



All-Party Parliamentary Group Malaysia  
Disaster Risk Management

# **APPGM-DRM STRATEGIC PLAN**

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# 2030

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Disaster Risk Management

# APPGM-DRM STRATEGIC PLAN

# 2030

The APPGM-DRM Strategic Plan 2030 is a strategic document to collectively mark our shared commitments, all-of-society involvement, and uniquely catalyse, and monitor the local implementation of global agenda on disaster risk reduction (DRR) in Malaysia. It is also aligned to the Sendai Framework for Disaster Risk Reduction 2015-2030, which explicitly calls for parliamentarians to oversee DRR-related legislations, set budget allocations, and hold governments accountable for public protection. It is a living document to showcase strategic actions, policy interventions, and DRR priorities towards advocating DRR-specific policies, and planning, strengthening multi-tier risk governance, increasing DRR investments and risk financing, and enhancing societal resilience in Malaysia.

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ALL-PARTY PARLIAMENTARY GROUP MALAYSIA  
- DISASTER RISK MANAGEMENT (APPGM-DRM)  
PARLIAMENT OF MALAYSIA

SECRETARIAT



DISASTER PREPAREDNESS AND PREVENTION CENTER (DPPC)  
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All-Party Parliamentary Group Malaysia  
Disaster Risk Management

# **APPGM-DRM STRATEGIC PLAN**

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# **2030**

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# ACKNOWLEDGEMENT

We extend our sincere appreciation to all individuals and institutions whose contributions have made this initiative possible. Special thanks go to the Members of Parliament involved in advancing the disaster risk reduction (DRR) agenda, whose commitments to resilience and sustainability continues to shape meaningful legislative progress. We also acknowledge the support and guidance from national agencies such as NADMA, international partners including UNDRR and ASEAN institutions, as well as the active participation of civil society organizations, academic experts, practitioners, and community leaders.

This collaborative effort reflects our shared aspiration to build a safer, more prepared, and resilient Malaysia. Through inclusive dialogue, evidence-based policymaking, and a united commitment to the Sendai Framework, we believe that meaningful change is possible in strengthening national disaster risk reduction agenda.







# EXECUTIVE SUMMARY

Our climate is changing, risk is very systemic, and disaster impact is cascading in an extreme environment. The disaster risk reduction (DRR) is an important agenda globally and nationally. Malaysia is not an exception. As aligned to the Sendai Framework for Disaster Risk Reduction 2015-2030, we are clearly taking a significant step to reduce current risks, prevent future risk and strengthen societal resilience.

Parliamentarians, using their power over legislation, monitoring, accountability and budgeting, have a fundamental role to play. The transformative nature of the 2030 Global Agenda and enhanced resilience therein requires parliamentarians to help voice citizens' concerns, map how new risks and disasters affect different segments of society in different ways and ensure no one is left behind.

The establishment of the All-Party Parliamentary Group Malaysia-Disaster Risk Management (APPGM-DRM) on 27 November 2024 marks our collective commitments and opens a new revolutionary call for all-of-society approach. The parliamentarians have significant roles to promote greater risk understanding, good risk governance, and mainstreaming disaster risk reduction (DRR) agenda into national and local legislative, regulatory and budgetary frameworks.

It is an initiative that brings together Members of Parliament across political parties, expert groups, and Non-Governmental Organizations (NGOs) to collectively and inclusively address national disaster-related issues. Four key priorities of APPGM-DRM are as follows:- i) strengthening disaster risk reduction legislation and policies, ii) enhancing inter-agency coordination, iii) leveraging technology and artificial intelligence (AI), and (iv) strengthening community resilience.

The APPGM-DRM Strategic Plan 2030 manifests our resilience-thinking strategy to address the complicity of new, emerging hazards, and systemic risk. Based on localization- and transdisciplinary approach, this strategic document is co-developed with the input of various stakeholders as aligned to the UNDRR Parliamentarian Engagement Strategy towards accelerating actions on risk reduction and resilience. Ultimately, we are very committed to pursue the national aspiration in preventing future disaster losses, increasing de-risk investment, and building a resilient culture in Malaysia.








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## 1

# INTRODUCTION

Malaysia faces increasing disaster risks due to climate change, rapid urbanization, and anthropogenic activities. A multi-tier strategic, coordinated, and risk-informed approach is an essential step to enhance national resilience and safeguard development gains. This strategic plan outlines the critical roles and responsibilities of Parliament in driving disaster risk reduction (DRR) related efforts, introduces the Secretariat and the strategic partners involved.





## BACKGROUND

The climatic risk landscape in Malaysia is evolving at an unprecedented speed and scale. The new, emerging hazards, systemic risk and compounding disaster that cascade across sectors, systems and impacts unveiled the urgent demands for re-examination of current approaches to understanding, managing and reducing current disaster risk, while preventing new future risk and strengthening resilience in a changing environment.

While progress has been made in implementing the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR2030) since its adoption in 2015, it is worth to mention that no single country is on track to achieve the outcome and goal by 2030 and beyond. Risk reduction required whole-of-society involvement, especially the key players and main stakeholders at a local level, including the Parliaments and parliamentarians, as they uniquely positioned to catalyse, oversee, and monitor local disaster risk reduction (DRR) action, observe the laws and policies and their cascading impacts at different scales.

The **All-Party Parliamentary Group Malaysia – Disaster Risk Management** (APPGM-DRM), which was established on 27 November 2024, is an initiative that brings together Members of Parliament from across political parties, expert groups and Non-Governmental Organisations (NGOs) to discuss issues of national interests, particularly disaster risk management (DRM) and disaster risk reduction (DRR) related issues, collectively and inclusively.

# APPGM-DRM

The All-Party Parliamentary Group Malaysia on Disaster Risk Management (APPGM-DRM) functions not merely as a cross-political avenue, but as a strategic platform for shaping policy, strengthening legal frameworks, and facilitating constructive dialogue among key stakeholders such as academic institutions, civil society organisations, professional bodies, private sector and medias. APPGM-DRM's key areas of focus include disaster risk reduction, climate change, planetary health, and sustainable development, guided by evidence-based approaches, equitable resilience, and inclusive participation.

As a cross-party initiative comprising Members of Parliament from diverse political backgrounds, APPGM-DRM serves as a bridge connecting public policy with best practices in Disaster Risk Reduction (DRR). This is especially crucial as Malaysia faces increasing climate-related impacts, including the growing frequency and severity of climate risks and disasters, with annual average damage estimated at RM 18 billion (DID, 2024) due to water-induced disaster (e.g., floods).

The APPGM-DRM meeting outlined several strategic priorities, including:



**Strengthening DRR policies and legislation** through the development of comprehensive national strategies to address systemic and cascading risks;



**Enhancing inter-agency coordination**, to ensure effective disaster response through improved collaboration among government bodies, the private sector, NGOs, CSOs, and local communities;



**Advancing new technology and artificial intelligence (AI)** for disaster mapping, risk monitoring, data analysis, and evidence-based decision-making for societal transformation.



**Building community resilience** by actively involving communities in risk reduction through awareness programmes and preparedness education.





**YB Ir. Ts. Zahir  
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Member of Parliament  
Wangsa Maju



**YB Ir. Ts. Hj. Khairil Nizam  
bin Khirudin**  
Member of Parliament  
Jerantut



**YB Senator Tuan Isaiah  
A/L D. Jacob**  
Senator Upper House



**YB Tuan Yuneswaran  
A/L Ramaraj**  
Member of Parliament  
Segamat



**YB Tuan Syahredzan  
bin Johan**  
Member of Parliament  
Bangi



**YB Tuan Chiew  
Choon Man**  
Member of Parliament  
Miri

# APPGM-DRM Secretariat



**Disaster Preparedness and Prevention Centre (DPPC)**, Malaysia-Japan International Institute of Technology (MJIT), Universiti Teknologi Malaysia (UTM) Kuala Lumpur aims to become a world-class research and training centre for building resilience to disasters and climate change. Its mission is to facilitate national and international collaboration in applied research, training and field practice for disaster resilience in collaboration with Japanese and other global partners.

As the Secretariat to the APPGM-DRM, we are very committed to revitalize the DRR actions with the strong support of public, private, academia, NGO, and media industry. With strong international, regional, and national collaboration, and increasing visibility across continents, we have a great capacity and capability to support a multi-disciplinary platform on disaster risk reduction, and climate resilience.

DPPC and its strategic partners explore new insights and continuous advocacy on disaster preparedness, prevention, education towards promoting resilience culture and spreading awareness on DRR and Humanitarian Development Nexus (HDN), to rejuvenate humanitarian action and risk-informed development planning in accelerating the National Disaster Risk Reduction Policy 2030, UNDRR Sendai Framework for Disaster Risk Reduction 2015-2030, and other relevant agenda.

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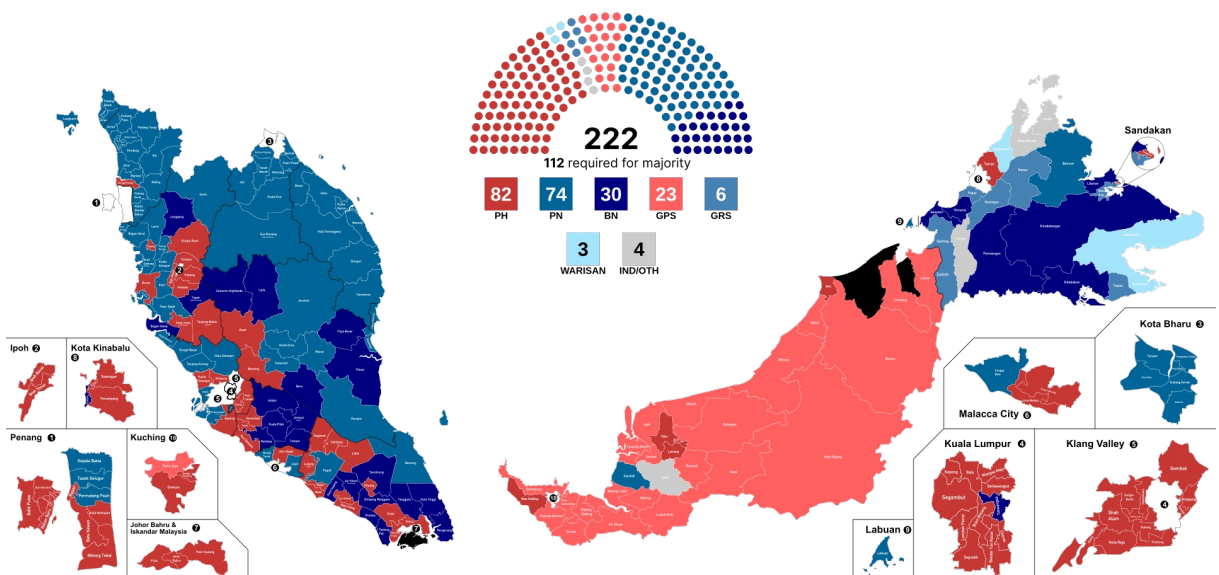
## Technical Team and Strategic Partners:



# PARLIAMENT MALAYSIA

The Parliament of Malaysia is the highest legislative authority in the country and plays a central role in shaping national laws and policies. It operates as a bicameral legislature, consisting of two houses: the Dewan Rakyat (House of Representatives) and the Dewan Negara (Senate). The Dewan Rakyat is composed of Members of Parliament (MPs) elected by the people during general elections, while the Dewan Negara consists of appointed and indirectly elected senators who represent various states and sectors of society.

