to pre-existing inequalities and barriers to access to resources and services.

The paper examines international and regional frameworks, including the Sustainable Development Goals (SDGs) and the Paris Agreement, which underscore the importance of inclusive disaster management, as well as the Sendai Framework for Disaster Risk Reduction 2015-2030, which marked a global shift in focus from disaster management to disaster risk reduction. It highlights key aspects of Disaster Risk Reduction, including early warning systems, emergency preparedness, coordination, the differentiated needs of vulnerable populations, public awareness, international cooperation, and infrastructure maintenance and development. It also identifies challenges and gaps and outlines actionable strategies for Members of Parliament linked to their oversight, legislative and representative functions to ensure vulnerable populations are protected before, during and after disasters.

KEY CONSIDERATIONS

- Scientific evidence indicates that climate change is increasing the frequency and intensity of certain extreme events, such as floods, cyclones, and heatwaves, while also amplifying cascading impacts across various systems and sectors.
- Vulnerable populations, including women, children, older persons, people with disabilities or underlying health conditions, and marginalised ethnic groups, bear the brunt of climate induced events, owing to pre-existing inequalities and barriers to access to resources and services.
- Disaster Risk Reduction (DRR) is an essential component of strengthening disaster resilience and responses, especially in sectors such as health, transportation, agriculture, water, and infrastructure.
- A Sustainable Development Goal (SDG)-aligned approach requires that vulnerable populations be at the centre of disaster risk management, including participation in disaster risk planning and policy formulation; disaggregated data to identify and monitor needs; and legal frameworks that enshrine the rights of vulnerable populations during emergencies.
- Emphasising resilient infrastructure in the disaster risk response is opportune, as billions will be invested in the coming years to decarbonise economies, build new housing for growing populations, and bridge development gaps.
- Successful DRR will not be achievable without specific policies, legislation, budgets and oversight. Parliamentarians can advocate for DRR in their roles as legislators, budget allocators, reviewers and approvers, overseers of government activities, and constituency representatives.
- Education and Public Awareness campaigns are critical in disaster risk reduction to promote a culture of safety and preparedness.

1. INTRODUCTION AND BACKGROUND

One of the most acute problems currently facing the world is climate change. However, disasters are not restricted to climate change. It may include chemical spills, explosions, or disease, amongst others. Global climate change is a large-scale and long-term shift in the planet's weather patterns and average temperature. Climate change events, such as frequent and severe flooding, heavy rains, storms, tropical cyclones, heatwaves, and droughts, result in deaths, economic losses, hunger, diseases, and numerous insecurities, including food, energy, and water shortages. Vulnerable populations, including women, children, older persons, people with disabilities, people with underlying health conditions, and marginalised ethnic groups, bear the brunt of these events, owing to pre-existing inequalities and barriers to access to resources and services. Climate change poses a significant threat to international security, the environment, and the economic development of countries.

Disasters, whether natural or anthropogenic, have intensified in frequency and intensity over recent decades due to climate change, urbanisation, and geopolitical conflicts. Strengthening resilience and responses to disasters involves proactive measures to minimise their impact and enhance the ability of communities to recover. This includes developing effective risk-based land management, managing the environment, building public awareness, and ensuring well-coordinated emergency responses. Furthermore, it encompasses robust early warning systems, community preparedness and long-term strategies for recovery and adaptation. Communities can thus significantly enhance their ability to withstand and recover from disasters, ultimately building a more resilient future.

Disaster Risk Management (DRM) and Disaster Risk Reduction (DRR) are closely related but distinct concepts within the field of disaster resilience. Disaster risk reduction (DRR) refers to the systematic efforts to reduce disaster risks through prevention, mitigation, and preparedness.[1] It focuses on addressing the root causes of vulnerability and exposure before disasters occur. On the other hand, disaster risk management (DRM) is the application of DRR strategies along with response and recovery efforts. It encompasses the full cycle of disaster management — from risk assessment to emergency response and rebuilding.[2]

Parliamentarians can advocate for disaster risk reduction (DRR) in their roles as legislators, budget allocators, reviewers and approvers, financiers, overseers of government activities, and constituency representatives. Successful DRR will not be achievable without DRR-specific policies, legislation, budgets and oversight. It requires legislative and regulatory frameworks that are durable, adaptable and able to support multi-stakeholder inclusion and collaboration. The creation and reform of legislation are among the most powerful parliamentary functions. Legislation translates international commitments into national laws for implementation, legitimises national DRR strategies, informs regulations and facilitates DRR finance mechanisms and budgetary allocations. Parliamentarians can review and amend existing disaster management and sectoral laws to integrate DRR. They can also create new DRR-related laws that facilitate the shift from managing disaster responses to managing disaster risks. Amending sectoral laws to include DRR is essential for multi-hazard risk reduction, as it integrates DRR

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[1] UNISDR (2023).

[2] Ibid.

in key sectors such as health, finance, transportation, infrastructure, agriculture, water, resource extraction and even hazard-specific legislation related to fires, floods and earthquakes. Sectoral legislation can also link DRR with climate change adaptation (CCA) and development planning and implementation, to increase the effectiveness of all initiatives.

Multiple global milestones have acknowledged the need for inclusive disaster management. The Sendai Framework for Disaster Risk Reduction (2015-2030) emphasises the importance of "people-centred" disaster risk reduction. The Paris Agreement (2015) emphasises climate resilience and adaptive capacity, while the Sustainable Development Goals (SDGs) repeatedly highlight the goal of "leaving no one behind." This paper submits that a disaster risk management approach explicitly aligned with the SDGs and focused on protecting vulnerable populations is essential. The consequences of neglecting these populations extend beyond immediate humanitarian crises, hindering global progress on poverty reduction, gender equality, health outcomes, and broader social equity.

As the world's population continues to grow, a significant portion of large cities are exposed to high disaster risk.[3] Given the global pace of urbanisation, there will be increased potential exposure to natural hazards, particularly in coastal zones. Since the year 2000, deaths related to natural hazards have exceeded 1.1 million and more than 2.7 billion people have been affected.[4] Another challenge related to disaster risk is the significant economic impact of disasters, resulting in the loss of trillions of dollars.

Against this backdrop, this paper examines key aspects related to Disaster Risk Reduction, including international and regional frameworks, early warning systems, emergency preparedness, coordination, vulnerable populations, public awareness, international cooperation, and infrastructure development. Furthermore, it identifies challenges and gaps and outlines practical actions that public representatives, particularly Members of Parliament, can take to ensure vulnerable populations are protected before, during, and after disasters.

