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**Sustainable development: disaster risk reduction**

## **Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030**

### **Report of the Secretary-General\*\***

#### *Summary*

The present report has been prepared as requested by the General Assembly in its resolution [77/164](#) on disaster risk reduction. It provides an overview of progress made towards meeting the goal, global targets and priorities for action of the Sendai Framework for Disaster Risk Reduction 2015–2030 and includes findings and recommendations from the midterm review of the Framework. Pursuant to resolution [77/164](#), the report also includes a section on the implementation of the United Nations action plan to ensure that every person on Earth is protected by early warning systems within five years under the Early Warnings for All initiative. The report also contains an overview of the global response to address the impacts of the El Niño phenomenon, pursuant to General Assembly decision 74/537 B.

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\* [A/78/150](#).

\*\* The present report was submitted for processing after the deadline for technical reasons beyond the control of the submitting office.



## I. Current state of disaster risk

1. At the midpoint of the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030, the understanding and management of disaster risk has progressed. Positive results are evident at the regional, national and local levels. However, the current pace of implementation is inadequate, and countries are not on track to achieving the expected outcome of the Framework by 2030. Progress remains unequal across geographies, scales and income levels. Disasters have undermined progress towards the implementation of the 2030 Agenda for Sustainable Development and other intergovernmental agreements,<sup>1</sup> in particular among the most vulnerable. Disaster risk reduction is an imperative for sustainable development, eliminating poverty and reducing inequalities. Risk management is critical for sustainable food systems and energy transitions, as well as for human, ecosystem and planetary health and well-being.

2. Progress has been made on the four priorities for action of the Sendai Framework. Countries have enhanced disaster risk assessments and analysis capabilities at all levels, although further progress is required to understand and respond to drivers of risk creation and of systemic risk. The number of countries with national disaster risk reduction strategies has increased. However, implementation at the local level remains insufficient. Financing for disaster risk reduction remains inadequate and largely reactive. The focus on disaster response as opposed to prevention and preparedness prevails, and opportunities to build back better and strengthen resilience post-disaster are often missed.<sup>2</sup>

3. Progress reported by Member States to the Sendai Framework monitor shows varied results across the global targets. Improvements are evident in reducing global disaster mortality (global target A) and in increasing the number of countries with national and local disaster risk reduction strategies (global target E). The global disaster mortality rate per 100,000 people has decreased, from 1.60 in the period 2005–2014 to 1.15 in the period 2013–2022. The number of countries with national strategies for disaster risk reduction increased from 55 in 2015 to 126 in 2022, with 102 countries reporting having risk reduction strategies at the local government level. However, the number of persons affected by disasters per 100,000 people (global target B) has risen, from 1,092 during the period 2005–2014 to 2,034 in the period 2013–2022. Direct economic losses in 2022 (global target C) amounted to 0.83 per cent of the total gross domestic product (GDP) of the reporting countries, which was significantly higher than the average of 0.37 per cent reported during the period 2015–2022 and is still estimated to be significantly underreported and undervalued. The average annual number of critical infrastructure units and facilities destroyed or damaged by disasters (global target D) was 102,628 during the period 2015–2022. International cooperation for developing countries (global target F) remains limited, with developing countries reporting only \$304 million in official development assistance, in addition to other official flows, for supporting disaster risk reduction actions in 2021. Nearly 1,800 programmes and initiatives on technology transfer and more than 30,000 instances of capacity development were reported during the period 2005–2022. The use of

<sup>1</sup> Including the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework, the Doha Programme of Action for the Least Developed Countries, the SIDS Accelerated Modalities of Action (SAMOA) Pathway, the Vienna Programme of Action for Landlocked Developing Countries for the Decade 2014–2024, the New Urban Agenda, the Addis Ababa Action Agenda of the Third International Conference on Financing for Development and the International Decade for Action, “Water for Sustainable Development”, 2018–2028.

<sup>2</sup> United Nations Office for Disaster Risk Reduction, *Global Assessment Report on Disaster Risk Reduction 2022: Our World at Risk – Transforming Governance for a Resilient Future* (Geneva, 2022).

multi-hazard early warning systems and access to appropriate risk information and assessments (global target G) has been reported by 101 countries.

4. The world faces increasingly unsustainable levels of risk, the impact of which cascades across sectors, systems and borders, with consequences for both present and future generations. The global risk landscape is characterized by a polycrisis caused by the coronavirus disease (COVID-19) pandemic and its consequences, the impacts of the triple planetary crisis, rising geopolitical tensions and conflicts, rapid technological change and unsustainable consumption and production, with widespread effects on people, planet, prosperity and peace.

5. The midterm review of the Sendai Framework served to highlight shifts in momentum towards and commitments to whole-of-government and whole-of-society approaches. Nevertheless, a collective failure to prioritize risk reduction in societal, political, environmental and economic decisions persists, as risk creation outstrips risk reduction efforts. Addressing protracted, cascading and compounding risks before they become major shocks or disasters requires multisectoral and multidisciplinary risk governance with “stronger legal frameworks, better tools for managing risks, better data, the identification and anticipation of future risks and proper financing for prevention and preparedness”, as called for in Our Common Agenda.

## II. Midterm review of the implementation of the Sendai Framework for Disaster Risk Reduction

6. During the midterm review of the implementation of the Sendai Framework progress, challenges and good practices were assessed, and the state of integration of disaster risk reduction into decision-making and investment was examined. Through inclusive Government-led consultations and reviews, the midterm review was supported by several entities of the United Nations system under the leadership of the United Nations Office for Disaster Risk Reduction, the United Nations Development Programme (UNDP) and United Nations resident coordinator offices. Reports and submissions were received from 72 Member States, 28 United Nations entities and 25 stakeholder groups. Those contributions were supplemented by global and regional thematic studies and interviews with experts and practitioners. The global and regional platforms for disaster risk reduction, convened between 2021 and 2023, offered further insights.<sup>3</sup> In its reports on the midterm review<sup>4</sup> and on the main findings and recommendations of the review,<sup>5</sup> the Office provides a comprehensive analysis and synthesis, including recommendations for course corrections.

7. The review enabled the identification of contextual shifts, new and emerging issues and the need for accelerated and amplified risk-informed actions up to 2030, including the adoption of a multi-hazard, multisectoral and multiscale approach to disaster risk management that covers all natural and human-made hazards, as well as environmental, technological and biological risks; mainstreaming disaster risk reduction across sustainable development, climate action and humanitarian efforts;

<sup>3</sup> See the outcome document of the seventh session of the Global Platform for Disaster Risk Reduction, known as the Bali Agenda for Resilience, and the outcomes of the regional platforms for disaster risk reduction hosted by the Governments of Jamaica, Kenya, Morocco and Portugal, in November 2021, and by the Government of Uruguay, held from 28 February to 2 March 2023, and of the Asian Ministerial Conference on Disaster Risk Reduction, held in Australia in September 2022.

<sup>4</sup> United Nations Office for Disaster Risk Reduction, *The Report of the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030* (Geneva, 2023).

<sup>5</sup> [A/77/640](#).

strengthening risk governance at all levels; reorienting investments towards prevention and disaster risk reduction; and implementing post-disaster recovery, rehabilitation and reconstruction with enhanced policies, capacities, resources, standards and legislation to reduce risk and build resilience. In order to manage the complexity of global catastrophic risks that overwhelm conventional governance systems, all-of-society engagement and partnerships, including both traditional and new stakeholders and partnerships, are required to support all State institutions in the fulfilment of the Sendai Framework and in risk-informed decision-making and investment.

8. The high-level meeting on the midterm review of the Sendai Framework was convened on 18 and 19 May 2023, under the theme “Working together to reduce risk for a resilient future”. The Heads of State and Government, Ministers and High Representatives gathered at the meeting considered the findings and recommendations of the review and the forward-looking and risk-informed approach required to address systemic risk effectively. The ensuing political declaration<sup>6</sup> contained a call for ambitious action to address the complex global risk landscape and to mainstream disaster risk reduction across all sectors.