The Parliament is responsible for debating and passing legislation, scrutinizing the government's actions, approving national budgets, and representing the interests of the people. It also serves as a platform for democratic governance, where issues of public interest are discussed and decisions are made collectively. Under Malaysia's constitutional monarchy, the Parliament operates alongside the Yang di-Pertuan Agong (King), who acts as the Head of State.



2022 Malaysian general election by party affiliation

# CHRONOLOGY







# DISASTER RISK REDUCTION INTELLECTUAL DISCOURSE 2025

DRR Intellectual Discourse is a multi-stakeholder platform consists of parliamentarians, public, academia, civil society and private sector to scientifically discuss the pressing issues and challenges as a result of recent extreme weather events, disaster and cascading impacts, and explore cost-effective solutions and highlights the priorities for action in the period of 2025-2030.

It is very timely given the experience after 10-years yellow flood (2014-2024), with remarkable efforts by various stakeholders to reduce the impact of disaster, especially during the Monsoon. The launch of new policy of disaster risk reduction and new directive to replace National Security Council (NSC) No. 20 with NADMA Directive No.1 shows a strong commitment by the government to strengthen our risk governance, de-risk investment, and elevate institutional capacities in Malaysia.

The first series of DRR Intellectual Discourse in 2025 serves an important avenue and critical junction to reflect, review and re-strategize our ambitious actions in de-risk investment agenda in Malaysia and ASEAN. We create regional awareness and generate political will and momentum for mainstreaming DRR into decision-making processes and scales. We embrace the cross-cutting role of science, technology and innovation in strengthening the effectiveness and efficiency of disaster-resilience building and correct our course to meet the national demands, redress our relationship with risk, and increase DRR investment in a changing climate.



Call for DRR Intellectual Discourse 2025 @ UTM Kuala Lumpur



YB Ir. Ts. Zahir bin Hassan, APPGM-DRM Chair @ DRR Intellectual Discourse 2025



Group Photo from the DRR Intellectual Discourse 2025



## 2

# GLOBAL AGENDA AND NATIONAL POLICY

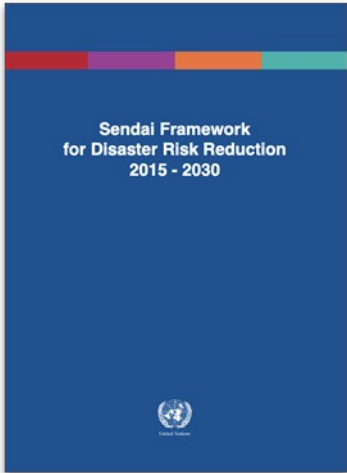
Malaysia's DRR efforts are guided by global frameworks such as the Sendai Framework for Disaster Risk Reduction, the National Disaster Risk Reduction Policy 2030, and the Arahan Nadma No.1. These commitments are translated into local policies and strategies that emphasise risk-informed development, resilience, and inclusive governance. Parliament has a critical role in aligning national actions with international obligations.



# UNDRR SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015-2030

There is a need for focused action within and across sectors by States at local, national, regional and global levels in the following four priorities for action.

- **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





# NATIONAL DISASTER RISK REDUCTION POLICY 2030

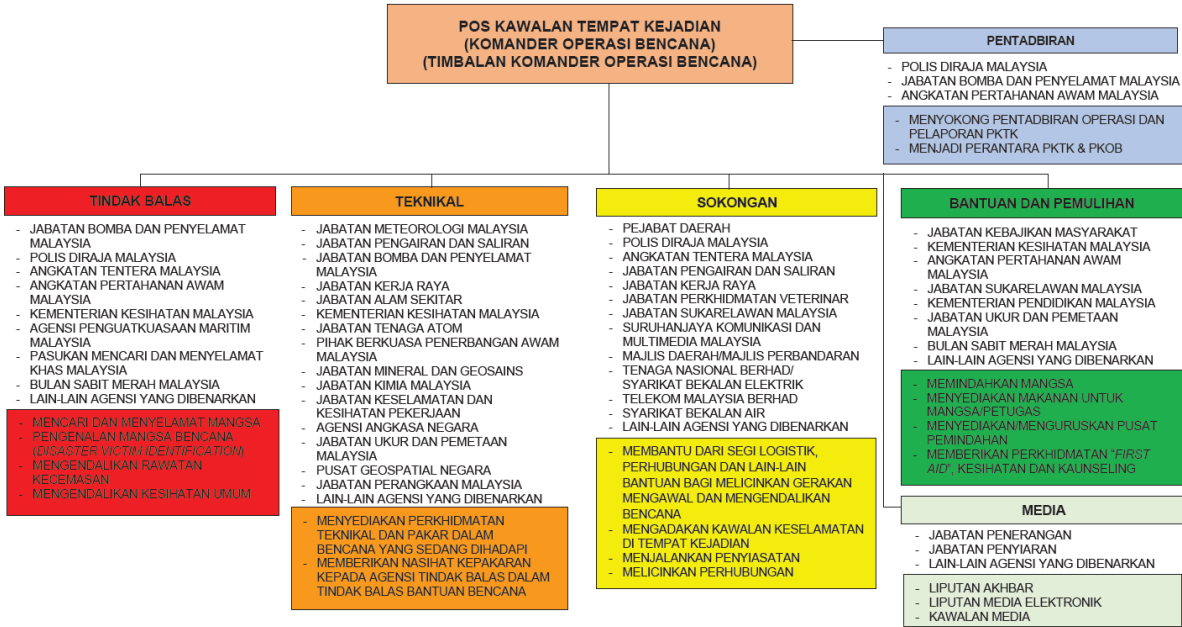
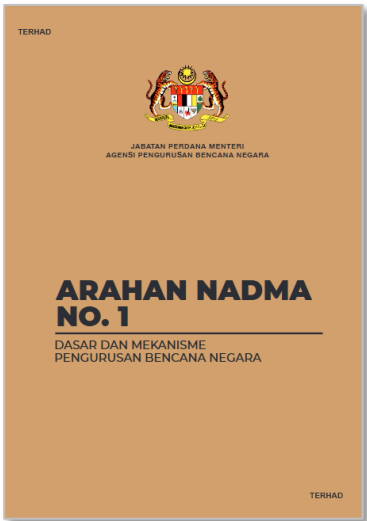
This policy is formulated to strengthen the nation’s resilience to disasters through comprehensive and inclusive risk management, aimed at ensuring the well-being of the people and sustainable development by mainstreaming disaster risk reduction into decision-making.

**The National Disaster Risk Reduction Policy 2030** serves as the primary reference by providing guidance for disaster risk management at all levels—national, local, and across sectors—in a comprehensive manner. It outlines the strategic direction of the country in reducing disaster risks towards building a safe and disaster-resilient Malaysia.



# ARAHAN NADMA NO.1

NADMA Directive No. 1 (Arahan NADMA No. 1) is the Malaysia’s principal guideline issued by the National Disaster Management Agency (NADMA) Prime Minister Department to coordinate disaster management efforts across all levels of government. This directive replaces earlier versions – MKN20 Directive with clear aims to strengthen disaster governance through a whole-of-system and whole-of-society approach. It outlines the roles and responsibilities of agencies at the federal, state, and district levels, covering all phases of disaster risk management, across cycles; pre-disaster, during disaster, and post-disaster.



Role of agencies during disaster response | Source: NADMA

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# APPGM: A NEW INSIGHT

The All-Party Parliamentary Group Malaysia – Disaster Risk Management (APPGM-DRM) represents a pioneering initiative to institutionalize parliamentary leadership in DRR. Bringing together Members of Parliament across political lines, this platform strengthens advocacy, legislative action, and community-centred solutions. APPGM-DRM aligns closely with UNDRR's call for a whole-of-society resilience agenda through its engagement strategy, toolkit as well as the ASEAN Vision.





# UNDRR-PARLIAMENTARIAN ENGAGEMENT STRATEGY

**Overarching goal:**

Prevent the creation of new and reduce existing disaster risks and build resilience through legislative and budgetary action.

**Expected Impact:**

Parliamentarians across the globe have a higher awareness of DRR and are undertaking concrete actions to implement DRR into national strategies and legal, budgetary and regulatory frameworks.



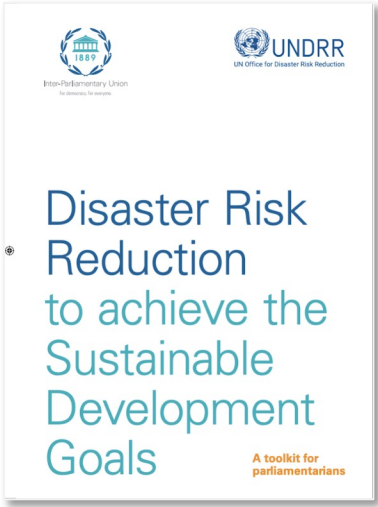
Action areas and expected outcomes | Source: UNDRR, 2022

ACTION AREAS	EXPECTED OUTCOMES
<b>Action Area 1:</b> Enhance legislation, planning and financing for DRR through the integration of DRR in national strategies, legal, budgetary and regulatory frameworks	Parliamentarians actively engage in the integration of DRR in national strategies, legal, budgetary and regulatory frameworks.
<b>Action Area 2:</b> Engage parliamentarians in global and regional DRR mechanisms, policy processes and advocacy campaigns	Parliamentarians promote and support DRR related mechanisms and policy processes.
<b>Action Area 3:</b> Develop capacity and knowledge products for Parliamentarians	Enhanced capacity of parliamentarians across the globe and targeted knowledge products available to take concrete action on DRR and prevention in their national and local contexts.



# 10 ACTIONS FOR PARLIAMENTARIANS

Parliamentarians can advocate for 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. This section defines parliaments’ mandate for DRR, drawing insights from case studies of national and regional parliaments’ DRR strategies.

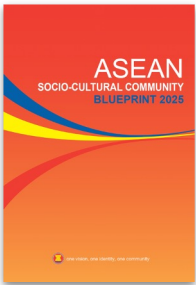


10 Actions for parliamentarians | Source: UNDRR, 2022

LEGISLATE	OVERSEE	BUDGET & FINANCE
<div>1. Enact disaster risk reduction (DRR) legislation across all levels of government based on risk assessments.</div> <div>2. Review and amend sectoral laws to align with international commitments and current knowledge.</div>	<div>3. Ensure parliamentary activities incorporate disaster risk reduction (DRR) and risk-informed decision-making while providing access to information in standardised and consistent formats.</div>	<div>4. Develop a long-term financing strategy for disaster risk reduction (DRR).</div> <div>5. Integrate DRR into public and private investment decisions.</div>
REPRESENT	ADVOCATE	
<div>6. Encourage inclusive public participation in disaster risk reduction (DRR).</div> <div>7. Support scientific, academic, and technical institutions to strengthen DRR.</div>	<div>8. Advocate for a shift towards a prevention-orientated approach in disaster risk reduction (DRR).</div> <div>9. Promote the use of data and expertise in strategy development.</div> <div>10. Integrate DRR into climate change and development planning.</div>	

# ASEAN SOCIO-CULTURAL COMMUNITY BLUEPRINT

To enhance ASEAN’s collective capacity to respond and adapt to disasters, climate change, health emergencies, and socio-economic vulnerabilities through inclusive, coordinated, and sustainable approaches.



