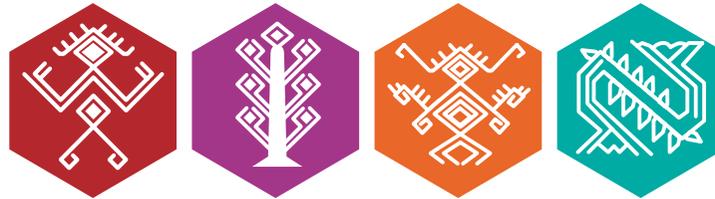




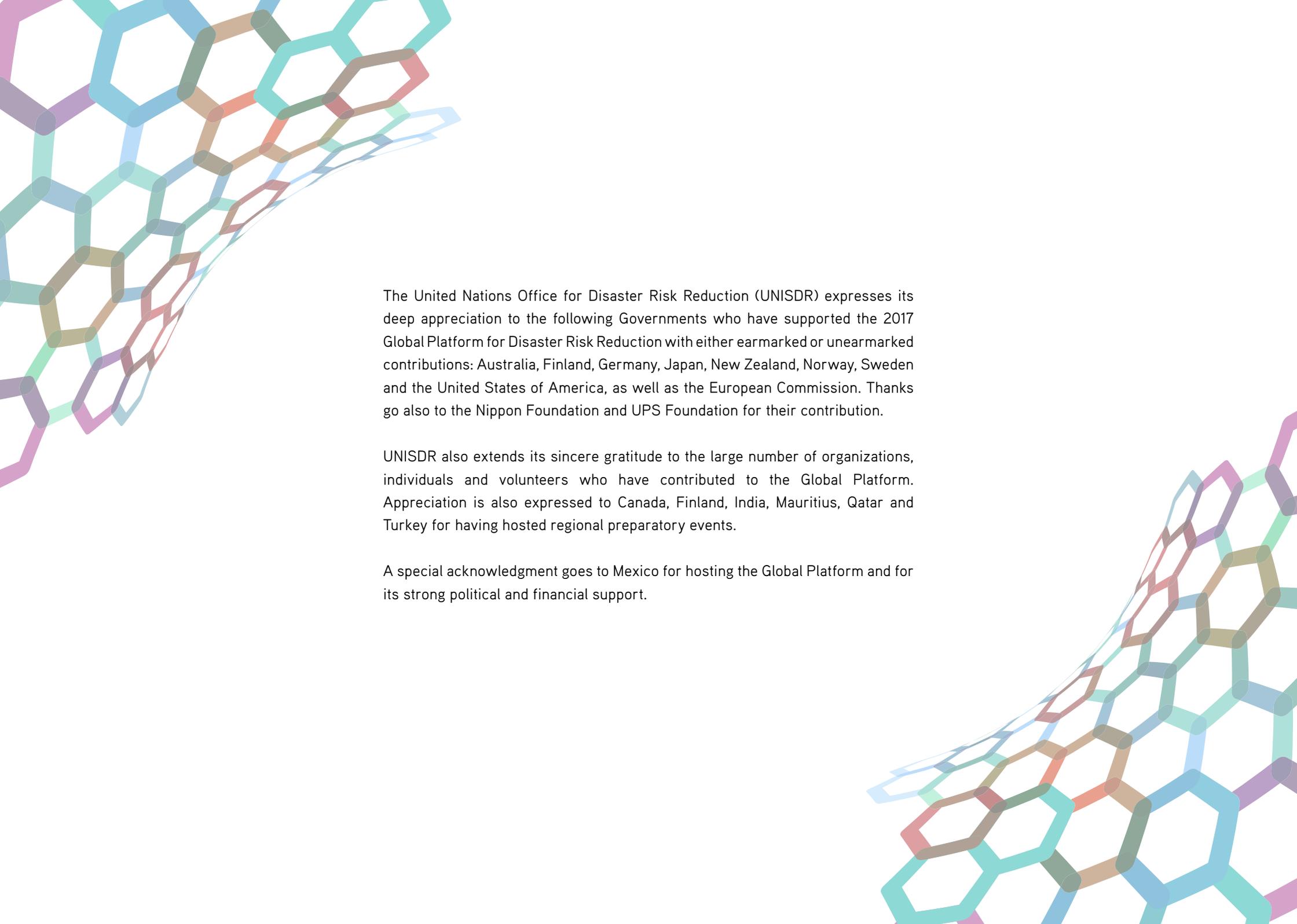
2017 Global Platform for Disaster Risk Reduction



22-26 May 2017 - Cancun, Mexico

PROCEEDINGS





The United Nations Office for Disaster Risk Reduction (UNISDR) expresses its deep appreciation to the following Governments who have supported the 2017 Global Platform for Disaster Risk Reduction with either earmarked or unearmarked contributions: Australia, Finland, Germany, Japan, New Zealand, Norway, Sweden and the United States of America, as well as the European Commission. Thanks go also to the Nippon Foundation and UPS Foundation for their contribution.

UNISDR also extends its sincere gratitude to the large number of organizations, individuals and volunteers who have contributed to the Global Platform. Appreciation is also expressed to Canada, Finland, India, Mauritius, Qatar and Turkey for having hosted regional preparatory events.

A special acknowledgment goes to Mexico for hosting the Global Platform and for its strong political and financial support.



Global Platform for Disaster Risk Reduction

The Global Platform for Disaster Risk Reduction established in 2006 (General Assembly resolution 61/198) is the world's foremost gathering of stakeholders committed to reducing risk and building resilience of communities and nations to disasters. The Global Platform is recognized as the main forum at the global level for strategic advice, coordination, partnership development and the review of progress in the implementation of international instruments on disaster risk reduction, in particular the Sendai Framework for Disaster Risk Reduction (2015-2030). Launched in 2007 and convened every two years, the Global Platform is characterised by a format that facilitates dialogue and exchanges among all stakeholders, both governmental and non-governmental. Furthermore, the Global Platform outcomes contribute to the deliberations of UN governance bodies and mechanisms, such as the General Assembly, the ECOSOC and the High Level Political Forum on Sustainable Development, and especially for the follow-up processes to UN conferences and summits, in particular the 2030 Agenda for Sustainable Development and its Sustainable Development Goals.

For more information on the previous sessions of the Global Platform, please visit:

www.unisdr.org/we/coordinate/global-platform



United Nations Office for Disaster Risk Reduction

Mandated as organiser and secretariat of the Global Platform, the United Nations Office for Disaster Risk Reduction (UNISDR) is the focal point in the United Nations system for coordinating disaster risk reduction and ensuring synergies among the relevant activities of United Nations agencies and regional organizations, and related activities in the socio-economic and humanitarian fields.

UNISDR's role is to support the implementation, follow-up and review of the Sendai Framework, including by fostering coherence with other international instruments, such as the 2030 Agenda for Sustainable Development and its Sustainable Development Goals as well as the Paris Agreement on climate change. As such, UNISDR champions and supports the integration of disaster risk management across different areas of work of the United Nations and its Members States as well as among a broad range of key stakeholders, including the private sector and civil society.

Information Note

This publication is optimized for display in full screen in landscape format. It includes various direct links to additional contents, videos, background documents and other features. See icons below and texts in bold throughout the pages.

A systematic link to the Sendai Framework for Disaster Risk Reduction 2015-2030 is also available on every reference to the official document.

As part of UNISDR's sustainable efforts for greening, this publication will not be printed. It is recommended to avoid printing of this document. If necessary, printing should be done on A4 pages in landscape format.



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SENDAI
FRAMEWORK



Foreword



Robert Glasser

Special Representative of the Secretary-General
for Disaster Risk Reduction

“
... we will continue building the momentum
from Cancún to make this world a safer and
more disaster resilient place!”

The Fifth Session of the Global Platform for Disaster Risk Reduction was the first occasion for the world to come together and discuss early progress on implementation of the Sendai Framework for Disaster Risk Reduction, adopted by UN Member States in Sendai, Japan, in March 2015 at the Third UN World Conference on Disaster Risk Reduction.

The event reaffirmed the remarkable commitment of Member States to the Sendai Framework. Many countries have either already aligned, or are in the process of aligning, their disaster risk management strategies and plans with the Sendai Framework. Countries are enacting supporting legislation, investing in expertise, engaging with stakeholders, and aligning risk governance mechanisms to enhance coherence.

The record attendance and participation of civil society alongside the UN family, and colleagues from the private sector, the science and technology community, parliamentarians and local government was an impressive confirmation that, in the UN Secretary-General's words, “reducing risk and vulnerability is everyone's responsibility.”

The gathering and the Chair's Summary left no doubt about the high level of commitment there is to achieving the targets of the Sendai Framework including those related to reducing mortality, reducing the numbers of people affected by disasters, and reducing economic losses and damage to critical infrastructure. This work is absolutely vital to attaining the Sustainable Development Goals. There was the resounding realisation that countries must act now if we are to achieve by 2020 the Sendai Framework's target (e) to “substantially increase the number of countries with national and local disaster risk reduction strategies.” I encourage you to read through the outcome document and draw inspiration for your own efforts from the Chair's Summary which captures the reflections and commitments to action which emerged from this historic gathering.

Finally, the Global Platform was generously hosted by Mexico, a country which faces the entire range of natural hazards and meets the challenge of reducing disaster risk every day through monitoring seismic activity, issuing heatwave warnings, tracking tropical cyclones and much more. I want to extend my sincere thanks to the President of Mexico, His Excellency Enrique Peña Nieto, the Mexican Ministry of Foreign Affairs, and the Mexican Ministry of Interior and its National Civil Protection System Agency (SINAPROC) for their invaluable contributions to the success of this Global Platform.

I look forward to welcoming you to our next Global Platform in 2019 in Geneva, Switzerland, where we will continue building the momentum from Cancún to make this world a safer and more disaster resilient place!

From Commitment to Action

A. Introduction

1. The Fifth Session of the Global Platform for Disaster Risk Reduction took place from 24 to 26 May 2017 in Cancún, Mexico. It was chaired by H.E. Mr. Enrique Peña Nieto, the President of the United Mexican States, with the participation of H.E. Mr. Bujar Nishani, President of the Republic of Albania, H.E. Mr. Jovenel Moïse, the President of Haiti, H.E. Mr. Taneti Maamau, the President of Kiribati, H.M. King Mswati III, Head of State of Swaziland, H.E. Mr. Robert Mugabe, the President Zimbabwe, H.E. Mr. Mattlan Zackhras, Minister in-Assistance to the President of the Republic of the Marshall Islands, H.E. Mr. Khurelsukh Ukhnaa, the Deputy Prime Minister of Mongolia, H.E. Ms. Inonge Wina, the Vice-President of Zambia, Ms. Amina Mohammed, the Deputy Secretary-General of the United Nations, Ms. Laura Tuck, the Vice-President for Sustainable Development of the World Bank, and 60 Ministers and Deputy Ministers, parliamentarians, representatives of intergovernmental organizations, local governments, business and civil society executives. The Global Platform benefited from the remote participation of persons with disabilities from Asia, the Americas, Europe and the Pacific. It was the largest ever Global Platform with over 7000 persons registered.
2. The Global Platform hosted the Leaders' Forum co-chaired by the President of the United Mexican States and the Deputy Secretary-General of the United Nations, which adopted the Cancún High-Level Communiqué on ensuring the resilience of infrastructure and housing. The Global Platform comprised over 300 events, including two ministerial roundtables, plenary sessions, special sessions, working sessions and special events. It was preceded on 22-23 May by a Multi-hazard Early Warning Conference which focused on increasing for people the availability of and access to multi-hazard early warning systems and disaster risk information and assessments, and on 21-23 by a "Climate and Disaster Resilience in Small Island Developing States: Practical Solutions" event.

3. Within the overarching framework set by the Sustainable Development Goals (the SDGs), the program and deliberations of the Global Platform reflected the priorities of the Sendai Framework for Disaster Risk Reduction 2015-2030 (the Sendai Framework), the Paris Agreement on climate change, the Addis Ababa Action Agenda, the Agenda for Humanity and the New Urban Agenda, and built on and benefited from the very rich and pragmatic outcomes of, and positions expressed by, the Regional Platforms for Disaster Risk Reduction which were kindly hosted by the Governments of Fiji for the Pacific on 24-26 October 2016, India for Asia on 2-5 November 2016, Mauritius for Africa on 22-25 November 2016, Paraguay on 8-9 June 2016 and Canada for the Americas on 7-9 March 2017, and Finland and Turkey for Europe on 3-5 October 2016 and 26-28 March 2017, respectively, as well as the Third Arab Preparatory Conference on Disaster Risk Reduction on 30 April-1 May 2017 hosted by Qatar.

B. Taking the Sendai Framework implementation forward

4. The 2017 Global Platform was the first to take place after the adoption of the Sendai Framework. It was an opportunity for countries, international organizations and other stakeholders to assess implementation, identify measures to drive action further, share lessons, forge partnerships and strengthen cooperation, as well as to fundamentally restate the value of the Sendai Framework as an effective guiding instrument and the commitment to its implementation.
5. The Leaders' Forum, ministerial roundtables, plenary sessions, special sessions, working sessions and special events generated substantive exchanges on key issues and concrete guidance for further action, clustered as follows according to the Sendai Framework's four priorities for action:

Priority 1: *Understanding disaster risk*

6. Accelerated efforts are required to ensure all countries systematically account for disaster losses by 2020, as a pre-requisite to achieve Sendai Target (e). Disaster loss data is also expected to contribute to the understanding of loss and damages from climate change. In parallel, efforts are required to ensure that loss data is widely disseminated and used to provide statistical evidence of risk for policymakers, development planners and disaster risk reduction practitioners.
7. Investment and technical capacity to support the development and maintenance of loss databases and the conduct of risk assessments are required for Least Developed Countries, Land-Locked Developing Countries and Small Island Developing States.
8. Methodologies and guidelines for the collection of data to build and maintain national disaster loss databases and conduct risk assessments need to be strengthened and developed into global standards for use by the public and private sectors in the efforts to implement the Sendai Framework. The United Nations Office for Disaster Risk Reduction should facilitate these efforts.
9. Practical examples regarding the use of open data platforms that present geo-referenced risk information across hazards and exposure data in open source and interoperable formats need to be documented and shared. This includes documenting the cost effectiveness and the multiple sustainable development benefits of such open risk data platforms for the public and private sector.
10. Countries are encouraged to incentivize the collection of risk information by local authorities, which can enable higher levels of data disaggregation. When consolidating the data nationally, it is recommended to preserve similar levels of disaggregation.
11. Risk assessments should include data on displacement as well as data disaggregated by sex, age, income and persons with disabilities. Further

improvement is required to achieve this. Identified good practices include the connection and active engagement of stakeholder groups who are already compiling such data through household survey or other means.

12. Risk information is the foundation for awareness-raising and the development of educational material on disaster risk. Risk assessments and guidance for risk assessments can be strengthened through systematic integration of indigenous and traditional knowledge and practices.
13. There is inconsistent availability of risk information to drive effective multi-hazard early warnings. The number of countries compiling data on casualty risk and developing scenarios to establish thresholds for impacts-based warnings needs to increase.
14. Risk information of the exposed population, including aspects of vulnerability and the identification of people with special needs, is required to target warnings and identify suitable communication channels. Progress in this area will need to be measured against Target (g) of the Sendai Framework.

Priority 2: *Strengthening disaster risk governance to manage disaster risk*

15. Disaster risk governance mechanisms at the global, regional and national levels continue to evolve. Efforts are required to adopt specific norms and regulations aimed at enabling partnerships between the public and private sectors, ensuring participation of stakeholders in disaster risk governance mechanisms and developing and implementing disaster risk reduction plans and strategies, guiding the coordinated work of institutions, and generating incentives for investments.
16. Accountability in disaster risk management needs to be strengthened. Independently audited risk disclosure, particularly when made mandatory, is important and should become common practice.

17. The empowerment of local authorities to manage disaster risk remains a priority and the Declaration of Local and Regional Governments on the implementation of the Sendai Framework adopted at the Global Platform provides practical guidance to achieve this aim.
18. Community participation, ownership and buy-in is important to build sustainability and long-term community resilience. Local governments are encouraged to base their disaster risk reduction strategies and plans on local communities' needs, knowledge and engagement.
19. Volunteerism continues to be a fundamental resource which needs to be leveraged and supported. The critical role in this regard of the Red Cross and Red Crescent movement was repeatedly emphasized.
20. Considerable room remains for improvement and innovation to reduce disaster risk in development sectors, as well as for achieving coherence in implementation across sectors. Managing disaster risk is a crosscutting endeavor which requires effective, inclusive and multi-stakeholder coordination mechanisms, such as national and local platforms, and their strengthening in order to ensure institutional coherence in accordance with the Sendai Framework.

Priority 3: *Investing in disaster risk reduction for resilience*

21. It is imperative to apply disaster risk management in the overall economic planning across sectors at national and local levels, as key for sustainable growth and development as well as resilience building and job creation, and the broader implementation of the SDGs.
22. Risk-informed investments for the resilience of infrastructure and housing was the focus of the Leaders' Forum, which concluded with practical and achievable commitments. The Forum highlighted that resilient and sustainable investment depend on the ability to ensure integration and coherence across policy instruments and regulatory frameworks, and this can only happen through strong coordination, collaborative partnerships that bridge institutions and stakeholders, and inclusive approaches that leave no one behind.