9. The reviews of the Sendai Framework, the 2030 Agenda and the Paris Agreement provide a synchronized opportunity to synergize and promote a risk-informed approach to sustainable development. The 2023 Sustainable Development Goals Summit, the ministerial preparations for the 2024 Summit of the Future and other key deliberations, including on financing and on pandemic prevention, preparedness and responses, can advance risk-informed objectives. Integrating a risk-informed approach into the global financial architecture, including through the Sustainable Development Goal Stimulus, the outcome of the Summit for a New Global Financing Pact and the Bridgetown Initiative, can further advance political commitments to de-risking investments and financing disaster risk reduction. Investing in strategic foresight and risk analytics, surveillance and the management of catastrophic risks and strengthening awareness of emerging and future disaster risks could contribute to forward-looking and prevention-oriented policymaking.

10. The United Nations Conference on the Midterm Comprehensive Review of the Implementation of the Objectives of the International Decade for Action, “Water for Sustainable Development”, 2018–2028, held in March 2023, promoted alignment and synergies across the water, climate, biodiversity and disaster risk reduction agendas. Participants at the Conference emphasized the need for improved water management, climate resilience, early warning and risk-informed decision-making. Partnerships such as Water at the Heart of Climate Action<sup>7</sup> have empowered communities to manage water-related risks and foster resilience through global, national and local action. The Kunming-Montreal Global Biodiversity Framework provides strategic direction for biodiversity and ecosystem conservation and recognition of linkages with climate change, natural hazards and disaster risk reduction. The long-term goals (for achievement by 2050) and action-oriented targets (for achievement by 2030) of the Biodiversity Framework promote living in harmony with nature, reducing exposure and vulnerability and increasing resilience.

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<sup>6</sup> General Assembly resolution [77/289](#), annex.

<sup>7</sup> Launched by the Kingdom of the Netherlands, the International Federation of Red Cross and Red Crescent Societies, the United Nations Office for Disaster Risk Reduction and the World Meteorological Organization (WMO).

### III. Progress made in implementing the Sendai Framework for Disaster Risk Reduction

#### Priority 1: understanding disaster risk

11. Since 2015, advancements in the collection and utilization of disaster risk reduction data have strengthened overall understanding of risk and its systemic nature. Countries have made strides in recording and sharing disaster loss data and in conducting risk assessments. Nevertheless, gaps remain in addressing the core elements of risk: vulnerability and exposure.

12. As at the end of 2022, 110 countries had reported having national disaster loss databases, and 156 countries had reported on the global targets through the Sendai Framework monitor, facilitated by technical support and capacity development from the United Nations system. In response to the increasing demand for climate-related data on losses and damages, a new generation of hazardous events and disaster losses and damages tracking system is being developed by the United Nations Office for Disaster Risk Reduction, the World Meteorological Organization (WMO) and UNDP.<sup>8</sup> A prototype of the new system was released in May 2023 and is expected to be completed by the end of the year. The decisions of the twenty-seventh Conference of the Parties to the United Nations Framework Convention on Climate Change on the establishment of a new loss and damage fund and the operationalization of the Santiago network for averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, with a view to catalysing technical assistance on loss and damage at the local, national and regional levels, offer opportunities for collaboration on those global agendas. The United Nations Office for Disaster Risk Reduction supports developing countries in addressing loss and damage and actively supports the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, including through the provision of technical guidance on comprehensive risk assessment and planning.

13. Strengthened collaboration among statisticians, disaster risk reduction practitioners, the private sector and civil society can improve the quality of disaster risk-related data collection, processing, analysis and dissemination. The Inter-Agency and Expert Group on Disaster-related Statistics produced three thematic papers – on economic losses attributed to disasters, on disaster risk reduction expenditure satellite accounting and on environmental and ecosystem-related disaster losses – that will contribute to a global common framework on disaster-related statistics. Country-level capacity strengthening was initiated for risk reduction and systemic multi-hazard risk assessments in Costa Rica, Eswatini, Somalia and the Sudan, covering such sectors as agriculture, transportation, energy, water, land, infrastructure, health, education and industry. The Systematic Observations Financing Facility, in collaboration with private sector entities,<sup>9</sup> filled critical gaps in weather and meteorological observations and in agricultural risk management to contribute to sustainable development, food security and improved livelihoods in developing countries. New and emerging technologies, including geospatial and satellite technology and artificial intelligence, offer opportunities to strengthen risk assessment, bridge data gaps and enhance risk-informed decision-making. The United Nations Satellite Centre established cooperation agreements with eight countries (Bangladesh, Bhutan, Fiji, the Lao People's Democratic Republic, Nigeria, Solomon Islands, Uganda and Vanuatu) to strengthen capacities in the use of geospatial information technologies for improved

<sup>8</sup> See [www.undrr.org/disaster-losses-and-damages-tracking-system](http://www.undrr.org/disaster-losses-and-damages-tracking-system).

<sup>9</sup> WMO, "Systematic Observations Financing Facility: report for second Potential Funders' Forum", 28 June 2021.

disaster resilience and to mainstream risk-informed planning aligned with national disaster risk reduction strategies.

14. The Global Risk Assessment Framework has strengthened the understanding of risk, promoted risk-informed decision-making and supported countries in multi-hazard disaster risk assessments and risk analytics. The Risk Information Exchange, a tool of the Global Risk Assessment Framework, aggregates open-source risk data to enable the analysis of interconnected impacts of multiple hazards. To date, 43 countries and territories<sup>10</sup> have integrated risk information and analysis into their humanitarian programme cycles, common country analyses, disaster risk reduction plans and national disaster management stress tests, policies and plans, among other resources.

15. Insufficient data disaggregated by sex, age, income and disability remains a barrier to understanding and analysing differential impacts of disasters, including the formulation of evidence-based, gender-responsive and inclusive disaster risk reduction policies and programmes. Using the Sendai Framework monitor to track progress towards the implementation of the Framework and the SIDS Accelerated Modalities of Action (SAMOA) Pathway and the achievement of Sustainable Development Goals 1, 11 and 13 is reducing the reporting burden on small island developing States.

16. Local, traditional and Indigenous knowledge strengthens our understanding of risk and complements innovative mechanisms and solutions to inform and implement disaster risk assessments, policies, programmes and communications. In a “Words into Action” guide on using traditional and Indigenous knowledges for disaster risk reduction,<sup>11</sup> the United Nations Office for Disaster Risk Reduction shares policy guidance in that regard.

17. Media engagement enhances the understanding of disaster risk and raises public awareness. The United Nations Children’s Fund (UNICEF) and the United Nations Office for Disaster Risk Reduction strengthened the capacity of media institutions with regard to the use of intelligence tools and digital methodologies to analyse and report on climate change and disaster risks. Efforts to promote a culture of disaster prevention, resilience and responsible citizenship can be strengthened through all-of-society dialogues, public awareness-raising, advocacy campaigns, investments in academic and professional training and community mobilization.

18. Science, technology and innovation can strengthen the effectiveness of disaster resilience-building. The United Nations Educational, Scientific and Cultural Organization (UNESCO) established an open science data platform and offers comprehensive training on intelligence tools and digital methodologies. Good practices, such as the science-policy interface in the Arab States and the Americas and assessments using the Digital Disaster Risk Reduction Maturity Model of UNDP, have emerged. Greater investment in capacity development and science and technology remains essential for multidimensional risk assessment, strategic foresight and futures literacy. Technological advancements, in particular in fields such as artificial intelligence and biotechnology, must be acknowledged as potential risk drivers and be addressed by global governance systems. Preventing future disasters derived from innovation requires recognizing the potential of risk, investing in

<sup>10</sup> Albania, Antigua and Barbuda, Armenia, Azerbaijan, Bahamas, Bangladesh, Barbados, Comoros, Djibouti, Dominica, Egypt, Eswatini, Fiji, Georgia, Grenada, Guyana, Haiti, Iraq, Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Madagascar, Maldives, Mauritania, Montenegro, Morocco, Niger, North Macedonia, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Somalia, South Sudan, Sudan, Suriname, Seychelles, Tajikistan, Tunisia, Turkmenistan, Uzbekistan, Yemen and State of Palestine.

<sup>11</sup> United Nations Office for Disaster Risk Reduction, *Words into Action: Using Traditional and Indigenous Knowledges for Disaster Risk Reduction* (Geneva, 2022).

research, promoting international cooperation and mitigating risks associated with rapid technological change.