2. FRAMEWORKS AND AGREEMENTS

2.1 International Frameworks or Agreements

There is a global shift in approach to disasters from managing disasters to managing the *risks* associated with disasters (DRR)

Disasters, whether natural, technological, or social, are increasingly interconnected, with climate change and rapid urbanisation acting as key risk multipliers. Scientific evidence indicates that climate change is increasing the frequency and intensity of certain extreme events, such as floods, cyclones, and heatwaves, while also amplifying cascading impacts across various systems and sectors.[5] These amplified risks are particularly acute in vulnerable communities, where inadequate

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[3] Agyemang (2025).
[4] United Nations Habitat (2013).
[5] IPCC, 2022

infrastructure, high population density, and socio-economic inequalities reduce their coping capacity. Major global disasters illustrate the consequences of insufficient resilience. For example, the Texas flash floods of July 2025 were a so-called 1,000-year rainfall event, causing more than 120 deaths, leaving more than 170 people missing and damaging residential buildings worth an estimated US$1.1 billion.[67]

The 2004 Indian Ocean tsunami remains one of the deadliest natural disasters, killing around 230 000 people[8] across multiple countries and causing material losses of approximately US$10 billion. The Portugal 2017[9] wildfires burnt more than half a million hectares, killed 117 people and cost about €1.5 billion in physical damage. In Sierra Leone, the 2017 Freetown mudslides and floods[10] killed more than 1 000 people and destroyed thousands of homes, with economic effects estimated at US$31 million. More recently, Cyclone Idai in 2019 devastated Mozambique, Malawi and Zimbabwe, causing more than 1 000 deaths and requiring billions of dollars[11] for recovery. These events underscore the importance of building disaster resilience because they demonstrate how hazards, whether sudden-onset, such as floods and cyclones, or slow-onset, like droughts, can trigger large-scale loss of life, damage livelihoods, and reverse decades of development gains. The pattern across these examples reveals a consistent gap between risk awareness and actual preparedness, highlighting the urgent need for integrated, risk-informed governance and proactive adaptation measures at all levels.

There has been a significant shift in the approach to addressing the challenges associated with disasters[12]. Building on the Yokohama strategy and recognising that various aspects linked to disaster risk, the **Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters** was adopted at the World Conference on Disaster Reduction in Kobe, Hyogo, Japan in 2005. The Hyogo Framework served as a guiding instrument for international cooperation, disaster risk reduction and resilience building. While it was replaced by the Sendai Framework in 2015, its legacy continues to inform implementation, especially in countries with existing Hyogo-based strategies. Although this framework lacked legally binding enforcement, it laid the groundwork for international cooperation and influenced DRR capacity-building in numerous developing countries, including SADC member states.[13]

2.1.1   Sendai Framework for Disaster Risk Reduction 2015-2030

The Sendai Framework for Disaster Risk Reduction 2015-2030 builds on progress achieved through the Hyogo Framework for Action: Building the Resilience of Nations and Communities 2005-2015. The framework introduces several important innovations, including greater emphasis on disaster risk management (DRM) rather than disaster management. The Sendai Framework also emphasises that

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[6] Basara (2025).
[7] Ibid.
[8] Satake (2014).
[9] Leone et al. (2023).
[10] IMF (2022).
[11] Chikodzi et al. (2024).
[12] Jackson, McNamara & Witt (2017).
[13] UNISDR (2005).

DRR is essential to achieve sustainable development, a sentiment also expressed in the 2030 Agenda for Sustainable Development.

The Sendai Framework explicitly calls upon the United Nations (UN) system to support its implementation in a coordinated manner, consolidating the efforts of UN entities within their respective mandates. Building on this, a revised plan, titled the **UN Plan of Action on Disaster Risk Reduction: Towards a Risk-informed and Integrated Approach to Sustainable Development,** was developed. The revised plan was designed to ensure coherence concerning climate change risk and the broader 2030 Agenda for Sustainable Development, as well as to address the challenges identified in the reviews of progress. The Sendai Framework is the primary global agreement guiding DRR. It highlights the importance of understanding disaster risk in all its dimensions, including vulnerability, capacity, exposure, and hazard characteristics, and calls for inclusive and accessible approaches. Member States commit to:

- Developing national and local DRR strategies.
- Enhancing disaster preparedness for effective response.
- Promoting participation of women, children, and people with disabilities in DRR decision-making.

2.1.2 United Nations Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)

The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) was adopted by the United Nations (UN) in 1979. CEDAW not only protects women's rights in peacetime but also addresses the unique risks they face during disasters and crises. CEDAW obliges State parties to take all appropriate measures to eliminate discrimination against women in the political and public life of the country and to ensure equal rights for women in, amongst others, the formulation and implementation of government policy.[14] General Recommendation No. 37 (2018) of the UN Committee on the Elimination of Discrimination Against Women explicitly calls for gender-responsive climate and disaster risk reduction measures, highlighting women's right to participate fully in all aspects of disaster risk management and recovery. Despite this, many national DRR policies still fail to integrate CEDAW's principles into practice fully.

2.1.3 Paris Agreement

The Paris Agreement was adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) in 2015. During COP21, Member States committed to holding the global average temperature increase to well below 2°C above pre-industrial levels and to pursue efforts to limit the rise to 1.5°C, to "significantly reduce the risks and impacts of climate change". Although climate-focused, the Paris Agreement highlights the importance of resilience and adaptive capacity for vulnerable groups. Article 7 explicitly recognises the need for "protecting

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[14] Article 7

people, livelihoods and ecosystems." However, commitments remain uneven, particularly in financing adaptation in developing regions, which raises equity concerns.

The Paris Agreement's call for resilience resonates strongly in regions of Africa where climate change has intensified extreme weather events. Recent flood events in different parts of the world vividly illustrated how rising temperatures and shifting rainfall patterns translate into destructive hazards, with devastating consequences for informal settlements, among others.[15] Such events highlight the interconnection between climate policy and disaster management, underscoring the need for climate adaptation funding to reach vulnerable urban populations. Yet, as observed in multiple African contexts, the financial mechanisms under the Paris Agreement often fail to address the unique needs of informal settlements. Adaptation funds are frequently channelled through national structures, sometimes bypassing local contexts where the impacts are most acutely felt. As highlighted in research, integrating climate adaptation finance with urban upgrading and community-led initiatives in informal settlements could significantly enhance resilience and health outcomes.[16]

2.1.4   Sustainable Development Goals (2015-2030)

The UN-approved 2030 Agenda for Sustainable Development Goals is a call to action to protect the planet, end poverty, and ensure the well-being of all people. Agenda 2030 has five overarching themes, known as the five Ps: people, planet, prosperity, peace and partnerships, which span across the 17 SDGs.[17]

SDG 1 (No Poverty), 3 (Good Health and Well-being), 5 (Gender Equality), 10 (Reduced Inequalities), and 11 (Sustainable Cities and Communities) are directly relevant. Integrating these goals into DRR is crucial to ensure that disasters do not reverse progress. Yet, global monitoring reports show that many countries lack sufficient data disaggregated by sex, age, or disability to assess progress for vulnerable groups fully.[18]

The SDGs offer a comprehensive framework through which disaster management can address underlying vulnerabilities. However, as mentioned earlier, the lack of disaggregated data remains a barrier. Without precise data on impacts across gender, age, disability, and income groups, it becomes challenging to design interventions that ensure "no one is left behind." Bridging this data gap is essential for aligning DRR with the SDGs, particularly in informal urban contexts where vulnerabilities are often hidden.

2.1.5   WHO Health Emergency and Disaster Risk Management Framework (Health-EDRM)

The World Health Organization, emergency, and disaster risk management framework (**Health-EDRM**) was launched in 2019. This framework integrates public health and DRR. It recognises the intersection

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[15] Ibid.
[16] Shand & Ndezi (2025).
[17] Hylton (2019).
[18] United Nations (2015).

between health risks and disaster exposure, especially for vulnerable groups such as the elderly, persons with disabilities, and women in informal urban settings. This Health-EDRM is critical in pandemic-prone and climate-affected regions, such as southern Africa, where disaster resilience is closely linked to the readiness of the healthcare system. [19]

2.2   Regional Frameworks or Agreements

2.2.1   African Union's (AU's) Programme of Action for the Implementation of the Sendai Framework (2015-2030)

The AU's Programme of Action adapts the Sendai priorities to Africa's context. It emphasises capacity building for DRR, strengthening early warning systems and prioritising vulnerable groups in national DRR strategies.