23. Significant work is required to ensure effective accounting of disaster risk in infrastructure and housing when developing economic strategies and budgets, and to continue enhancing risk transfer mechanisms and their increased availability to the poor and low-income groups. Normative and regulatory frameworks on risk-informed investments and budget allocations, incentives, cost-benefit analysis, risk assessments for both existing and future infrastructure, maintenance, and building standards need to be developed further in order to guide both the private and the public sectors and to ensure enforcement and accountability. The building industry needs to be guided by risk informed codes and by the application of expertise to assess losses using probabilistic scenarios.
24. The Global Platform recognized the value of investment practices which deliver significant impact, such as agricultural investments that meet the needs for healthy abundant food while also protecting biodiversity, land and water resources. In forest communities, investments in local fire monitoring systems were highlighted for their ability to reduce fire risk, protect forests and create jobs that build on scientific and indigenous knowledge systems. The development of standards for green infrastructure is necessary in order to stimulate investments in nature-based solutions.
25. Social safety nets, whether through community-led support systems or formal national schemes, are essential tools to eradicate poverty, reduce climate risk and disaster risk and more broadly to enhance resilience. Consideration was given to investment in communication systems that can promote a culture of prevention and accountability.
26. Increasing investments in disaster risk reduction requires a clear articulation and communication of gains, and an understanding of risk-reward trade-offs. Economic methodologies need to be used to demonstrate how investments in risk reduction can benefit businesses in terms of financial performance and indirect corporate value and unveil the cost of inaction. Partnership between the public and the private sectors is a catalyst for new investment and requires the building of trust, spaces where conversations about vested interests and accountability can be held, and the necessary incentives and checks.



Ms. Amina Mohammed, Deputy Secretary-General of the UN, discussing with remote participants through one of the four telepresence robots launched in Cancún

27. It is important to establish predictable financing mechanisms with increasing investment towards more balanced spending between disaster risk reduction and humanitarian response, such as the EU goal of a 50/50 ratio in funding.
28. Risk information needs to be systematically embedded in planning, zoning and investments and is instrumental to avoid unnecessary extra costs.
29. Strengthened investment in reducing disaster risk to cultural heritage was urged, including through resource mobilization to build capacity of local authorities and heritage managers and by combining the best of science and traditional knowledge. Emphasis was also placed on increasing the integration of traditional knowledge of the sustainable use of natural resources into modern social and economic life to promote disaster resilient development.
- Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction*
30. There remains space for improvement to ensure risk information contributes to better preparedness as well as to guide efforts to “Build Back Better”. Such efforts require a whole of-society approach, including the engagement of all stakeholders, strong partnerships to support scientific and technical research and its applications, and clear political commitment before and after disasters.
31. The Global Platform identified important elements to enhance existing “Build Back Better” practice, including risk-informed preparedness and recovery plans; strengthened multi-stakeholder platforms at both national and local levels, in accordance with the Sendai Framework, for effective collaboration and coordination among national, local governments, and communities; having a policy framework and legal system for reconstruction in place in advance to facilitate the recovery process; community capacity development; and local ownership.
32. The Global Platform also included examples of how countries, including less developed ones, can successfully design and implement early warning systems. However, it was noted that operations and maintenance budgets remain insufficient and unreliable in Small Island Developing States, Landlocked Developing Countries and Least Developed Countries, hindering access to early warning and pre-emptive action to reduce vulnerability.
33. Increased efforts are needed to address the gap between demand and available resources for effective early warning systems in Small Island Developing States, Landlocked Developing Countries and Least Developed Countries. In this regard, the Climate Risk and Early Warning Systems (CREWS) initiative was recognized as a significant contribution.
34. An innovative concept for a global multi-hazard alert system was announced by the meteorological community, to strengthen the issuance of impact based warnings and information related to high-impact weather, water, ocean and climate events.
35. The direct impacts of health disasters are significant, and their cascading and cumulative human and economic impact is even greater. The impacts are often exacerbated by environmental degradation and weather-induced factors. There is a need to shift the focus from response to epidemics to prevention through a multi-disciplinary and ecosystem-based approach and by ensuring the operationalization of the Bangkok Principles for the implementation of the health aspects of the Sendai Framework.
- Areas of special focus*
36. Participants noted that water is central to the achievement of the SDGs, while floods and storms threaten lives and basic services infrastructure. Sustainable water management is necessary for successful disaster preparedness, disaster risk reduction and climate change adaptation. In this context, all countries, provinces and cities were urged to make integrated flood and drought management central to

their planning and management processes. The Action Plan of the High-level Panel on Water (HLPW) is an important contribution to advance the implementation of the Sustainable Development Goals and Sendai Framework in an integrated manner given their close linkages.

37. Furthermore, the deliberations across sessions identified the following additional priorities:

a. Monitoring implementation of the Sendai Framework

38. The prototype of the online Sendai Framework Monitor was presented at the Global Platform and was well received by countries and stakeholders, many of which committed to piloting it. The Sendai Framework Monitor will allow for data collection and aggregation at national and sub-national level as well as regional level, and will be instrumental to monitor progress against the SDGs.
39. The inclusion of shared indicators between the SDGs and the Sendai Framework was welcomed as a practical achievement in ensuring coherence in the implementation of policy frameworks.
40. Further efforts are needed to strengthen monitoring at local level, develop the necessary metrics, and make risk information open, accessible, sharable across data platforms, and duly disaggregated to support efforts to leave no one behind. The implementation of the UN-GGIM Strategic Framework on geospatial information and services was recognised as instrumental to the monitoring of the Sendai Framework and the SDGs.
41. It was noted that a systematic approach to monitoring can drive progress across the Sendai Framework's Priorities and enforce greater accountability by all stakeholders. There was also the recognition of the need to strengthen national statistical offices and foster close collaboration between national statistical offices and geo-information agencies in disaster-related data. Incentives are needed to foster collaborative multi-stakeholder approaches to reporting. A

Global Partnership for Disaster-related Data for Sustainable Development was proposed in order to facilitate a collaborative, multi-stakeholder effort to optimize and operationalize existing and future disaster-related data in support of national and local monitoring efforts.

b. Achieving target E - Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020

42. Participants recognized the priority to have disaster risk reduction strategies in place and aligned with the Sendai Framework by 2020.
43. There was convergence in recognizing that the development of disaster risk reduction strategies is a means to integrate, and render coherent, policies and programs relevant to sustainable development and climate change and thus to an effective use of resources at both national and local levels.
44. It was noted that the development and adoption of disaster risk reduction strategies would necessarily require the participation of all stakeholders in order to ensure the relevance and effectiveness of the strategies.
45. Further progress is necessary to bridge the gap between science and technology and policy-making to ensure that the strategies required by 2020 are sound, including that they anticipate emerging risk patterns.
46. Participants stressed the importance of ensuring that preparedness and recovery plans are risk-informed by 2020 as a key component of achieving the Sendai Framework target (e).
47. Disaster risk reduction education and awareness were highlighted as a critical component to be included in national and local disaster risk reduction strategies.
48. The development of disaster risk reduction strategies should consider regional and

cross-border perspectives and include provisions that aim to prevent displacement attributed to disasters and reduce displacement risk, address the protection needs of displaced people and promote durable solutions to displacement.

c. Coherence with the sustainable development and climate change agendas

49. Following the lead of many countries, including Small Island Developing States, which are pursuing coherence by incorporating disaster risk and climate change considerations into sustainable development, further work to strengthen institutions and clarify roles and responsibilities can help ensure that all public and private investments in development and growth are investments in resilience.
50. Efforts to address climate change and achieve sustainable development are strengthened when investments in the lives and livelihoods of the most excluded are put first. Inclusive approaches to planning and investment play an instrumental role in addressing the conditions that create vulnerability and exposure.
51. National and local disaster risk reduction strategies to be in place by 2020 need to be linked to national development planning and investment and to the nationally determined contributions toward the Paris Agreement. The benefits and failures of coherent approaches are felt most acutely at the local level and efforts toward risk-informed and climate-resilient development need be rooted in local priorities.
52. The Global Platform welcomed the coherence and integration achieved in the indicators for the Sendai Framework and the SDGs. Similar efforts to develop metrics for the adaptation goal of the Paris Agreement, coherently with the indicators of the Sendai Framework and the SDGs, will be essential. This will enable national and local governments to draw on similar data sets and monitor implementation more efficiently and effectively.

53. It is important to include disaster risk considerations when addressing questions concerning migration, displacement, refugees and human mobility.
54. Close ties between the preparatory processes of the Regional and Global Platforms for Disaster Risk Reduction and the High-level Political Forum on Sustainable Development will be key to the annual monitoring of progress in disaster risk reduction-related sustainable development goals and indicators and will contribute to the agenda of the High-level Political Forum on Sustainable Development.
55. Deliberations of the Global Platform in 2019 will provide the opportunity to take stock of implementation based on the Sendai Framework Monitor and to contribute to the deliberations of the High-level Political Forum on Sustainable Development which will be convened at the level of Heads of State and Government for the first comprehensive assessment of the SDG implementation.

d. Gender-sensitive and inclusive disaster risk reduction

56. There was a strong recognition of the persistent gender gaps in disaster risk reduction and calls to recognize and foster women and girls' leadership, empowerment and engagement in the decision-making, design, planning, budgeting, implementation and monitoring of gender-sensitive and inclusive national and local disaster risk reduction strategies and policies by 2020, as well as to provide adequate capacity-building and education to allow women and girls' transformative role as agents for change in disaster risk management. There were also calls for women in leadership positions in the public and private sectors at national and local levels to foster gender parity in disaster risk management.
57. A "Global Programme in Support of a Gender Responsive Sendai Framework Implementation: Addressing the Gender Inequality of Risk and Promoting Community Resilience to Natural Hazards in a Changing Climate" was launched to implement the gender commitments of the Sendai Framework, and with a specific focus on achieving Target (e).

58. To overcome systemic barriers to inclusion, three interconnected actions are needed: building knowledge and skills, changing attitudes and belief systems, and promoting inclusive governance. The application of the principles of universal design effectively opens additional space for inclusion.
59. The Global Platform recognized the importance of the Dhaka Declaration on Disability and Disaster Risk Management as practical guidance for inclusive implementation of the Sendai Framework. Countries were urged to implement the Declaration and report progress on its implementation when reporting progress of the Sendai Framework in 2019.
60. The 2017 Global Platform strived to leave no one behind. For the first time, participants living with disability were able to join remotely through the telepresence robots and accessible webconferencing. The Platform welcomed recommendations to further increase inclusivity.

e. International cooperation initiatives

61. International cooperation is at the heart of the Sendai Framework and its implementation. Regional and global initiatives need to support countries and expedite the development and implementation of nationally-driven disaster risk reduction strategies by 2020.
62. In addition to public-private partnerships, private-private cooperation is an important mechanism to be leveraged as it can support and facilitate data, information and lessons-learned sharing across countries, and help countries in acquiring technology and know-how related to disaster risk, with benefits also for the public sector.
63. In light of the tens of trillions of US Dollars that will be invested in infrastructure in the next decades, it was recommended to establish a coalition of countries for critical infrastructure in order to share knowledge, tools, and best practices, and to build the capacity of engineers and architects to enhance their understanding of risk and mitigation measures.

64. Participants underscored the important role of the United Nations system in supporting countries to develop strategies that integrate climate change, sustainable development and disaster risk reduction, and to continue building national capacity. The United Nations Plan of Action on Disaster Risk Reduction for Resilience is an important instrument to realize this aim.

C. Conclusions and follow-up

65. The Chair of the Global Platform recognized the very productive and dynamic discussions which took place throughout the Global Platform and expressed strong appreciation of the leadership of co-Chairs and organizers of the various sessions and the very active and substantive engagement of all stakeholders and the United Nations system's entities. All the participants expressed strong appreciation to the President of Mexico for his leadership and to the Minister of Interior, the Minister of Foreign Affairs, the Head of the Civil Protection, the Governor of Quintana Roo and the Mayor of Cancún for hosting the Global Platform.
66. The Chair praised the leadership of and support from the Special Representative of the Secretary-General for Disaster Risk Reduction and the United Nations Office for Disaster Risk Reduction in co-organizing the Global Platform and requested his support in taking forward the deliberations with fully coordinated engagement of, and support from, the United Nations system's entities, through the UN Plan of Action on Disaster Risk Reduction for Resilience.
67. There was a broad appreciation expressed that the deliberations of the Global Platform were pragmatic and key to drive the further implementation of the Sendai Framework as well as instrumental in setting the agenda for the upcoming Regional Platforms in 2018 and the next Global Platform, to be hosted by the Government of Switzerland in 2019. In this context, the importance of reviewing every two years the implementation of the regional action plans and strategies was reaffirmed.

68. There was a general sense that the Global Platform was a fundamental mechanism to foster practical coherence in implementation with other international agendas, in particular the SDGs and the Paris Agreement, and to monitor progress. Its multi-stakeholder nature is at the foundation of the very fruitful deliberations and of the effective implementation of the Sendai Framework at all levels.
69. It was indicated that the Chair would formally convey to the President of the United Nations Economic and Social Council the Global Platform's Chair's Summary and the Cancún High-Level Communiqué as a contribution to the upcoming debates of the High-level Political Forum on Sustainable Development. In addition, there was a call on all countries' representatives and stakeholders to represent the deliberations of the Global Platform in the preparation of the Forum's outcome documents and during its deliberations.
70. The Global Platform was adjourned with the commitment to reconvene in Switzerland in 2019 and an expression of strong appreciation for the Swiss Government as the future host.

“There was a strong recognition of the persistent gender gaps in disaster risk reduction and calls to recognize and foster women and girls' leadership, empowerment and engagement” ...



Delegates attending the Opening Ceremony of the 2017 Global Platform

AGENDA

22 May	23 May	Wednesday 24 May	Thursday 25 May	Friday 26 May																																
<p>Registration 7:30 - 18:00 Market Place Setup 10:00 - 19:00 Ignite Stage Setup 9:00 - 19:00 Consultation Day 14:00 - 19:00</p>	<p>Registration 7:30 - 18:00 Market Place Setup 9:00 - 19:00 Ignite Stage Setup 9:00 - 19:00 Consultation Day 8:00 - 19:00</p>	<p>Welcome Plenary Session - Arena A - 9:30 - 9:45</p> <table border="1"> <tr> <td>Working Session Critical Infrastructure Arena E 10:00 - 11:30</td> <td>Working Session Sendai Framework Monitor Consultation Arena F 10:00 - 11:30</td> <td>Special session Build Back Better & Preparedness Arena A 10:00 - 11:30</td> </tr> <tr> <td>Working Session International Cooperation Arena E 11:45 - 13:15</td> <td>Working Session Risk Insurance Arena F 11:45 - 13:15</td> <td>Special session Early Warning & Risk Information Arena A 11:45 - 13:15</td> </tr> <tr> <td>Lunch Arena H 13:30 - 14:25</td> <td colspan="2">Side Events * 13:30-14:25</td> </tr> </table> <p>Opening Ceremony Arena A - 15:00 - 16:00</p> <table border="1"> <tr> <td>Working Session Private Sector Engagement Arena E 16:15 - 17:45</td> <td>Working Session Risk Information & Loss Databases Arena F 16:15 - 17:45</td> <td rowspan="2">Leaders Forum (by invitation) 16:15 - 18:45</td> </tr> <tr> <td>Risk Award Ceremony Arena E 17:45 - 18:15</td> <td>Side Events * 17:50 - 18:45</td> </tr> </table>	Working Session Critical Infrastructure Arena E 10:00 - 11:30	Working Session Sendai Framework Monitor Consultation Arena F 10:00 - 11:30	Special session Build Back Better & Preparedness Arena A 10:00 - 11:30	Working Session International Cooperation Arena E 11:45 - 13:15	Working Session Risk Insurance Arena F 11:45 - 13:15	Special session Early Warning & Risk Information Arena A 11:45 - 13:15	Lunch Arena H 13:30 - 14:25	Side Events * 13:30-14:25		Working Session Private Sector Engagement Arena E 16:15 - 17:45	Working Session Risk Information & Loss Databases Arena F 16:15 - 17:45	Leaders Forum (by invitation) 16:15 - 18:45	Risk Award Ceremony Arena E 17:45 - 18:15	Side Events * 17:50 - 18:45	<p>Market Place 9:00 - 18:30 Ignite Stage 9:00 - 18:30 Field Visits (Tbc) 9:00 - 18:30</p> <p>Official Statements - Arena D</p> <p>Plenary National & Local DRR Strategies Arena A 9:00 - 11:00</p> <table border="1"> <tr> <td>Working Session Science & Technology Arena E 11:15 - 12:45</td> <td>Working Session Local Authorities Arena F 11:15 - 12:45</td> <td>Working Session Community Resilience Arena A 11:15 - 12:45</td> </tr> <tr> <td>Lunch Arena H 13:00 - 14:55</td> <td colspan="2">Side Events * 13:00 - 13:55</td> </tr> <tr> <td></td> <td colspan="2">Side Events * 14:00 - 14:55</td> </tr> </table> <p>Official Statements - Arena D</p> <p>Plenary Reducing Vulnerability of Countries in Special Situations Arena A 15:00 - 17:00</p> <table border="1"> <tr> <td>Working Session DRR Governance Arena E 17:00 - 18:30</td> <td>Working Session Ecosystems protection, mgmt and resilient agriculture Arena F 17:00 - 18:30</td> <td>Working Session Inclusive & people centered DRR Arena A 17:00 - 18:30</td> </tr> </table> <p>Sasakawa Award Ceremony - Arena E 18:30 - 19:00</p>	Working Session Science & Technology Arena E 11:15 - 12:45	Working Session Local Authorities Arena F 11:15 - 12:45	Working Session Community Resilience Arena A 11:15 - 12:45	Lunch Arena H 13:00 - 14:55	Side Events * 13:00 - 13:55			Side Events * 14:00 - 14:55		Working Session DRR Governance Arena E 17:00 - 18:30	Working Session Ecosystems protection, mgmt and resilient agriculture Arena F 17:00 - 18:30	Working Session Inclusive & people centered DRR Arena A 17:00 - 18:30	<p>Market Place 9:00 - 17:00 Ignite Stage 9:00 - 17:00 Field Visits (Tbc) 9:00 - 17:00</p> <p>Official Statements - Arena D</p> <p>Plenary Sendai Framework Monitoring Arena A 9:00 - 11:00</p> <table border="1"> <tr> <td>Working Session Cultural Heritage & Indigenous Knowledge Arena E 11:15 - 12:45</td> <td>Working Session Land Use & Spatial Planning Arena F 11:15 - 12:45</td> <td>Working Session Health & DRR Arena A 11:15 - 12:45</td> </tr> <tr> <td>Lunch Arena H 13:00 - 13:55</td> <td colspan="2">Side Events * 13:00 - 13:55</td> </tr> </table> <p>Official Statements - Arena D</p> <p>Plenary Coherence with the 2030 Agenda for Sustainable Development Arena A 14:00 - 16:00</p> <p>Side Events * 16:00 - 16:55</p> <p>Closing Ceremony Arena A - 17:00 - 17:45</p>	Working Session Cultural Heritage & Indigenous Knowledge Arena E 11:15 - 12:45	Working Session Land Use & Spatial Planning Arena F 11:15 - 12:45	Working Session Health & DRR Arena A 11:15 - 12:45	Lunch Arena H 13:00 - 13:55	Side Events * 13:00 - 13:55	
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	<p>Reception by Mexico (by invitation) 20:30 - 21:30</p>	<p>Reception by Quintana Roo 19:15 - 20:15</p>																																		

Greening

The participants and organizers of the 2017 Global Platform for Disaster Risk Reduction upheld the principle that the conference should be green and paper-smart. Most of the participants shared documents via the UNISDR website: PreventionWeb.net, and UNISDR strengthened its commitment to greening the Global Platform by not printing copies of the official conference programme and the conference proceedings.