**Key Result Areas and Strategic Measures** | Source: ASEAN, 2016

A Disaster Resilient ASEAN	<ul style="list-style-type: none"><li>• Enhance regional mechanisms and capacities for joint disaster response.</li><li>• Promote regional standards and information systems for disaster loss assessment.</li><li>• Integrate resilience principles in local disaster risk reduction.</li><li>• Promote policy coherence across DRR, CCA, humanitarian action, and SD.</li><li>• Institutionalise resilience through adaptive capacities.</li><li>• Harness traditional knowledge for resilience culture.</li><li>• Enhance resilience to unexploded ordnance impacts.</li></ul>
A Safer ASEAN for Health-related Hazards	<ul style="list-style-type: none"><li>• Strengthen health systems for biological, chemical, radiological-nuclear, and emerging threats.</li><li>• Promote regional standards for coordinated health response.</li><li>• Enhance institutional capacities for health emergency response.</li></ul>
A Climate-Adaptive ASEAN	<ul style="list-style-type: none"><li>• Expand cross-sectoral platforms and shared climate strategies.</li><li>• Promote scientific and evidence-based adaptation policies.</li><li>• Consider indigenous knowledge in climate response.</li></ul>
Strengthened Social Protection for Vulnerable Groups	<ul style="list-style-type: none"><li>• Conduct risk/vulnerability assessments for evidence-based policies.</li><li>• Empower at-risk populations through resilience-building platforms.</li></ul>
Enhanced Crisis-time Safety Nets	<ul style="list-style-type: none"><li>• Coordinate to ensure food security for vulnerable households.</li><li>• Ensure accessible, affordable energy and renewable sources.</li><li>• Secure clean water, sanitation, and electricity access in crises.</li><li>• Target poor and vulnerable groups in crisis-time aid.</li><li>• Explore disaster/climate financing and insurance mechanisms.</li></ul>
Towards a “Drug-Free” ASEAN	<ul style="list-style-type: none"><li>• Coordinate multi-stakeholder drug prevention, treatment, and rehab programmes.</li><li>• Increase community awareness and responsibility via advocacy and engagement.</li></ul>



# A dollar spent on resilience can avoid \$15 in disaster losses

13 October, International Day for Disaster Risk Reduction

#ItsAllAboutGovernance #DRRday





## 4

# ISSUES AND CHALLENGES

Despite policy advancements, Malaysia continues to face remaining gaps in coordination, legislative integration, and public awareness related to disaster risk. Systemic vulnerabilities and unequal impacts across communities and vulnerable groups further complicate DRR implementation. Addressing these challenges requires multi-level, multi-sectoral, and evidence-based interventions.

# ISSUES AND CHALLENGES

To address future challenges and systemic risks, Malaysia has committed to the seven global agendas of the Sendai Framework for Disaster Risk Reduction 2015–2030. Based on one-decade disaster record, it highlights the urgent need and demands for better risk understanding, stronger risk governance, and new investments on people-centred early warning systems to protect vulnerable communities, businesses, and livelihoods.

## Pressing issues and challenges



### Policy Gaps and Legislative Fragmentation

- **Lack of comprehensive DRR legislation** aligned with the Sendai Framework.
- **Insufficient integration** of DRR into national development planning, especially under RMK-12 and upcoming RMK-13.
- **Absence of standardized policy frameworks** for disaster loss data reporting and sharing across government levels.
- **Limited mandates** for local authorities to take proactive disaster and climate resilience measures.



### Weak Inter-Agency Coordination

- **Challenging coordination** among federal, state, and local agencies during disaster preparedness, response, and recovery.
- DRR efforts are still **siloed**—whole-of-government and whole-of-society approach remains aspirational, not operational.
- **Bureaucratic bottlenecks** hinder timely action and data sharing, as noted in the slides (“keperluan birokrasi”).



### Inadequate Disaster Data Infrastructure

- **No centralized, real-time disaster database**—current systems are outdated and manually driven.
- **Poor disaster data interoperability** across ministries, hindering evidence-based policymaking.
- **Gaps in disaster loss assessment** methodology, affecting funding decisions and disaster recovery planning.



### Budgetary Constraints and Investment Needs

- **Underinvestment in DRR and climate adaptation**, despite growing flood-related economic losses.
- Need for **strategic foresight and long-term budget planning** for resilience-building aligned to multi-year national plans.
- DRR is still not prioritized in public investment portfolios; **no dedicated DRR budget lines or fiscal incentives** for local resilience initiatives.

## Pressing issues and challenges (cont.)

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### Vulnerable Infrastructure & Emergency Preparedness

- **Shortage of disaster-resilient infrastructure**, including insufficient evacuation centers (PPS).
- Limited investment in early warning systems, resilient public assets, and localized anticipatory action.
- Schools and public buildings are **not consistently** equipped or designated for disaster use.



### Addressing Systemic Risk, Compound Disasters, and Transboundary Hazards

- **Increase in large-scale, cascading, and cross-boundary hazards** (e.g., floods, landslides, pandemics).
- Complexity in **managing overlapping and simultaneous disasters**.
- **Limited integration between climate change adaptation and DRR** at the national and local levels.



### Humanising Disaster Data, Timely Investment, and Strategic Foresight

- Emphasis on people-centred, anticipatory approaches.
- Need to move from reactive responses to **proactive, forward-looking risk investment**.
- Importance of **strategic foresight, early action**, and strengthening local capacities for future resilience.



### Promoting Gender Equality and Culturally Sensitive DRR

- **Under-representation of women and vulnerable groups in DRR leadership**.
- **Limited incorporation of gender-sensitive and culturally relevant strategies** in risk governance.
- **Insufficient inclusive community engagement**, particularly at local levels.



### Disrupted Food Supply Chains & Rising Food Prices

- Floods, landslides, and droughts **damage agricultural infrastructure and cut off transportation routes**.
  - Farmers often **lack storage and distribution systems**, worsening post-harvest losses.
  - Disasters reduce local supply, driving **price surges** in essential items like rice, vegetables, and fish.
-



Pressing issues and challenges (cont.)



Inadequate Social Protection Coverage

- Despite government assistance (e.g., Bantuan Prihatin, food baskets), **response mechanisms are uneven and delayed** in rural, Indigenous (Orang Asli), and remote communities.
- **Lack of real-time data** and localized vulnerability assessments leads to under-targeting or exclusion of high-risk groups.



Health deterioration, Malnutrition and Mental Health

- Post-disaster periods see a **spike in diarrhoeal diseases, skin infections, and respiratory issues**, all of which undermine household resilience and increase costs.
- **Mental health burdens** (e.g., trauma, anxiety) compound poverty and affect livelihoods.



Community Engagement and Risk Culture

- Low public awareness and weak resilience culture.
- DRR still viewed as a technical or administrative task rather than a **societal resilience issue**.
- Need for parliamentary support to **mainstream DRR education, community drills, and public engagement campaigns**.



Climate Change Impact & Resilience unbalancing

- Parliament must **respond to increasing flood frequency and climate-induced losses**, which are projected to cost up to 4.1% of GDP by 2030 (World Bank and Bank Negara Malaysia, 2024).
- Lack of data-driven climate adaptation strategies for Malaysian businesses, SMEs, and infrastructure sectors.
- **Disaster impact on employment** (e.g., 2.2 percentage point rise in unemployment) requires policy action on job security and post-disaster economic recovery (World Bank and Bank Negara Malaysia, 2024).



Post-debris flow at Yan, Kedah | Source: DPPC



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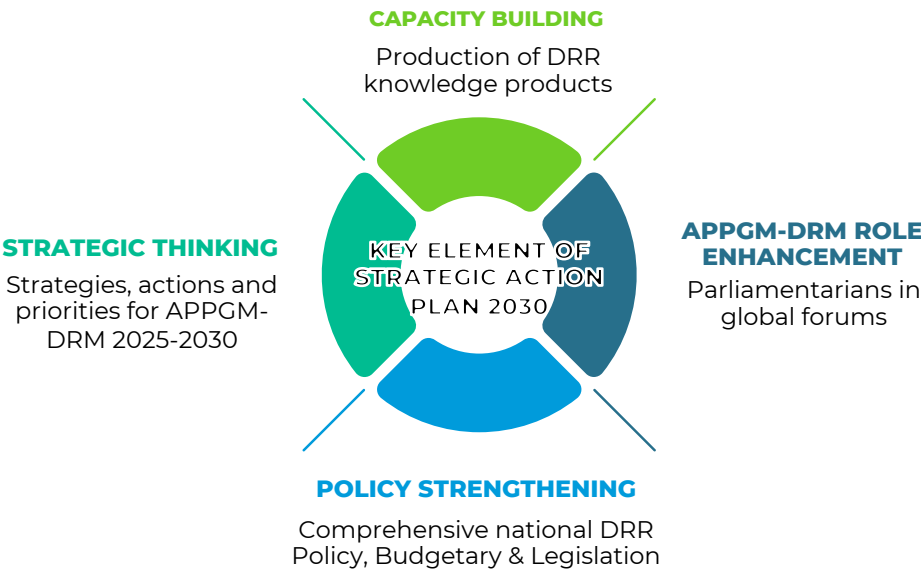
# STRATEGIC ACTION PLAN 2030

The Strategic Action Plan 2030 outlines a multi-year phased approach to achieving DRR goals through various parliamentary engagement and local leadership. It details short-, medium-, and long-term actions to embed resilience-thinking in legislation, governance, and national planning. It also serves as a call to action for all Parliamentarians to lead Malaysia toward a safer, more resilient future.