The Programme of Action's emphasis on vulnerable groups also resonates with findings from studies across Africa, which stress the need to integrate health, housing, and livelihood interventions into DRR strategies.[20] Translating continental commitments into practical actions remains a pressing task, particularly for urban informal settlements that are exposed to climate risks. However, challenges persist in translating frameworks into actionable national policies due to limited resources, weak institutional capacities, and overlapping regional mandates.[21]

> **Translating continental commitments into actionable national policies are constrained by limited resources, weak institutional capacities and overlapping regional mandates**

2.2.2   SADC Regional Resilience Framework (2020-2030)

The Southern African Development Community (SADC) Framework aims to enhance the resilience of vulnerable populations in the Southern African region. Key elements include improved risk assessments for climate-related disasters, mainstreaming gender-sensitive DRR and strengthening regional cooperation for emergency response. The SADC Regional Resilience Framework holds significant potential for addressing the systemic challenges faced by informal settlements across the southern African region.

A study by Grab and Nash underlines how limited coordination between municipal authorities and regional structures can hinder timely disaster responses.[22] For instance, while the SADC Framework calls for gender-sensitive DRR, practical implementation often stalls due to fragmented funding and insufficient local capacity to conduct detailed risk assessments in informal areas[23]. Moreover, the Framework's goal of regional cooperation must account for urban realities, such as high-density informal settlements, where infrastructure gaps exacerbate the impacts of disasters.

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[19] WHO (2019).
[20] Ibid
[21] African Union (2017).
[22] Grab & Nash (2023).
[23] Ibid

2.2.3 Africa Manifesto for Sustainable Cities and the Built Environment

The World Green Building Council (WorldGBC) emphasises that it enables property and construction markets worldwide to develop equitable, sustainable, and resilient buildings, cities, and communities. That means building the right policy environments, the right financing environments and the right social and cultural environments to deliver more sustainable and healthy built environments. Alongside its network of Green Building Councils and partners, the WorldGBC concludes that it is uniquely positioned to drive ambition and foster alignment and collaboration among Governments, businesses, and communities at the local, regional, and global levels.[24]

The WorldGBC launched the *Africa Manifesto for Sustainable Cities and the Built Environment*, outlining the actions required from policymakers and businesses across the Continent to deliver the Africa We Want.[25] These 15 African GBCs are responding to the climate, economic, and social challenges faced on the African Continent, as well as the opportunities that sustainable buildings and cities can create. The Manifesto articulates policies related to energy, water, materials, finance, and infrastructure that African business leaders, city and Government officials must support to deliver the 'Africa We Want': a net-zero carbon, healthy, resilient, equitable, socially and economically inclusive built environment for everyone, everywhere.[26] The manifesto sets out specific and immediately actionable policy requirements, including the following examples:[27]

- Implementing and enforcing green building codes to improve energy efficiency standards and increasing access to clean and distributed renewable energy systems.
- Mandating water efficiency measures and supporting access to clean, safe and affordable drinking water.
- Mandating lifecycle assessments in national building codes to support the use of low-cost, low-carbon, ethically sourced and locally sourced, resilient building materials, and establishing a Circular Economy Roadmap for Buildings.
- Developing a common international taxonomy for sustainable finance, recognising green building certification schemes to support the deployment of solutions, and ensuring every African can afford a green home.
- Supporting an integrated approach to buildings and infrastructure that optimises nature-based solutions, low-carbon transport, and upgrading of existing systems.

2.2.4 C40's Africa Hub

The C40's Africa Hub comprises the C40 Cities initiative, which has been in Africa since 2013, supporting cities in Africa to implement transformative low-carbon and climate-resilient actions. C40 consists of 11 city members in Africa: Abidjan, Accra, Addis Ababa, Cape Town, Dakar, Dar es Salaam,

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[24] WorldGBC (2025a), p. 1.
[25] Ibid
[26] Ibid
[27] WorldGBC (2025b), pp. 1-2.

Durban, Johannesburg, Lagos, Nairobi, and Tshwane. The 11 cities in the African region have committed to developing ambitious, evidence-based climate action plans and to accelerating the implementation of transformative climate actions.[28]

2.2.5 WHO African Region Framework for Building Climate-Resilient and Sustainable Health Systems (2024–2033)

The Framework, developed by the World Health Organization's Regional Office for Africa, provides a roadmap for integrating climate resilience into national health systems across the Continent. It aims to support member States in strengthening public health surveillance, emergency preparedness, and service delivery in climate-vulnerable contexts. The Framework offers a regionally relevant guide for linking health, climate adaptation, and disaster risk reduction. It promotes equity, community participation, and inclusive planning —core principles of SDG-aligned disaster governance. By targeting systemic gaps in infrastructure, financing, and workforce readiness, the Framework enhances the capacity of African countries to respond to extreme weather events and protect vulnerable groups, such as women, children, the elderly, and persons with disabilities.

2.2.6 IGAD Disaster Resilience and Sustainability Initiative (IDDRSI)- IDDRSI Strategy (2024–2029)

The Intergovernmental Authority on Development (IGAD), active in East Africa, launched IDDRSI to coordinate resilience-building in the face of recurrent droughts, floods, and food insecurity. IDDRSI emphasises the integration of local knowledge, decentralised planning, and adaptive governance.[29] These include approaches to community-led resilience, early warning systems, and gender-sensitive disaster preparedness. IGAD continues to implement the IDDRSI Strategy to coordinate resilience-building against recurrent droughts, floods, and food insecurity.

Even though the IDDRSI Strategy (2024–2029) complements other continental and regional frameworks by focusing on resilience in East Africa, its thematic priorities like the early warning systems, gender-sensitive disaster preparedness, and community-led resilience, often overlap with initiatives under the SADC Regional Resilience Framework, the AU Programme of Action, and global frameworks like the Sendai Framework[30][31]. These overlaps present opportunities for reinforcing common priorities, but they can also lead to duplication and fragmented resource allocation if coordination is weak. Moreover, despite the abundance of frameworks, significant gaps remain in ensuring effective implementation at the local level, especially in high-risk informal urban settlements where governance and financing capacities are limited. Addressing these gaps, while leveraging synergies across frameworks, remains critical to translating policy commitments into tangible resilience outcomes.

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[28] C40 South Africa (2025), p. 1.
[29] IGAD (2019).
[30] IGAD (2024). IDDRSI Strategy 2024–2029
[31] UNDRR (2023). *Midterm Review of the Sendai Framework*

3. DISASTER RESILIENCE AND RESPONSES

Between 2015 and 2023 (since the implementation of the Sendai Framework), the global average for disaster-related deaths and missing persons per 100,000 people has halved, from 1.61 during 2005-2014 to 0.79 during 2015-2023.[32] More lives have been saved regardless of the number and intensity of the hazards. This encouraging trend has been attributed to the impact of improved early warning systems, preparedness, risk-informed planning, and the return on investments made in disaster risk reduction.[33] The progress made, however, was not distributed equally, with mortality rates remaining higher in regions with weaker infrastructure, limited access to early warnings, or where rapid urbanisation outpaced risk governance. Furthermore, several countries face challenges in accurately measuring economic losses, as well as the compounding damage to informal economies. The economic shocks caused by disasters can hinder progress, especially in countries where strong formal social support structures or access to insurance are lacking.[34]

> **Since the implementation of the Sendai Framework, the global average for disaster-related deaths and missing persons has halved.**