To reduce carbon emissions associated with the event, more than 2,000 participants chose to stay at the venue and most of the other participants used the daily shuttle. All participants were encouraged to offset their travel to the conference through the United Nations Framework Convention on Climate Change online platform for voluntary cancellation of certified emission reductions. There were many additional elements that contributed to the greening efforts of the conference. For example, all Market Place stands and furniture were made from natural and sustainable wood products. At the end of the conference, the stands were recycled and the wooden furniture donated to local schools. United Nations entities came together to compile documents to share through an external drive in gift bags that were made from natural cotton. The venue also made efforts to reduce the use of air conditioning, where possible; and locally sourced food was served throughout the conference.

For more information about efforts to reduce the environmental impact of the 2017 Global Platform, please visit the following website:



Accessibility

Several innovations were introduced at the 2017 Global Platform for strengthening accessibility for persons with disabilities. Four telepresence robots remotely controlled from Bangladesh, Belgium, Fiji, Italy, Spain and the United States allowed remote participants to contribute to discussions and interact with panellists through the course of the conference. Interactive Blackboard Collaborate Tool provided with the support of the Institute on Disability and Public Policy at American University also helped remote participants to follow and participate in the debates. International Sign Language and closed captioning were available for all Plenary Sessions and several Working Sessions, and dedicated spaces and ramps were installed in most of the meeting rooms. These arrangements were made possible thanks to the financial contribution from the Nippon Foundation and the Government of Mexico.

The conference venue was equipped with signage in Braille and adjusted access for wheelchairs.

Media

More than 200 reporters from 20 countries covered the 2017 Global Platform for Disaster Risk Reduction. UNISDR also sponsored eight reporters. Twenty other reporters from 11 countries were also present as part of their country delegations. The reporters produced more than 200 print news articles in English, according to statistics from Factiva, plus 100 articles in Spanish. These figures do not include online news, radio and TV reports produced in languages other than English. The eight sponsored reporters filed more than 50 stories, focusing on national DRR issues. For the first time, social media coverage exceeded traditional media and broke the record set in Sendai in 2015 at the Third UN World Conference on Disaster Risk Reduction, with over one million tweets from 22 to 28 May 2017.

Figures

- 1 Leaders Forum
- 2 Ministerial roundtables
- 7 Plenary sessions
- 2 Special sessions
- 15 Working sessions
- 46 Side events
- 7 Special events
- 56 Preparatory meetings
- 157 Bilateral meetings

Opening Ceremony

Ms. Amina Mohammed
Deputy Secretary-General of the United Nations

The United Nations is working at its best when it is facilitating cooperation among Member States and stakeholders on issues that can lead to real changes for the better in people's lives.

Nothing epitomises that more than the 17 Sustainable Development Goals which lie at the heart of the 2030 Agenda for Sustainable Development. Our Number One Goal over the next 13 years is to eradicate poverty and that in turn requires action on all the other elements of the 2030 Agenda for Sustainable Development. It is clear that we cannot achieve the SDGs without addressing climate risk and disaster risk more generally.

We are gathered here at the 5th Global Platform for Disaster Risk Reduction just over two years after the adoption of the first component of the 2030 Agenda, the Sendai Framework for Disaster Risk Reduction.

Adoption of the Sendai Framework was a remarkable achievement, the culmination of three years of consultations with governments and civil society across all regions, and the fruits of ten years of learning from its predecessor the Hyogo Framework for Action.

There have been many successes along the way. Mortality for certain hazards has dropped. The likelihood of mega-disasters has greatly diminished in many countries thanks to stronger institutions, robust legislation and policy frameworks, better preparedness, improved early warning systems, a greater understanding of disaster risk, increased engagement with civil society and more accountability for man-made hazards.

Our gracious host, Mexico, is a good role model when it comes to disaster risk reduction. Since the 1985 earthquake great advances have been made in both seismic warnings and in the management of extreme weather events. Hurricane Patricia two years ago was the strongest hurricane ever to make landfall on Mexico's Pacific coastline but there were no casualties. The prompt actions of the Mexican Civil Protection Agency and others played an important part in that.



Ms. Amina Mohammed, Deputy Secretary-General of the United Nations

Nonetheless, the Member States when adopting the Sendai Framework recognised that much remains to be done, particularly in improving disaster risk management in low and middle-income countries which suffer disproportionately from disaster events both in terms of lives lost and economic losses.

Simply stated, economic losses from disasters are not sustainable and cannot continue at present levels if we are to make progress on the SDGs. A recent estimate is that, annually, disasters cost the global economy US\$ 520 billion and push 26 million people into poverty.

The challenge is how we are going to achieve the SDGs if annual economic losses from disasters can wipe out the entire GDP of a low income country overnight and force millions from their homes. Haiti, for example, lost 120% of its GDP in the 2010 earthquake, and 32% of its GDP as a result of Hurricane Matthew last October.

The Sendai Framework puts the focus squarely on prevention. Governments working with other stakeholders, such as mayors, community groups, women's organizations, private sector, parliamentarians, youth groups, to name just a few, have to give the same priority to managing disaster risk as they give to managing disasters.

Essentially this means reducing existing levels of exposure and vulnerability and avoiding the creation of new disaster risk. In order to do this, a laser-like focus is required on those things which increase the likelihood of a disaster happening. These risk drivers include poverty and inequality, climate change, weak risk governance, inappropriate land use and building codes, rapid urbanisation, population growth in hazard-prone areas and environmental decline.

This list makes it clear how disaster risk reduction runs through the SDGs like a red line. This is why it is so vital that here in Cancún we move from commitment to action on the Framework.

Africa, the Americas, Asia, Europe, the Middle East and North Africa, and the Pacific, have all agreed and adopted plans to implement the Sendai Framework with a clear focus on shifting the paradigm from managing disasters to managing disaster risk. This is vital in order to progress on key targets of the Sendai Framework including reducing mortality, reducing the numbers of people affected by disasters, reducing economic losses and reducing damage to critical infrastructure.

This week there are reassuring signs that the rubber is hitting the road. The Sendai Framework monitor prototype is being presented now that indicators are in place for measuring progress on the targets. This should speed up plans to have a substantial increase in national and local disaster risk reduction strategies in place by 2020 as called for by Target E of the Sendai Framework.

These strategies are vital to the overall success of the 2030 Agenda for Sustainable Development. They allow for targeted measures to reduce exposure and vulnerability for low-income communities, and greater integration of climate change adaptation and disaster risk reduction at local and national level.

This aligns well with the UN system-wide strategic approach to integrating disaster risk reduction and climate change adaptation in UN development efforts and measuring loss and damage.

On behalf of the UN Secretary-General, Mr. António Guterres, who very much regrets not being here with you, I wish you a successful Global Platform. I am confident that the outcome will be an important impetus to further progress on implementing the Sendai Framework and the Sustainable Development Goals.

Thank you.

Opening Ceremony



H.E. Mr. Enrique Peña Nieto
President of Mexico

Good afternoon to each one of you.

Honorable Heads of State and Government participating in this Fifth Global Platform for Disaster Risk Reduction 2017.

I am pleased to extend the warmest welcome to the Deputy Secretary-General of the United Nations, distinguished Madame Amina Mohammed.

And in like manner to Mr. Robert Glasser, Special Representative of the United Nations Secretary-General for Disaster Risk Reduction.

Governor of the State of Quintana Roo.

Members of the Cabinet of Mexico.

Congressmen and women participating here today, Ministers, Secretaries and members of the various delegations of 189 countries who are participating in this event that distinguish our country.

I also greet representatives of civil society organizations and academics.

And to the representatives of the media.

May you all be welcomed to Mexico, a multiethnic and multicultural nation, proud of its millennial history that today looks forward to the future with optimism.

For centuries, throughout our territory, great civilizations flourished, whose beliefs were closely linked to the forces of Nature, wrapped together and convened the Mexican soul. With almost two million square kilometers of surface, Mexico is geographically privileged, which, at the same time, exposes us to a vast number of risks, particularly hydro meteorological, geological and volcanic phenomena.

I am referring to events of great magnitude, such as earthquakes, flooding, droughts, storms and even the latent threat of the eruptive activity of several of our volcanos.

The natural diversity is also expressed majestically right here, in the State of Quintana Roo, where one of the most advanced cultures of antiquity flourished, and I am referring to the Mayan Culture. Here the Mayans shaped their vision of the world through art, and left us an impressive architecture legacy, which continues to marvel us until this day.

They also left a mark of their advanced scientific knowledge and the way that they fought against Natural phenomena.

For example in the archeological zone of Tulum, it is still possible to admire the Temple of the God of Wind, considered as one of the first warning systems for hurricanes.

Today we know that while it is impossible to contain the force of Nature, we can mitigate its effects and save lives. This is no minor task, in our country the fourth part of the population lives under the threat of facing cyclones, and the third of our population is vulnerable to earthquakes, to mention just two of the most powerful forces on Nature.

From 2012 to date, at least 166 disaster situations of different magnitude had arisen in our country. To face this, Mexicans have made the protection of life the highest of our priorities, considering the prevention as a fundamental pillar of our National Civil Protection System.

Knowing what to do, where to go, who to call, or what action to take in an emergency, can be the difference between life and death. In Mexico we are well aware that we are fortunate to have the institutions available to us, notably our Armed Forces, and our public institutions, civil society as well as the human and material resources necessary to have a consolidated and operating National Civil Protection System.

We know that this is not necessarily the case in countries of lesser resources. It is enough to know that 90 percent of the deaths due to disasters take place in low and

middle income countries. Right here in the Caribbean region, some economies and societies are especially vulnerable to disaster situations that have been aggravated as a consequence of climate change.

It is imperative to reach the reduction of material and human affectations that we have achieved in many of our countries, in least favored nations.

Therefore, the call to the members of the Global Platform is to support solidarity with resources, training and other support, to countries that require it to complement their national efforts. Mexico is a country that shows solidarity with the whole world, but particularly with the Caribbean countries.

And here, at this event, in this space, and in this international forum we set forward the commitment that Mexico embraces with all of the countries of the Caribbean region, to which we proudly belong, to patently express our solidarity and support for all the policies that results for this encounter, precisely, to strengthen their institutional capacities, and reduce risk of disasters.

Ladies and Gentleman,

The most important lesson that in terms of disasters we have learnt, is the need to act in a preventive manner.

Acting on time is important, but it is even more important to be prepared to unexpected events. Natural phenomena recognize no national boundaries or frontiers nor government orders, and most strongly affect the most vulnerable populations.

The experience of the more than 6,000 participants of the 189 countries who are participating at this meeting will allow us to improve international cooperation and reduce human, economic and infrastructure losses linked to disasters situations.

I wish you the upmost success, together we can advance in the construction of the best practices of prevention and action in terms of disaster risk reduction

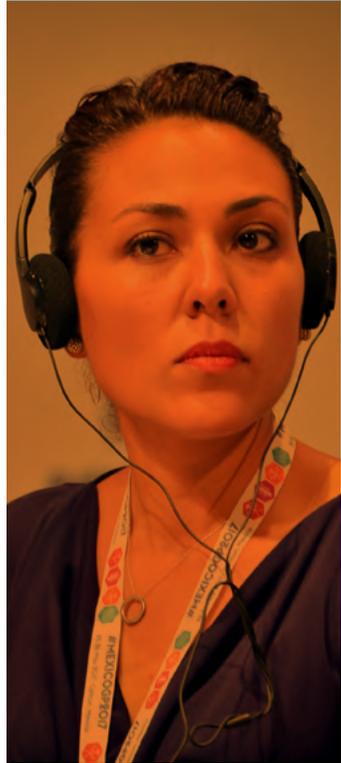
Once again, may you all feel warmly welcomed to Mexico, a country that open its arms to welcome you expecting this event to be a productive one, which is the reason why it has been convened.

I wish you a very pleasant stay in Mexico.

Thank you very much.



WORKING SESSIONS



LEADERS FORUM

MINISTERIAL ROUNDTABLES

SPECIAL SESSIONS

PLENARIES



OFFICIAL STATEMENTS

Official Statements

The following delegations delivered a statement during the 2017 Global Platform.

All statements are available in video by clicking on the country name.

Afghanistan	Egypt	Luxembourg	Saudi Arabia
Albania	El Salvador	Madagascar	Serbia
Algeria	Ethiopia	Malawi	Slovenia
Argentina	Finland	Malaysia	Solomon Islands
Armenia	France	Maldives	South Africa
Australia	Gabon	Mauritius	South Sudan
Bahrain	Gambia (Republic of The)	Marshall Islands	Spain
Bangladesh	Georgia	Mexico	Sri Lanka
Belgium	Germany	Mongolia	Sudan
Benin	Ghana	Myanmar	Swaziland
Bolivia (Plurinational State of)	Guatemala	Nepal	Sweden
Brazil	Holy See	New Zealand	Switzerland
Cambodia	Honduras	Nicaragua	Tajikistan
Cameroon	India	Niger	Tanzania
Canada	Indonesia	Nigeria	Thailand
Chad	Iran (Islamic Republic of)	Norway	Tonga
Chile	Italy	Pakistan	Tunisia
China	Jamaica	Panama	Turkey
Colombia	Japan	Papua New Guinea	Uganda
Cook Islands	Jordan	Paraguay	Ukraine
Costa Rica	Kazakhstan	Peru	United Arab Emirates
Côte d'Ivoire	Kiribati	Philippines	United Kingdom of Great Britain and Northern Ireland
Cuba	Kuwait	Portugal	United States of America
Czech Republic	Kyrgyzstan	Qatar	Zambia
Democratic People's Republic of Korea	Lao People's Democratic Republic	Republic of Korea	
Denmark	Lebanon	Russian Federation	
Dominican Republic	Lesotho	Saint Vincent and the Grenadines	
Ecuador	Liberia	Samoa	

Statements by Intergovernmental Organizations and UN system entities

Andean Community General Secretariat
Caribbean Disaster Emergency Management Agency
Centro de Coordinación para la Prevención de los Desastres Naturales en América Central
Cooperation Council for the Arab States of the Gulf
East African Community Secretariat
Economic Community of Central African States
Economic Cooperation Organization
European Union
Food and Agriculture Organization of the United Nations
Intergovernmental Authority on Development
International Federation of Red Cross and Red Crescent Societies
International Labour Organization
Indian Ocean Commission
International Organization for Migration
League of Arab States
Organisation for Economic Co-operation and Development
Pacific Community
Sovereign Military Order of Malta
UN Office for the Coordination of Humanitarian Affairs
UN Women
United Nations Economic and Social Commission for Asia and the Pacific
United Nations High Commissioner for Refugees
United Nations Children's Fund
United Nations Development Programme
United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States
United Nations Population Fund
United Nations University
University for Peace

World Bank
World Food Programme
World Health Organization
World Meteorological Organization

Statements by Non-governmental Organizations, Private Sector and Stakeholder groups

Academy of diagnostics, Inc
ACHE International
ActionAid
Africa Nature Conservation Organization
Asian Disaster Reduction Centre
Asociación de Municipios de Panamá
Asociación Nacional de Bomberos Municipales departamentales de Guatemala
Bangladesh Red Crescent Society
Caritas Internationalis
Center for Disaster Risk Resilience
Center for Emergency Situations and Disaster Risk Reduction in Almaty
China Charity Alliance
Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response
Common African Position to the 2017 Global Platform for Disaster Risk Reduction
Comprehensive Nuclear-Test-Ban Treaty Organization
Consultoría Social Integral Vinni Cubi A.C.
Ministros y Altas Autoridades de GIR del MERCOSUR
Disaster Preparedness and Prevention Initiative for South Eastern Europe
Doctorado en Desarrollo Científico y Tecnológico para la Sociedad del Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional
DRR Dynamics Ltd
Earthquake Analysis Laboratory
EcoHealth Alliance and Future Earth

FM Global
 Grupamento de Bombeiros Civis Voluntários
 Habitat for Humanity International
 Institute of Mountain Hazards and Environment, Chinese Academy of Science
 Instituto de Protección Civil para el Manejo Integral de Riesgos de Desastres del Estado de Chiapas
 International Council on Monuments and Sites, International Committee on Risk Preparedness
 International Federation of Environmental Health
 International Federation of Medical Students Associations
 International Union of Geodesy and Geophysics
 Iwate University
 Joint Statement on behalf of Central Asia and South Caucasus Regional Platform
 Joint Statement from the Stakeholder Group of Persons with Disabilities
 Joint statement on behalf of the Human Security Network
 Joint Statement on behalf of Indigenous Peoples
 Joint Statement on behalf of Mayors and local governments
 Joint statement on behalf of Media
 Joint Statement on behalf of NGOs
 Joint Statement on behalf of Older Persons
 Joint Statement on behalf of the Science and Academia Stakeholder Group
 Joint Statement Partners for Resilience
 Joint Statement on behalf of the Private Sector
 Joint Statement on behalf of Women
 Mercociudades
 Little Bees International
 Norwegian Refugee Council
 Organización de Bomberos Americanos
 Oxfam International
 Sadeem Wireless Sensing Systems
 Soka Gakkai International