19. The Sendai Framework contains an acknowledgement of the systemic nature of risk, evident in the interconnected shocks felt across sectors, borders and scales. In a 2023 special report of the *Global Assessment Report on Disaster Risk Reduction on mapping resilience for the Sustainable Development Goals*,<sup>12</sup> the United Nations Office for Disaster Risk Reduction shows that, in an increasingly interconnected and risky world beset with polycrises, disaster risk reduction and resilience-building are core to achieving the Goals. The impacts of risks and threats such as climate-related disasters, epidemics, conflicts, inflation and financial shocks create compounding crises. They draw increasing amounts of resources into reactive responses rather than into prevention, long-term resilience and implementation of the 2030 Agenda. The United Nations Common Guidance on Helping Build Resilient Societies and the examples set out in the aforementioned special report support a framework for more resilient sustainable development, improved strategic foresight capacity, more collaborative and participatory processes and agile and anticipatory governance for disaster risk reduction.

20. Strengthening health resilience against biological hazards at the global, regional and national levels was a critical lesson learned from the experience of the COVID-19 pandemic. World Health Organization guidance on research methods for health emergency and disaster risk management<sup>13</sup> has enabled countries to bridge disaster risk management, epidemic prevention, preparedness and response, humanitarian action and climate action to support the implementation of the health emergency and disaster risk management frameworks.<sup>14</sup>

## **Priority 2: strengthening disaster risk governance to manage disaster risk**

21. Effective and comprehensive disaster risk governance supports long-term decision-making at different levels and across all sectors. Significant progress has been made in developing national disaster risk reduction strategies and in strengthening regional cooperation. However, transformative changes in organizational structures and mandates and strengthened risk governance are needed to overcome barriers to implementing disaster risk reduction strategies. Governance arrangements that support vertical and horizontal integration and the understanding and management of risks across all sectors, domains and scales and that engage all of society are essential to contending with twenty-first century risks.

22. Ongoing efforts to enhance coordination, revisit mandates and promote transdisciplinary approaches are crucial for strengthening risk governance across all dimensions of sustainable development. Making progress in comprehensive risk management requires adaptive governance, risk understanding, legislative frameworks and strengthened coordination across communities of practice. The iterative learning, planning, policymaking, implementation, monitoring and evaluation over time that those elements require call for a process of systematic coordination at all levels. Adaptive cross-sectoral risk governance – in particular with regard to policy areas, ministries, departments and organizations beyond national disaster management authorities – has proved to be effective in mainstreaming disaster risk reduction and accelerating implementation. The establishment of

<sup>12</sup> United Nations Office for Disaster Risk Reduction, *GAR Special Report 2023: Mapping Resilience for the Sustainable Development Goals* (Geneva, 2023).

<sup>13</sup> World Health Organization (WHO), *WHO Guidance on Research Methods for Health Emergency and Disaster Risk Management, Revised 2022* (Geneva, 2022).

<sup>14</sup> WHO, *Health Emergency and Disaster Risk Management Framework* (Geneva, 2019).

national platforms, task forces<sup>15</sup> and coordination bodies have reduced silos, promoted collaboration and facilitated an integrated approach to risk reduction.

23. Aligning disaster risk reduction and climate change adaptation optimizes resources, prevents maladaptation and addresses losses and damages. Further policy coherence and integration with and between global frameworks is still needed. A leadership course was developed on synergizing disaster risk reduction and climate change adaptation and jointly administered by the United Nations Office for Disaster Risk Reduction and the United Nations System Staff College to strengthen coherence and cross-sectoral capacity. In addition, the global Climate Vulnerable Forum parliamentary group, in partnership with the United Nations Office for Disaster Risk Reduction, developed normative guidance and legislative analyses, including a review of legislative frameworks to assess the regulatory landscape of disaster, climate and nature-related risk disclosures in corporate reporting and public investment management, to strengthen national disaster risk reduction and climate governance.

24. Disaster risk governance, supported by legal and regulatory frameworks, policies and plans, is central to reducing disaster risk by enhancing risk-informed decision-making. However, implementation of the Sendai Framework is hindered in many countries by institutional capacity constraints and a lack of regulatory frameworks. Progress on legal frameworks is concentrated in high-income countries. Allocating relevant resources, reinforcing national emergency management offices with risk information and fostering collaboration across policy institutions are necessary for improving national and local disaster risk governance. Success stories from Panama and the Philippines demonstrate the benefits of revising governance structures, improving policies and strengthening coordination mechanisms.<sup>16</sup> The European Union disaster resilience goals on acting together to deal with future emergencies<sup>17</sup> supports the legal framework for strengthening prevention and preparedness actions with multi-country transboundary effects. The Women's Resilience to Disasters Policy Tracker developed by the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) further facilitates progress analysis and the replication of good practices for enhanced gender-responsive legal and regulatory frameworks for disaster risk reduction.

25. Inclusive engagement, local action and exchanges between cities enhance urban resilience. The Making Cities Resilient 2030 initiative scales up localized risk management, benefiting 485 million people across more than 1,530 municipalities and 317 partner organizations globally since its establishment. The initiative uses such tools as a checklist of 10 essentials for making cities resilient, a handbook for local government leaders and the United Cities and Local Government Learning platform to aid cities in risk analysis, planning and resilience implementation. To date, 22 cities have achieved the status of Urban Resilience Hub and generate good practices for building resilience, fostering collaboration and creating resilient urban environments. The number of cities joining the initiative is growing, but remains limited in the least developed countries and in small island developing States.

26. Stakeholders are crucial to implementing the Sendai Framework at all levels. The Sendai Framework voluntary commitments online platform supports stakeholder engagement, progress monitoring, the sharing of good practices, optimizing resource

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<sup>15</sup> National task forces have been established in countries such as Australia, Egypt, Kyrgyzstan, Montenegro and Sweden.

<sup>16</sup> United Nations Office for Disaster Risk Reduction, *Status Report on Target E 2023: From Developing to Implementing National and Local DRR Strategies – Taking Stock of the Midterm Review of the Sendai Framework on Target E* (Geneva, 2023).

<sup>17</sup> European Commission, "Civil protection: EU outlines disaster resilience goals", 8 February 2023.



utilization and aligning efforts with national and local strategies. With 116 commitments and 593 deliverables supporting mainly Sustainable Development Goals 11, 13 and 17, stakeholders are committed to implementing the disaster risk reduction agenda. The Sendai Stakeholder Engagement Mechanism promotes that approach and facilitates inclusive participation and knowledge-sharing. The institutionalization of stakeholder involvement at all levels can ensure inclusivity and decision-making that incorporates diverse perspectives.<sup>18</sup> Improved identification and inclusion of disability-specific needs can further strengthen efforts to prepare and implement disability-inclusive disaster risk reduction strategies.

27. Delivering gender-responsive disaster risk reduction is key to implementing the Sendai Framework and necessitates the development of a gender action plan to accelerate efforts, as acknowledged during the midterm review. Consultations convened by the United Nations Office for Disaster Risk Reduction, UN-Women and the United Nations Population Fund are geared towards the development of a technical document to provide guidance to countries and stakeholders on enhancing gender-responsive measures aligned with the Sendai Framework at the national and local levels.

### **Priority 3: investing in disaster risk reduction for disaster risk resilience**

28. Private and public investments in disaster risk reduction remain insufficient, despite rising direct and indirect economic costs of disasters.<sup>19</sup> The cost of climate-related disasters has doubled in the past two decades, necessitating \$70 billion annually for adaptation in developing countries.<sup>20</sup> The global financial system, public policies and public and private financing have not adequately prioritized prevention and risk reduction. Corrective measures are vital to understanding the financing gap and to shifting the balance towards prevention and risk reduction. In the intergovernmentally agreed conclusions and recommendations of the 2023 Economic and Social Council forum on financing for development follow-up, Member States recognized the need to ensure disaster risk reduction is included in industrial development policies and investments.<sup>21</sup>

29. Domestic investment in disaster risk reduction is limited, and risk reduction financing frameworks are lacking. Integrated national financing frameworks can provide comprehensive tools for countries to enhance investment and mitigate risks, with a view to achieving sustainable development. The United Nations Office for Disaster Risk Reduction and the Department of Economic and Social Affairs developed a guidance note on leveraging integrated national financing frameworks for disaster risk reduction, to enhance risk reduction and resilience-building. Risk-sensitive budget reviews to strengthen budgetary processes and build alignment with disaster risk reduction priorities have recently been conducted in Burkina Faso and the Niger, with additional reviews scheduled for Madagascar, Mauritius and Seychelles.