Underestimating the impact of disasters also means that the benefits of risk reduction are undervalued, which is of particular concern when considering that an increasing number of people and development are concentrated in environmentally sensitive areas, with more assets and livelihoods exposed to potential hazards.[35] Based on data submitted through the Sendai Framework, the Monitor indicates that between 2015 and 2023, global disasters resulted in direct economic losses exceeding USD 1.1 trillion, equivalent to 0.3% of the combined gross domestic product (GDP) of reporting nations. This does not account for the challenges countries face in accurately quantifying the extent of losses and damages they experience. [36]In addition, indirect economic losses, such as disruptions to trade, loss of productivity, long-term health impacts, and setbacks in education, are often significantly higher than the direct physical damages recorded. These losses can persist for years, eroding development gains and exacerbating poverty, particularly in vulnerable economies.[37]

3.1 Early Warning Systems, Emergency Preparedness, Effective and Inclusive Coordination

An early warning system is defined as "An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities, systems and processes that enable individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events."[38] A multi-hazard early warning system

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[32] UNDRR (2025).
[33] Ibid.
[34] Ibid.
[35] Ibid.
[36] UNDRR (2025).
[37] UNDRR (2023).
[38] UNDRR (2023).

is essentially a robust and adaptable system that provides effective communication and early warning across various hazard and risk scenarios that may occur simultaneously. An effective multi-hazard early warning system relies on four key components, which provide feedback mechanisms for continuous improvement. These are: [39]

- Disaster risk knowledge, based on the systematic collection of data and disaster risk assessments;
- Detection, monitoring, analysis and forecasting of hazards and their potential consequences;
- Dissemination and effective communication by an official source of authoritative, timely, accurate and actionable warnings and associated information on likelihood and impact; and
- Preparedness at all levels to respond to warnings received.

A more detailed breakdown of these elements is summarised below, as presented in the 2023 report on early warning systems by the United Nations Office for Disaster Risk Reduction (UNDRR).[40]

Table 1: Multi-hazard early warning system elements

Components of an effective multi-hazard early warning system	People-centred elements and actions
Disaster risk knowledge	- Conduct risk assessments to improve understanding of the exposure elements of communities at risk, their vulnerable condition, the hazards and the precursors of potentially catastrophic events, as well as their capacities to cope with those events. - Ensure availability of mechanisms to systematically collect disaggregated information on how effects and disaster impacts are experienced by different sectors, population groups, locations and communities through impact assessment data-collection systems or historical disaster databases. - Identify the target population, especially vulnerable, marginalised and disadvantaged people, and, in coordination with them, determine their needs and capacities, potential disaster impacts and their responses to warnings.
Hazard monitoring and detection	Foster the capacity of communities, including authorities, to develop hazard monitoring and warning dissemination for local hazards, including training for observers, authorities and communicators who operate the warning system.

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[39] Ibid.

[40] Ibid.

Components of an effective multi-hazard early warning system	People-centred elements and actions
	• Define the hazard(s) to be monitored and implement the monitoring mechanisms on site for continuous assessment. • Assess natural hazard signs and precursors well established in traditional and Indigenous knowledge, such as ecological, riverine, meteorological or celestial signs.
Warning dissemination	• Provide public information tailored to target groups. • Encourage redundancy of warning messages. Visual, audio, and sign language messages can be used and disseminated through various means (e.g., TV, radio, and the Internet). • Develop formal mechanisms for community members, such as stakeholders, business and infrastructure operators, traditional community leaders and local government representatives, to actively participate in the design and implementation of the warning system. • Develop two-way communication mechanisms that allow verification of information and crowdsourcing data on how the hazard is experienced locally.
Preparedness and response	• Implement training activities for those engaged in the operation of the four components of the system, such as local authorities, communicators and first responders. • Implement periodic drills and the adaptation of local actions to potential impediments. These exercises empower communities at risk to understand the risks they are exposed to and increase the preparedness of communities and organisations to respond to potential disasters. • Develop disaster preparedness and response plans according to the needs of all groups in the community.

All four elements need to be coordinated at local, national and regional levels and require scrutiny from parliaments.[41]

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[41] Ibid.

3.2   Disaster risk management approaches for vulnerable groups

Disasters impact people differently, based on factors such as age, gender, race, culture, disability, socio-economic status, and geographical location, which are directly linked to the level of vulnerability. For example, marginalised ethnic and racial groups may face systemic inequalities such as living in high-risk areas due to historic, discriminatory and socio-economic constraints and have limited access to emergency services.[42] Furthermore, cultural beliefs and traditions may contribute positively to disaster risk reduction and management by harnessing local knowledge and practices, or they could be a cause for inaction if they are seen as acts of fate or divine will.[43]

It is the responsibility of public representatives to play a key role in ensuring disaster risk management strategies are effective. They can address the unique needs of vulnerable populations, including women, children, the elderly, and people with disabilities. In addition, they must understand and recognise the intersectionality of factors such as gender, race, socio-economic status, etc. and how this impacts disaster risk management strategies and responses. This responsibility encompasses all phases of disaster risk management, including risk analysis, disaster prevention and mitigation, disaster preparedness, response, and disaster-resilient recovery. Recognising and integrating these differences in impact into Disaster Risk Reduction (DRR) strategies is critical for effective and equitable disaster risk management. Specific challenges affecting women, children, persons with disabilities, and older persons are highlighted below.

- *Children:* Children, particularly young children who are primarily dependent on adults, present a highly vulnerable group, as they may be unable to take care of themselves during an emergency, suffering injury or being separated from their families, or even losing parents or guardians. They are also susceptible to illness and malnutrition and may also suffer loss of schooling due to damage to school infrastructure. Children's rights are integrated into disaster management plans by adopting a "child-rights-based" approach, ensuring their protection throughout the disaster cycle. This integration aligns closely with international standards, such as the UN Convention on the Rights of the Child and the Sendai Framework for Disaster Risk Reduction.
- *Elderly people:* Many elderly persons are vulnerable, not only due to age-related limitations, but also because of challenges related to mobility, access to healthcare, and communication. These limitations during periods of disaster pose significant concerns.
- *Persons with disabilities:* Persons with disabilities may already be vulnerable and dependent, which requires greater assistance when faced with disaster. Persons with disabilities often face the most significant challenges during emergencies, experiencing significantly higher rates of illness and death while also being among the least likely to receive emergency assistance.[44] In addition, during disasters, persons with disabilities encounter obstacles like inaccessible transportation and emergency shelters, social isolation, and increased chances of institutionalisation.

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[42] Blanchard (2024).

[43] Ibid.

[44] United Nations Human Rights Office of the High Commissioner (2020).

- ***Women:*** United Nations Women[45] notes that when disasters strike, women are less likely to survive and more likely to be injured due to long-standing gender inequalities that have created disparities in information, mobility, decision-making, and access to resources and training. In the aftermath, women and girls are less able to access relief and assistance, further threatening their livelihoods, well-being and recovery, and creating a vicious cycle of vulnerability to future disasters. Women in rural and socio-economically disadvantaged households are particularly vulnerable.

An SDG-aligned approach requires that vulnerable populations be at the centre of disaster management. This requires participatory processes that involve vulnerable groups in disaster planning and policy formulation, disaggregated data collection to identify and monitor needs, and legal frameworks that enshrine the rights of vulnerable populations during emergencies. Inclusion, acknowledgement, and understanding are key to an effective response.