The Geneva Association
 The International Emergency Management Society - India Chapter
 UN Major Group for Children and Youth
 UN Major Group for Science and Technology
 Universidad Autónoma del Estado de México, Facultad de Enfermería y Obstetricia
 Universidad Nacional Autónoma de México
 University of Zanjan
 University of La Laguna
 Voluntarios Digitales para Emergencias y Desastres
 World Animal Protection
 World Vision Canada
 Xavier Institute of Social Service, Ranchi
 World Association for Disaster and Emergency Medicine



H.E. Mr. Taneti Maamau
President of Kiribati

H.E. Mr. Taneti Maamau, President of Kiribati, during his intervention at the 2017 Global Platform

Leaders Forum

Cancún High-Level Communiqué – 24 May 2017

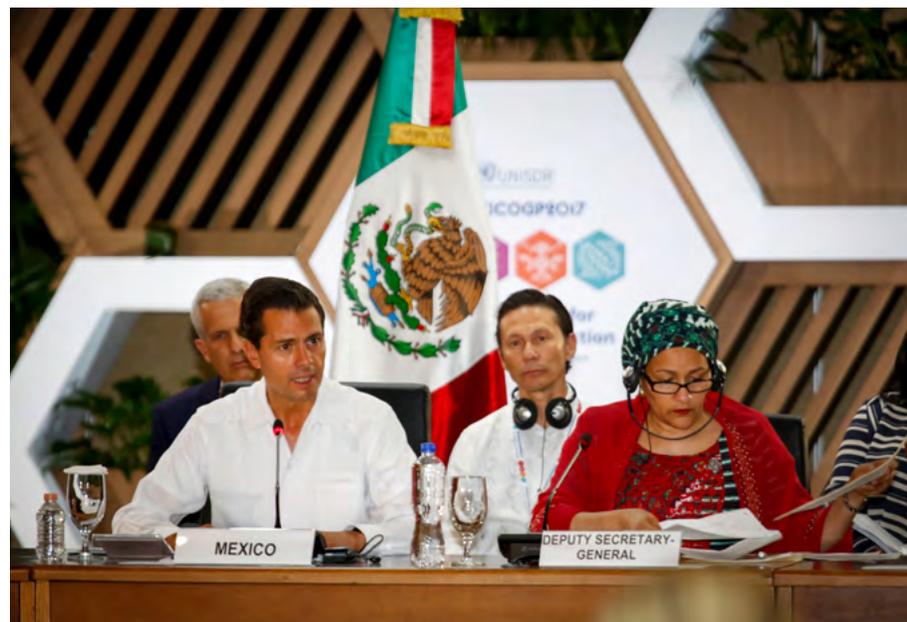
Ensuring the resilience of infrastructure and housing

A Leaders' Forum was held on Wednesday 24 May 2017 in Cancún, Mexico, at the Global Platform for Disaster Risk Reduction chaired by H.E. Mr. Enrique Peña Nieto, the President of Mexico with the participation of H.E. Mr. Jovenel Moïse, the President of Haiti, H.E. Mr. Taneti Maamau, the President of Kiribati, H.M. King Mswati III, Head of State of Swaziland, H.E. Mr. Robert Mugabe, the President Zimbabwe, H.E. Mr. Mattlan Zackhras, Minister in-Assistance to the President of the Republic of the Marshall Islands, H.E. Mr. Khurelsukh Ukhnaa, the Deputy Prime Minister of Mongolia, H.E. Ms. Inonge Wina, the Vice-President of Zambia, Ms. Amina Mohammed, the Deputy Secretary-General of the United Nations, Ms. Laura Tuck, the Vice-President for Sustainable Development of the World Bank, executives of intergovernmental organizations, the Red Cross and Red Crescent Movement, parliamentarians, local government representatives, business and civil society executives and other stakeholders to determine and commit to practical measures for the reduction of economic losses to disasters and the resilience of persons, communities, countries and their assets and livelihoods with a focus on infrastructure and housing.

The Challenge

We, the participants in the Leaders' Forum, recognize that globally, direct economic losses attributed to disasters are increasing significantly, having over the last decade reached close to US\$1.4 trillion. Indirect economic losses magnify the figure further. Losses to countries' capital stock, including housing, infrastructure, productive assets and livelihoods, and impacts on health and education have had major fiscal implications, hindering economic growth and development.

We note that global models suggest that the risk of economic losses is rising as a result of the rapidly increasing number and the value of the assets that are exposed to hazards, inadequate maintenance and a globalized economy. In some regions the risk of losing capital stock in disasters may be growing at a faster rate than the capital being produced. We understand that climate change affects the frequency and intensity of weather-related hazards and presents greater challenges in disaster risk reduction and building resilience. We are aware that disaster, and particularly small-scale, slow-onset



Head table of the Leaders Forum held on Wednesday 24 May 2017

“We, the participants in the Leaders' Forum, recognize that globally, direct economic losses attributed to disasters are increasing significantly, having over the last decade reached close to US\$ 1.4 trillion.”

and recurring disasters, severely damage infrastructure, housing, work places, livelihoods, ecosystems and economic production which are key pillars of growth and development. The loss becomes itself a driver of further vulnerability and exposure, and thus of disaster risk, weakens resilience and increases the likelihood of disaster displacement. We further recognize the low penetration of risk transfer mechanisms, in particular for the poor.

We further identify the close nexus between climate change and water-related disasters, which account for almost 90% of the 1,000 most disastrous events since 1990. Therefore, we acknowledge that Integrated Water Resources Management is an effective way to strengthen resilience for disaster risk reduction and adaptation to climate change, and we invite other leaders and all stakeholders to join in this approach.

We recognize that the poor suffer disproportionately from natural and man-made hazards as poverty significantly undermines people's socio-economic resilience to disasters, and disasters further erode livelihood and wellbeing and deplete resilience, thus exacerbating poverty and non-economic losses. Moreover, low-income households affected by disasters have a cut on food intake, health care and education expenditures, threatening their prospect of escaping poverty and amplifying the transmission of poverty from parents to children.

Globally, about one in seven people live in overcrowded, low-quality housing. Low-income households are particularly at risk as they usually live in hazard-exposed areas with low land value, deficient or non-existent infrastructure and services, low-quality and fragile dwellings and within degraded environments.

We note that the public and private sectors are interdependent when it comes to the development, functioning, maintenance and upgrading of infrastructure. Together they can reduce disaster risk and losses by ensuring that investment practices and regulatory frameworks are risk-informed, jointly planned, data are exchanged and an enabling environment is build.

The Opportunity

Over the next 40 years, more investment in infrastructure, including schools, hospitals, urban road construction, water and sanitation, energy and transport systems, and housing will be required than ever before. Some 60 per cent of the

area expected to be urbanized by 2030 remains to be built and trillions of US Dollars are expected to be invested in new infrastructure annually. Meeting the needs of a global population that will reach nine billion by 2050, achieving the SDGs by 2030 and responding to the adverse effects of climate change will require considerable investments in resilient infrastructure, including green infrastructure and housing. While the cost of retrofitting infrastructure and building is often high, making new investment resilient is not and pays off over the long term.

We recognize that reducing losses attributed to disasters has short, medium and long-term benefits and is essential to achieving economic and social development and environmental sustainability. Investing in disaster-resilient infrastructure, including disaster-reducing infrastructure, and adequate and safe housing as well as strengthening normative and regulatory frameworks, early warning and anticipatory forecast-based actions are an effective way to do so. Moreover, risk transfer mechanisms can help set the incentives for risk-informed investment.

We emphasize the urgency to take immediate actions to reverse the current trends of water scarcity, floods, degradation of sewer systems and sanitation, and water-related disasters. We reiterate our commitment to include water considerations in all of the development discussions at the global arena.

We underscore the societal need, and recognize the business opportunity, for increasing partnerships between public and private sectors and civil society in the development, maintenance and upgrading of infrastructure and urban development, including housing, to reduce disaster risk.

We recognize the need to continue investing in education and awareness to maximize the opportunity at hand.

The Commitments

In the context of overall development investments, including Building Back Better following disasters and "building better from the start", We resolve to work together and call upon all actors to:

- Implement the Sendai Framework for Disaster Risk Reduction 2015-2030, in coherence with the Sustainable Development Goals, the Paris Agreement on Climate Change, the New Urban Agenda and other relevant instruments;
- Conduct a disaster risk assessment of existing critical infrastructure by 2019;

- Invest in collection of data and information on disaster risk and losses, taking into account the cultural heritage of indigenous peoples and addressing intensive and extensive risk, underlying risk drivers, and ensuring that they are tailored to local contexts;
- Strengthen, as appropriate, normative and regulatory frameworks at all levels for disaster risk reduction, improved land use, building codes, enforcement and accountability as well as make resilience affordable, reduce the economic incentive for vulnerable development, foster private and public partnerships, allocate budget for disaster risk reduction and make resilient investment gainful;
- Make disaster risk assessments a prerequisite for infrastructure and housing investments, with time horizons commensurate to the life cycles of infrastructure and housing;
- Consider the risk of loss in infrastructure and housing and its consequences in the development of economic strategies and budgets;
- Pursue the development and expansion of risk transfer mechanisms, including social safety net schemes to protect the population, natural assets, livelihoods and infrastructure, enhance their penetration and coverage, especially for the poor and low-income groups, and strengthen community resilience;
- Promote people-centered, gender-sensitive, accessible and resilient urban development that supports all of society, including the vulnerable, poor and marginalized;
- Encourage and support the development of multi-stakeholder and socially-inclusive partnership initiatives for the development of resilient infrastructure and housing;
- Strengthen international cooperation at bilateral, regional and multilateral levels to manage disaster risk in accordance with the Sendai Framework, and;
- To take stock on progress at the next Global Platform for Disaster Risk Reduction which will take place in Switzerland in 2019.



Participants of the Leaders Forum held during the 2017 Global Platform

Integrating Disaster Risk Reduction into Overall Economic Planning

Thursday, 25 May, 17.00-19.00

The Ministerial Roundtable was an opportunity to exchange views on the topic of integrating DRR into overall economic planning. The session was co-chaired by Robert Glasser, the Special Representative of the Secretary-General for Disaster Risk Reduction and Luis Felipe Puente Espinosa, the National Coordinator of Civil Protection of Mexico.

After brief opening remarks, three guiding questions were proposed by the Co-Chairs to guide the intervention of participants.

Participants highlighted the fact that the overall situation surrounding disaster risk has grown in complexity for several reasons. Among these are the impact and consequences of climate change and its manifestations, increased migration, which has put additional economic pressures on countries, and the furthering of globalization, which alongside its positive economic impact, generates risks of an external nature that many countries cannot influence or cope with.

Participants emphasized the need to incorporate DRR into national development planning and for adequate resources to be identified to finance DRR. The importance of economic policy, including DRR and the imperative need to mainstream DRR into all sectors, was also regarded as a key action for sustainable growth and job creation.

Participants referred to a few enabling factors to facilitate a disaster risk-informed planning process. They emphasized (a) the need for overall economic planning to recognize the integral nature of DRM and climate change adaptation; (b) the need to work under the premise that DRR investments are good business; (c) the recognition that prevention is better than cure; and (d) that all these efforts must be developed and implemented through a people-centred approach.

For DRR to be more effective, closer work needs to be done with development partners to ensure that DRR is part of their portfolio and coordination and collaboration between the national and local levels needs to be enhanced.

As an example of progress made by several countries, flood mitigation projects were cited as a highly cost beneficial investment that strengthens the productive sector and creates a

favourable economic impact. Elaborating on this example, participants underlined the need for DRR projects to be of a pluri-annual nature (longer term) and to have mechanisms in place to facilitate access to financial resources to support resilience building.

Participants recommended three key aspects to ensure resiliency of infrastructure: (a) promote a cross-cutting approach covering particularly infrastructure and housing, (b) raise public awareness on the benefits of investments in DRR and (c) have contingency funds and catastrophe funds available.

Participants agreed that without data collection on disaster impact and losses, it would be more difficult to make the case for DRR. They highlighted the need to develop disaster loss databases, risk profiles and good risk information management. Through better availability and access to this information, decision makers and the broader public will realize the need to move away from managing disasters to managing disaster risk.

The private sector was repeatedly recognized as a key stakeholder that can play a determining role in ensuring that investments are more resilient. For this to happen, public-private partnerships need to be promoted and multiplied. A suggestion was put forward to establish disaster risk innovation roundtables to engage with the private sector and look at DRR challenges and opportunities. Supporting innovative technologies can lead to promoting business and green economic growth.

There is still a long way to go, and enforcement of existing policies, codes and norms is one of the biggest challenges. Capacity-building of officials in the ministries of finance and planning was mentioned as a priority. In this regard, the role of the education sector must also be considered. All these measures will contribute to make countries more competitive and sustainable.

Participating States

Australia: Concetta Fierravanti-Wells, Minister for International Development and the Pacific

Bahrein: Mohamed Mubarak Bin Daina, Chief Executive, Supreme Council of Environment

Bangladesh: Mofazzal Hossain Chowdhury Bir Bikram, Minister of Disaster Management and Relief

China: Gu Zhaoxi, Vice-Minister for Civil Affairs

Ecuador: Ricardo Peñaherrera León, DRR specialist, Secretariat for Risk Management

El Salvador: Jorge Antonio Meléndez López, Director General of Civil Protection

Gabon: Hortense Togo, Director General for Risk Prevention, on behalf of the Minister of Interior

Guyana: Riyad Insanally, Ambassador to the United States of America, Permanent Representative to the Organization of American States

Holy See: Silvano M. Tomasi, Head of Delegation

Indonesia: Willem Rampangilei, Minister, Chief, National Agency for Disaster Management

Italy: Fabrizio Curcio, Head, Italian Civil Protection Department, and Head of Delegation

Japan: Shigeki Habuka, Vice-Minister of Cabinet Office, Yohei Matsumoto

Kazakhstan: Yuriy Viktorovich Ilin, Deputy Minister of Internal Affairs

Kiribati: Taneti Maamau, President

Mexico: Rosario Robles Berlanga, Secretariat for Urban and Territorial Agrarian Development

Morocco: Lahcen Daoudi, Minister, Delegate of the Head of Government in charge of General Affairs and Governance

Myanmar: Win Myat Aye, Minister of Social Welfare, Relief and Resettlement

Namibia: Likando, Hellen Mpule, Deputy Director, Office of the Prime Minister

Niger: Laouan Magagi, Minister for Disaster Management

Paraguay: Joaquin Roa, Minister, National Emergencies Secretariat

Philippines: Ricardo B Jalad, Executive Director, National DRR and Management Council

Portugal: Jorge Gomes, Secretary of State for Internal Affairs

Romania: Raed Arafat, State Secretary, Minister of Internal Affairs

Saint Vincent and the Grenadines - Godfred Pompey, Permanent Secretary, Ministry of National Security

South Africa: David van Rooyen, Minister of Cooperative Governance and Traditional Affairs

Sri Lanka: Anura Priyadarshana Yapa, Minister of Disaster Management

Tajikistan: Rustam Nazar zoda, Chairman, Committee on Emergency Situations and Civil Defence

Thailand: Pol. Lt. Gen. Nadhapat Snidvongs, Vice-Minister for Interior

Tunisia: Riadh Mouakhar, Minister of Local Affairs and Environment

Uganda: Emmanuel Serujonji, mayor of Kampala Capital City

Ukraine: Ruslan Biloshytskyi, Deputy Head of State Emergency Service, Deputy Minister

Other participants

European Union: Christos Stylianides, Commissioner for Humanitarian Aid and Crisis Management

Economic Cooperation Organization: Seyed Jelaledin Alavi Sabzevari, Deputy Secretary General

Pacific Community: Audrey Aumua, Deputy Director General

Urban Poor Federation of Informal Settlements: Josephine (Jhocas) Castillo

Risk Management Solutions: Daniel Stander, Global Managing Director

UCLG: Roland Ries, Co-President and Mayor of Strasbourg



Luis Felipe Puente Espinosa, National Coordinator of Civil Protection of Mexico during the welcome plenary of the GP2017

Incorporating Disaster Risk Reduction Considerations into Sectorial Planning

Friday, 26 May, 11.15-13.15

The Ministerial Roundtable provided an opportunity for exchanging views on the topic of “*Incorporating Disaster Risk Reduction Considerations into Sectorial Planning*”. The session was co-chaired by Robert Glasser, the Special Representative of the Secretary-General for Disaster Risk Reduction and Luis Felipe Puente Espinosa, the National Coordinator of Civil Protection of Mexico.

The Sendai Framework calls on national governments to strengthen disaster risk governance to manage disaster risk. It underlines the importance of promoting coherence across systems, sectors and organizations related to sustainable development and DRR in government policies, plans, programmes and processes.

Three questions were proposed by the Co-Chairs to guide the intervention of participants. The format of the roundtable was an open dialogue. All the participants were invited to take the floor.

Participants agreed that effective risk management solutions need to be discussed in an interdisciplinary fashion, involving all sectors and following a whole-of-society approach. For this to happen, they were of the opinion that decision-making and support from leadership at the top of the executive power may be one of the most determinant factors. Participants referred to the importance of having a national platform for DRR, or a similar coordination mechanism, to facilitate interministerial engagement and the development of trans-sectoral DRR plans and strategies also involving key stakeholders. In that sense, the work on DRR across sectors or line ministries was considered a priority that governments need to address to ensure that the Sendai Framework is implemented effectively. All sectors need to take DRR into consideration (e.g. education, tourism, housing, energy, infrastructure, agriculture) and work collectively and in an interdisciplinary fashion, moving away from the traditional silo approach.

Participants underlined the need to strengthen collaboration between and among States through various cooperation and collaboration mechanisms and with the support and involvement of international organizations and key stakeholders.

The importance of having a subregional or continental perspective on disaster risk and making use of regional policy frameworks to integrate DRR into sectors at national level

was regarded by participants as an extremely useful practice.

Another aspect highlighted by participants was that national development plans should incorporate DRR and that governments should measure DRR investments and carry out cost-benefit analysis incorporating disaster risk considerations.

The main emphasis of DRR efforts should be placed on avoiding the creation of new risks, particularly when implementing development plans and investments. Some participants also referred to the need for considering ecosystem restoration as an effective DRR measure.