# STRATEGIC THRUST

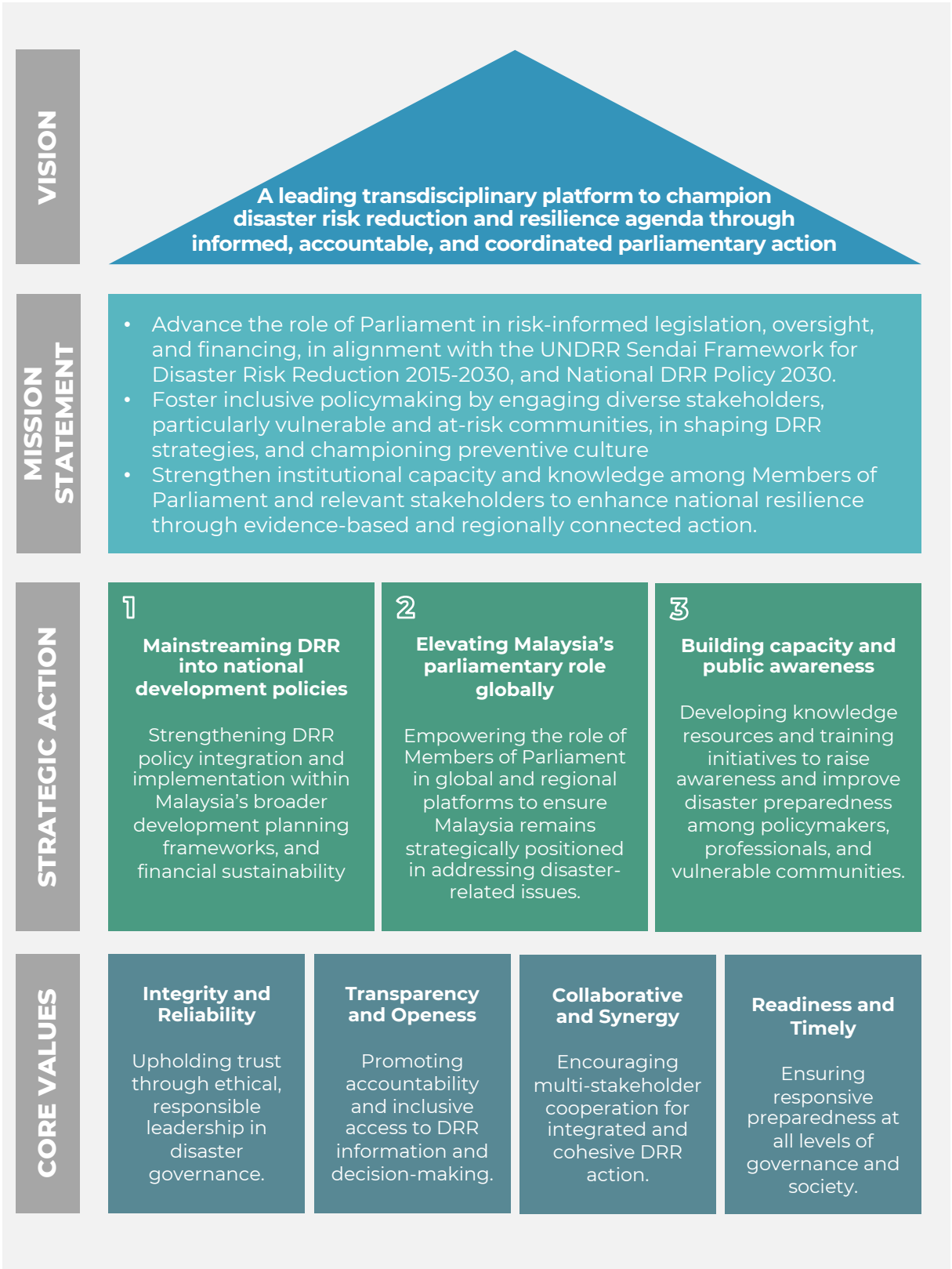
The strategic thrust of this framework is centered on empowering Parliament as a key driver of disaster risk reduction (DRR) in Malaysia, ensuring that legislative, oversight, policy functions and financial needs are fully aligned with the Sendai Framework for Disaster Risk Reduction 2015-2030, and National Disaster Risk Reduction Policy 2030. It recognizes that Members of Parliament are uniquely positioned to influence national economic- and physical development agendas and to integrate risk-informed strategies and risk-sensitive planning into public policies, and budgetary decisions.

By embedding DRR considerations within the broader context of sustainable development, the framework aims to reduce vulnerabilities, build resilience, and safeguard critical infrastructure and communities against escalating disaster risks, induced by climate change, extreme weather events, and anthropogenic activities.



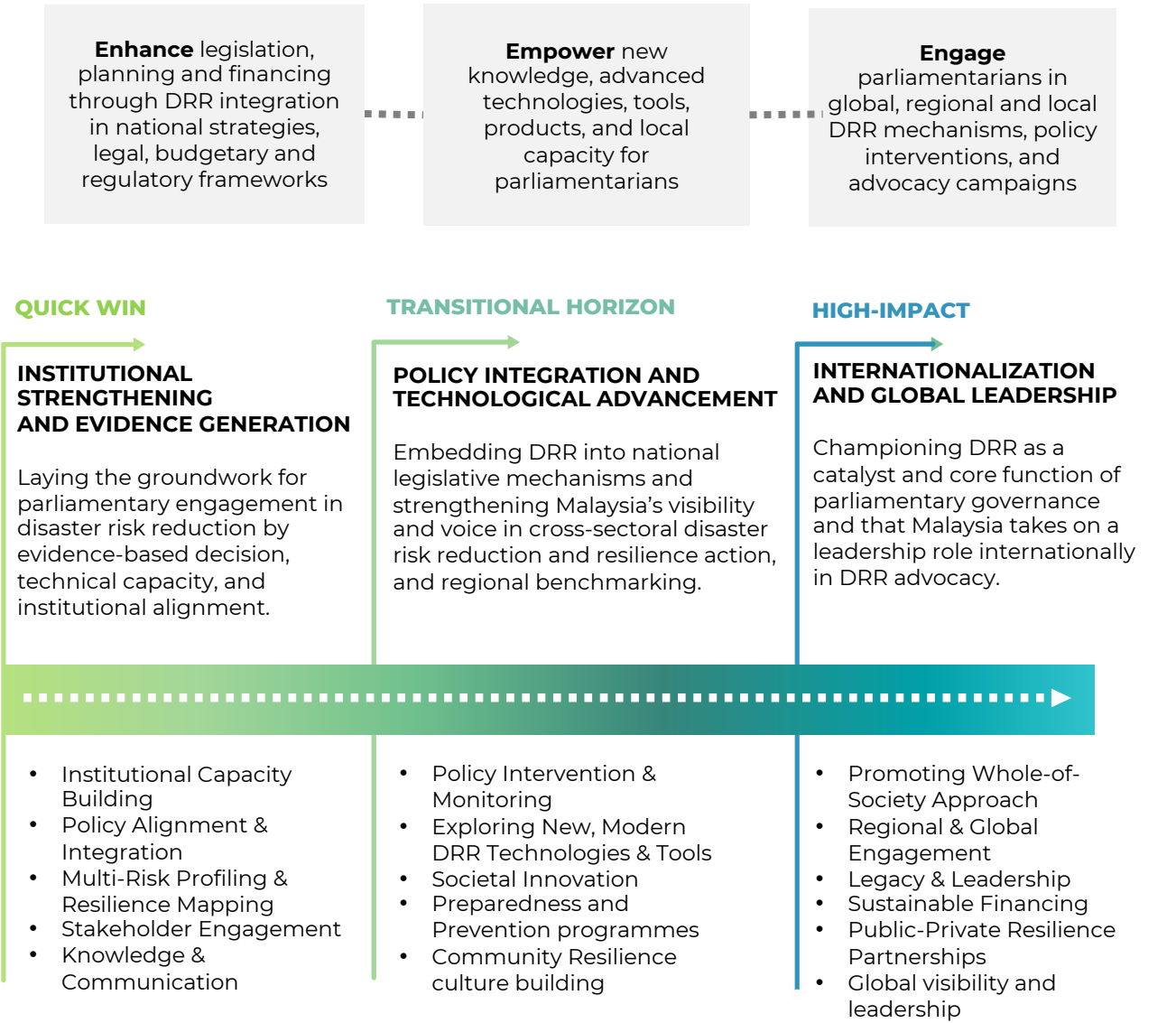
Collectively, these strategies aim to foster a whole-of-government and whole-of-society approach, where Parliament leads with integrity, transparency, and commitment to collaborative resilience-building.





# ACTION PLAN

The action plan is structured into three components: **quick win**, **transitional horizon**, and **high-impact** to ensure a systematic and scalable approach toward achieving DRR and sustainable resilience agenda outcomes through 3 key principles – Enhance, Empower and Engage for better implementation, and societal impacts.



# QUICK WIN

(1-2 years commitment)

## INSTITUTIONAL STRENGTHENING & EVIDENCE GENERATION

KEY FOCUS	STRATEGIC ACTION
<b>Enhance DRR Governance</b>	<ul style="list-style-type: none"> <li>• Strengthen roles of parliament members</li> <li>• Benchmark with international institution &amp; best practices</li> <li>• Integration across the ministry, and inter-agencies</li> <li>• Empower stakeholders to support DRR efforts</li> <li>• Enhance and ensure the implementation of DRR framework and its effectiveness at a local level.</li> </ul>
<b>Institutional Capacity Building</b>	<ul style="list-style-type: none"> <li>• Organize a DRR convention in the parliament.</li> <li>• Conduct DRR training workshops and awareness sessions for Members of Parliament (MPs), parliamentary staff, and relevant stakeholders</li> <li>• Facilitate international and national dialogues with NGOs, local communities, academia, private sector, professional bodies and medias to identify localized DRR policy implementation gaps, and solutions.</li> <li>• Improve mobility, exchange program and knowledge transfer at the international and regional level</li> </ul>
<b>Stakeholder Engagement &amp; Community Empowerment</b>	<ul style="list-style-type: none"> <li>• Identify and leverage local stakeholder capacity especially children/youth to champion initiatives.</li> <li>• Perform community-based disaster risk awareness and preparedness campaigns through MPs' constituencies.</li> <li>• Promote mental health awareness, post-disaster health care and Social Determinants of Health (SDOH)</li> </ul>
<b>Data, Knowledge &amp; Dissemination</b>	<ul style="list-style-type: none"> <li>• Promote data sharing across ministries and agencies to facilitate real-time disaster database, and action</li> <li>• Enhance data-related risk governance &amp; management</li> <li>• Highlight evidence and science-based decision making</li> <li>• Develop and publish simplified DRR knowledge products (e.g. parliamentary briefing notes, policy brief, infographics, multi-language, special needs, etc.).</li> <li>• Carry out a national baseline report on parliamentary involvement and contribution in DRR.</li> </ul>
<b>Policy and Law Alignment</b>	<ul style="list-style-type: none"> <li>• Review and align existing law and development policies with the Sendai Framework and National DRR Policy.</li> <li>• Advocate for the inclusion of DRR indicators in national budgeting and risk-informed development plans</li> </ul>





# TRANSITIONAL HORIZON

(2-3 years commitment)

POLICY INTEGRATION & TECHNOLOGICAL ADVANCEMENT	
KEY FOCUS	STRATEGIC ACTION
Policy Implementation & Monitoring	<ul style="list-style-type: none"><li>• Integrate DRR actions and performance targets into parliamentary oversight and evaluation mechanisms</li><li>• Enact or amend legislation to institutionalize DRR within national development and climate policies.</li><li>• Co-develop multi-scale DRR policy recommendation, intervention and monitoring for climate resilience</li></ul>
Regional & Global Collaboration	<ul style="list-style-type: none"><li>• Position Malaysian MPs in regional and global DRR forums and platforms (e.g. ASEAN, APEC, UNDRR).</li><li>• Contribute and adopt regional frameworks (e.g. ASEAN Agreement on Disaster Management and Emergency Response – AADMER).</li><li>• Translate global agenda and regional aspiration for localized disaster resilience action</li></ul>
Technology & Innovation	<ul style="list-style-type: none"><li>• Support investment in digital DRR tools (e.g. geo-mapping technology, AI-based early warning, anticipatory action, climatic risk mapping dashboards, etc.) through legislative advocacy.</li><li>• Encourage open data policies to enhance community access to disaster risk information.</li><li>• Explore technological-led DRR and smart innovation for rejuvenating societal resilience</li></ul>
Community Resilience & Localization	<ul style="list-style-type: none"><li>• Co-implement multi-tier and nation-wide DRR and resilience programmes in vulnerable constituencies with parliamentary coordination and financing.</li><li>• Empower youth, children, and women-led DRR networks through targeted parliamentary initiatives.</li><li>• Promote locally-led and nationally-supported DRR and community leadership based on localization approach in a changing climate.</li></ul>