30. Systemic reforms of the international financial system can more strongly support de-risking of investments. Existing platforms, such as the Coalition of Finance Ministers for Climate Action, provide opportunities for international collaboration in determining good practices and devising common approaches to amend financial regulations for resilience and disaster risk reduction. Doing so entails updating mandates and programmes of work to explicitly consider a broader range of risks beyond climate and the environment.

<sup>18</sup> United Nations Office for Disaster Risk Reduction, *Status Report on Target E 2023*.

<sup>19</sup> United Nations Office for Disaster Risk Reduction, *The Report of the Midterm Review of the Implementation of the Sendai Framework*.

<sup>20</sup> United Nations Office for Disaster Risk Reduction, "International cooperation in disaster risk reduction: target F", 2021.

<sup>21</sup> See [E/FFDF/2023/3](#).

31. The private sector is crucial for diverting funds from risk creation to risk management, as well as for financing disaster risk reduction. Incentivizing private investment that reduces risk requires improving company disclosures related to disaster risks and revising accounting practices, building on progress made on environmental, social and governance reporting and sustainability reporting, such as through the Taskforce on Nature-related Financial Disclosures and the International Sustainability Standards Board. Capital market actors are also critical to de-risking investments. The Investor Advisory Board<sup>22</sup> and the network of chief resilience officers<sup>23</sup> established by the United Nations Office for Disaster Risk Reduction will seek to integrate resilience into environmental, social and governance reporting. More efforts are needed to capitalize on resilience bonds issued to support investments in reducing risk and building resilience.

32. Despite increasing interest in risk financing and risk transfer mechanisms, challenges persist with regard to scale and penetration. Promising innovations in this field include the expanded use of contingent financing mechanisms such as catastrophe bonds and the implementation of clauses that allow for immediate debt moratoriums after disasters. The Insurance Development Forum, the Sustainable Insurance Facility, the InsuResilience Global Partnership and the Global Shield against Climate Risks contribute to bridging the gap and leveraging insurance as an incentive for risk reduction.

33. Investments in resilient infrastructure, including for renewable energy transition, trade facilitation<sup>24</sup> and information and communications technology, are essential. The principles for resilient infrastructure, the Coalition for Disaster-Resilient Infrastructure and the Lexicon on Disaster Resilient Infrastructure<sup>25</sup> provide practical policy guidance to foster a shared conceptual understanding of resilient infrastructure-related terms and phrases. A stress testing tool<sup>26</sup> has been developed to help countries to identify vulnerabilities, prioritize actions and investments and assess interdependencies and cascading effects in infrastructure systems at the national level. Stress testing is ongoing in several interested countries.

34. The establishment of the Group of 20 (G20) Working Group on Disaster Risk Reduction<sup>27</sup> in 2023 and the commitments set out by the Group of Seven (G7) in its leaders' communiqués demonstrate the growing political impulse driving risk-informed decision-making and investment. The G20 Working Group has prioritized the promotion of early warning systems, resilient infrastructure, integrated financing frameworks, global disaster recovery systems and ecosystem-based approaches. The commitment of the G7 to strengthen the global climate and disaster risk financing and insurance architecture has the potential to support capital for climate impacts and close protection gaps.

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<sup>22</sup> See [www.undrr.org/implementing-sendai-framework/catalyze-investment-in-resilience/investor-advisory-board](http://www.undrr.org/implementing-sendai-framework/catalyze-investment-in-resilience/investor-advisory-board).

<sup>23</sup> United Nations Office for Disaster Risk Reduction, "Business leaders meet to advance the resilience of societies to disaster risks", 10 March 2023.

<sup>24</sup> United Nations Conference on Trade and Development, "Climate-resilience of seaports: adequate finance is critical for developing countries but remains a major challenge", Policy Brief, No. 103, July 2022.

<sup>25</sup> Coalition for Disaster-Resilient Infrastructure, Disaster-Resilient Infrastructure Lexicon, available at <https://lexicon.cdri.world/>.

<sup>26</sup> United Nations Office for Disaster Risk Reduction, "Investing in resilient infrastructure for a better future", 26 May 2022.

<sup>27</sup> See [www.g20.org/en/workstreams/sherpa-track/](http://www.g20.org/en/workstreams/sherpa-track/).

#### **Priority 4: enhancing disaster preparedness for effective response and to build back better in recovery, rehabilitation and reconstruction**

35. Improvements in multilateral cooperation have enhanced preparedness and response effectiveness. Progress has been made in the design and implementation of multi-hazard early warning systems. However, coverage remains inadequate, with only 95 countries reporting coverage through the Sendai Framework monitor. Missed opportunities for building back better hinder post-disaster development and resilience, as many countries lack pre-disaster policies, capacities, resources, standards and legislation for resilient recovery and sustainable development. Progress has also been made in inclusive and gender-responsive disaster prevention, preparedness and recovery planning, which promote the improvement of disability-inclusive recovery.

36. The report on the global status of multi-hazard early warning systems (global target G)<sup>28</sup> shows particularly limited coverage in the least developed countries, small island developing States and Africa. Even where warning systems exist, coverage across the full warning cycle remains insufficient. Urgent action is needed to expand access to resources, technology and capacity development. In a “Words into Action” guide on multi-hazard early warning systems,<sup>29</sup> the United Nations Office for Disaster Risk Reduction outlines key principles and steps for establishing and maintaining effective, end-to-end, people-centred multi-hazard early warning systems, include risk assessment, data management, communication strategies and community engagement to support action to build more resilient communities and reduce the impacts of disasters. The establishment of the African Centre of Meteorological Applications for Development, the Economic Community of West African States situation centre and collaboration among the African Union Commission, the regional economic communities and climate centres are major advancements in that regard.

37. In 2022, World Tsunami Awareness Day was focused on promoting the availability and accessibility of multi-hazard early warning systems and disaster risk information to people by 2030, aligned with the Early Warnings for All initiative. The global #GetToHighGround campaign reached 185 million social media impressions, and the commemoration of the International Day for Disaster Risk Reduction reached 430 million. Coordinated by the UNESCO Intergovernmental Oceanographic Commission, early warning alert systems for tsunamis are now operational in all major ocean basins. Strengthening tsunami early warning systems to cover all at-risk communities, especially the most vulnerable groups, is essential to survival and to minimizing damage. Developing multi-hazard capacities can help countries to detect tsunamis that are triggered by forces other than earthquakes.

38. Regional cooperation on disaster preparedness has improved response effectiveness. The regional response mechanism operating in the Caribbean addresses capacity constraints by securing emergency supplies and financing for anticipatory action. Investments and policy amendments made for the Ebola outbreak prepared Liberia and the United Republic of Tanzania for tackling the COVID-19 pandemic risk.<sup>30</sup> The COVID-19 pandemic experience underscored the need for pre-disaster policies, capacities, resources, standards and legislation for sustainable development through recovery, rehabilitation and reconstruction.

<sup>28</sup> United Nations Office for Disaster Risk Reduction and WMO, “Global status of multi-hazard early warning systems: target G”, 2022.

<sup>29</sup> United Nations Office for Disaster Risk Reduction, *Words into Action: A Guide to Multi-Hazard Early Warning Systems* (Geneva, 2023).

<sup>30</sup> United Nations Office for Disaster Risk Reduction, *The Report of the Midterm Review of the Implementation of the Sendai Framework*.

39. The 2023 International Recovery Forum, held under the theme “Building back better and long-term recovery outcomes: aspirations for a resilient, sustainable future”, was focused on highlighting the importance of preparedness while balancing urgency with planning to build back better. Investment in pre-disaster recovery preparations and inclusive co-design with affected communities lead to sustainable outcomes and resilience. The successful application of lessons learned from past recovery experiences requires institutionalization in systems, procedures and guidelines for preparedness, response, recovery and rehabilitation.