Participants suggested that it should be an obligation of municipalities and local governments to integrate hazard maps and evidence-based risk information into urban and territorial planning. In relation to this, participants considered it indispensable to engage with the legislative branch to enforce DRR measures, particularly at local or regional level and to provide local governments with guidance on how to incorporate DRR and climate change adaptation into urban planning. Participants agreed that local-level, private-sector and community-based solutions need to be prioritized.

Risk knowledge is also a substantive aspect. Collaboration between governments, civil society and academia is required to develop this knowledge in a comprehensive way. Using remote sensing and big data to develop prospective risk assessments needs to be used to the maximum extent possible. These risk assessments should take both existing and potential risks into account.

Policies and procedures need to be enacted by governments to seek the engagement of and work better with the private sector on DRR. Participants also highlighted the importance of safeguarding indigenous culture and engaging indigenous peoples, women and girls in DRR.

Participating States

Argentina: Emilio Renda, National Secretary of Civil Protection

Armenia: Davit Tonoyan, Minister of Emergency Situations

Bolivia (Plurinational State of): Oscar Cabrera Coca, Vice-Minister of Civil Defence

Canada: Celina Caesar-Chavannes, Parliamentary Secretary to the Minister of

International Development

Colombia: Carlos Iván Márquez Pérez, Head of Delegation

Costa Rica: Iván Brenes Reyes, President, National Emergency Commission

Côte d'Ivoire: Anne Désirée Ouloto, Minister of Health, Environment and Sustainable Development

Cuba: Ramón Pardo Guerra, Chief of National Civil Defence

Democratic People's Republic of Korea: Kang Il Sop, Chairman of State Committee for Emergency and Disaster Management; and Paek Sung Chol, Senior Officer, Department of International Organizations, Ministry of Foreign Affairs

Ethiopia: Mitiku Kassa, Commissioner (State Minister), National Disaster Risk Management Commission

Jamaica: Desmond McKenzie, Minister of Local Government and Community Development

Nicaragua: Guillermo González, Minister, Director of National Systems for Disaster Prevention, Reduction and Attention

Niger: Abdoul Kader Agali, Minister, Deputy Cabinet Director, Office of the Prime Minister

Panama: María Luisa Romero, Minister of Interior

Paraguay: Joaquín Daniel Roa Burgos, Minister, National Emergencies Secretariat

Romania: Raed Arafat, State Secretary, Minister of Internal Affairs

Saudi Arabia: Ali Alshahrany, Secretary General, Saudi Civil Defence Council

Sri Lanka: Anura Priyadarshana Yapa, Minister of Disaster Management

Switzerland: Manuel Bessler, State Secretary and Head of the Swiss Humanitarian Aid Unit

Uruguay: Fernando Traversa, Director, National Emergency System

Other participants

African Union Commission: Bahiigwa Godfrey, Director

UNFCCC: Patricia Espinosa, Executive Secretary

UNFPA: Natalia Kanem, Deputy Executive Director for Programmes

Auckland Council: Kiri Maxwell, Principal Advisor Strategy and Partnerships

UN-WOMEN: Yannick Glemarec, Deputy Executive Director

Enel Foundation: Carlo Papa, Director

Wetlands International: Jane Madgewick, CEO

Community Practitioners Platform: Prema Gopalan, Director, Swayam, Shikshan Prayog



Participants in the 2017 Global Platform exchanging views between official sessions

National and Local DRR Strategies

Thursday, 25 May, 9.00-11.00

Co-Chairs: Shri Kiren Rijiju, State Minister, India, **Joaquin Roa**, Minister, National Emergency Secretariat Ministry, Paraguay. **Aurora Denisse Ugalde Alegría**, Mayor of Tlalnepartla, Mexico.

Panellists: **Christos Stylianides**, European Commissioner for Humanitarian Aid and Crisis Management, European Commission. **Melchior Mataki**, Permanent Secretary, Ministry of Environment, and Chair of National Disaster Council, Solomon Islands. **Kathy Oldham**, Head of Service, Civil Contingencies & Resilience Unit, Association of Greater Manchester Authorities, United Kingdom.

The Sendai Framework calls for strong political leadership, commitment and involvement of all stakeholders at all levels to “prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience”.

The pursuit of such a comprehensive goal requires a strategic approach and a well-defined plan to ensure that efforts are coordinated and inclusive of the whole of society, and that resources are efficiently used across all sectors and by all stakeholders.

Reflecting this foundational requirement, Target E of the Sendai Framework calls for substantially increasing the number of countries with national and local DRR strategies by 2020.

A strategy may take a variety of formats. It may be a single comprehensive strategy document or a system of strategies across sectors and stakeholders, with one overarching document linking them.

The selection of risk reduction targets and different type of measures will be situation-specific, and will not only vary with the environmental, physical, social, cultural and economic conditions but will also depend on the risk perception and risk tolerance of the society represented by decision makers.

Bringing all government sectors, as well as other public and private stakeholders, together to communicate and collaborate towards a common goal has been recognized as the most significant value of developing DRR strategies.

To ensure the DRR strategies can be implemented successfully, five critical enabling elements have been identified:

- (a) Strong governance mechanism to manage the process of developing a DRR strategy and enabling implementation
- (b) Comprehensive understanding of disaster risk and coping capacities to inform the DRM measures
- (c) Sufficient and stable financial resources dedicated to implement the strategy
- (d) Technical and institutional implementation capacities
- (e) Strengthened mechanisms to follow up, periodically assess and publicly report on progress.

The issue brief of Plenary 1 outlines the steps in developing DRR strategies and sets out the enabling elements for implementing the strategies:



According to this issue brief, five fundamental societal shifts are required for making progress in developing national and local DRR strategies:

1. Coherence with development – Leaders at all levels of government, community and stakeholders, and across all private and public sectors must reach beyond their sectoral silos to create a coherent DRR mechanism that ensures existing risk is meaningfully mitigated and future development is conducted in a risk-sensitive manner that avoids or prevents the creation of new risk.
2. Whole of society responsibility – All members of society must participate in a cultural shift that acknowledges individual responsibility for understanding their disaster risk and the role(s) played in managing it.
3. Financial commitment – Financial leaders at all levels of governance must develop and implement a strategy for funding all aspects of DRM, including the mitigation of existing risk, and the proactive management of the costs associated with residual risk (e.g. through retention, transfer, or hybridized planning).
4. Accountability – Government leaders at national and subnational levels must regularly report to constituents on their assessment of risk and the progress made towards (a)

preventing new disaster risk, (b) minimizing existing disaster risk and (c) managing residual disaster risk.

5. Comprehensive understanding of disaster risk – Reliable information on current hazard and risk levels, as well as an understanding of what has caused the creation of present risk, is critical to ensuring design, implementation, enforcement and monitoring of DRM measures.



Christos Stylianides, European Commissioner for Humanitarian Aid Crisis Management during the Plenary Session on National and Local DRR Strategies

A Risk-Informed Approach to Sustainable Development and Resilience for Countries in Special Situations

Thursday, 25 May, 15.00-17.00

Co-Chairs: **Concetta Fierravanti-Wells**, Minister for International Development and the Pacific, Australia. **Fathimath Thasneem**, Deputy Minister of Defence and National Security, Maldives. **Fekitamueloa Katoa 'Utoikamanu**, United Nations High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

Panellists: **Inonge Mutukwa Wina**, Vice-President of Zambia. **Desmond McKenzie**, Minister of Local Government and Community Development, Jamaica. **Krishna Bahadur Raut**, Joint Secretary and Chief of Disaster Management Division, Ministry of Home Affairs, Nepal.

The session reiterated that least developed countries (LDCs), landlocked developing countries (LLDCs), and Small Island Developing States (SIDS) are under immense pressure from increasingly frequent and severe disasters and the impacts of climate change.

Countries in special situations stand to benefit from a coherent and mutually reinforcing approach to disaster risk reduction, sustainable development and climate change agendas. When resources and capacities are limited, they should be coalesced around common priorities rather than disbursed in multiple directions. More coherent and effective implementation and monitoring strategies across these overlapping agendas should bring about efficiencies and improve resilience and preparedness in the most vulnerable countries. While progress has been made – SIDS were highlighted as leading the way – in many countries ministries and stakeholders need time and technical support to reorganize and integrate their work.

Official development assistance remains a major source of financing for many countries in special situations. Such support should be risk-informed and include predictable financial resources, as well as technology transfer.

Panellists and participants stressed that this reality puts a premium on regional and global partnerships. Strengthening partnerships will better support countries in special situations to expedite the development and implementation of nationally driven DRR strategies by 2020. Panellists underscored that financing instruments need to be better tailored to the needs of countries in special situations, including middle-income countries. It was argued that partnerships that reduce the fragmentation of DRR and climate adaptation financing make resources more accessible.

Countries in special situations also need partnerships that can transfer knowledge and best practices. Given their limited resource bases, countries welcomed technology transfer in terms of enhanced early warning mechanisms, information and communication technologies, and resilient infrastructure.

Assistance in data collection and analysis to close gaps in understating disaster losses was also highlighted for improving decision-making capacity in order to make investments resilient.

Revising or developing disaster risk reduction policies and action plans in line with the Sendai Framework requires active government leadership, particularly in the least developed and most vulnerable countries. Silos that separate national development, finance and disaster risk reduction functions must be dismantled. While developing national DRR strategies is a crucial step, effective disaster risk governance is needed to follow through on and act on the strategies.

Legislative and regulatory frameworks need to empower institutions to respond to the needs of the population, drive implementation and promote a comprehensive, multi-stakeholder and prevention-oriented approach to DRR.

For example, Jamaica's disaster legislative framework, enshrined in the 2015 National DRM Act, empowers local authorities to develop risk reduction plans that build resilience in response to locally identified risks and take investment decisions that are based on analysis of accurate local data.

Zambia's national DRM includes defined coordination and implementation arrangements to facilitate the development of district-level strategies. It is guided by the Sendai Framework, as well as by the Seventh National Development Plan 2017-2021 and the Programme of Action for the Implementation of the Sendai Framework 2015 to 2030 in Africa.

Calls were made for stronger cooperation across the public and private sectors. Participants stressed the imperative of public-private partnerships as a means of implementing the Sendai Framework, given the disproportionate economic impact of disasters in LDCs, LLDCs and SIDS.

Panellists highlighted investments in resilient infrastructure as a core contribution to sustainable development and poverty reduction in their countries. They underscored the need for a comprehensive approach to spatial planning and a modernized risk-informed framework to guide the building industry. The role of public-private partnerships, as well as local communities, to “build back better” in the wake of the 2015 earthquake in Nepal was also highlighted.

Recommendations and commitments

- Intensify efforts to capitalize on the synergies between the complementary agendas for disaster risk reduction, climate change and sustainable development.
- Accelerate the development of and access to tools, technologies and financing instruments, and build partnerships to support the development and implementation of effective disaster risk reduction strategies suitable to the specific contexts of countries in special situations.
- Build governance structures that can straddle the national and local levels, draw in multiple stakeholders and embed disaster risk in core national development policy, economic planning and budgeting processes.



Concetta Fierravanti-Wells, Minister for International Development and the Pacific, Australia, Co-chair of the plenary session on sustainable development for countries in special situations.

Sendai Framework Monitoring

Friday, 26 May, 9.00-11.00

Co-Chairs: **Luis Felipe Puente Espinosa**, National Coordinator Civil Protection, Mexico. **Robert Glasser**, Special Representative of the Secretary-General for Disaster Risk Reduction, UNISDR. **Marcus Oxley**, Executive Director, Global Network for Disaster Reduction.

Panellists: **Rohan A. Richards**, Principal Director, National Spatial Data Management Division, Jamaica, and Co-Chair, UN-GGIM. **Paloma Merodio Gómez**, Vice-President, National Institute of Statistics and Geography, Mexico. **Peter Felten**, Head, Humanitarian Assistance/Policy Division, Federal Foreign Office, Germany. **Natalia Kanem**, Assistant Secretary-General and Deputy Executive Director, United Nations Population Fund.

In adopting the Sendai Framework for Disaster Risk Reduction 2015-2030, Member States committed to the systematic and cyclical measurement, monitoring and reporting of progress in achieving the outcome and goals of the Framework.

Global progress in achieving the seven global targets of the Sendai Framework will be measured using 33 indicators, some of which will also be used to measure disaster-related targets of SDGs 1, 11 and 13.

The first cycle of monitoring progress in implementing the Sendai Framework (which will exceptionally cover the two biennia 2015-2016 and 2017-2018) will be launched in early 2018, ending in March 2019.

A set of optional national indicators has also been developed that may be selected by countries to measure nationally determined targets and priorities of national strategies aligned with the Sendai Framework. These indicators will enable countries to monitor policy actions, as well as factors that contribute to reducing and preventing the creation of risk or to building resilience.

While optional, these national indicators are essential if the impact of DRM strategies and approaches on underlying risk drivers are to be measured (including in relation to poverty, environmental degradation, unchecked urban expansion and weak risk governance).

Between 2014 and 2016, UNISDR supported a series of pilot studies in Armenia, Fiji, Italy, Japan, Lebanon, Mozambique, Paraguay, and Philippines to assess the feasibility of indicators for the Sendai Framework. The findings showed that in addition to significant gaps in data and risk governance, the efficiency and impact of monitoring efforts were

impeded by a number of factors including: governance structures for data management and sharing; the application of data for decision making; and ownership of international initiatives.

This was often compounded by the existence of multiple methodologies and standards for data generation, which impeded the sharing of data between relevant institutions and stakeholders. Effective monitoring of progress in achieving the global targets of the Sendai Framework and disaster-related SDGs is predicated on the availability, accessibility, quality and applicability of multiple datasets. These data are collected from multiple sources via numerous mechanisms, including but not restricted to national disaster loss accounting systems, national statistical systems, household surveys and routine administrative data. Qualitative and quantitative data will be required, and could be supplemented by Earth observations and geospatial information for example.

Feasibility and quality will depend on the availability and accessibility of the required data – data that will need to be sufficiently consistent and comparable to allow meaningful measurement of progress and impact.

To assess the current situation, UNISDR conducted a Sendai Framework data readiness review to evaluate the readiness of countries to report against the global targets. In contributing to the review, 87 Member States across all regions assessed their state of readiness to monitor and report, and specifically, the availability of national disaster-related data, disaster-related data gaps and the type of resources required to fill these gaps. The review also assessed countries' ability to set up baselines for measuring the global targets of the Framework.

The summary report on the review concluded that most countries can collect a critical mass of disaster loss data required to measure Sendai Targets A to D and SDGs 1 and 11, whereas greater gaps in data availability exist for Targets E, F and G. Some 83 per cent of countries are able to report on the number of deaths attributed to disasters (Target A), and 66 per cent are able to report on number of persons directly affected by disasters (Target B).

The practice of disaster loss accounting is well established in many countries. However, datasets are typically more available on physical damage and human impact, and less available on economic losses, livelihoods, losses of specific assets and infrastructure,

cultural heritage and disruptions to basic services. Data availability for Targets C and D is therefore generally lower. Sendai Framework Targets E to G concern policy and other input indicators, and countries report wide variations in data availability. This ranges from 57 to 72 per cent of countries for data pertaining to early warning systems, risk information and number of people evacuated within Target G to 39 to 54 per cent of countries for data on existing national and local DRR strategies, aligned to the Sendai Framework under Target E.

Lowest data availability – around 20 per cent of countries – was reported for the indicators for Target F, which measure international cooperation.

Some countries indicated that to their knowledge data were not available, but might nevertheless exist. Disaster-related data are often held and produced by various stakeholders and may not always be known to all or publically accessible. Hence the figures in the report need to be read with caution.

DRM agencies, which are mandated to monitor the Sendai Framework, have in a few cases developed strong relationships with mapping Institutions, national statistical offices or other data producers. These are the exception rather than the rule and may work on an informal rather than an institutional basis. Data-sharing protocols commonly do not exist. Gaps in data need to be addressed by March 2019 so that all countries can report in the first official reporting cycle of the Sendai Framework and build the 2005-2015 baselines required for measurement. Exceptionally, the first reporting cycle will cover the two biennia 2015-2016 and 2017-2018.

Additional elements discussed

- Disaggregating data to be able to tailor policy to the needs of stakeholder groups, paying special attention to people disproportionately affected.
- Ensuring that information is accessible to and in a form that can be used by multiple stakeholder groups.
- Harmonize the information and collection process of data related to the SDGs and the Sendai Framework (and subsequently those related to the Paris Agreement) to increase the impact at the national and local level, since these data are not differentiated at local level.
- The challenges and opportunities for improving monitoring by incorporating grassroots perspectives, including local-level perspectives on policy change, and

ensuring that the consequences of small-scale, frequently occurring natural hazards are captured.

- Inclusion must be promoted, together with a focus on data quality and information sharing, to meet communities' expectations. Persons with special needs and requirements must not be overlooked. No one should be left behind. This can only be achieved by working together, developing data and applying them in transformative planning and equipping the entire population.

Action point: disaster-related data collection and dissemination

- Effective monitoring must encompass all disaster phases and stakeholders. For information to be effective, different data sets have to be integrated and data need to be disaggregated.
- Risk assessments and risk maps must be developed.
- Spatial information data sets from all prior incidents must be disseminated and made available at the local level.
- Data sharing and coordination among governments and among community members is a cross-sectoral responsibility.
- Comprehensive geospatial data infrastructure is required to connect consumers and users.
- Data-sharing platforms to be developed, with considerations of interoperability and open data to enhance accessibility.
- System-wide data collection is important to address disaster-related data gaps, which include disaster displacement in national planning.
- Integrating geospatial data with statistical information is needed to provide DRR practitioners with data to develop effective DRR actions and strategies.

Action point: application of disaster-related earth observation data for monitoring

- Access to geospatial information for all through data-sharing protocols, common standards and an open-access information platform is crucial to enable comprehensive monitoring at regional, national and local level.
- Coordination and integration of various earth observation data sources is essential to ensure implementation of the UN-GGIM Strategic Framework on geospatial information and services, as well as to complement the monitoring of the Sendai Framework.