# HIGH IMPACT

(3-5 years commitment)

INTERNATIONALIZATION & GLOBAL LEADERSHIP	
KEY FOCUS	STRATEGIC ACTION
Whole-of-Government & Whole-of-Society Approach	<ul style="list-style-type: none"><li>• Champion DRR across all parliamentary leadership and ensure it becomes a transformed policy lens in all sectors.</li><li>• Embed resilience thinking in national economic- and physical development visions beyond 2030 (e.g., alignment with future global targets, indicators, successors or frameworks).</li></ul>
Legacy & Leadership	<ul style="list-style-type: none"><li>• Establish a Centre for Parliamentary Resilience and Risk Governance as a knowledge and leadership hub.</li><li>• Document and share Malaysia’s best practices in parliamentary DRR governance at international platforms.</li></ul>
Sustainable Financing & Resilient Infrastructure	<ul style="list-style-type: none"><li>• Secure long-term budget allocations for resilient community-based DRR programs through fiscal planning and new modality</li><li>• Promote disaster risk financing mechanisms such as contingency funds, parametric insurance, DRR fiscal incentives and green bonds and protecting critical infrastructure for de-risk investment agenda.</li></ul>
Public-Private Resilience Partnerships	<ul style="list-style-type: none"><li>• Enable legislation and incentive that fosters corporate contributions &amp; private-led DRR action and high-impact initiatives.</li><li>• Facilitate CSR frameworks aligned with national DRR priorities, across sectors.</li><li>• Empower local champions, multi-stakeholders and cross-disciplinary professionals for public-private resilience partnerships</li></ul>



The strategic action and its implementation will be carried out gradually based on data-evidence, multi-risk profiling and resilience capacities with spatial information represented by APPGM-DRM members, local champions and strategic partners at a zoning scale.



Asia-Pacific Ministerial Conference for Disaster Risk Reduction (APMCDRR) | Source: DPPC



## 6

# KEY PILLARS AND ENABLERS

Disaster Preparedness & Pre  
( DPPC )

This strategy is anchored on core pillars such as policy integration, institutional capacity, community empowerment, and technology advancement. These initiatives are supported by enabling factors including political will, knowledge resources, new modality, and inclusive partnerships. Ultimately, an improved, effective and sustainable resilience-supported DRR action for better planning implementation, and monitoring.

# ADVOCACY AND POLICY INTERVENTION

**Strong policy frameworks and political will** are foundational to effective disaster risk reduction (DRR) implementation at different scales and impacts. Parliamentarians play a crucial role **in shaping legislative and regulatory environments that prioritize risk reduction**. This includes mainstreaming DRR into national and subnational development plans, strengthening enforcement mechanisms, and ensuring inclusive policies that address the vulnerabilities of at-risk populations, especially women, children, the elderly, and persons with disabilities. **Effective advocacy** also means engaging stakeholders across sectors, mobilizing public awareness, addressing disaggregated socio data on the impact of disasters and fostering cross-party cooperation to elevate DRR as a national development imperative. **Parliamentary motions, budget allocations, and oversight functions** collectively advocate resilience culture and risk-informed governance structures in Malaysia.



Pre-meeting for APPGM-DRM



# RISK-INFORMED PLANNING & DRR INVESTMENT

**Disasters** often result from the failure to account for **emerging hazards and systemic risk** in the development decisions. Integrating risk assessments into planning processes—urban development, infrastructure, agriculture, and environmental management—is essential to prevent future risk. The use of **science-based data, hazard mapping, and vulnerability analysis** is of importance. DRR investments should be seen not as an additional cost but a long-term saving, towards highlighting the urgent need for emergency expenditures and minimizing economic losses. Parliamentarians can champion the **allocation of funds for preventive measures, incentivize risk-sensitive business practices**, and ensure that public and private investments are resilient, and sustainable, particularly in high-risk regions.





# DISASTER EDUCATION & RISK PREPAREDNESS

**Public awareness and education** are central to building a culture of preparedness and prevention mindset. This includes integrating DRR into **school curricula, training educators, child-leadership, conducting regular community-based simulations, frequent drills and school-related resource empowering**. Knowledge exploration and investing into the people-led early warning systems, risk dissemination, evacuation protocols, and personal safety practices empowers individuals to act swiftly and safely across disaster cycles and cascading impacts. Moreover, **inclusive educational programs tailored to local contexts**—especially in rural or indigenous areas—can significantly enhance grassroots resilience. Parliamentarians can support legislation to institutionalize disaster education at different risk profiling, scales and impacts, ensure **budgetary support for outreach programs**, and monitor the effectiveness of preparedness initiatives at the community level.



Emergency Bag Game | Source: Women and Child-led DRR Action, NADMA-UNICEF Report, 2022

# EMERGENCY RESPONSE & HUMANITARIAN ACTION

**Rapid and well-coordinated emergency responses** save lives, reduce suffering, rebuilding livelihoods. National response systems should be equipped with clear protocols, well-trained personnel, sufficient logistical capacity, and multi-scale resources, and assets. **Humanitarian actions** must uphold the principles of **neutrality, impartiality, and accountability**, particularly in the face of increasing climate crises, and compounding disasters. Parliamentarians should advocate for **stronger coordination among agencies**, empowering multi-sectoral resources, faster mobilization of emergency resources, and equitable distribution of aid. **They can also legislate for contingency funds and ensure oversight of disaster response operations** to improve transparency, responsiveness, and post-disaster recovery outcomes.





# HUMAN CAPITAL & CAPACITY DEVELOPMENT

**Building resilience** requires investing into human capital and people leadership. This includes strengthening the **capacity of parliamentarians**, government officials, civil society organizations, and community leaders through dedicated training, knowledge sharing, and institutional support. Local actors, especially at the grassroots level, are the first responders and must be **empowered with the suitable tools, resources, and autonomy** to lead risk reduction efforts. National strategies must include continuous professional development in DRR-related fields—engineering, health, planning, logistics—and foster partnerships with academic institutions for research and innovation. Parliamentarians can ensure that **human capital development** is prioritized to support national DRR strategies characterized by **sustainable, and sufficient funding and budgeting** for inclusive and long-term capacity building.





## 7

# COMMITMENTS AND WAY FORWARD

Malaysia is committed to advancing a whole-of-society approach to disaster resilience through legislative reform, institutional strengthening, and community empowerment. The way forward demands stronger coordination, sustainable financing, and evidence-based policymaking. This strategic plan serves as a multi-year blueprint and integrated action plan to operationalize and accelerate these commitments through parliamentary leadership.



## ASEAN AND MALAYSIA

Malaysia, through the All-Party Parliamentary Group on Disaster Risk Management (APPGM-DRM), is committed to advancing ASEAN-wide resilience through strategic parliamentary engagement, regional cooperation, and inclusive policy development. This commitment aligns with **ASEAN Vision 2040**, which envisions a *bold, outward-looking, and people-centered ASEAN Community* built upon political-security stability, economic integration, and socio-cultural solidarity. In line with this vision, Malaysia could propose the establishment of an **ASEAN Parliamentarian Roundtable on Disaster Resilience**, a regional platform to institutionalize the role of lawmakers in guiding, harmonizing, and monitoring disaster risk reduction and resilience strategies across ASEAN at a regional scale.

The proposed Roundtable would serve as a catalyst for strengthening ASEAN's **collective disaster risk governance** by:

Conducting legal and policy frameworks with Disaster Management and Emergency Response (AADMER)

Promoting data-sharing and early warning systems through digital innovation which aligned with ASEAN Digital Masterplan

Advancing regional DRR financing mechanisms to protect critical sectors and economic assets

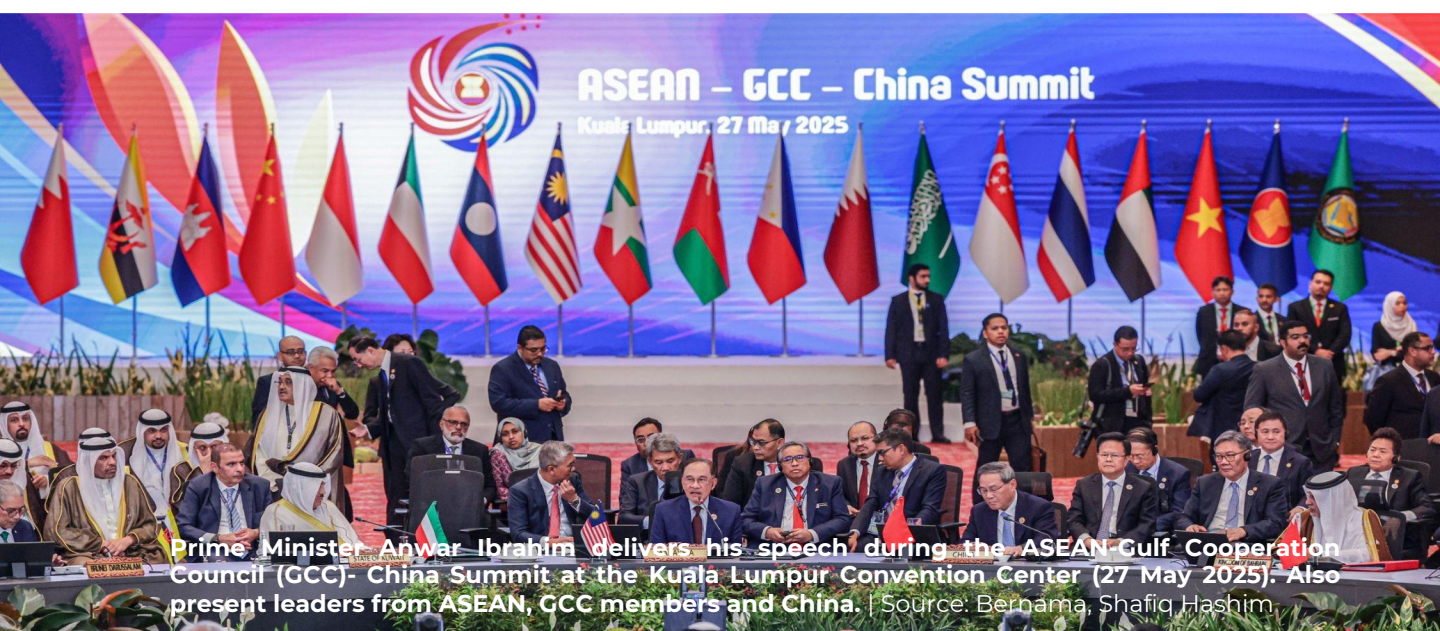
Empowering communities and civil society to co-lead local resilience programs

Ensuring inclusive resilience approaches that address vulnerable groups and climate-vulnerable industries

Recognizing that economic security is integral to regional stability, Malaysia emphasizes that **resilient economies require resilient infrastructure, supply chains, and communities**. Climate-induced disasters and systemic risks threaten key growth areas such as agriculture, logistics, manufacturing, and tourism. Therefore, disaster risk reduction should be mainstreamed into the **ASEAN Economic Community (AEC)** agenda. This not only to safeguard GDP and employment, but also to reinforce investor confidence and intra-ASEAN trade. Through parliamentary instruments such as legislation, oversight, budgeting, and public representation, Malaysia commits to supporting **risk-informed economic planning**, DRR investments, and workforce protection policies that contribute to both national growth and ASEAN's economic dynamism.