40. Post-disaster needs assessments are becoming more risk-informed and integrated, despite data gaps and limited understanding of estimation methodologies, in particular on infrastructure damages and service disruptions. The inclusion of assessed losses and improved analysis, including gender-responsive analysis, and the reporting of service disruption indicators in post-disaster needs assessments have the potential to enhance risk-informed decision-making.

41. Coherence between humanitarian and development assistance is improving, through a focus on building back better. Programmes addressing emergencies and vulnerabilities are incorporating risk information and interventions into humanitarian planning processes.<sup>31</sup> Mainstreaming anticipatory action within comprehensive disaster reduction strategies necessitates strengthening institutions, building capacity and engaging in advocacy. Sustainable disaster recovery requires inclusive legal frameworks and “build back better” principles that bridge gaps between humanitarian, development and peace activities. Shifting from passive coping to transformative recovery pathways entails raising awareness, building capacity and securing pre-arranged financing. Promoting environmentally sustainable humanitarian action and green recovery plays a vital role in mitigating hazards and adapting to climate change. The United Nations system has provided support to Governments in anticipatory action. For example, work carried out by the Food and Agriculture Organization of the United Nations (FAO) and the World Food Programme (WFP) has improved the quality and utility of tools and analytical products related to early warnings, food security and risk analysis to support decision-making, including through the Hunger Hotspots report and the e-learning course on developing an anticipatory action system.

#### **IV. Disaster risk reduction in the least developed countries, landlocked developing countries, small island developing States and middle-income countries**

42. The least developed countries, landlocked developing countries, small island developing States and middle-income countries face growing disaster risks that hinder implementation of the Sendai Framework and the 2030 Agenda. Sufficient support for capacity-building, technology transfer, financial support, partnerships, comprehensive risk governance approaches and de-risked investment are crucial to a risk-informed approach to development in these groups of countries.

43. Although data gaps in reporting persist, the Sendai Framework monitor shows that the disaster-related mortality rate (global target A) between 2013 and 2022 was 3.10 per 100,000 people in the least developed countries, 2.12 in landlocked developing countries and 1.92 in small island developing States, all significantly higher than the global average, which was 1.15. For affected populations (global target B), the average number of affected people per 100,000 was 2,172 in the least

<sup>31</sup> United Nations Office for Disaster Risk Reduction, *2021 Progress Report on the Implementation of the UN Plan of Action on DRR for Resilience* (Geneva, 2022).

developed countries, 3,120 in landlocked developing countries and 1,882 in small island developing States. In relation to economic losses (global target C), the least developed countries accounted for 5.93 per cent of globally reported economic losses between 2015 and 2022, despite having only 1.16 per cent of the total GDP of reporting countries. Landlocked developing countries reported 4.14 per cent of economic losses, while having only 1.05 per cent of the GDP of reporting countries, and small island developing States reported 0.29 per cent of economic losses, while having 0.64 per cent of the GDP of reporting countries. The least developed countries reported, on average, 37,698 critical infrastructure units and facilities destroyed or damaged by disasters every year during the period 2015–2022, landlocked developing countries reported, on average, 36,532 units per year, and small island developing States reported an average of 467 units per year. Only 61 per cent of the least developed countries reported having national disaster risk reduction strategies (global target E), while multi-hazard early warning systems (global target G) remained inadequate, with 46 per cent among the least developed countries, 59 per cent among landlocked developing countries and 39 per cent among small island developing States; only 45 per cent of countries in sub-Saharan Africa have reported having multi-hazard early warning systems.

44. The adoption of the Doha Programme of Action for the Least Developed Countries was a significant move towards incorporating a risk-informed approach to development and in promoting the incorporation of disaster risk reduction into policies and programmes on structural economic transformation, productive capacity development, commodity diversification and social protection. In order to implement the Doha Programme of Action effectively, policies and monitoring commitments can be bolstered by aligning them with the Sendai Framework monitor and by enhancing multi-hazard early warning systems, through support from development partners. In addition, disaster risk reduction can strengthen the sustainable graduation strategies of the least developed countries, by promoting a risk-informed approach to development, in particular as countries move through the graduation pipeline. The process now includes risk reduction through the agreement to use data from the Sendai Framework monitor as part of the graduation criteria<sup>32</sup> and a further call on countries to integrate disaster risk reduction in their “smooth transition strategies”. The United Nations Office for Disaster Risk Reduction has supported Bangladesh and Bhutan in facilitating those elements in their graduation process.

45. The deliberations and outcomes of the third United Nations Conference on Landlocked Developing Countries and the fourth International Conference on Small Island Developing States offer opportunities to mainstream disaster risk reduction. Targeted strategies are needed to enhance resilience and mitigate risks, considering the vulnerabilities and the unique challenges faced by these groups of countries.

46. Collaboration with landlocked developing countries and transit partners is pivotal to building resilience in areas such as trade, transport, infrastructure and health hazard management. Integrating disaster risk reduction into sectoral strategies, while emphasizing the significance of disaster risk reduction in economic, trade and legal frameworks, are strong considerations for landlocked developing countries. Policy coherence between the Sendai Framework and national development policies can support synergetic implementation.

47. For the successor framework for small island developing States, greater emphasis should be placed on investment in resilience, on climate change adaptation, on prevention and on the adoption of a truly multi-hazard approach to risk reduction. Enhanced disaster risk reduction governance and the development of disaster risk reduction financing plans, supported by the allocation of domestic and international

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<sup>32</sup> See [E/2023/33](#).

resources, are central to building and implementing long-term strategies for resilience and adaptation activities in small island developing States.

48. The economic vulnerabilities faced by many middle-income countries reduce their resilience and adaptation capacities in the context of disasters. Limited fiscal space for investment in risk reduction and resilience-building amplifies the impacts of disasters and weakens efforts for strong and sustained recovery. In their document on good practices in South-South and triangular cooperation for sustainable development in small island developing States,<sup>33</sup> UNDP and the United Nations Office for South-South Cooperation highlight effective practices in climate change, sustainable energy, transport and disaster risk reduction. Scaling up such practices is essential and must be supported by a conducive environment and continuous financial and technical support. South-South, North-South and triangular cooperation have proved to be key in reducing disaster risk across the least developed countries, landlocked developing countries, small island developing States and middle-income countries.

## V. Disaster risk reduction in countries affected by conflict, protracted humanitarian crisis and disaster displacement

49. Countries experiencing protracted humanitarian crises and conflict face heightened vulnerability to the impacts of disasters, lag in implementing the Sendai Framework and require focused attention and support. Applying the Sendai Framework in such contexts can reduce future humanitarian needs and reinforce effective governance and community cohesion. Prioritizing vulnerability factors and inclusive risk governance fosters coherence across post-disaster needs assessments, recovery efforts and peacebuilding evaluations, ensuring conflict-sensitive rehabilitation. Peacebuilding initiatives and disaster recovery processes reinforce social unity and participatory governance, creating synergies for sustainable development.

50. Integrating disaster risk reduction into humanitarian action and programming reduces recovery time and required resources and enhances overall resilience. Key guidance documents, studies and reports have provided insights and recommendations towards a risk-informed approach to humanitarian programming across the United Nations humanitarian country teams. A checklist for scaling up disaster risk reduction in humanitarian action<sup>34</sup> is being implemented in Bangladesh, El Salvador, Guatemala, Haiti, Honduras, Madagascar and South Sudan; and a free, self-paced online course was launched in July 2023. A mapping exercise of capacities among humanitarian actors was undertaken to outline the available expertise and needs at different levels. In addition, a study on disaster risk reduction financing in fragile and humanitarian contexts<sup>35</sup> provided inputs to the technical work developed by the Inter-Agency Standing Committee task force 4 on humanitarian-development collaboration and its linkages to peace. Initiatives such as the Risk-Informed Early Action Partnership and Grand Bargain can bridge the humanitarian financing gap.

<sup>33</sup> United Nations Development Programme (UNDP) and United Nations Office for South-South Cooperation, *Good Practices in South-South and Triangular Cooperation for Sustainable Development in SIDS: Advancing the SAMOA Pathway and Achieving Sustainable Recovery* (2021).

<sup>34</sup> See <https://www.preventionweb.net/collections/scaling-drr-humanitarian-and-fragile-contexts>.