- Geospatial data matter for monitoring the global Sendai Framework targets, as well as the related targets of the SDGs, as they can help fill data gaps.
- Generation of human and environmental risk information needs to be included into geospatial data goals, with dedicated recommended actions at all levels for all stakeholders.

Action point: integration of disaster-related data in official statistics for monitoring and increased coherence

- National statistical systems should coordinate all their national disaster-related data.
- Coordination among different units is important and should be based on a normative framework for information generation by different actors and dissemination to the general public.
- Technical committees and organs within the statistical system are addressing the SDGs indicators. A similar process needs to be established for the Sendai Framework indicators.

Action point: disaster-related data to inform multi-sectoral, risk-informed planning and investment

- Cooperation between all levels, led by a strong national Sendai Framework focal point with a clearly recognized coordination mandate, and supported by a national platform encompassing all relevant actors, is the precondition for risk-informed planning. DRR data should be available to all. Actions must be people-centred.
- An interdisciplinary approach to disaster-related data must engage end-users to ensure that community needs are matched with government capacity for critical service provision.
- Geographic and statistical systems should work hand in hand in a systematic way to enhance data availability for monitoring and implementation at the sectoral level.



Marcus Oxley, Executive Director of the Global Network for Disaster Reduction and co-chair of the Plenary session on Sendai Framework Monitoring

Commitments

As a follow-up to the Sendai Framework data readiness review, UNISDR committed itself to working with the United Nations system and related organizations to help countries develop capacities to monitor and measure progress in the implementation of the Sendai Framework.



Coherence between the Sendai Framework, the 2030 Agenda and Climate Change

Friday, 26 May, 14.00-16.00

Co-Chairs: **Willem Rampangilei**, Minister and Head, National Agency for Disaster Management, Indonesia. **Manuel Bessler**, State Secretary and Federal Council Delegate for Humanitarian Aid and Head, Swiss Humanitarian Aid Unit, and Vice-Director, Swiss Agency for Development Cooperation, Switzerland. **Madeleine Redfern**, Mayor of Iqaluit, Canada.

Panellists: **Saber Chowdhury**, Member of Parliament, Bangladesh, and President, Inter-Parliamentary Union. **Ingrid-Gabriela Hoven**, Director-General of Global Issues, Sector Policies and Programmes, Federal Ministry for Economic Cooperation and Development, Germany. **Meleti Bainimarama**, Permanent Secretary, Ministry for Agriculture, Rural and Maritime Development and National Disaster Management, Fiji. **Patricia Espinosa Cantellano**, Executive Secretary, UNFCCC.

The plenary addressed issues of coherence with the sustainable development and climate change agendas. Panellists noted that the principle of coherence is already built in to the agreements that comprise the 2030 Agenda and that the interlinked agreements open multiple avenues to act. The Rio conventions, the New Urban Agenda and commitments such as the New York Declaration for Refugees and Migrants need to be considered in this regard as well.

The plenary focused on the High-level Political Forum for Sustainable Development and the 2017 theme: “Eradicating poverty and promoting prosperity in a changing world”. Disaster losses were described as development failures and reducing disaster risk identified as a precondition for reducing poverty and achieving sustainable development.

For persons living in poverty, both urban and rural, exposure is higher and capacity to recover diminished. But resilience is fundamental to realizing the 2030 Agenda. The most vulnerable must be put first in any plans and policies for implementation.

Planning processes must ensure that the diverse peoples that are part of our communities have an opportunity to contribute. Panellists were of the view that people are vulnerable because they are excluded. Coherence can be achieved through including all stakeholders. The principle of full participation needs to be put into action from the earliest stages of planning. Engagements must be made more accessible and stakeholders need time to be heard.

Recognizing its role in promoting prosperity, participants urged that critical infrastructure be made resilient through ensuring that investments are risk-informed and thereby reduce losses. The private sector plays a fundamental role. The role of insurance was highlighted for its ability to put a price on risk. Legislation and policies that support integrated approaches prepare the ground for financial investments.

Interventions during the meeting touched repeatedly on issues of governance and the importance of strengthening institutions.

The representative of Switzerland described how establishing a national platform triggered a shift from response to managing risk and led to the integration of hazard maps in land-use planning and policy.

The representative of Indonesia was of the opinion that strengthened community resilience requires a connected approach to the three agreements, and he spoke about the country’s experience in aligning these locally through focusing on urban resilience and complementary efforts in rural areas.

The experience from Fiji pointed to progressive interconnectedness through building on legislation already in place.

In Bangladesh, coherence and convergence helped put the country on a strong upward economic development; and parliamentarians play a strong role in advocacy.

The representative of Germany highlighted the efforts undertaken to strengthen cooperation between the international work streams (including Nationally Determined Contributions (NDC) to the Paris Agreement, Loss and Damage, Green Climate Fund and NDC Partnership).

Recommendations and commitments

- Build political will nationally to implement the coherent approach already embedded in the Sendai Framework, the Paris Agreement and the wider 2030 Agenda.
- Link national and local strategies (Target E) to domestic development planning processes and Nationally Determined Contributions to implementation of the Paris Agreement.
- Prioritize regionalizing, contextualizing and localizing the global agreements together.
- Link the activities of different ministries more effectively through planning and finance.

- Leverage regional frameworks and mechanisms to strengthen coherence nationally.
- Connect past risk assessment with future risks to support risk-informed decision-making.
- Prioritize building the resilience of communities, putting the poor and the most marginalized first.
- Promote a coherent approach to DRR, sustainable development and climate change through State deliberations at the High-level Political Forum on Sustainable Development.
- At the 2017 High-level Political Forum, recognize disaster risk reduction as a poverty reduction strategy that requires a whole-of-government approach.
- Focus on COP23 as an opportunity to link the monitoring systems, reduce the reporting burden, ensure data coherence and strengthen action on the ground.



Enhancing Disaster Preparedness for Effective Response and to “Build Back Better” in Recovery, Rehabilitation and Reconstruction

Wednesday, 24 May, 10.00 – 11.30

Co-Chairs: **Shigeki Habuka**, Vice-Minister for Policy Coordination of Cabinet Office, Japan, **Lourdes Tibán**, member of the National Parliament of Ecuador and United Nations Special Rapporteur on the rights of indigenous peoples. **Aris Papadopoulos**, Founding Chair of the UNISDR Private Sector Advisory Group, United States.

Panellists: **Inonge Mutukwa Wina**, Vice-President of Zambia. **Khaled Abu Aisheh**, Director of Architecture and Urban Planning, Aquaba Special Economic Zone Authority (ASEZA), Jordan. **Marcie Roth**, CEO, Inclusive Emergency Management Strategies and former Director, Office of Disability Integration and Coordination, Federal Emergency Management Agency/Department of Homeland Security, United States. **Johannes Luchner**, Director of Emergency Management, ECHO, European Commission.

The special session addressed remaining challenges to enhance disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction. Discussions and questions centred on Sendai Framework targets, the principles of shared responsibility and all-of-society engagement, and requirements for international cooperation.

The session highlighted the urgency of ensuring that disaster preparedness and recovery plans are risk-informed as key to achieving Sendai Framework Target E by 2020. Multi-stakeholder platforms for policy dialogue at both national and local levels are an effective means of establishing roles and responsibilities among stakeholders, as well as being effective in planning for preparedness and “Build Back Better”. In order to achieve “Build Back Better”, participants emphasized the need for pre-disaster recovery planning.

The importance of broad private-sector and consumer education on the benefits of resilience was also highlighted. For smooth implementation, all stakeholders, including citizens, should participate in preparedness planning and in the process of formulating reconstruction plans. It is important to secure the engagement of women, persons with

disabilities and different functional needs, and others such as indigenous people, in pre-disaster planning. The education and engagement of citizens who are often first responders was emphasized.

Both regional and global cooperation is essential to prepare for and respond to disasters. A cost-benefit analysis of risk reduction versus response must be carried out and targeted to ministers of finance and policymakers. Predictable financing must be secured, in particular from the private sector. Despite substantial progress in preparedness, response and risk reduction should be “as local as possible, and as international as necessary”.

Recommendations and commitments

- Embed pre-disaster recovery planning within the policy framework.
- Consider new or enhance existing structures such as national and local platforms for DRR, include the scientific community and address gaps in private-sector and civil society participation.
- Enhance the capacities of communities to participate in and take ownership of preparedness and “Build Back Better” planning.
- Seize recovery as an opportunity to strive for universal accessibility and ensure leadership for an all-inclusive approach.
- Build and target the economic case for the benefits of resilience, preparedness and pre-disaster recovery planning.
- Aim for more equal spending on DRR and response, as well as integrating response and recovery into humanitarian-funded projects.



Availability of and Access to Multi-Hazard Early Warning Systems and Disaster Risk Information

Wednesday, 24 May, 11.45 – 13.15

Co-Chairs: **Davit Edgar Tonoyan**, Minister of Emergency Situations, Armenia. **Gautier Mignot**, Deputy Director, Globalization, Culture, Education and International Development, Ministry of Foreign Affairs, France. **Sharon Bhagwan** Rolls, Coordinator, FemLINKPACIFIC.

Panellists: **Petteri Taalas**, Secretary-General, WMO. **Molly Nielson**, Principal Disaster Management Officer, Ministry of Natural Resources and Environment, Samoa, **Tatsuo Hirano**, Member of Parliament, Japan. **Elliot Jacks**, United States National Weather Service (on behalf of Canada, Mexico and United States of America).

The session underscored that early warning systems that are multi-hazard, impact based and people centered are important tools for national and local authorities to reduce the risk of disasters. They therefore need to be part of national DRM strategies and plans.

Risk information needs to drive early warnings to identify the threats, the exposed institutions and populations and their vulnerabilities, as well as to establish thresholds for issuing warnings. The information needs to reflect multiple threats and hazards and take climate change into account. The representative of Samoa shared a good practice where the weather, climate and tsunami centres have been integrated for effectiveness, providing integrated timely alerts and integrated services.

Institutions monitoring and forecasting natural hazards, such as national meteorological services, need to work closely with civil protection agencies and other institutions to more effectively link forecasts and warnings with preparedness and response actions at all levels. The session highlighted that early warning systems need to be inclusive and gender responsive, recognizing the role of women as first responders, but taking into account all type of diversities. Commitment has to be put into action for early warning systems to be more inclusive and equitable. Global and regional cooperation has to be increased, as well as investment in early warning systems that are able to forecast impact and not only events. Developed countries have advanced systems but financial resources are still needed to be invested in other countries to tackle present needs.

Panellists noted that the Climate Risk and Early Warning System initiative (CREWS) presents an interesting model for concerted country support better aligned with the needs of least developed countries and Small Island Developing States.

Although technology such as satellite allows improved forecast, there is still a need for communicating forecasts to people in an accessible, timely and inclusive format to protect life and property. In this regard, public broadcasting needs to be improved.





1. Sendai Framework Monitor Prototype Consultation

Wednesday, 24 May, 10.00-11.30

Co-Chairs: **Mercedita A. Sombilla**, Assistant Secretary, National Economic and Development Authority, Philippines. **Yannick Glemarec**, Assistant Secretary-General and Deputy Executive Director for Policy and Programme, UN-Women.

Panellists: **Martin Owor**, Commissioner, Disaster Preparedness & Management, Office of the Prime Minister, Uganda. **Kamal Kishore**, Member, National Disaster Management Authority, India. **Nathalie Zaarour**, DRR Project Manager, Presidency of the Council of Ministers, Lebanon. **Andria Grosvenor**, Planning and Business Development Manager, Caribbean Disaster Emergency Management Agency (CDEMA).

The session presented the *Prototype* of the Sendai Framework Monitor to Member States. This, together with the marketplace booth, allowed countries and other end users to familiarize themselves with the tool and manipulate and test it before completion of the design phase. India, Lebanon, Uganda and CDEMA had conducted in-country pilot testing of the Prototype and presented their findings at the session.

Following endorsement by the United Nations Statistical Commission, monitoring of the Sendai Framework will allow Member States, regional intergovernmental organizations and local governments to track progress in implementation of the Framework, as well as those elements of the SDGs and the Paris Agreement that are related to DRR. Monitoring will provide users with context-relevant risk information that can be applied in-country to assist in developing risk-informed policies for critical sectors, implementation strategies, appropriate resources and to support enhanced accountability of all stakeholders.

Forming the backbone of the monitoring system are the indicators – both internationally agreed and nationally determined. By combining loss-related indicators with risk- and resilience-related indicators and policy indicators, countries will be able to systematically assess the policies and mechanisms they have in place to manage their disaster risks and the degree to which these are effective in achieving the desired outputs – i.e. reducing risk and strengthening resilience – and outcomes in terms of reduced disaster loss and impact. To ensure meaningful monitoring of progress at different levels and maximize ownership, the *Prototype* entails two main layers: global reporting and customized reporting. The session described the hierarchy of responsibilities and capabilities for data coordination/entry, analytics and reporting for individuals and entities across government institutions and at multiple administrative levels. It examined some of the key features of the Monitor:

- Analysis will support risk-informed decision-making
- Allows for data collection at national, subnational and regional level
- Custom targets recognize the importance of country specificities
- Translation made possible into one or more local languages
- Integrated reporting on SDGs and Sendai Framework targets
- Report may be published or kept private at the discretion of the reporting government
- User-friendly interface
- Reporting backed with photo and video evidence
- Builds on baselines developed over many years through Desinventar etc.
- Responsibilities for monitoring and reporting across government departments
- Tracking of multiple users
- Functional on a number of platforms and browsers
- Built and validated through a consultative process engaging all countries.

Recommendations and commitments

- Support for capacity development at regional and national levels.
- Development of clear guidelines to ensure the required rigour and discipline.
- Complementary emphasis on input, as well as outcome- and output-level indicators.
- The Monitor should be able to demonstrate benefits for multiple government entities for integrated risk reduction.
- Exploration of focus on critical areas: e.g. urban development, agriculture, water resources and transportation.
- The Monitor should be compatible with regional/subregional follow-up mechanisms.
- Inclusion of the impact of displacement.
- Incorporating gender sensitivity in the Monitor.



2. Ensuring Risk Resilient Critical Infrastructure

Wednesday, 24 May, 10.00-11.30

Chair: Wais Ahmad Barmak, Minister for Disaster Management and Humanitarian Affairs, Afghanistan.

Panellists: Hans T. Sy, Chairman, Executive Committee, SM Prime Holdings, Inc, Philippines. Hirotada Matsuki, Director, International Affairs Office, River Planning Division, Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan. P. K. Mishra, Additional Principal Secretary to Prime Minister, India. Michele Young, Asia Regional Shelter and Construction Adviser, Save the Children, Thailand. María Inés Gutiérrez Prado, Office of National Defence and DRM, Ministry of Education, Peru.

Panellists agreed that governments, donors and multilateral banks must ensure technical support to the resilience of buildings and critical infrastructure they finance. Even though many tools and guidelines are available to support such resilience, what is needed is a sharing of knowledge and technical support.

The session called for a global coalition (or “platform”) of countries and organizations to share knowledge, tools, best practices and lessons learned on the issues of critical infrastructure to promote technical cooperation. India made a commitment to support the establishment of such a coalition.

Recommendations and commitments

- Understanding and identifying risks to critical infrastructure for both new and old infrastructure.
- Mainstream maintenance of infrastructure, with regular risk assessments and upgrading of old critical infrastructure.
- New projects and designs should be environmentally friendly and green, as well as resilient. Better designs and standards are needed.
- UNISDR should develop guidelines to address issues of critical infrastructure resilience.
- Partnerships between government, the private sector, local communities and academia need to be forged and strengthened.
- Call to multilateral banks (e.g. World Bank, Asian Infrastructure Investment Bank, New Development Bank, Inter-American Development Bank) to ensure all critical infrastructures financed are resilient.



Panellists of the working session on Risk Resilient Critical Infrastructure

- Policies and strategies need to be informed by risk, at both national and local levels, and for the private sector. Incentives for the private sector to invest in DRR can be considered by governments.
- Accessibility and availability of good practices are essential for promoting resilient infrastructure. Call for the sharing of knowledge and best practices through an international platform or coalition of countries, which can be used by different countries to share and understand resilience of critical infrastructure. Involve the private sector in this coalition. A web platform should also be available to facilitate the sharing of good practices among countries and stakeholders at all levels.
- Promote insurance in poor countries and exchange best practices from countries that have already established good practices in the use of insurance.



3. International Cooperation in Support of the Sendai Framework Implementation

Wednesday, 24 May, 10.00-11.30

Chair: David Douglas Des van Rooyen, Minister of Cooperative Governance and Traditional Affairs, South Africa.

Panellists: Ingrid Hoven, Director-General of Global Issues, Sector Policies and Programmes, Federal Ministry for Economic Cooperation and Development, Germany. Laura Tuck, Vice President for Sustainable Development, The World Bank. Rolf Alter, Director for Public Governance, OECD. Heidi Schroderus-Fox, Director, UN-OHRLLS. Sandra Wu, Chairperson and Chief Executive Officer, Kokusai Kogyo Co. Ltd. Board member of UNISDR, ARISE.

The session outlined good practices and success stories in achieving international cooperation, including technology transfer, and discussed barriers to forming North-South, South-South and triangular partnerships. It also highlighted means to achieving a level of sustainability in international cooperation. Commitments were announced by the panellists and participants to strengthen international cooperation and global partnerships.

The panellists outlined the critical need for international cooperation to ensure the implementation of the Sendai Framework and the 2030 Agenda for Sustainable Development, particularly in the context of countries with special needs. The need for increased understanding of disaster risk was highlighted, including the importance of using a tracking system for official finance flows to DRR, similar to the one coordinated by the OECD Development Assistance Committee, in order to create a meaningful baseline. Panellists also cited the significance of expenditure data on risk management.

The session highlighted the importance of increasing coherence between humanitarian action and long-term development cooperation. It also highlighted the importance of political recognition of coherence and its reinforcement in international agreements, including through linking mechanisms for monitoring and reporting of goals and indicators.