At the community level, APPGM-DRM supports ASEAN's vision of a **"people-oriented and people-centered" region** by advocating for disaster education, community drills, and decentralized preparedness systems. Malaysia will also promote subnational implementation through its zonal DRR initiatives, starting in Central (Kuala Lumpur and Selangor) as well as Sarawak Zones, while actively engaging other ASEAN Member States in **joint knowledge exchanges, simulations, and capacity building**.

In short, Malaysia's pathway forward in ASEAN is to lead by embedding disaster resilience into its domestic development, while advancing a regional platform where **lawmakers collectively protect the people, economies, and future of ASEAN**. With shared vision and collective action, Malaysia stands ready to co-create an ASEAN that is more prepared, more united, and more resilient by 2040.



Prime Minister Anwar Ibrahim delivers his speech during the ASEAN Gulf Cooperation Council (GCC)- China Summit at the Kuala Lumpur Convention Center (27 May 2025). Also present leaders from ASEAN, GCC members and China. | Source: Bernama, Shafiq Hashim



# ASEAN VISION ON DISASTER MANAGEMENT

A strategic roadmap guiding AADMER implementation toward building a global leader in disaster management. Its approach characterized by three (3) interlinked pillars, as follows:-

## Institutionalisation & Communications

- ❑ Embed AADMER across all ASEAN communities (political-security, economic, socio-cultural), requiring robust, multi-sectoral governance.
- ❑ Establish cross-sector communication platforms and develop a regional disaster communications master plan to ensure timely information sharing among all stakeholders.

## Financing & Resource Mobilisation

- ❑ Achieve sustainable funding by combining increased state contributions with innovative financial mechanisms.
- ❑ Engage the private sector—including SMEs, micro-insurance, insurance pools, capital markets—to support resilience and business continuity.

## Partnerships & Innovations

- ❑ Strengthen ties with civil society, think tanks, and regional centres of excellence.
- ❑ Use these networks for knowledge creation, policy analysis, and training the next generation of disaster professionals

The Vision complements the AADMER Work Programme by providing strategic guidance, aligning regional goals with the specific 2021–2025 AWP pillars: Risk Assessment, Prevention & Mitigation, Preparedness & Response, Resilient Recovery, and Global Leadership, as well as newly developed **AADMER Work Programme 2026-2030**, and relevant agenda

# PROSPECTIVE REVIEW AND RECOMMENDATION

Prospective Review and Recommendations in the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030: **Voluntary National Report – Malaysia** includes detailed input and forward-looking recommendations across four key thematic areas:

## Risk Assessment, Information and Understanding

- Humanize disaster data by incorporating localized and context-relevant data analytics.
- Standardize national disaster data systems for consistent data usage across agencies.
- Enhance multi-hazard early warning systems with real-time, open-access platforms.
- Improve capacity building for local actors in using data for anticipatory action.
- Promote inter-agency data interoperability and open data culture to support policy and decision-making.
- Institutionalize Disaster-Related Statistics Framework (DRSF) for comprehensive monitoring.

## Risk Governance and Management

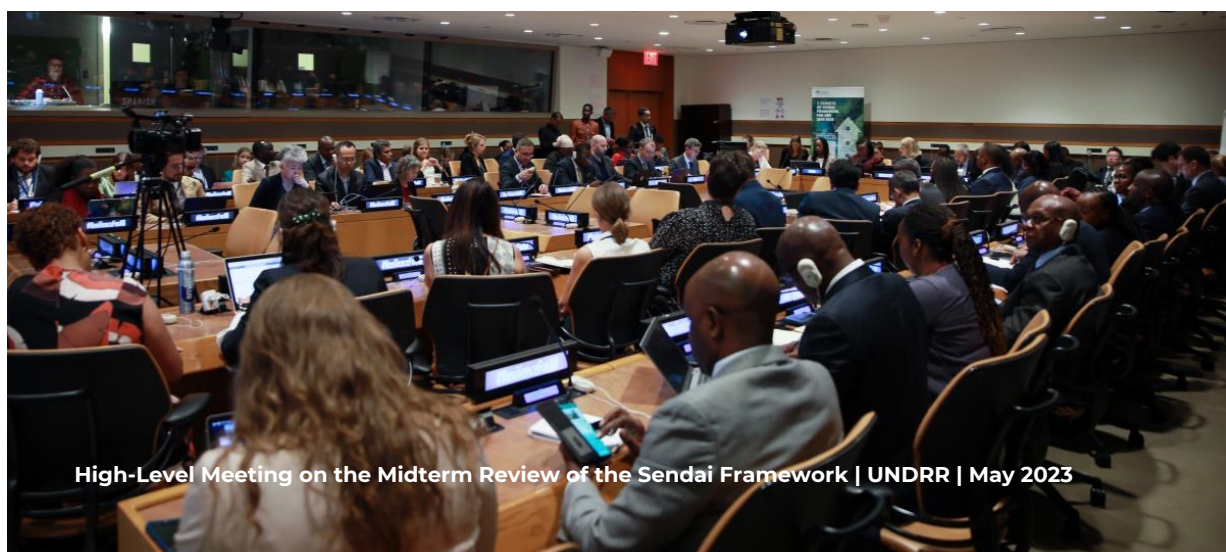
- Legislate a dedicated Disaster Risk Reduction (DRR) Act to align national policy with global targets.
- Institutionalize Science and Technology Expert Panels (STEP) for future risk foresight.
- Expand local disaster management offices (DMOs) to enhance decentralized response capabilities.
- Advance gender-responsive and inclusive governance, especially in leadership roles.
- Formalize parliamentary engagement in DRR, aligning with the UNDRR's call for political commitment.

## Investment in Risk Reduction and Resilience

- Encourage private sector investment through policy incentives and public-private partnerships (PPPs).
- Institutionalize resilience budgeting and finance tracking mechanisms.
- Scale-up microinsurance schemes (e.g. Kampungku Insurance, Perlindungan Tenang Voucher) for vulnerable populations.
- Mainstream nature-based solutions (NbS) in development projects.
- Promote resilient infrastructure design standards and risk-sensitive spatial planning.

Disaster  
Preparedness,  
Response and  
Build-Back-Better

- Expand community-based early warning systems and resilience living labs in vulnerable areas.
- Strengthen Post-Disaster Needs Assessment (PDNA) tools, especially for transboundary and compounding disasters.
- Increase investment in evacuation infrastructure, especially permanent multi-purpose centres.
- Embed Build-Back-Better principles in recovery financing and spatial planning.
- Promote intergenerational knowledge sharing and local champions in disaster resilience education.



High-Level Meeting on the Midterm Review of the Sendai Framework | UNDRR | May 2023





# PRIORITY PROGRAMMES AND SUB-PRIORITIES

The mission for 2021-2025 will be carried out through **five (5) priority programmes and sub-priorities** that reflect the major provisions of the AADMER. To better implement these provisions, sub-priorities were developed to cover strategic areas that will be pursued under each priority programme. These Priority Programmes (PP) and their sub-priorities for 2021-2025 are summarised below:

**Priority Programmes and Sub-Priorities** | Source: AADMER

<b>Priority Programme 1:</b> Risk Assessment and Monitoring (RAM)	1.1. Risk Assessment 1.2. Early Warning 1.3. Risk Communication
<b>Priority Programme 2:</b> Prevention and Mitigation (P&M)	2.1. Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) 2.2. Resilient Cities and Human Settlements 2.3. Resilient Economy 2.4. Resilient Infrastructure 2.5. Vulnerable Groups and Community-Based Disaster Risk Management (CBDRM) 2.6. Disaster Risk Governance
<b>Priority Programme 3:</b> Preparedness and Response (P&R)	3.1. Advance Planning and Diversification of Instruments for Regional Preparedness 3.2. Strengthen Coordination and Capacity Building for Effectiveness of Regional Response
<b>Priority Programme 4:</b> Resilient Recovery (RR)	4.1. Pre-Disaster Programmes on Resilient Recovery 4.2. Preparedness for Regional Recovery Assistance for Large-Scale Disasters
<b>Priority Programme 5:</b> Global Leadership (GL)	5.1. Knowledge Management for Regional Resilience Building 5.2. Sharing of regional knowledge and experiences to demonstrate global leadership in disaster management

# ADVOCACY AND AWARENESS

In building a resilient and risk-informed society, the APPGM-DRM places strong emphasis on the pillars of **advocacy, public awareness, and community-level preparedness**. These are not standalone efforts, but interconnected strategies that enable citizens to become informed, empowered, and actively engaged in reducing disaster risks. As ASEAN Vision 2040 and SFDRR Priority 4 outlines, **resilience and community-centered development** are essential for a rules-based, people-oriented, and economically vibrant region. In this regard, APPGM-DRM play a central role in translating national disaster frameworks into local understanding and action, ensuring that no one is left behind.

Moving forward, APPGM-DRM commits to intensifying **parliamentarian-led advocacy and public engagement**, ensuring that disaster risk reduction (DRR) agenda is regularly communicated through various national and local platforms, not limited to:-

01

Mainstreaming DRR in **parliamentary debates, constituency speeches, and public briefings**. Strengthening institutional capacity led by APPGM-DRM, and another similar committee by the Parliament Malaysia. Ultimately, all-of-society approach serves a **catalyst to rejuvenate current practices**.

02

Utilizing media platforms, community dialogues, and mobile outreach to disseminate **localized and inclusive risk messages**, tailored for vulnerable populations including children, the elderly, persons with disabilities, and indigenous groups.

03

Collaborating with civil society, media, universities, and educational institutions to co-develop and co-implement **multi-language educational materials**, digital campaigns, and local knowledge products on localized DRR action and resilience building.

04

Promoting **DRR literacy, DRR diplomats, and climate adaptation, and risk awareness** through integration with Malaysia MADANI programs under values such as *ihسان* (compassion), *kesejahteraan* (well-being), and *daya cipta* (creative resilience) for resilience culture



Alongside advocacy and leadership, **community-level preparedness** will be further strengthened to ensure that awareness is translated into tangible action. Communities are not passive recipients of aid they are first responders and decision-makers. Thus, APPGM-DRM will support:

- 01

Community-Based Disaster Risk Management (CBDRM) programs, with a focus on empowering local champions and volunteers to lead planning, early warning and response in hazard-prone areas.
- 02

Integration of DRR education in **school co-curricular programs** through collaboration with the Ministry of Education and local governments.
- 03

Organizing **community drills, simulation exercises, and emergency kit workshops**, with targeted support for women-led households, informal settlements, and rural populations.
- 04

Encouraging MPs to develop and establish “**Kampung/Komuniti Tahan Bencana**” (Resilient Village/Community) models in their constituencies, serving as pilots for localized risk impacts and resilience capacities.