3.3   Public Participation, Awareness and Education

Public participation in disaster risk reduction (DRR) is a cornerstone of building resilient communities. It ensures that people are not just passive recipients of aid or policy but active contributors to identifying risks, shaping solutions, and implementing strategies. As such, local communities are on the front lines of the disaster's immediate impact and the initial emergency response.[46] Parliaments thus play a crucial role in promoting public awareness and education on disaster risk reduction (DRR) and response by enacting legislation, allocating resources, and overseeing government actions. They can champion national policies, integrate DRR into development plans, and foster cooperation across different levels of government. Furthermore, parliaments can educate themselves and their constituents on potential hazards and DRR strategies, and advocate for DRR integration into climate change adaptation and development plans. Parliaments can thus play a vital role in promoting a culture of disaster preparedness and resilience, ultimately saving lives and reducing the impact of disasters on communities. The adoption of frameworks, such as the Yokohama Strategy and Plan of Action for a Safer World, the Hyogo Framework for Action, and the Sendai Framework for Disaster Risk Reduction (SFDRR), has underscored the importance of empowering communities to mitigate their disaster risks. Community-based disaster risk reduction (CBDRR) offers a solution to the increasing disaster risks within communities, as it aims to strengthen and empower communities to undertake development programmes, including disaster preparedness and mitigation.[47]

The development of public participation in DRR culminated in 2015 at the Third United Nations World Conference on Disaster Risk Reduction (WCDRR), where the SFDRR 2015–2030 was adopted.[48] To achieve this priority, nations are called upon to promote cooperation among various stakeholders in community post-disaster reconstruction initiatives. Disaster risk reduction thus requires multi-sectoral and multi-stakeholder actions to manage disaster and climate risks. Public participation in DRR ensures

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[45] United Nations Women (2023).
[46] Shaw (2012, p.4); UN/ISDR (2007, p.iii).
[47] Shaw (2012, p.5).
[48] UN/ISDR (2016).

shared responsibility and transparency in DRR planning and implementation. It enables decision-makers to inform communities about the risks they face, while also sharing their understanding of these risks. This then allows the creation of an environment in which both parties reach a consensus on reducing the risks.[49]

Communities should be involved in all stages of disaster risk management, from risk assessment to recovery and beyond. Utilising local knowledge and practices is essential for effective disaster risk reduction and building resilience. Empowering communities through training, education, and resource mobilisation enhances their ability to respond to and recover from disasters. Furthermore, community-led development initiatives foster a sense of ownership and responsibility for disaster preparedness and response. Collaboration between communities, local authorities, non-governmental organisations (NGOs), and other stakeholders is vital for a coordinated and practical approach.

Benefits of Community Participation include (i) increased effectiveness of disaster risk management efforts, (ii) reduced vulnerability and enhanced resilience, (iii) improved disaster preparedness and response, (iv) empowered communities with greater control over their safety and security and (v) sustainable development through community involvement. However, one of the main challenges associated with community-based disaster management is that it requires significant resources and support from local authorities. It can also be challenging to get communities involved in the process due to a lack of trust or a lack of awareness of the benefits. It is also essential for local authorities to have the necessary expertise and resources to ensure that community-based disaster management is properly implemented.

> **Parliaments can promote public awareness and education on DRRR by:**
>
> - **Educating parliamentarians:** Parliaments can provide training and information to their members on DRR concepts and best practices.
> - **Raising public awareness:** Parliaments can support public awareness campaigns through various channels, such as media, educational programmes, and community outreach.
> - **Public Awareness Campaigns:** Launching and supporting campaigns to educate the public about disaster risks, preparedness measures, and safe behaviours.
> - **Community Engagement:** Fostering partnerships with local communities, civil society organizations, and other stakeholders to ensure that DRR efforts are tailored to local needs and contexts.
> - **Promoting education in schools:** Parliaments can advocate for the integration of DRR education into school curricula. Parliaments can promote education and training programmes on DRR for parliamentarians, government officials, and the public.
> - **Supporting community-based initiatives:** Parliaments can empower local communities to participate in DRR planning and implementation.
> - **Fostering international cooperation:** Parliaments can promote international cooperation on DRR, sharing experiences and best practices.

3.4 International Cooperation

Diplomacy has traditionally been regarded as the primary competence of the Executive branch of government. However, given that Parliaments deal with complex and diversified issues, they can

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[49] Forbes-Biggs (2011, p.6); Reddy (2010, pp. 44–45).

contend with foreign policy issues. Parliamentary diplomacy can be described as the process by which two or more parliaments engage in an ongoing dialogue on key international issues.[50]. Parliamentary diplomacy often takes place through bilateral or multilateral meetings, parliamentary assemblies, conferences, and other official gatherings. In addition, parliamentary diplomacy entails "building relationships, exchanging ideas, and fostering dialogue among parliamentarians from different countries to advance common goals, address global challenges, and promote better understanding between nations"[51]. Among other things, parliamentary diplomacy aims to strengthen international cooperation, promote democratic values, enhance mutual understanding, influence foreign policy, facilitate trade and investment, and provide an alternative channel for global engagement.[52] In the context of essential issues such as disaster risk and resilience, parliamentary gatherings enable parliamentarians to share best practices, develop policy recommendations, and advocate for their respective national interests.[53]

3.5   Disaster-resilient Infrastructure

Disaster-resilient infrastructure is defined as "physical and IT infrastructure designed to protect community buildings, roads, and technology in the case of a natural disaster." Infrastructure, as it relates to the economy, the environment, human settlements, accessible roads, health facilities, shelters, and communication infrastructure, such as early warning systems, etc. Essentially, infrastructure needs to be well-designed to withstand any storm or flood that can destroy valuable community infrastructure.[54] The Coalition for Disaster Resilient Infrastructure (CDRI) argues that infrastructure resilience remains a global challenge, as 14% of global Gross Domestic Product (GDP) growth is at risk annually from infrastructure losses due to climate change and disasters, with 80% of this risk concentrated in the critical sectors of power, transport, and telecommunications.[55] As early as 2015, the *United Nations Environment Programme (UNEP)* reported that annual energy consumption by buildings accounted for 40% and produced up to 30% of all energy-related greenhouse gas (GHG) emissions globally.[56] By 2022, it was reported that buildings are one of the most significant sources of greenhouse gas (GHG) emissions, accounting for more than half of total city emissions on average.[57]

Sustainable and resilient infrastructure is designed and built to withstand and recover from disasters and disruptions, such as extreme weather events or socio-economic challenges. It is built to contribute to long-term sustainability goals while incorporating measures to enhance resilience to shocks and stresses.[58] As infrastructure assets are planned, developed, maintained, and upgraded, it is critical that these objectives are considered. Ensuring that financing is available and costs associated with these considerations are made will ensure that infrastructure assets are adapted to the economic and social environment in which they operate.

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[50] Hallunaj, M. (2005).
[51] Diplo, (2021).
[52] Ibid.
[53] Ibid.
[54] ABC Consulting Services (2025), p. 1.
[55] CDRI (2025a), p. 1.
[56] UNEP (n.d.), p. 1.
[57] C40 Cities (2022), p. 4.
[58] OECD (n.d.).

Infrastructure assets are a significant component that countries need to address in their global climate commitments, as well as in mitigating and adapting to climate change. Climate change poses direct and indirect risks to infrastructure assets and service provision, such as when roads melt, reservoirs run dry and tunnels flood.[59] Infrastructure can also exacerbate climate-related risks. Sparks from electrical transmission lines, for example, can ignite wildfires, and heavy rains can set off catastrophic dam failures. Climate change will create new demands for infrastructure, such as reinforcement of flood defences. Given these challenges, there is an urgent need to make climate resilience standard practice for infrastructure. Choices made today about infrastructure provision will have impacts for decades to come; it is vital to build resilience rather than lock in vulnerability.