The panellists called for increased cooperation in technology transfer. The establishment of the Technology Bank for Least Developed Countries (LDCs) was cited as a major step forward for these countries to enhance science, technology and innovation, and integrate technology into development. The panellists called for increased investment and more

effective use of existing resources to enhance international cooperation. The Transitional Development Assistance supported by the Government of Germany was cited as a good example that helps to link humanitarian and development approaches.

The panellists also highlighted the need for multi-annual funding and shifting the focus to funding results rather than activities, to ensure flexibility in the approaches adopted to achieve common goals. The representative of the World Bank cited some innovative funding instruments including the catastrophe deferred drawdown options for LDCs and the Small Island States Resilience Initiative (SISRI). The session also highlighted the role of risk disclosure as vital for making informed investment decisions, including the findings of the Financial Stability Board Task Force on Climate Change Disclosure.

The session further highlighted the increasingly strategic role of the private sector in ensuring international cooperation. The role of the Kokusai Kogyo company in mapping and geospatial information and data sharing was illustrated as a key means to ensure sustainability of international cooperation. Business-to-business, or private-private partnerships, was considered an important element for ensuring integrated implementation of global frameworks.

Recommendations and commitments

- The Kokusai Kogyo company committed to fast-track projects that take the form of private-private cooperation, involving DRR technology and in a developing country.
- Switzerland made a commitment to allocate at least one sixth of its humanitarian funding for DRR.



4. Risk Transfer and Insurance for Resilience

Wednesday, 24 May, 11.45-13.15

Co-Chairs: **Riikka Laatu**, Deputy Director General, Department for Development Policy, Ministry for Foreign Affairs, Finland. **Simon Young**, Chief Operating Officer, African Risk Capacity Insurance Company Limited, South Africa.

Panellists: **Shaun Tarbuck**, CEO, International Cooperative and Mutual Insurance Federation, and member of the Steering Committee of the World Bank Institutional Development Fund. **Robert Muir-Wood**, Chief Research Officer, Risk Management Solutions. **Phil Evans**, Chief Operating Officer, Met Office, United Kingdom. **Liliana Cardozo de Cano**, General Manager, Taji insurance agency. **Sophia Belay**, Manager, R4 Rural Resilience Initiative, Oxfam America.

The Sendai Framework, the 2030 Agenda for Sustainable Development and the Paris Agreement all recommend greater collaboration in understanding and managing risk. This provides the insurance sector with new impetus to engage and transform risk reduction, reinforcing resilience and supporting speedy post-disaster recovery.

The session pointed out that the insurance sector can be a driver of innovative ideas, offering protection and economic incentives for resilient planning and livelihoods, promoting risk literacy and supporting investment decisions.

Panellists highlighted, however, that stand-alone options will not generate resilience dividends for policyholders and societies, nor are they sustainable. Risk transfer and insurance mechanisms are only effective when they are built on a comprehensive understanding of the risk landscape and its metrics, preceded by the collection of data and evidence, transparent risk modelling, and supported by effective evaluation of impact.

Sustainable solutions in support of development must establish (a) the risk landscape, (b) high quality, open data, (c) customer understanding of the value of insurance and risk transfer, (d) active government engagement in risk management and regulation, (e) societal confidence through educating, empowering and enabling communities and (f) partnerships – across governments, civil society and the private sector, and at all scales. Such partnerships are key.

Governments promote data availability, establish standards, and through regulatory frameworks reward risk-reducing behaviour and risk-sensitive investment. Governments may promote sovereign risk transfer, for instance, but it is through sustainable partnerships

that such sovereign initiatives can be replaced by fine-scale, targeted and sustainable meso- and micro-level private-sector commercial activity.

Effective and resilient insurance systems put individuals at the centre of decision-making. They provide mechanisms to build risk literacy to support societal resilience. Understanding and engaging the communities who face the risk, delivering on specific needs to increase resilience and reducing disaster risks to co-create services is the paradigm shift needed to move beyond merely providing insurance products to creating a platform for risk reduction and sustainable insurance protection.

Recommendations and commitments

- Risk transfer and insurance solutions must be offered as part of an integrated DRM strategy.
- Sustainable risk transfer and insurance solutions should be preceded by robust, comprehensive analysis and understanding of the risk landscape and risk drivers, informed by high-quality risk data, identification of insurable assets, supported by an enabling regulatory environment, and enhanced risk literacy.
- Design risk transfer and insurance based on accurate risk pricing to encourage adaptive behaviour from sovereign to community levels.
- Resilience should not be sacrificed in pursuit of volume or scale without evaluation.



5. Private-sector Engagement in Disaster Risk Reduction

Wednesday, 24 May, 16.15-17.45

Chair: Chloe Demrovsky, Disaster Recovery Institute international.

Panellists: Daniel Stander, Global Managing Director, Risk Management Solutions.

Mark Crossweller, Director General, Emergency Management, Australia. **Dale Sands**, Senior Vice-President and Global Practice Director, CH2M. **Jesús González Arellano**, Partner, KPMG Mexico.

The session reaffirmed that the public and the private sector need to work together to minimize the effects of natural and human-induced hazards from disasters. It endorsed the following recommendations:

Recommendations and commitments

- Risk-informed investments will encourage the private sector to increase investment in DRR, thus minimizing future risks to society. There are many opportunities to attract resilient investment. The private sector can provide support to make risk-informed decisions using analytics to assess losses and to assess probabilistic scenarios of losses that enable the costs of inaction to be measured.
- An understanding of risk and benefits for improving resilience is required for effective management. The need for public-private sector collaboration for DRR has never been greater to access untapped expertise and decades of experience to evaluate acute shocks and chronic stresses. Unless public-private investments become more “risk-informed”, loss of life and capital will continue to increase.
- The greatest measure of success in DRR is upholding community trust and confidence. The greatest mission is the reduction of its suffering. Therefore, everything thought, said or done should be motivated by these two principles.
- Data are important as they create understanding, but progress is needed. As risk is a dynamic and constantly changing factor, there is a need to study different scenarios and future outlooks for addressing the complexities of future disasters.
- We must remember that disasters are more a matter of the heart than the head. How people feel is as important, if not more important, than what they think. As we lead communities through adversity, we must ensure that we connect with them, share

in their experiences and apply our expertise if we are to truly secure their trust and confidence and reduce their suffering.

- Information based on the impact of disasters on lives and economic losses must be understood, and collaboration between the public and the private sector is fundamental to building resilient communities and economies.
- Three factors must be emphasized to galvanize private-sector engagement:
 - Businesses require methodologies that demonstrate that investment in risk reduction will provide benefits in financial performance and corporate value.
 - Independently audited risk disclosures must be rewarded and mandated in time to incentivize corporations to engage in the actions to reduce disaster risks.
 - A greater commitment from governments is required to bring in private-sector expertise to move from indicators alone towards resilience metrics, which estimate the costs of inaction and capture the value of resilient investments.

The belief is that scaling up private-sector engagement, especially of small businesses, will catalyse the pace of achieving the targets in the Sendai Framework.

- There are gaps in measuring progress in the resilience of private-sector investments, emphasizing the importance of establishing risk/resilient metrics.
- The public/private sector cannot measure the cost/ benefit of avoiding disaster impacts (resilient dividend). This is caused by failing to integrate and quantify risks into investment considerations.
- The private sector sees DRR as an imperative for sustainable development. It is necessary to advance the dialogue, cooperation, collaboration and education to achieve a balanced effort towards resilience.



6. Risk Information and Loss Databases for Effective Disaster Risk Reduction

Wednesday, 24 May, 16.15-17.45

Co-Chairs: **Fatih Özer**, Vice President, Disaster and Emergency Management Authority (AFAD), Turkey. **Ricardo Peña-Herrera**, Vice-Minister, Secretariat for Risk Management, Ecuador.

Panellists: **Tom de Groeve**, Head of Unit, Joint Research Centre, European Commission. **Bapon Fakhruddin**, Senior Specialist, DRR and Climate Resilience, Tonkin & Taylor, New Zealand. **Jutta May**, Information and Knowledge Management Adviser, Pacific Community. **Anoja Seneviratne**, Director, Mitigation Research & Development, Disaster Management Centre, Sri Lanka.

The session covered a number of key risk and loss information concerns. Panellists and Co-Chairs raised the importance of standard methodologies and guidelines for the collection of data to build and maintain national loss databases and risk assessments. Support for these actions should engage parties in both the public and the private sector, and should be collected and used from the bottom up, from local governments to subnational, to national, regional and global.

Particular importance was given to local collection of information, especially on account of the higher presence of disaggregated data. It must, however, be ensured that aggregation to national-level statistics does not lead to loss of critical information.

Participants recommended that the evolution of technological, stakeholder, quality assurance and governance aspects of data-processing should be linked to reporting over time. Resource mobilization for the improvement of data collection, recording and reporting at all levels requires investment into building local and regional capacities. International cooperation and partnership for disaster and loss statistics is required and, where possible, the creation of open data platforms is encouraged.

The evolution of loss data into statistical evidence for use by policymakers, development planners and DRR practitioners was also stressed. The ultimate goal of collecting risk and loss data is to use them in the process of risk reduction, not only for reporting purposes.

Data must move from information to evidence to support decision-making. It was stressed throughout the discussion that coherence between the different post-2015 frameworks offers a pathway for comprehensive coverage and collaboration.

The session highlighted the importance of standard methodologies and guidelines for the collection of data to build and maintain national loss databases and risk assessments and recommended that, in addition to the Sendai global targets, special attention should be paid to nationally defined targets and indicators developed by Member States, such as those relating to displacement, and with meaningful disaggregation such as gender, age, income and people with disabilities.



Intervention of Bapon Fakhruddin, Senior Specialist, DRR and Climate Resilience, during the working session on Risk Information

7. Contribution of science and technology to meeting the 2020 Sendai targets

Thursday, 25 May, 11.15-12.45

Co-Chairs: Renato Solidum, Undersecretary for Disaster Risk Reduction and Climate Change, Department of Science and Technology, Philippines. Juan Carlos Villagrán de León, Head of Office, United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) UNOOSA.

Panellists: Gordon McBean, President, ICSU. Royol Chitradon, Director of the Hydro and Agro Informatics Institute, Thailand. Irina Rafliana, Executive Secretary, International Center for Interdisciplinary and Advanced Research, Indonesian Institute of Sciences. Ian Clark, Head of Unit, DRM, European DRM Knowledge Centre. Marcial Bonilla, Director of Basic Research, CONACYT, Mexico.

The session highlighted the launching of the UNISDR Science and Technology (S&T) Partnership, as well as the S&T Road Map, at the International S&T Conference, held in Geneva in January 2016, reinforcing the importance of the S&T community contribution to the priorities of the Sendai Framework.

Panellists reported on the progress made in the implementation of the commitments made towards the S&T Road Map, including the establishment of the European Commission DRM Knowledge Centre, the regional fire management resource centres and the launch of the Global Partnership using Space-based Technology Applications for DRR (GP-STAR).

The International Flood Initiative of the International Centre for Water Hazard and Risk Management (ICHARM) was presented. It has been updated to consider the needs put forward under the Sendai Framework.

The panellists highlighted the importance of S&T community support to national and local governments in their access to and use of multi-hazard risk assessments and risk analysis, which should include evidence-based information on hazards, exposure and vulnerabilities. The panellists strongly emphasized the need to bring S&T close to the development of information systems to enhance decision-making and policy support, including providing guidance on indicators and enhancing the use of evidence data and the importance of earth and climate sciences to understand and model hazards that trigger disasters, allowing effective early warning systems.

The panellists highlighted the need for dialogue and shared understanding between the scientific community, policymakers and society, integrating information in order to address the complete 2030 Agenda.

The launch of a Youth Science Policy publication that puts forward a young scientist road map stressing the importance of youth in science and technology for DRR. The representative of the Indonesian Institute of Sciences emphasized the stronger role that women, children, youth and disabled persons can play in bringing science to the public.

Recommendations and commitments

- Develop the first work plan for 2017-2019 for the new global UNISDR S&T Group and set up UNISDR regional S&T advisory groups.
- The Global Science Forum in Tokyo in November 2017, co-organized by the Science Council of Japan, ICSU and UNISDR, will focus on S&T support to national DRR platforms and the science synthesis reports.
- ICSU made a commitment to scientific collaboration across the international research programmes that it sponsors or co-sponsors – IRDR (Integrated Research on Disaster Risk), Future Earth, World Climate Research Programme, Urban Health and global observational programmes – to enable the post-2015 Agenda to be addressed effectively.
- Implementing an updated version of the Young Scientists Roadmap with enhanced objectives and goals for 2017-2019, aligned with priorities of the UNISDR science and technology roadmap, the outcomes of which will be presented at the next meeting of the Global Partnership.



8. Achieving the Sendai Framework and Sustainable Development Goals Targets at Local Level

Thursday, 25 May, 11.15-12.45

Co-Chairs: **Riadh Mouakhar** Minister of Local Affairs and Environment, Tunisia. **Relinda Sosa Pérez**, President, National Confederation of Women Organized for Life and Integrated Development (CONAMOVIDI).

The session covered the four priorities of the Sendai Framework, their linkages to the 2030 Agenda from the perspective of local governments and their implementation at local level. Participants raised concerns regarding the challenges for local governments in implementing global agreements owing to their lack of capacity and financial resources. The need to create a common understanding about the interface among the major post-2015 agreements was highlighted as a mean to create coherence and facilitate action.

The session focused especially on the need to ensure vertical cooperation between local and national governments through a legislative framework, as well as to set minimum standards for the development of DRR and resilience strategies. It also highlighted gender equality as an essential component to be taken into account in developing those strategies, and recognized global frameworks, such as the Ten Essentials for Making Cities Resilient, as providing important guidance for local governments.

The participants pointed out the importance of building an integrated database for risk assessment, which would allow local authorities and the general public to access high-quality data and information for decision-making and for building risk awareness. They also considered multi-stakeholder participation and grass-roots approaches for DRR and resilience-building processes as being fundamental to the improvement of social capacity, and in reinforcing the role of local governments as key stakeholders in managing risk, as well as in responding to and recovering from disaster.

The participants recommended that local authorities should take action in enabling the dissemination of risk information and engage in promoting risk-sensitive investments, as these are key factors in promoting the integration of DRR and resilience in urban development strategy. Strengthening cities' networks and exchange of good practices were also mentioned as important mechanisms to optimize resources.

The World Council on City Data committed itself to providing an open data platform to facilitate decision-making in sustainable planning, assess progress and promote learning exchange across cities.



Persons with disability participated actively through the telepresence robots and other features implemented for improving accessibility



9. Accelerating Efforts in Building Community Resilience to Disasters

Thursday, 25 May, 11.15-12.45

Co-Chairs: **Win Myat Aye**, Minister for Social Welfare, Relief and Resettlement, Myanmar. **Elhadj As Sy**, Secretary General, IFRC.

Panellists: **Mayra Bermudes**, Community Leader, Coordinator, Mesa Nacional de Gestión de Riesgos, Honduras. **Kiyoshi Murakami**, Senior Advisor, City of Rikuzentakata, Japan. **Anne Akwango**, Director of Programme, Development Network of Indigenous Voluntary Associations, Uganda. **Iván Andrey Brenes Reyes**, President, National Commission for Prevention of Risks and for Emergency Response, Costa Rica. **Vicente Raimundo Núñez-Flores**, Head of Regional Office for Central America, Mexico and the Caribbean, ECHO.

Community resilience was recognized as fundamental to advancing and protecting progress in implementing the Sendai Framework priorities and in reaching the SDGs by 2030.

The session reaffirmed the importance of supporting vulnerable communities in finding their best path to resilience, highlighting that a sustainable resilience agenda should always be guided by the local communities themselves, engaged with a sense of responsibility, ownership and capacity to reduce risks.

Building community resilience can only be effective and sustainable if local communities' needs and contribution are recognized, taken into account and integrated into risk governance schemes.

Special emphasis was placed on the importance of localizing DRR and enabling more effective local-level implementation of the Sendai Framework. Women's leadership role in the community's transformation process to resilience was highlighted through good practices from Honduras and Uganda. Costa Rica and Japan promoted a new DRR governance model, building on inclusiveness and active participation of local communities in the national programming, design and decision-making process. Japan builds on the SDGs principle of "No one left behind" and on national DRR systems and investments that reach out effectively to local communities and the most vulnerable, complementing local initiatives and leadership and enabling early action on the ground. This new form of partnership and cooperation between national/local governments and

the communities is critical to achieving more effective, transparent and inclusive DRR governance.

The session called for increased community-level investments and early funding. Communities were encouraged to build closer cooperation with local authorities to facilitate the better integration and reflection of their needs and requirements into local budgets. External financial sources should be considered to complement domestic funding through mechanisms such as the Disaster Preparedness Programme (DIPECHO) of the European Commission.

Recommendations and commitments

- National and local governments to scale up efforts towards increased inclusiveness and provide more systematic opportunities to engage the general community, including women, in DRR programming, design, resourcing and decision-making and in formulating and implementing inclusive local DRR strategies and policies by 2020.
- Financial partners to increase investments in community resilience, to reach out more widely to local communities and to ensure that financing instruments and opportunities are better known, more accessible and better tailored to the needs of local communities.
- IFRC to engage 1 billion people by 2025 to build their resilience to disasters and record their contributions towards the SDGs through the One Billion Coalition for Resilience and the Road Map to Community Resilience.



10. Disaster Risk Reduction Governance

Thursday, 25 May, 17.00-18.30

Co-Chairs: **Anura Priyadarshana Yapa**, Minister of Disaster Management, Sri Lanka. **Robert Šakić Trogrlić**, PhD student, Heriot-Watt University, Edinburgh (Children & Youth Group), United Kingdom.

Panellists: **Carlos Iván Márquez Pérez**, Director, National Unit for DRM, Colombia. **María Luisa Romero**, Minister of Government, Panama. **Fadi Hamdan**, Managing Director, DRM Center, Lebanon. **Dilanthi Amaratunga**, Chair, DRR Governance Words into Action Working Group, Sri Lanka. **Natalia Ilieva**, Head of Office and Executive Assistant to the Secretary General of Asia-Pacific Broadcasting Union.