APPGM-DRM 2030 Strategic Plan aims to achieve the following measurable outcomes and targets at the national, and local level:

- Empowered **local communities (Resilient Community Pilot Models)** in all represented parliamentary zones, through Resilience Living Lab (RLL) initiatives
- A centralized **National Risk Awareness & Preparedness Hub that sustained public access to risk information**, in partnership with NADMA and key stakeholders.
- A regional **knowledge-sharing mechanism** where Malaysian DRR community practices contribute to the broader ASEAN knowledge ecosystem.

In summary, APPGM-DRM platform serves multi-scale advocacy not merely as education, and communication, but as *a commitment to accountability and inclusion*. Likewise, preparedness is more than readiness—it is the *collective capacity to protect lives, livelihoods, and dignity*. As Malaysia advances toward its national resilience goals, it does so with a deep sense of solidarity with ASEAN's broader vision of a safer, more united, and people-centered future in a changing climate.



# EMERGING SOLUTIONS & PROSPECTS

The growing scale, complexity, and unpredictability of disasters in Malaysia demand a more strategic and forward-looking approach to disaster risk governance. To respond effectively, APPGM-DRM acknowledges that future efforts must be guided by robust **data systems, localized evidence, realistic budgeting, and adaptive planning**. These elements are essential to address existing fragmentation in policy implementation, resource allocation, and risk understanding towards preventing future climatic risk.

One of the core challenges lies in the **lack of centralized, real-time disaster data and interoperable systems** across ministries and agencies. Without reliable statistics, disaster loss data, or geospatial vulnerability mapping, Malaysia remains limited in its ability to make evidence-based decisions for action. To overcome this, APPGM-DRM should advocate for the development of the **national disaster data infrastructure and infostructure** that enables:



In addition to data systems, there is a pressing need to strengthen **evidence-based decision-making** through field-level insights. Many risk patterns remain undocumented or under-assessed, especially in rural, high-risk, or Indigenous areas. APPGM-DRM will promote the use of:



**Special studies and site investigations** to identify specific hazard dynamics, community vulnerabilities, and local response gaps



**Post-disaster reviews and community feedback mechanisms** to inform future response and recovery planning



Constituency-level assessments that can guide more **accurate, timely and relevant policy interventions**.

From a financial perspective, DRR action continues to be underfunded and inconsistently integrated into national budgets. We are committed to promoting **realistic and long-term DRR budgeting**, as follows:-

Establishment of **dedicated DRR budget lines** at federal, state, and local levels

Integration of **DRR priorities** into national documents (e.g. RMK-13, RFN-5, DPN-3)

Transparent funding allocations that are linked to measurable impact, especially for local **preparedness, infrastructure resilience, and education**.

Equally important is the need for **better planning frameworks** that are anticipatory rather than reactive. Moving forward, DRR must be embedded across sectoral development agendas including land use, infrastructure, agriculture, education, and public health. Scenario-based planning and climate-informed strategies should guide future investment and development decisions to avoid locking communities into risk. By embracing data-driven governance, field-based evidence, and pragmatic budgeting, **APPGM-DRM aims to bridge the gap between national policy ambitions and local implementation**. This commitment will strengthen Malaysia's capacity to manage and reduce current- and new, emerging risks while ensuring that disaster governance remains inclusive, responsive, and grounded in reality.

# NETWORKING AND ACADEMIC LINK

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 of their constituents and ensuring that DRR policies and plans meet their needs. These plans must include those most vulnerable in disasters: the poor, women, girls, youth and children, ethnic minorities as well as persons with disabilities. 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. A whole-of-society, inclusive approach is a good foundation for creating and prioritizing effective DRR policies and strategies.** It also provides an opportunity to inform of and expand risk (current & future) knowledge for better DRR decision-making and recommended actions.



Training of Resilient City Assessment over Flood Early Warning System as a co-learning platform under Resilience Living Lab @ Hulu Langat | Source: DPPC, MJIIT, UTM



One of the examples is the **RAKAN NADMA** (Friends of NADMA) platform, established since 2016, serves as **a medium for the humanitarian and volunteer sector, promoting a cross-sectoral approach and expertise**, while fostering unique collaboration involving government agencies, NGOs, private sectors, and universities towards supporting the national aspirations for a national DRR agenda and strengthening local resilience.

The development of the **RAKAN NADMA Rejuvenation Plan 2030** is a manifestation of the government's commitment and national aspiration to empower non-governmental organizations (NGOs) and stakeholders in strengthening the level of multi-risk disaster management in Malaysia, in line with the **eight (8) strategic steps for improving disaster risk management**, which among other things addresses 'Empowerment of Policy and Coordination Mechanisms for NGO Assistance, and Enhancement of Local Community Capacity and Focus on 'Localisation' in Management and Disaster Risk Reduction.'



Parliamentarians can influence policies **to reduce existing risks and avoid the creation of new, emerging risks** by reviewing and developing the legal and financial frameworks required to implement DRR action. Parliaments can ensure that their **DRR strategies and commitments** will be durable and will survive electoral changes by using a non-partisan, holistic approach to developing **multi-scale DRR plans**.

Foster development of multi-sector scientific, academic and technical agencies and institutions to provide knowledge, advice, oversight and innovation for DRR priorities, initiatives, and programs.

Credible, transparent and current information on hazards, exposure and vulnerabilities is required to inform CCA, development and DRR planning. Future risks need to be identified, measured and tracked.

Scientific and technical expertise provides knowledge management, credibility and support for DRR policy and legislation development, regulations, implementations and oversight.



Science and Technology Week for Disaster Risk Reduction & Resilience (STDR3)  
@ Jerai Geopark Yan, Kedah | Source: DPPC, MJIIT, UTM

# LEGISLATIVE ACT ON DISASTER RISK REDUCTION

As a way forward, **new laws and legislative act on disaster risk reduction (DRR)** shall be co-developed, debated and enacted. Parliamentarians can shift their governments' focus and strategy from disaster response and recovery to prevention and risk reduction that extends to the local level. Disaster risk reduction can protect and improve social and economic development and strengthen resilience. It is also cheaper and more cost effective than disaster response and recovery. **Risk-informed investments** can protect against new, emerging risk and compounding disaster induced by climate crises, global economic shocks, and anthropogenic activities.

To reduce the impacts of complex, interdependent risks, governments and all-of-society will need to work together **to anticipate, prevent and reduce the risks** of concurrent (defined as independent events occurring simultaneously), and cascading (defined as dependent events, with one event causing or creating another) events. Independent & dependent events occurring simultaneously or in quick succession – straining local capacity to manage the social and economic impacts.

**We call 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 action.

YAB Prime Minister presented Budget 2025 | Source: Anwar Ibrahim Facebook





The creation and reform of legislation are powerful parliamentary functions. **Legislation translates international commitments into national laws for implementation, legitimizes national DRR strategies, informs regulations and facilitates DRR finance mechanisms, and budgetary allocations.** Effective DRR requires legislative and regulatory frameworks that are durable, adaptable and able to support multi-stakeholder inclusion and multi-sectoral collaboration. 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 and reducing climate risk. Amending sectoral laws to include DRR is important for multi-hazard risk reduction as it integrates DRR in key sectors such as cities, health, finance, transportation, agriculture, water, resource extraction and even **hazard-specific legislation** related to natural hazard induced disaster, industrial-related disaster, including Natural Hazard Triggering Technological Accidents (NATECH) and biological-related risk. Sectoral legislation can also link DRR with SDG, CCA, NUA, and global agenda for local implementation, to increase the effectiveness across all initiatives related to climate resilience.

Legislation and legislative reform can transfer resources and institutional support to state-level DRR initiatives. This aligns the goals, priorities and targets of key national policies – such as climate change and development – across all levels of government. **Effective legislation requires strong governance that includes clearly identified priorities, well-defined roles and responsibilities, and protocols for areas of jurisdictional overlap.**



**PARLIMEN  
MALAYSIA**



## 8

# CONCLUSION

Building resilience is not a one-time effort, but high-return and sustained investments to risk-informed governance and inclusive development. As disaster risks intensify and changing climate, Parliament must lead by example—enabling legislation, promoting accountability, and championing political leadership, and building resilience culture. Together, we can ensure that Malaysia is better prepared for the challenges of today and the uncertainties of tomorrow.

# CONCLUSION

In facing the complex and evolving landscape of disaster risks, the role of Parliamentarians has never been more crucial. Through strategic engagement, legislative oversight, and inclusive policymaking, APPGM-DRM is positioned to play a transformative role in institutionalizing disaster risk reduction (DRR) and climate resilience within Malaysia's national development agenda. Guided by the Sendai Framework for Disaster Risk Reduction 2015-2030 and aligned with the global agenda, this high-impact initiative offers a timely and coordinated approach to fostering resilience thinking, strengthening risk governance, and ensuring that no vulnerable community is left behind. Moving forward, the collective commitment and shared responsibility of all stakeholders is a step forward in building a safer and more resilient Malaysia for all.





9



# REFERENCES





# REFERENCES

Addis Ababa Action Agenda. United Nations, 2015

APEC Disaster Risk Reduction Framework, APEC Ministerial Meeting Annex A, 2015

All-Party Parliamentary Group Malaysia on The Sustainable Development Goals (APPGM-SDG), Annual Report, 2021

APM Platinum Decade Document (DPPA) 2022 – 2032, 2022

ASEAN Risk Monitor and Disaster Management Review (ARMOR), 3rd Edition, 2022

ASM Report: Lessons from Sungai Kim Kim, Pasir Gudang, 2021

Astro AWANI, Kerajaan perlu beri tumpuan kepada magnitud, intensiti bencana yang meningkat, 2024 (<https://www.astroawani.com/video/video-terkini-x7sio1/kerajaan-perlu-beri-tumpuan-kepada-magnitud-intensiti-bencana-yang-meningkat-pakar-x97gya2>)

Astro AWANI, Bincang isu iklim secara menyeluruh, bukan berasingan, 2025 (<https://www.astroawani.com/video/video-terkini-x7sio1/bincang-isu-iklim-secara-menyeluruh-bukan-berasingan-x9dll82>)

Astro AWANI, Bencana geologi sumbang kematian tertinggi berbanding banjir, 2024 (<https://www.astroawani.com/video/video-terkini-x7sio1/bencana-geologi-sumbang-kematian-tertinggi-berbanding-banjir-pakar-x9ac49a>)

Astro AWANI, Sistem amaran awal, ramalan dan hebahan kurangkan kerosakan bencana sehingga 30 peratus, 2024 (<https://www.astroawani.com/video/agenda-awani-x7kldz/sistem-amaran-awal-ramalan-dan-hebahan-kurangkan-kerosakan-bencana-sehingga-30-peratus-pakar-x9ac49e>)

Astro AWANI, Pantau Agenda Reformasi: Jepun tawar kepakaran untuk bantu Malaysia berdepan cabaran perubahan iklim, 2025 (<https://www.astroawani.com/video/video-terkini-x7sio1/pantau-agenda-reformasi-jepun-tawar-kepakaran-untuk-bantu-malaysia-berdepan-cabaran-perubahan-iklim-x9dk4ly>)