The following should be considered for resilient infrastructure:

- Structures should be built with materials and techniques that can withstand specific hazards like earthquakes, floods, or strong winds.
- Backup systems and alternative pathways for essential services (like power or water) ensures that disruptions are minimised when one part of the system fails.
- Systems to detect and alert communities to potential hazards allow for timely evacuation and other protective measures.
- Plans and resources in place to quickly assess damage, mobilise emergency services, and restore essential functions after a disaster is crucial.
- Resilient infrastructure should also be environmentally sustainable and accessible to all members of the community, minimising social disparities.
- Natural systems, like wetlands and green roofs, can be used to manage stormwater runoff and reduce flood risk.
- Strict building codes that incorporate disaster-resistant design principles should be enforced.
- Utilising pre-fabricated, adaptable structures that can be easily repaired or replaced after a disaster.
- Implementing advanced technologies to monitor infrastructure performance and facilitate rapid response.
- Sharing disaster data capability across regions.

It is pivotal that policymakers prioritise disaster prevention in the management of infrastructure networks, for instance, through adequate maintenance, robust monitoring systems, and proper integrations with the environment.[60] According to the OECD, emphasising resilient infrastructure is particularly timely, as billions will be invested in the coming years to decarbonise economies, build new housing for growing populations, and bridge development gaps.

4. PROSPECTS AND CHALLENGES

In an increasingly interconnected world, risks and impacts are transferred across nations and around the globe. Disasters are now complex, interdependent events and their rising social and economic

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[59] Ibid.
[60] Ibid

effects require a fundamental shift in how disaster risks are managed to protect economic and development gains and achieve the SDGs. Community-based disaster management (CBDM) has the potential to become an increasingly important component of disaster management strategies, as it is a cost-effective way to reduce the impact of disasters on communities.[61] Community-based disaster management is an approach that focuses on empowering local communities to manage disasters and build resilience in their neighbourhoods. As global climate change continues to worsen, the need for well-coordinated disaster management systems will become even more critical. To ensure that community-based disaster management is effective, local authorities must focus on building trust and resilience within communities and provide them with the necessary resources and support.

Community-based disaster management can save lives and property in the event of a disaster. As such, by equipping local communities with the necessary resources and training to protect themselves from natural disasters, community-based disaster management has the potential to reduce the impact of damage and minimise casualties. With increased cooperation between governments and community groups, proper infrastructure plans, education and awareness programmes, as well as early warning systems in place, community-based disaster management has the potential to help adapt to future climate change challenges. Risk is currently high on national agendas, and public tolerance for the devastating consequences of disasters is decreasing, partly due to the impacts of the Coronavirus Disease 2019 (COVID-19) and the cascading effects of the economic crisis it has created. Risk is now a universal challenge, and responding to disasters after they occur is insufficient, even if done effectively. Parliamentarians will be seen as effective, aware and progressive when championing solutions that prevent and reduce risks.

While global frameworks have improved disaster governance, challenges remain. These include:

- Financing gaps persist for DRR programmes focused on vulnerable groups.
- Climate change is increasing the frequency of extreme events, adding complexity to DRR.
- Political instability in some regions impedes the effective implementation of DRR measures.

The future trajectory depends on bridging policy-practice gaps and securing sustainable financing. New technologies (e.g. AI-driven risk mapping) offer promise but require investment and capacity-building.

5. KEY ACTIONS NEEDED FROM THE GLOBAL COMMUNITY

The global community needs to prioritise disaster risk reduction (DRR) and resilience-building through coordinated action, investment in infrastructure, and strengthened governance. Key actions include enhancing early warning systems, improving community preparedness, and fostering collaboration between governments, NGOs, and local communities. Furthermore, it is crucial to integrate DRR into development planning, strengthen financial mechanisms for disaster preparedness, and invest in sustainable, resilient infrastructure. The global community can significantly reduce disaster risk, enhance resilience, and build a more sustainable and equitable future for all by:

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[61] Real Cube (2023).

- Developing and implementing robust early warning systems that can provide timely and accurate information to communities at risk, enabling them to take appropriate actions.
- Empowering communities to prepare for disasters by providing training, resources, and support for developing and practicing disaster plans.
- Building infrastructure that can withstand the impacts of disasters, including retrofitting existing infrastructure and ensuring that new infrastructure is designed to be climate-resilient.
- Incorporating DRR considerations into all aspects of development planning, including land use planning, infrastructure development, and financial investments.
- Developing mechanisms to ensure adequate and sustainable funding for DRR initiatives, including exploring innovative financing options like debt-for-resilience swaps.
- Strengthening collaboration between governments, NGOs, the private sector, and local communities to ensure a coordinated and effective response to disasters.
- Facilitating information sharing, technical assistance, and resource mobilisation across borders to address transboundary disaster risks.
- Investing in training, equipment, and logistical support for emergency responders to ensure an effective and timely response to disasters.
- Incorporating lessons learnt from past disasters into recovery and reconstruction efforts to enhance resilience and reduce future risks.
- Addressing the mental health and psychosocial needs of affected populations during and after disasters.
- Addressing the root causes of disaster risk, such as poverty, inequality, and environmental degradation, through sustainable development practices.
- Promoting good governance, transparency, and accountability in disaster risk management to ensure effective and equitable responses.
- Addressing the increasing impacts of climate change on disaster risk through mitigation and adaptation measures.
- Increasing funding for DRR initiatives, explicitly targeting vulnerable populations.
- Strengthening accountability for the implementation of international frameworks.
- Enhancing international cooperation for technology transfer and knowledge sharing.
- Promoting universal disaggregated data collection to inform policy.

6. ROLE OF PARLIAMENTARIANS

To promote meaningful action on DRR, all stakeholders, including citizens, should be involved in shaping DRR priorities and actions. As elected officials, parliamentarians are responsible for representing all their constituents and ensuring that DRR policies and plans meet their needs. These plans must include those most vulnerable in disasters: women, ethnic minorities and persons with disabilities.

Parliamentarians can shift their governments' focus and strategy from disaster response and recovery to DRR and risk prevention that extends to the local level.[62] Disaster risk reduction can protect and enhance social and economic development, while also strengthening resilience. It is cheaper and more

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[62] IPU and UNDRR (2021).

cost-effective than disaster response and recovery. Risk-informed investments can protect against disaster-driven global economic shocks. Furthermore, Parliamentarians can advocate for inclusive DRR policies reflecting the needs of vulnerable populations, engage constituents to raise awareness of disaster risks and preparedness measures, ensure local emergency response plans consider vulnerable groups and monitor disaster spending allocations for equity and effectiveness.

6.1   Role of Individual Members of Parliament

Individual parliamentarians can advocate for disaster risk reduction as part of their legislative, budgetary, and oversight functions, as well as their roles as financiers, representatives, and approvers of government activities. Successful disaster risk reduction will not be accomplished without targeted policies, legislation, budgets, and effective oversight.[63] Parliaments are therefore uniquely positioned as instruments of democracy in their role as law-makers and through conducting oversight over the work of the executive branch of governments. The following can be considered:

- Access to safe and secure shelters, water and sanitation, healthcare and medication, and food is essential for all communities during times of disaster, but even more so for those who are vulnerable. Early warning systems and disaster reduction and response systems must take this into account.
- Public representatives must regularly engage with the executive, particularly those responsible for disaster reduction and response, to ascertain whether vulnerability assessments are being done as part of planning and preparedness. This must include disaggregated data and differentiated assessments – women, youth, children, the elderly, and persons with disabilities may have specific needs that require targeted attention.
- Oversight over budgetary allocations for disaster risk reduction and response is also key – parliamentarians must consider whether allocated budgets and expenditure sufficiently meet the needs of women, children, the elderly, persons with disabilities and other vulnerable/ minority groups in the event of a disaster.
- Through their oversight responsibilities and constituencies, public representatives can engage with communities to gather information on specific vulnerabilities and needs. This enables the championing of local knowledge and expertise, promoting inclusion.
- Parliamentarians have a responsibility to ensure compliance with international agreements and frameworks which call for the inclusion of vulnerable groups in plans to address disaster risk reduction and response.