<sup>35</sup> Carried out by the Food and Agriculture Organization of the United Nations (FAO), International Organization for Migration (IOM), Office for the Coordination of Humanitarian Affairs, United Nations Office for Disaster Risk Reduction, Office of the United Nations High Commissioner for Refugees (UNHCR), United Nations Children's Fund.

51. Integrated multidimensional risk assessments bring together disaster risk reduction and conflict prevention experts to enhance targeted and effective prevention and resilience-building by integrating assessments of disaster and conflict risks and impacts. UNICEF has partnered with the Bureau for Humanitarian Assistance of the United States of America Agency for International Development to pilot a subnational children’s climate and disaster risk assessment model in Kenya and Somalia, with child-centred data and cross-sector coordination to strengthen risk-informed programming and planning processes in conflict settings.

52. Disaster-induced displacement is a prevalent and immediate disaster impact, but is often omitted from disaster risk reduction legislation, policy and strategies. The United Nations Office for Disaster Risk Reduction, the Office of the United Nations High Commissioner for Refugees (UNHCR) and the Platform for Disaster Risk Reduction updated the global mapping of displacement and migration integration in risk reduction frameworks. Training on disaster displacement for national disaster management officers in Asia have improved capacity for integration into strategies, policies, laws and programmes. For the Americas and the Caribbean, technical support has been provided, including through the Greater Caribbean Climate Mobility Initiative, led by the Association of Caribbean States with support from the World Bank and United Nations entities.<sup>36</sup> Several countries in Eastern Europe and Latin America have benefited from the inclusion of risk analytics and other forms of technical assistance in their humanitarian programme cycle to support risk-informed humanitarian planning and displacement response.<sup>37</sup>

## **VI. Coordination of disaster risk reduction across the United Nations system**

53. Improvements in the United Nations coordination mechanisms on disaster risk reduction have led to stronger coherence and enhanced advocacy towards countries and other stakeholders. The United Nations Plan of Action on Disaster Risk Reduction for Resilience guides joint efforts in supporting Member States in implementing the Sendai Framework, related aspects of the 2030 Agenda and other international agreements. Led by the Senior Leadership Group on Disaster Risk Reduction for Resilience, United Nations entities have been delivering together on strengthening early warning systems, supporting multisectoral risk governance, maximizing local disaster risk reduction efforts and including a risk-informed element to development, humanitarian and peacebuilding actions.

54. Regional collaborative platforms have emphasized the need for an integrated approach across the United Nations system in response to current and emerging polycrisis. The integration of disaster risk reduction in the UNDP 2022–2025 strategic plan has anchored a multi-risk approach to secure development gains and reduce structural vulnerabilities. The reinvigorated resident coordinator system, with a new generation of resident coordinators at the core, has proven effective in providing timely, coherent United Nations support to countries, leading to integrated policy responses, strategic needs-based approaches, better linkage of United Nations expertise, increased accountability, transparency and efficiencies. In Africa, the United Nations Office for Disaster Risk Reduction collaborated with UNESCO to co-lead a subgroup on building climate and disaster resilience, to promote climate action and resilience in the region. Similarly, in the Asia-Pacific and the Latin America and Caribbean regions, the United Nations Office for Disaster Risk

<sup>36</sup> UNDP, United Nations Office for Disaster Risk Reduction, United Nations Framework Convention on Climate Change and IOM.

<sup>37</sup> United Nations Office for Disaster Risk Reduction, “Annual report 2022”, 2023.

Reduction, UNDP and the United Nations Environment Programme (UNEP) are co-leading the issue-based coalition on climate change and resilience. Elsewhere, United Nations country teams are advancing integrated policy approaches to address climate impacts and build resilience to disasters and extreme climate events. Capacity development at the national level has been enhanced through training programmes, tools and guidance documents on integrating disaster risk reduction into cooperation frameworks, as well as the new generation of national loss and damage data sets, integrated national financing frameworks and training on scaling up disaster risk reduction in humanitarian and fragile contexts.

55. In the political declaration of the high-level meeting on the midterm review of the Sendai Framework,<sup>38</sup> the United Nations system is urged to improve support for the Framework's implementation by supporting countries to develop risk reduction standards, legislation, comprehensive risk governance and early warning systems, as well as by strengthening the means of implementation, including data collection, monitoring, risk analytics and de-risking investments. The Senior Leadership Group has endorsed recommendations to advance the call to action up to 2030.

## VII. Early Warnings for All

56. The Early Warnings for All initiative is a ground-breaking effort to ensure that everyone on Earth is protected by early warning systems by the end of 2027. The initiative is a key contribution to delivering climate justice to those on the front lines of the climate crisis as part of the Secretary-General's acceleration agenda.<sup>39</sup> It aligns with the priorities of the Paris Agreement on climate change and supports key provisions of the Sendai Framework, in particular global target G on the availability of and accessibility to multi-hazard early warning systems. It also contributes to delivery on the targets of the 2030 Agenda for Sustainable Development.

57. Early Warnings for All is focused on bringing together the broader United Nations system, Governments, civil society and development partners across the public and private sectors to enhance collaboration and accelerated action to address gaps across the early warning systems value chain to deliver people-centred, end-to-end, multi-hazard early warning systems that leave no one behind.

58. The Early Warnings for All initiative is co-led by WMO and the United Nations Office for Disaster Risk Reduction. The initiative also engages development partners through existing partnerships and coalitions, such as the Alliance for Hydromet Development, and other regional partnerships and alliances. Through a global partnership architecture, the initiative is structured around the four pillars essential to delivering effective and inclusive multi-hazard early warning systems: (a) disaster risk knowledge and management (led by the United Nations Office for Disaster Risk Reduction); (b) detection, monitoring, analysis, forecasting and warning of the hazards and possible consequences (led by WMO); (c) warning dissemination and communication (led by the International Telecommunication Union); and (d) preparedness and response capabilities (led by the International Federation of Red Cross and Red Crescent Societies). Additional implementing partners include FAO, the Office for the Coordination of Humanitarian Affairs, UNDP, UNEP, UNESCO, the Risk-Informed Early Action Partnership and WFP. The resident coordinators are crucial in implementing the initiative on the ground, and the private sector and civil society organizations will also play important roles. The initiative is founded on

<sup>38</sup> General Assembly resolution 77/289, annex.

<sup>39</sup> See [www.un.org/sites/un2.un.org/files/un\\_sgs\\_acceleration\\_agenda.pdf](http://www.un.org/sites/un2.un.org/files/un_sgs_acceleration_agenda.pdf).



collaboration and synergies across all partners who have been working on early warning system implementation.

59. The 2023–2027 executive action plan on the Early Warnings for All initiative<sup>40</sup> was launched at the twenty-seventh Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Sharm el-Sheikh, Egypt, with an estimated financing need of \$3.1 billion. Existing financing mechanisms are being leveraged and scaled up to enable concrete progress and optimize resources, including the Climate Risk and Early Warning System Initiative, the Systematic Observations Financing Facility and the Green Climate Fund. In addition, multilateral development bank financing and operations are being aligned to support the initiative. In 2023, the Early Warnings for All initiative is rolling out activities to fast-track implementation in a first group of 30 countries. For each country, a stocktaking is being carried out of the status and gaps in early warning systems, after which targeted activities are planned so that a minimum core capability for functioning multi-hazard early warning systems will be reached. The stocktaking includes the organization of multisectoral and multi-stakeholder workshops to set in-country priorities and to keep track of ongoing and pipeline support, linking to Early Warnings for All activities to avoid duplication.

60. The initiative is guided by an advisory panel established in March 2023 to assess progress against its goals and targets, build political and overall momentum and support, provide overall recommendations for the mobilization of resources and monitor scientific and technical development related to early warnings systems. The panel will meet twice a year and produce an annual progress report on the initiative to the Secretary-General. The monitoring of progress in achievement of the initiative is being undertaken through an inter-agency monitoring and evaluation working group. A substantive report analysing the global status of early warning systems will be released annually at the conferences of the parties to the United Nations Framework Convention on Climate Change, and updated information shared through a publicly accessible dashboard.