BFM 89.9, Big Brain Energy, Climate Emergency: Why Every Effort Matters, 2023 ([https://www.bfm.my/content/podcast/climate-emergency-why-every-effort-matters-or-big-brain-energy-ep-2-or-faizal-parish-dr-khamarrul?utm\\_source=chatgpt.com](https://www.bfm.my/content/podcast/climate-emergency-why-every-effort-matters-or-big-brain-energy-ep-2-or-faizal-parish-dr-khamarrul?utm_source=chatgpt.com))

Chart of the Sendai Framework for Disaster Risk Reduction 2015-2030. UNISDR, 2015

Collaboration with IPU is grounded in the Agreement between IPU and the United Nations, 2016

Climate Action Plan. Inter-Parliamentary Union, 2016

Climate Change and Small States: Parliamentarians Toolkit. Commonwealth Parliamentary Association, 2019

Disaster risk reduction: a global advocacy guide. IFRC, 2009

Disaster Risk Reduction to achieve the Sustainable Development: a toolkit for parliamentarians, 2021

Debris Flow Geological Disaster Study Report in Sungai Kupang, Kedah, 2022

Disaster Resilience City Guideline in Malaysia, 2019

Institute of Islamic Understanding Malaysia (IKIM), Man & Nature: Five Strategies to Build a Culture of Resilience, 2023

Global Assessment Report on Disaster Risk Reduction 2015. UNISDR, 2015

Global Assessment Report on Disaster Risk Reduction 2019. UNDRR, 2019

Global Parliamentary Report- Parliamentary Oversight. Inter-Parliamentary Union (IPU) & United Nations Development Programme (UNDP), 2017

JICA-NADMA Disaster Risk Reduction and Management Capacities of State and Local Governments in Malaysia, 2021

Kuala Lumpur Structure Plan (PSKL) 2040, 2023

Making Cities Resilient 2030. UNDRR, 2020

Majlis Perbandaran Ampang Jaya Local Plan 2035, 2022

Malaysia ITS Blueprint 2019-2023, 2019

Malaysian Standard MS EN 1998-1:2015, Malaysia National Annex to Eurocode 8: Design of Structures for earthquake resistance – Part 1: General rules, seismic actions and rules for buildings, National Annex 2017

Mid-term Review of Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, National Voluntary Report, May 2023, UNDRR

Malaysian National Security Council No.20 (NSC 20), 2012

National Guideline on Sustainable Risk Management of Geo-Disaster in Preparation for Local Plans, 2022

National Security Council Malaysia Directive No.20, 2012

New Urban Agenda. Habitat III & United Nations, 2016

National Food Security and Risk Informed Land Use Planning Study, 2023



New Straits Times via UTM Newshub, Localizing Global Action through Science and Technology for Disaster Resilience with International Collaboration and Smart Innovation, June 2025 ([https://news.utm.my/2024/08/localizing-global-action-through-science-and-technology-for-disaster-resilience-with-international-collaboration-and-smart-innovation/?utm\\_source=chatgpt.com](https://news.utm.my/2024/08/localizing-global-action-through-science-and-technology-for-disaster-resilience-with-international-collaboration-and-smart-innovation/?utm_source=chatgpt.com))

Post-Disaster Needs Assessment Guidelines, 2013

Sarawak Energy Berhad Annual and Sustainability Report, Sendai Monitor, 2021 (<https://sendaimonitor.undrr.org/analytics/country-global-targets/17?countries=103>)

Sabah Media, NDRC UMS, DPPC UTMKL teroka peluang kerjasama strategik dalam pengurusan bencana alam di Sabah, 2023 ([https://sabahmedia.com/2023/12/20/ndrc-ums-dppc-utmkl-teroka-peluang-kerjasama-strategik-dalam-pengurusan-bencana-alam-di-sabah/?utm\\_source=chatgpt.com](https://sabahmedia.com/2023/12/20/ndrc-ums-dppc-utmkl-teroka-peluang-kerjasama-strategik-dalam-pengurusan-bencana-alam-di-sabah/?utm_source=chatgpt.com))

Transforming our World: The 2030 Agenda for Sustainable Development. United Nations, 2015

Town and Country Planning Act, Act No, 172, 1976

The Star, Reinforce buildings against quakes, 2025 ([https://www.thestar.com.my/news/nation/2025/04/11/reinforce-buildings-against-quakes?utm\\_source=chatgpt.com](https://www.thestar.com.my/news/nation/2025/04/11/reinforce-buildings-against-quakes?utm_source=chatgpt.com))

The Star, Experts: We need better early warning systems, 2023 ([https://www.thestar.com.my/news/nation/2023/11/09/experts-we-need-better-early-warning-systems?utm\\_source=chatgpt.com](https://www.thestar.com.my/news/nation/2023/11/09/experts-we-need-better-early-warning-systems?utm_source=chatgpt.com))

The Star, Learn from first wave to mitigate the second, 2024 ([https://www.thestar.com.my/news/nation/2024/12/07/learn-from-first-wave-to-mitigate-the-second?utm\\_source=chatgpt.com](https://www.thestar.com.my/news/nation/2024/12/07/learn-from-first-wave-to-mitigate-the-second?utm_source=chatgpt.com))

UNAIR News, UNAIR–MJIIT UTM collaborate to create disaster-resilient cities, 2024 ([https://unair.ac.id/en/unair-mjiit-utm-collaborate-to-create-disaster-resilient-cities/?utm\\_source=chatgpt.com](https://unair.ac.id/en/unair-mjiit-utm-collaborate-to-create-disaster-resilient-cities/?utm_source=chatgpt.com))

United Nations Paris Agreement. United Nations, 2015

United Nations Sustainable Development Goals. United Nations, 2015

UNDRR Parliamentarian Engagement Strategy 2022–2025, 2022

UNDRR Sendai Framework for Disaster Risk Reduction 2015–2030

UNDRR Briefing Note on Systemic Risk, 2022

UN ESCAP Disaster-Related Statistics Framework (DRSF), 2018

UNDRR International Cooperative and Mutual Insurance Federation (ICMIF) From Protection to Prevention: The role of cooperative and mutual insurance in disaster risk reduction, 2021

UNDRR Words into Action: Implementation Guide for Land Use and Urban Planning, 2022

UNDRR Words into Action: Using Traditional and Indigenous Knowledges for Disaster Risk Reduction, 2022

UNICEF Fact Sheet Impact of Climate Change on Children: A Malaysian Perspective, 2021

UNICEF The Climate Crisis is a Child Rights Crisis: Introducing the Children's Climate Risk Index (CCRI), 2021

UNICEF Youth Environment Living Labs (<https://yell.my/#startertoolkit>)

World Economic Forum: Global Gender Gap Report, 2022

Working with Parliamentarians. UNDRR, 2020

Words into Action Developing National Disaster Risk Reduction Strategies. UNDRR, 2020

Words into Action Local Disaster Risk Reduction and Resilience Strategies. UNDRR, 2019

Managing Floodrisk: Leveraging Finance for Business Resilience in Malaysia. World and Bank Negara Malaysia, 2024.

World Bosai Forum, Flash Talk 2017 (<https://www.youtube.com/watch?v=yIO1zWltnNQ>)

12th Malaysia Plan 2021-2025, 2021

4th National Physical Plan 2021 – 2025, 2021

3rd National Physical Plan 2015 – 2020, 2016

11th Malaysia Plan 2016-2020, 2015

2nd National Coastal Zone Physical Plan, 2021

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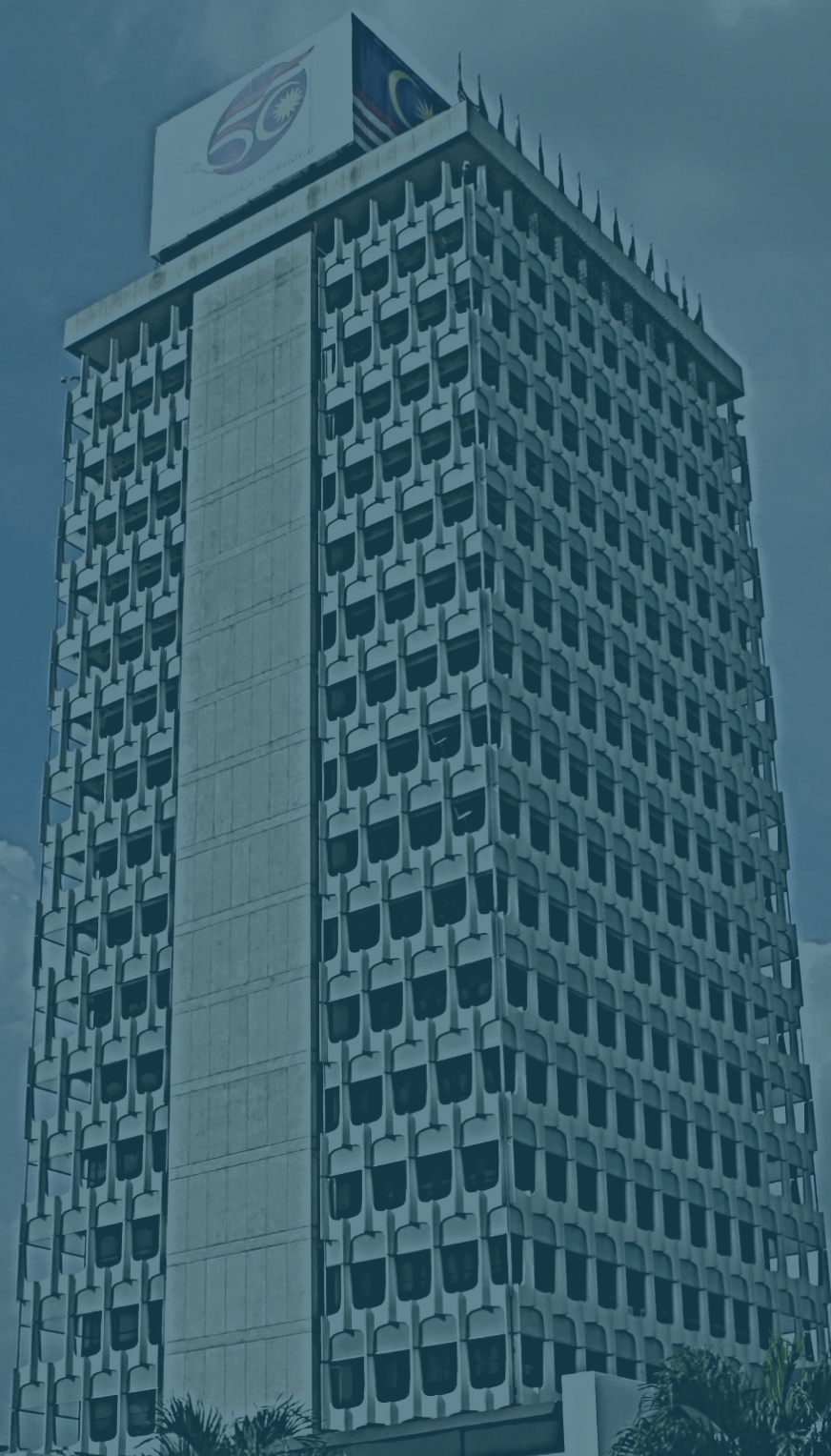
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