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[63] Ibid.

6.2   Role of Parliaments

The United Nations Office for Disaster Risk Reduction (UNDRR) relies on four key areas when engaging with parliamentarians on the implementation of the Sendai Framework: advocacy for legislative action, conducting research and knowledge sharing, developing tools to provide normative guidance, and capacity development. These four areas are mutually reinforcing and therefore form a feedback loop.[64] Parliaments have international obligations in terms of the Sendai Framework for Disaster Risk Reduction (2015 – 2030) to reduce

Legislation
Oversight
Budget & Finance
Representation & Advocacy

disaster risks and protect their populations through developing and enhancing existing disaster risk reduction legislation, creating national and local disaster risk reduction strategies, increasing financial resources for disaster risk reduction budgets and to hold governments accountable for their disaster risk reduction actions.[65] Disaster risk reduction is also an integral part of the SDGs.

6.2.1   Legislation

Legislation is the means through which international commitments are translated into national laws for implementation at the national and sub-national levels. It further legitimises national disaster risk reduction strategies through alignment with international obligations and practices, informs regulations, and facilitates targeted finance mechanisms and budgetary allocations.[66] Legislation can further reform and provide for the transfer of resources and institutional support to sub-national initiatives geared towards disaster risk reduction. This further aligns the goals, priorities and targets of key national policies across all levels of government. Effective legislation further requires strong governance, including the early identification of priorities, well-defined roles and responsibilities, and protocols for areas of jurisdictional overlap, to enable better oversight in the longer term.[67]

6.2.2   Oversight

Successful disaster risk reduction is dependent on effective parliamentary oversight, which includes policy and legislative evaluation, facilitated by data collection and reporting, financial reconciliation, cost-effectiveness analysis, cost-benefit analysis, periodic reviews, progress monitoring, regulatory enforcement, and evaluation of data, as well as penalty mechanisms.[68] Reviews provide parliaments with the opportunity to make recommendations, influence governments to adjust their strategies and programmes for improved performance, align their mandates with new information (including environmental, technological, and scientific data and developments), and make adjustments to ensure optimal outcomes. Oversight findings are often useful to inform required legislative amendments.[69] At the heart of oversight lies a consistent reporting process. These include standardised data and report

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[64] UNDR (2023).
[65] UNDRR (2021).
[66] Ibid.
[67] UNDRR (2021).
[68] Ibid.
[69] Ibid.

formats to enable tracking and comparisons across initiatives over time. Since several international instruments require nations to submit progress reports, these reports are also valuable for parliaments for tracking progress and identifying areas that need improvement and further oversight focus.[70]

6.2.3   Budget and Finance

Since parliamentarians allocate, review, approve and amend national budgets, there are opportunities during these processes to integrate disaster risk reduction funding. Risk reduction can also be mainstreamed across budgetary processes, while integrating gender responsiveness in these processes and ensuring the allocation of disaster risk reduction funding at the sub-national level. Isolating and focusing on funds allocated to disaster risk reduction and disaster response management, respectively, over time can provide a precise cost-benefit analysis of spending on disaster risk reduction and disaster management.[71] Public investment and private capital are essential for disaster risk reduction investment at the national and regional levels and could be secured from a variety of sources. For example, resilient infrastructure projects require multiple funding sources, including development cooperation funding in the form of financial aid, green bonds, private sector finance, and investments. Parliaments can therefore also propose, evaluate, amend and support these financing mechanisms and innovations as part of facilitating disaster risk reduction financing and risk-informed investment.[72]

6.2.4   Representation and Advocacy

All stakeholders, including citizens, should be involved in the development of disaster risk reduction priorities and actions, especially those individuals and groups who are most vulnerable, such as the poor, women, girls, ethnic minority groups and persons with disabilities. As elected officials, parliamentarians are responsible for representing the needs of their constituents and championing these during discussions and decision-making on plans and policies. An overall inclusive approach is required, which enables consultation and participation among all levels of government, citizens, the private sector, civil society, academia, and technical and scientific experts.[73] Since disaster risk reduction actions are longer-term, proactive and lower-profile compared to high-profile disaster response and recovery activities, parliamentary advocacy is critical to ensure that sufficient resources are allocated to disaster risk reduction. A key requirement is the adoption of a multi-hazard and multi-sectoral disaster risk reduction approach across the government, which involves removing departmental silos and enhancing coordination among all relevant government sectors.[74]

The UNDRR has published a list of key actions that parliamentarians can take to contribute to greater support for disaster risk reduction planning, legislation, implementation, governance, and funding, as outlined below.[75]

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[70] UNDRR (2021).
[71] Ibid.
[72] Ibid.
[73] UNDRR (2021).
[74] Ibid.
[75] Ibid.

- Create disaster risk reduction legislation with clearly defined roles and responsibilities across all spheres of government, after conducting risk and vulnerability assessments and developing multi-hazard and multi-sectoral strategies and policies for disaster risk reduction.
- Review and amend existing sectoral legislation to integrate disaster risk reduction measures which reflect international commitments and include the latest knowledge, to ensure that approaches to disaster risk reduction are adaptable to evolving requirements.
- Ensure that all parliamentary oversight functions and activities consider disaster risk reduction and risk-informed decision-making and provide access to sufficient information in standardised and consistent formats.
- Develop and inform financing strategies and financial instruments to fund long-term disaster risk reduction initiatives, including funds for oversight and data collection, reporting and enforcement across all levels of government.
- Integrate and mainstream disaster risk reduction into public and private investment decisions for risk-informed investments.
- Promote the inclusion of citizens and all stakeholders in disaster risk reduction, focusing on multi-sector consultation and coordination.
- Promote the development of multi-sector scientific, academic and technical agencies and institutions to provide knowledge, advice, oversight and innovation for disaster risk reduction priorities and initiatives.
- Advocate for parliaments to shift from a reactionary event-centred response and recovery approach to a disaster risk reduction with a multi-hazard approach for enhanced long-term resilience.
- Advocate that data, expertise and experience of national and international agencies and institutions and those from other countries with similar hazards and geographic profiles, be leveraged to inform disaster risk reduction frameworks and strategies.
- Advocate for disaster risk reduction to be integrated into climate change adaptation and development plans and initiatives to increase effectiveness and sustainability.

In 2019, the Inter-Parliamentary Union (IPU) passed a resolution urging parliamentarians to work in partnership with their governments to implement the Paris Agreement by increasing the implementation of the SDGs. The resolution also urged Parliaments to encourage their governments to align with the Sendai Framework for Disaster Risk Reduction 2015–2030. To this end, the IPU and the UNDRR have developed a toolkit that recommends specific actions for parliamentarians to effectively influence and implement DRR policy, legal, financial, and oversight frameworks adapted to their country's context.[76] Actions that Parliaments can take in terms of DRR can be summarised as follows:[77]

- Parliamentarians can review and amend existing disaster management and sectoral laws to integrate DRR. They can also create new DRR-related laws that can facilitate the shift from managing disasters to managing disaster risks.