61. In the midterm review of the Sendai Framework, specific recommendations were put forward to enhance the implementation of global target G for increased availability and access to multi-hazard early warning systems. The following suggestions stemmed from the midterm review: (a) to develop guiding strategies across all four pillars and mobilize resources, technology and capacity to implement the strategies; (b) to integrate vulnerability data into early warning systems, including information on human health, ecosystem health and gender; and (c) to reach the last mile and building people-centred early warning systems in close collaboration with communities at the local level and integrate traditional and Indigenous knowledge. The Early Warnings for All initiative will integrate these recommendations in its work in the upcoming year.

## **VIII. Addressing the impacts of the El Niño phenomenon through an effective global response**

62. The El Niño-Southern Oscillation is a recurring natural phenomenon characterized by fluctuating ocean temperatures in the equatorial Pacific, coupled with changes in the atmosphere. It has a major influence on climate patterns around the world over the course of several years and has widespread repercussions for ecosystems and human societies. After starting in September 2020 and pausing briefly

<sup>40</sup> WMO and United Nations, *Early Warnings for All: The UN Global Early Warning Initiative for the Implementation of Climate Adaptation – Executive Action Plan 2023–2027* (2022).

during the boreal summer of 2021, the recent multi-year La Niña event, the cooling phase of the El Niño-Southern Oscillation, ended in March 2023. This was the first so called “triple dip” of La Niña of the twenty-first century. El Niño conditions are present and will increase the likelihood of breaking temperature records and trigger more extreme heat in the period 2023–2024.<sup>41</sup>

63. Long-term warming is attributed to greenhouse gas emissions from human activity. Global temperatures can fluctuate significantly above or below this long-term, human-caused trend owing to naturally occurring cycles like the El Niño-Southern Oscillation in any given year. The years 2015 to 2022 were the eight warmest on record. The year 2022 was the fifth or sixth warmest year on record, despite the cooling impact of La Niña.<sup>42</sup>

64. Multi-year La Niña conditions contributed to an exceptional, consecutive five-season drought in the Horn of Africa.<sup>43</sup> As a result, as of January 2023, 22.5 to 23.4 million people faced high levels of acute food insecurity in Ethiopia, Kenya and Somalia. Although less severe than other parts of the region, drought was also a driver of food insecurity in northern Uganda. Across the region, further secondary and tertiary impacts were recorded, including record levels of malnutrition admissions, 1.69 million people being internally displaced, some 24 million people facing daily water insecurity and disease outbreaks spreading.<sup>44</sup>

65. According to WMO, the 2022 Atlantic hurricane season was quieter than 2020 and 2021,<sup>45</sup> with 14 named storms, including 8 hurricanes and 2 major hurricanes. During an El Niño phenomenon, event tropical cyclone activity is typically lower in the Atlantic and stronger in the central and eastern Pacific, although latest forecasts predict a near-normal Atlantic.<sup>46</sup> Forecasts indicate a 50 per cent chance of above-normal tropical cyclone/typhoon activity in the central Pacific.<sup>47</sup> Predictions of the onset and duration of El Niño-Southern Oscillation events are needed for action to be taken in advance to protect people’s health, livelihoods and food supplies. The accuracy of such predictions relies on global observing and forecasting infrastructure and institutional capacities, which are often lacking.<sup>48</sup> In Ecuador, the International Research Centre on El Niño issues monthly bulletins on El Niño-Southern Oscillation conditions and forecasts for decision-makers across sectors, the media and the public.

66. The El Niño-Southern Oscillation Global Analysis Cell, formed under the auspices of the Inter-Agency Standing Committee,<sup>49</sup> brings together United Nations system entities<sup>50</sup> with partners to provide early warning advisories and identify the countries most at risk of humanitarian impacts relating to El Niño-Southern

<sup>41</sup> WMO, “El Niño/La Niña southern oscillation: current situation and outlook”, June 2023.

<sup>42</sup> WMO, *State of the Global Climate 2022* (Geneva, 2023).

<sup>43</sup> FAO and others, “Sustained ‘no regrets’ humanitarian efforts urgently needed in response to drought in the Horn of Africa”, joint alert statement by meteorological agencies and humanitarian partners, Nairobi, 16 February 2023.

<sup>44</sup> International Displacement Monitoring Centre, *GRID 2021: Internal Displacement in a Changing Climate* (Geneva, 2023).

<sup>45</sup> WMO, “Atlantic hurricane season ends, impacts continue”, 2 December 2022.

<sup>46</sup> National Oceanic and Atmospheric Administration, “NOAA predicts a near-normal 2023 Atlantic hurricane season”, 25 May 2023.

<sup>47</sup> National Oceanic and Atmospheric Administration, “NOAA predicts a near- or above-normal 2023 central Pacific hurricane season”, 25 May 2023.

<sup>48</sup> WMO, *The Global Climate Observing System 2021: The GCOS Status Report* (Geneva, 2021); Global Ocean Observing System, “Ocean observing system report card 2022”, GOOS report No. 274, 2022; and Alliance for Hydromet Development, *Hydromet Gap Report 2021* (2021).

<sup>49</sup> Inter-Agency Standing Committee, “Inter-Agency SOPs for early action to El Niño/La Niña episodes”, 23 March 2018.

<sup>50</sup> FAO, Office for the Coordination of Humanitarian Affairs, UNDP, United Nations Office for Disaster Risk Reduction, UNHCR, World Food Programme and WMO.

Oscillation episodes, to support anticipatory action planning. These entities are now planning against impacts of El Niño in 2023, to assist countries most at risk.

67. The Caribbean, Central America and Southern Africa, as well as parts of Asia, are highlighted as areas of particular concern for 2023 owing to existing food insecurity and historical impacts of El Niño on rainfall patterns.<sup>51</sup> FAO also identified major cereal-producing and exporting countries, like Australia, Brazil and South Africa, as at risk of dry conditions, while excessive rainfall may affect cereal exporters in Argentina, Türkiye and the United States. Financial resources (\$172 million) are required to alleviate severe hardship among rural populations, stop the spread of hunger and malnutrition, protect people's means of subsistence and forestall population displacement and the resulting rise in humanitarian needs.<sup>52</sup> Early warning and anticipatory action are vital to address the impacts of El Niño-Southern Oscillation and other seasonal climate drivers on weather and climate patterns at the global level, including through integrated plans.

## IX. Conclusions and recommendations

68. **Eight years since the adoption of the Sendai Framework for Disaster Risk Reduction, progress has been made in its implementation at all levels, but the current pace of implementation is inadequate. Nevertheless, looking forward, it is encouraging that the findings of the Framework's midterm review demonstrate a growing culture of disaster prevention, resilience and responsible citizenship. Countries are committed to the achievement of the Framework's goal to prevent new and reduce existing disaster risk.**

69. **The understanding of disaster risk reduction has been strengthened in many sectors, and appreciation has grown among policymakers for the need to integrate disaster risk reduction into development, economic, finance, climate change, biodiversity and environmental policies and strategies. This is evident in the number of intergovernmental resolutions and declarations in which the implementation of the Sendai Framework is recognized as essential to the achievement of the 2030 Agenda for Sustainable Development and the Paris Agreement. It is also clear in the synergies between the implementation of the Sendai Framework and other internationally agreed frameworks, including the recently adopted Doha Programme of Action for the Least Developed Countries and the Kunming-Montreal Global Biodiversity Framework. Furthermore, the establishment of the Group of 20 Working Group on Disaster Risk Reduction is a clear demonstration that reducing disaster risk is an issue of global economic concern.**

70. **Since 2015, commitment by national Governments to implement the Sendai Framework has grown substantially, evidenced by the number of countries that have developed national disaster risk reduction strategies aligned with the Framework's prevention-oriented approach. Several Governments have taken further steps in establishing national coordination mechanisms that promote the integration of disaster risk reduction across all ministries and sectors. All countries could benefit from doing the same to address gaps in integrating disaster risk reduction in policy, planning and programming. Regional and subregional organizations continue to play an indispensable role in supporting countries to implement the Sendai Framework, in particular for the least**

<sup>51</sup> UN News, "New temperature records, food security threats likely as El Niño looms", 3 May 2023.

<sup>52</sup> FAO, *Drought in the Horn of Africa: Revised Rapid Response and Mitigation Plan to Avert a Humanitarian Catastrophe – January–December 2022* (Rome, 2022).

developed countries and small island developing States, and should be further supported and strengthened.