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[76] UN System Task Team on the Post-2015 UN Development Agenda (2012)
[77] Ibid

- Parliamentarians can use their oversight role to evaluate government performance, effectiveness, and spending for DRR initiatives, demonstrating the effectiveness and impact of regulation enforcement and penalties.
- The Sendai Framework calls for disaster risk considerations to be embedded in domestic public financing. Parliamentarians can propose, evaluate, amend and support DRR financing mechanisms and innovations.
- Parliamentarians can support the development and implementation of DRR frameworks and plans by convening the whole of society to enable consultation and participation between all levels of government, private sector, civil society, the public, academia and technical and scientific experts
- Parliamentary advocacy for DRR is vital because DRR benefits are often not easily seen, occurring over time and not apparent until a hazard manifests itself or a disaster event occurs.
- Parliaments can pass legislation that mandates DRR measures, establishes national disaster management plans, and allocates funding for DRR initiatives.
- Parliaments can ensure DRR is integrated into various sectors, including development planning, climate change adaptation, and urban planning.
- Parliaments can reform existing laws to better address disaster risks and promote community-based DRR approaches.
- Parliaments can ensure that recovery efforts incorporate principles of building back better, minimising future disaster risks.
- Parliaments can allocate financial resources for DRR initiatives, including early warning systems, preparedness measures, and infrastructure improvements.
- Parliaments can prioritise funding for DRR at the sub-national and local levels, where initiatives are often most effective.
- Parliaments can support research and development of new technologies and strategies for DRR.
- Parliaments can oversee the implementation of DRR policies and programmes, ensuring accountability and effectiveness.
- Parliaments can hold governments accountable for managing disaster risks and implementing DRR measures.
- Enact laws that guarantee rights-based DRR approaches.
- Allocate budgetary resources for DRR targeting vulnerable groups.
- Exercise oversight to ensure implementation of national DRR strategies.
- Facilitate public participation and consultation in DRR planning.
- Engage in regional and global parliamentary networks to share best practices.

Parliaments, the Government, the private sector and the public have a role in the different strategies to mitigate the effects of climate change. These contributions are as follows:

- Greater cooperation between the different spheres of Government, the private and public sectors, as well as Government Departments and Entities, should be strengthened, particularly addressing working in silo.

- The existing policies and regulations should be implemented. Their proper implementation should be regularly evaluated and monitored to ensure that the sustainable building agenda is met.
- The government should ensure that the tenders for large-scale infrastructure projects specify the requirements for implementing sustainable building practices.
- The local sphere of Government should receive assistance from the provincial and national spheres to ensure that they have the required skills to implement the policies and regulations.
- The Department of Public Works and Infrastructure should monitor the implementation of the 5 Point Green Building Plan of the National/Provincial Cooperation Framework to ensure that it meets its objectives.
- Additional funding sources should be made available to ensure that the construction and property sectors implement energy-compliant infrastructure.
- The private sector should continue to play a role in ensuring that the building projects it undertakes are green, compliant, and sustainable.
- Greater effort should be made to emphasise that compliance with sustainable building requirements will not automatically translate into increased use of time and resources.
- Adherence to the policies and regulations (may prove to be more cost-effective in the long term) since it lowers lifecycle costs by reducing energy consumption.
- Architects should move away from only conventionally designing buildings. Instead, institutions of higher learning should offer courses that provide specialised training in green building design and energy-saving methodologies.
- Incentivise the public to participate in green building solutions (for example, solar panels and Jojo tanks) to reduce electricity and water consumption.
- Consider instituting tax rebates to incentivise people to opt to construct green buildings and include energy and water savings as part of the designs.
- Reform how people are taxed at the local and city levels. Include property tax reductions when buildings are constructed with a low-carbon footprint.
- Grow water-wise gardens with a greater emphasis on planting indigenous plants.
- Plant trees and vegetable gardens on rooftops to provide food security, particularly for disadvantaged communities.

Disaster risk reduction requires strong commitment and involvement of political leadership in every country. In any democratic society, the role of Parliament is crucial.[78] As representatives of the people, parliamentarians have a key role and responsibilities in contributing to the primary responsibility of each State to prevent and reduce disaster risk. Parliamentarians also have the responsibility to hold governments accountable for international commitments. Patterns in the occurrence and intensity of disasters over the last few decades show that disaster risk already undermines the capacity of many countries to make the capital investments and social expenditures necessary for sustainable development.[79]

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[78] United Nations Office for Disaster Risk Reduction (n.d.).
[79] United Nations Development Programme (2006).

Parliamentarians can play a crucial role in ensuring community disaster preparedness by advocating for and supporting legislation, policies, and funding that prioritise emergency planning, training, and exercises.[80] They can also foster community engagement and awareness, ensuring that vulnerable populations are included in preparedness efforts. Parliamentarians can champion legislation that establishes clear frameworks for disaster risk reduction, including requirements for community-level emergency planning and preparedness. They can work to improve the governance structure for disaster management, ensuring that roles and responsibilities are clearly defined, resources are allocated effectively, and there is coordination across different levels of government. Parliamentarians can advocate for policies that integrate climate change adaptation into disaster risk reduction strategies, recognising the increasing frequency and intensity of climate-related disasters.[81]

Allocation of resources is key during disasters. Parliamentarians can thus advocate for increased funding for emergency preparedness programs at the local level, including resources for training, equipment, and community engagement initiatives. They can ensure that resources are directed towards vulnerable communities and populations, such as those with disabilities or limited access to information and resources.

7. CONCLUSION

Disaster management must move beyond technical solutions to embrace rights-based, inclusive approaches that address social inequalities. Achieving the SDGs demands that vulnerable populations are protected, empowered, and included at all stages of disaster risk governance. Legislatures and MPs are central actors in translating international commitments into tangible protections for the most at-risk communities.

The Sendai Framework calls for parliamentarians to reduce disaster risks and protect their populations by developing new or enhancing existing DRR legislation, creating national and local DRR strategies, increasing financial resources for DRR budgets, and holding governments accountable for DRR actions. Parliaments play a vital role in promoting a more resilient and prepared society. DRR efforts should be inclusive of all members of society, including vulnerable groups. As such, DRR initiatives should be sustainable in the long term, with predictable funding and clear accountability. DRR efforts should be regularly evaluated to ensure they are effective in reducing disaster risk and building resilience.

Community participation in disaster management is crucial for effective prevention, preparedness, response, and recovery. Communities often have deep insights into local hazards, vulnerabilities, and coping mechanisms. When people are involved, they are more likely to support and sustain DRR initiatives. Participation builds trust between authorities and communities, improving emergency response and preparedness. It ensures that the needs of vulnerable groups (e.g., women, children, the elderly, and people with disabilities) are considered. Community participation involves actively engaging communities at risk in identifying, analysing, and managing disaster risks. This includes empowering communities through awareness programmes, training, and capacity building, ultimately leading to

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[80] Nkombi & Wentink (2022).
[81] Kalliontzi, Kouskoura, Katsaros & Bakouros (2024).

increased resilience and reduced vulnerability. Sufficient public awareness to recognise and address risk, coupled with the political will to set policy and allocate appropriate resources, is critical. Public participation in DRM is essential for building resilience and reducing the effects of disasters. In sub-Saharan Africa, the incorporation of public involvement into national legal frameworks varies by country. Some nations have successfully recognised and facilitated public involvement, while others face challenges in clearly defining their role within the legal context of DRM.

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