71. Despite limited progress at the local level, authorities from rural to urban areas have made tangible progress in developing and implementing disaster risk reduction strategies and adopting a disaster risk-informed approach to decision-making. Local community networks, civil society organizations, women's organizations and Indigenous Peoples are at the forefront of that work. Providing local actors with easier and sustainable access to financial resources and capacity development will make a considerable contribution to accelerating the pace of action in implementing the Sendai Framework.

72. While the implementation of the Sendai Framework is delivering positive results, its midterm review comes at a time when overall progress towards global goals and commitments made in 2015 is falling behind. This is in large part because their implementation has not sufficiently taken into account the creation or reduction of disaster risk and has not been responsive to current or emerging risks. Disasters are still destroying hard-won progress made towards achieving sustainable development and poverty eradication. The prevailing approach to dealing with disasters as exogenous to human decision-making needs to be transformed.

73. Over the course of a mere eight years, the global risk landscape has changed. Each year, the world crosses new climate change and biodiversity loss tipping points, pushing the ecological boundaries of our planet to its limits, creating untold risks. The social and economic impacts of the COVID-19 pandemic demonstrate extreme global exposure and vulnerability to biological hazards. In addition, rapid developments in and the adoption of artificial intelligence have unleashed new risks, the magnitude of which we do not yet fully comprehend. Public and private policy and investments decisions are creating more risk than Governments and societies are able to absorb and reduce.

74. Systemic changes are urgently needed to enable success by 2030. This requires integrating disaster risk reduction across all policies, investments and sectors through a gender-responsive, disability-inclusive and human rights-based lens. It also demands a comprehensive approach to risk management that expands the focus beyond natural hazards also to include biological, technological, environmental and economic hazards and shocks and their interrelations. In the political declaration of the high-level meeting on the midterm review of the Sendai Framework, Member States have made ambitious calls to action. Addressing gaps in existing policy architecture, assigning roles and responsibilities across ministries and institutions and strengthening legal and regulatory frameworks for disaster risk will significantly accelerate progress. In addition, mainstreaming disaster risk reduction into public financing and in the work of national and international financial authorities, as well as the development of innovative instruments to finance disaster risk reduction, can close the financing gap and address market short-termism and failures. As countries seek to reform the international financial system, it is critical that disaster risk reduction be included in those deliberations.

75. The pace of implementation is unequal within and among countries. Greater attention and resources are required to reduce risk across social, economic and environmental systems in the least developed countries, landlocked developing countries, small island developing States and middle-income countries from a multi-hazard approach. Significant investments in science and technology for disaster risk reduction in developing countries will be needed over the next seven years. Innovative solutions, including through

financing, are also needed to accelerate the implementation in situations of protracted humanitarian crisis and conflict. Ensuring coherence and complementarity between disaster risk reduction, sustainable development, climate change adaptation, humanitarian assistance and peacebuilding will strengthen prevention and build resilience, which is essential to end protracted crises. Poverty, inequality and marginalization remain the most significant risk drivers by increasing exposure and vulnerability to hazards. All countries can strengthen their approach to disaster risk reduction by ensuring that the development and implementation of policies and strategies are fully inclusive and address underlying social and economic drivers of disaster risk.

76. The United Nations system has enhanced its support to countries to implement the Sendai Framework and will continue to do so in line with the findings and recommendations of the midterm review and the political declaration of the midterm review of the Sendai Framework. Moving forward, the United Nations system will further integrate disaster risk reduction across its work and enhance technical support and capacity development for Member States on the development of disaster risk reduction standards, legislation and regulations, comprehensive approaches to risk governance, risk analytics, risk disclosure and de-risking investments. In implementing the recommendations related to global catastrophic risks, strategic foresight, preparedness and prevention, the United Nations system will be in a stronger position to support Member States to reduce disaster risk and build resilience for current and future generations towards the achievement of the Sustainable Development Goals.

77. It is recommended that:

(a) Member States, with support from the United Nations system, enhance human and institutional capacities for multidimensional and multi-hazard risk assessment; risk analytics; and strategic foresight and monitoring of systemic risk, including through the sharing of good practices and lessons learned from past disasters. Action should also focus on establishing groups of risk reduction experts who could cooperate across local and global scales, and enhance understanding of the risks posed by rapidly transforming social, technological and ecological systems, including advancements in artificial intelligence;

(b) Member States, with support from donors and the United Nations system, apply a comprehensive approach to disaster and climate risk management, strengthen policy, programmatic and financing links between national disaster risk reduction strategies and national adaptation plans, and promote greater synergies in the global, regional and national processes under the Sendai Framework, as well as the United Nations Framework Convention on Climate Change and the Paris Agreement;

(c) Member States, with the support of the United Nations system, accelerate the implementation of ecosystem-based approaches, including nature-based solutions and other approaches for disaster risk reduction in all sectors, and ensure synergies between the implementation of the Sendai Framework and the Kunming-Montreal Global Biodiversity Framework, including through the updating of national biodiversity strategies and action plans;

(d) Member States, through strengthened partnership, enhance investment in innovative and emerging technologies for risk assessment, analytics and mapping, while integrating local, traditional and Indigenous knowledge and taking advantage of advances in computing power, science and technology, artificial intelligence, Earth and climate observations and geographic information systems;

(e) Member States, the United Nations system, Governments, international financial institutions, development banks, the private sector, scientific and academic institutions, and civil society organizations enhance collaboration and allocate the necessary resources to implement the calls to action agreed in the political declaration of the high-level meeting on the midterm review of the Sendai Framework;

(f) Member States consider establishing a facility for “de-risking” in the financial system to promote the integration of disaster risk reduction into the decisions of financial institutions, support policy development and capacity-building on de-risking investments in all countries and mobilize financing for disaster risk reduction from public and private sources;

(g) Member States, through ministries of finance and economic planning, increase investment in disaster risk reduction, consider integrating disaster risk reduction in the work of central banks and other monetary authorities, national budgetary and expenditure legislation, debt instruments and budget processes across all sectors, and develop national disaster risk reduction financing strategies that are linked to integrated national financing frameworks for the Sustainable Development Goals and climate adaptation financing;

(h) The United Nations system work with international financial institutions and development banks, credit rating agencies, the insurance sector and the financial services sector to accelerate the development of innovative instruments, tools and guidelines for de-risking investments and to enhance lending streams and other forms of financing available for disaster risk reduction, including in the form of grants;

(i) Member States ensure new and existing infrastructure is disaster resilient and accessible to all persons by making multi-hazard disaster risk assessments a prerequisite for infrastructure, including digital and renewable energy, trade facilitation infrastructure, as well as housing and real estate investments, routinely conducting stress testing of existing infrastructure, strengthening regulatory frameworks for land-use planning and building codes and capitalizing on the benefits of investing in grey-blue-green approaches to infrastructure;

(j) Member States promote the further development of and investment in effective, inclusive and gender-responsive local, national and regional multi-hazard early warning mechanisms that lead to early action and support the implementation of the Early Warnings for All initiative;

(k) Entities of the United Nations system continue to integrate disaster risk reduction and the implementation of the Sendai Framework into their work at the national level, guided by the recommendations of the Senior Leadership Group on Disaster Risk Reduction for Resilience, and in line with commitments made under the United Nations Plan of Action on Disaster Risk Reduction for Resilience, including the integration of disaster risk reduction into United Nations sustainable development cooperation frameworks, common country assessments and other integrated analysis tools, and into entity-specific national strategies;

(l) Member States enhance the provision of the means to implement the Sendai Framework, including through international cooperation, global partnerships and North-South, South-South and triangular cooperation, in order to support the least developed countries, landlocked developing countries, small island developing States and middle-income countries facing specific challenges and, in that context, ensure that bilateral and multilateral development assistance is risk-informed and aligned with national disaster risk reduction strategies;

**(m) Member States consider augmenting financial contributions to the United Nations trust fund for disaster risk reduction and the United Nations Office for Disaster Risk Reduction to support countries in their efforts to manage and reduce disaster risk and to implement the Sendai Framework and to support the implementation of the calls to action from the midterm review of the Framework.**

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