The session discussed the challenging issues of disaster risk governance from a government, communities and private-sector perspective. At the session, the first edition of the guide Words into Action, addressing the key area of DRR governance and accountability was presented.

Panellists agreed that disaster risk governance at the national, regional and global level is the basis for effective and efficient management of disaster risks. A successful process of DRR governance needs strong political will at the highest political level. As the Sendai Framework is not a legally binding instrument, countries must transform the political will into national legal frameworks and policies that guarantee that DRR is regulated and enforced.

Recommendations and commitments

- Effectiveness in achieving the objectives fostered by the Sendai Framework for reducing disaster risk is contingent upon the political will to translate a global non-binding framework such as the Sendai Framework into national governance mechanisms that guide the public and private sector in addressing disaster risk.
- For effective prevention, mitigation, preparedness, response, recovery and rehabilitation, it is essential that governance mechanisms promote coordination within and across sectors and include the participation of the stakeholders.
- As a mechanism to promote accountability, the session shared the first edition of the guide Words into Action, to offer countries practical guidance for implementing the Sendai Framework.

- The media can play a critical role in disaster risk governance: (a) by breaking silos and reaching different groups, (b) as a mechanism of accountability by informing the public of the commitments of the government and (c) as educational and capacity-development mechanisms by providing the general public with risk information and risk management information.



11. Ecosystem Protection, Management and Resilient Agriculture for Reducing Disaster Risks

Thursday, 25 May, 17.00-18.30

Co-Chairs: **Rustham Nazarzoda**, Minister, Chairman under Prime Minister's Secretariat, Tajikistan. **Jane Madgwick**, CEO, Wetlands International.

Panellists: **Adrian Fitzgerald**, Policy Lead for Climate Change-Resilience, Department of Foreign Affairs and Trade, Ireland. **Rony Estuardo Granados Mérida**, Manager, National Forest Institute, Guatemala. **Margareta Wahlström**, President, Swedish Red Cross.

Participants addressed the need to understand the risks associated with the degradation of ecosystems and certain agricultural management practices. The risks of not doing anything to reverse the trend of degradation needs to be accounted for. Demand for food production is increasing pressure on land, water resources, wetlands and other ecosystems and consequently increasing the exposure to natural hazards. Successful examples were shared of how ecosystem management and resilient agriculture reduce disaster risk.

Recommendations and commitments

- Prioritize ecosystem-based approaches to achieve commitments across the 2030 Agenda, including through nationally determined contributions to the United Nations Framework Convention on Climate Change and national biodiversity action plans under the Convention on Biological Diversity and the United Nations Convention to Combat Desertification.
- Review ecosystem protection and restoration efforts in the context of national and sectorial policies with a strong focus on land use and water management planning for DRR and climate change adaptation.
- Consider the causes and consequences of environmental change in the watershed when developing local DRR strategies. Water, as a central factor, can help to align the interests of water users and communities, address ecosystems in sectorial planning, enhance risk informed development and create incentives.
- Recognize ecosystem management for disaster risk reduction as “green jobs” and an opportunity for job creation in the national economic strategies.

- Map and monitor natural/green infrastructure, which act as critical infrastructure, in the context of reporting on targets C and D of the Sendai Framework.
- Focus on new infrastructure projects where nature-based or hybrid solutions (combination of engineered and nature-based solutions) could be proposed.
- Develop standards and metrics for natural infrastructure, building on existing guidance.
- Engage a group of political champions from different countries to advocate for ecosystem-based management and to help address existing conflicts of interest.
- Engage and empower stakeholders through multi-stakeholder approaches to make sustainable use of their land, water resources and ecosystems. Community participation, in particular the participation of women, is crucial to success. Adhere to the principles of free prior and informed consent when working with indigenous peoples.
- Develop compliance capacity with local communities and through NGOs. Develop the skills of decision makers in food production and engage them in protecting the environment.
- Increase investment through proactive engagement and regional dialogue with agri-business, extractive, coastal and water infrastructure and natural resource management industries by the 2019 Global Platform.
- Identify areas for ecosystem restoration and conservation through landscape-scale vulnerability and opportunity mapping and scenario planning. Leverage existing mechanisms, such as the Bonn Challenge and the implementation of the Convention on Wetlands (Ramsar Convention).



12. Inclusive and People-Centred Disaster Risk Reduction

Thursday, 25 May, 17.00-18.30

Co-Chairs: **Abul Kalam Azad**, Chief Coordinator for SDGs Affairs, Office of the Prime Minister, Bangladesh. **Natalia Kanem**, Deputy Executive Director for Programmes, UNFPA.

Panellists: **Lenny N. Rosalin**, Deputy Minister for Child Growth and Development, Indonesia. **Mary Jack**, Provincial Coordinator, ActionAid Vanuatu. **Carlos Kaiser**, Executive Director, ONG Inclusiva, Chile. **Raphael Obonyo**, External Adviser, Youth Advisory Board, UN Habitat.

The session highlighted the importance of incorporating the risk faced by children and youth when countries are developing national strategies, and at the same time the importance of building on their capacities.

Achieving inclusion for all requires a multi-action systems approach. The panellists highlighted the need for three interconnected actions: (a) building knowledge and skills, (b) changing attitudes and belief systems and (c) promoting inclusive governance. These will engage marginalized populations and supporting organizations as co-producers of risk solutions.

There was a strong call for increased availability and use of data to inform public policy, measure and report DRR through gathering disaggregated data and innovative practices, including through leveraging new technologies. In particular, youth should be engaged in the gathering and use of data for planning, budgeting, monitoring and evaluating impact and progress to ensure inclusiveness and enhance accountability in DRR.

Health, protection, education and income-generating activities underpin the sustainable empowerment of women and youth. The impacts of disasters on unpaid care work goes largely unnoticed and is not usually included in calculations of disaster losses. Enhanced and broader understanding, as well as more data on this issue, would strengthen arguments for gender-inclusive policies and services to expand women's leadership in DRR.

Ensuring inclusive and people-centred DRR through the monitoring and evaluation mechanisms of the Sendai Framework is key to protecting the well-being of high-risk communities. Further collection and analysis of local and regional data disaggregated by

age, sex, disability and mobility status is imperative in understanding the impact of inclusive governance and creating accountability to marginalized groups.

Recommendations and commitments

- DRM committees should include at all levels gender, age and persons with disabilities.
- Compile and publish inclusive lessons learned and best practices globally to improve prevention and preparedness for use by a variety of stakeholders, including civil-protection agencies.
- Train and empower women and volunteers by providing access and full engagement in decision-making processes.
- Member countries are urged to implement the endorsed Dhaka Declaration on Disability and DRM and report on it when submitting the Sendai Monitoring in 2019.



13. Cultural Heritage and Indigenous Knowledge for Building Resilience

Friday, 26 May, 11.15-12.45

Co-Chairs: Ana Lucy Bengochea Martínez, Coordinator, WAGUCHA community platform and expert in empowerment and leadership in indigenous communities, Honduras. Kiren Rijju, Minister of State for Home Affairs, India.

Panellists: Gianluca Silvestrini, Executive Secretary, EUR-OPA Major Hazards Agreement, Council of Europe. Simon Lambert, Indigenous Maori, New Zealand. Lara Steil, National Center for Prevention and Combat of Forest Fires (PREVFOGO), Brazil. Nuria Sanz, Director and Representative of the UNESCO Office, Mexico, Todd Kuiack, Emergency Management Director, Indigenous and Northern Affairs, Canada.

The session underscored that 76 per cent of cultural heritage could be affected by disasters in the coming years. Therefore, cultural heritage and traditional knowledge should be considered as active subjects that contribute directly to building community resilience. Although several initiatives have successfully sought to build on indigenous and traditional local knowledge for DRR, the application of these tools and approaches needs to be more consistent.

Participants called for promoting emergency planning of most vulnerable sites. In the aftermath of a disaster, there is a disruption of the governance system that affects the integrity of cultural heritage. Effective response should take into consideration the protection of cultural heritage from the very beginning.

The panellists underscored the need to develop an agenda to build capacity of all existing groups, including authorities, local communities and indigenous peoples, to build confidence of stakeholders and bring political commitment to protecting cultural assets and to drawing on heritage for resilience.

The session highlighted the important contribution of cultural heritage to economic development, not only through tourism but also in terms of job creation. A holistic approach was proposed at national level to protect indigenous knowledge at local level. Cultural heritage should be used as a means and not as an end to promote diversity and mutual understanding. Some examples were shared on how cultural heritage has been successfully used in post-conflict areas as an approach to rebuild social cohesion and dialogue between communities.

When a disaster happens in remote areas, the local capacity is critically important in response. Therefore, attention should be paid to local capacities and traditional knowledge integrated in policies and plans. Governments should provide the necessary capacity-building to local communities.

Recommendations and commitments

- Adopt a holistic approach to cultural resilience; go beyond protecting infrastructure.
- Increase recognition of the importance of protecting non-tangible heritage such as cultural diversity and traditional practice and knowledge.
- Promote emergency planning of most vulnerable sites. Prioritize the protection and restoration of cultural heritage, and value it as a key asset for recovery.
- Increase the leadership and participation role of indigenous people in policy development and implementation.
- Support the increased integration of traditional knowledge in the sustainable use of natural resources and protection of natural heritage.
- Strengthen resource mobilization and investment to build capacity in preserving cultural heritage sites.
- Invest in human infrastructure at community level with an inclusive approach and support community-based knowledge and participation.
- Combine scientific and traditional knowledge to preserve cultural heritage.



14. Promoting Land Use and Spatial Planning for Disaster Risk Reduction

Friday, 26 May, 11.15-12.45

Co-Chairs: Rolando Ocampo Alcántar, Vice-President, National Institute of Statistics and Geography, Mexico, and Co-Chair of UN-GGIM. Dan Lewis, Chief, Urban Risk Reduction, UN-HABITAT.

Panellists: Roberto Moris, National Investigation Centre for the Integrated Management of Natural Disasters, Chile. Miho Ohara, Senior Researcher, International Centre for Water Hazard and Risk Management (ICHARM), Japan. Ebru Gencer, Executive Director, Center for Urban Disaster Risk Reduction and Resilience.

The Co-Chairs stressed that the growing intensity of climate hazards, coupled with rapid urbanization, are likely to lead to increased strain on the capacity of local governments as they try to address the vulnerabilities of the urban population, particularly the urban poor. A common point was the recognition that unplanned and rapid urbanization, as well as poor land management, is an underlying driver of disaster risk and effective monitoring and that land-use planning, including improved spatial planning, has to be a priority.

The session focused on good practices that address the challenges surrounding the incorporation of risk reduction in existing land-use planning and management practices at the local level, pointing out also that access and use of risk information will contribute to building consensus towards better land-use planning practices.

This includes the need to build awareness among government officials, civil society, communities and volunteers of land-use plans and policies that support DRR, and in particular the need to leverage technical and scientific capacity to consolidate existing knowledge to support the development of such plans and policies.

Participants also reinforced the fact that both the Sendai Framework and the New Urban Agenda recognize the unprecedented threats from natural and human-made disasters and underscored the importance of having vulnerability and impact assessments to inform plans, policies and programmes that build urban resilience.

The session also highlighted the need that DRR efforts be mainstreamed throughout formal and informal planning processes and the entire planning cycle, and integrated into the planning system as such, including the legal and regulatory frameworks, as

well as financing arrangements. Recommendations were also put forward on how to ensure that local governments have access to the necessary aerial, space-based and in situ information, tools and capacities to develop and implement risk-sensitive land-use planning.

Recommendations and commitments

- Provide capacity-building to help local governments achieve Target E (ICHARM offered its expertise).
- Leverage initiatives that provide geospatial data to assist cities and planners, such as the United Nations Committee of Experts on Global Geospatial Information Management.
- Continue working towards ensuring coherence and harmony in bringing forward the common objectives of the Sendai Framework and the New Urban Agenda.
- Finalize the Sendai Framework Words into Action Implementation Guide for Land Use and Urban Planning.



15. Health and Disaster Risk Reduction

Friday, 26 May, 11.15-12.45

Co-Chairs: Dr. Supamit Chunsuttiwat, Special Advisor, Ministry of Public Health, Thailand. Aida P. Zabal Laruda, Tolosa Federation of Senior Citizens Organization, Philippines.

Panellists: Dr. Alex Camacho, Regional Advisor on Emergency Preparedness and Disaster Risk Reduction, PAHO. Dr. Massimo Ciotti, Deputy Head of Unit, Public Health Capacity and Communication, European Centre for Disease Control. Dr. William Karesh, Executive Vice President for Health and Policy, EcoHealth Alliance. Cristina Romanelli, Secretariat of the Convention on Biological Diversity. Dr. Felipe Cruz Vega, Ministry of Health, Mexico.

The current approach to health emergencies and disasters is highly reactive, missing critical opportunities for prevention, early warning and detection, and timely effective response.

The session highlighted the need to address the health aspects of the Sendai Framework and the Bangkok Principles on the Status and Treatment of Refugees for its implementation through the effective integration of health emergencies into DRR plans, platforms and data, the mainstreaming of risk-informed planning into the health sector and the promotion of health system resilience.

The Bangkok Principles offer key actions to be taken by countries and agencies to optimize prevention, preparedness, response and recovery from health emergencies and tackle health impacts of other disasters.

This should be aligned with the implementation of the SDGs, particularly Goal 3, on health, and with the health provisions of the climate change agenda and the New Urban Agenda. Reporting of the implementation of the health aspects of the Sendai Framework at national level should be integrated into the overall Sendai Monitor.

The session emphasized the need to minimize threats of health disasters by better targeting their underlying drivers, by building the capacity of health workers on DRR, by integrating eco-system-based approaches to building back better, and by sharing evidence-based best practices.

The 2020 goal is to have health as an integral part of national and local DRR strategies and plans that are gender-sensitive and include population-movement dynamics to address the risk of disease transmission and health emergencies through human mobility corridors.

The session underlined that coordination and multi-sectoral approaches such as “One Health” are essential for managing health disaster risk. Also essential are cross-border and regional collaboration and the implementation of the International Health Regulations.

The session advocated the use of new technologies to map health risks, employ a science and evidence-based approach to preparedness, response and recovery, and establish baseline data on health disaster losses, including economic losses.

To address disaster and climate risks, the session encouraged investment in the resilience of the health sector, for example through incentives for safe, climate-smart and green hospitals and health infrastructure.

Recommendation and Commitments

- Full adaptation of the Sendai Framework and the Bangkok Principles in the ongoing work of implementing safe and resilient hospitals (adapted Smart and Green hospitals initiative developed by PAHO in the Caribbean). (Government of Mexico)
- (a) Financing for building universal health coverage, (b) partnership with the World Health Organization on a pandemic financing facility, (c) project with the Government of Japan on improving pandemic preparedness and (d) screening of World Bank projects to ensure inclusion of health, disaster and climate-risk considerations. (World Bank)
- The adoption and implementation of the health sector Plan of Action for Disaster Risk Reduction 2016-2021 by ministers of health of the Americas in September 2016 and the contribution it could have to achieve the Sendai Framework goals is important progress in health DRR.





Disaster simulation in virtual reality during the 2017 Global Platform



IGNITE STAGE



PREPARATORY MEETINGS

SIDE EVENTS

PARTICIPATING STATES

MARKET PLACE

CEREMONIES

Implementing the Sendai Framework through cross-sectoral collaboration – the Private Sector Alliance for Disaster Resilient Societies [ARISE] innovative approach to building resilience

Wednesday, 24 May, 13.30-14.30

Chair: Simon Clow, Group Head of Stakeholder Engagement, AXA.

Speakers: Leo Abruzzese, Director of Public Policy, The Economist Intelligence Unit. Luke Brown, Director, Mitigation Strategy Team, Disaster Resilience Strategy Branch, Government of Australia. Josh Sawislak, Global Director of Resilience, AECOM. Hans T. Sy, Chairman, Executive Committee, SM Prime.

The session underscored that DRR is probably one of the best examples of the need for collaboration between the private sector and governments in order to take resilience up to another level. Concrete examples already exist at the local level, including partnerships between cities and businesses. Such initiatives demonstrate that business is

willing to invest in resilience.

The session highlighted the example of Australia, which incentivized the private sector to take on DRR and which works closely with the private sector in implementing the Sendai Framework.

Recommendations

- Create a stronger movement to reduce disaster risk worldwide by presenting best practices from the private sector in achieving impact in implementing the Sendai Framework.
- Expansion of the Disaster Risk-Integrated Operational Risk Model, implemented jointly by the Economist Intelligence Unit and UNISDR, and which is an important step towards allowing businesses to gain an enhanced understanding of disaster risk in the context of business planning and disaster risk-sensitive investment decisions.
- The example of SM Cares Haiyan housing project and build back better, implemented jointly by SM Prime and private-sector partners with local government, can also be replicated in other countries. The project focuses on DRM strategies, urban risk reduction and resilience.

To avoid future damage similar to the ones caused by typhoon Haiyan (Yolanda), villages in the Philippines are being rebuilt using build back better principles with the aim to make them disaster resilient to withstand future typhoons.

- Training small and medium-sized enterprises on the Disaster Resilience Scorecard is very important. The project builds on the lessons learned from Hurricane Katrina to improve the preparedness and resilience of small businesses in New Orleans. AECOM and the City of New Orleans conducted a comprehensive survey and training of over 200 businesses to enable them to enhance their disaster resilience business planning and disaster risk-sensitive investment decisions.

Understand and take action on risk from the vision of indigenous communities in Mexico.

Wednesday, 24 May, 13.30-14.25

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Protecting Disaster-Displaced Persons Through Better Data And Knowledge On Displacement Risks

Wednesday, 24 May, 13.30-14.30

Chair: Allan Lavell, Coordinator, Programme for the Social Study of Risks and Disasters, Latin American School of Social Sciences (FLACSO).

Speakers: Peter Felten, Head, Division for Humanitarian Assistance, and Chair, Platform on Disaster Displacement, Germany. Michelle Yonetani, Senior Strategic Advisor on Disasters and Climate Change, Norwegian Refugee Council/Internal Displacement Monitoring Centre. Roy Barboza Sequeira, Executive Secretary, CEPRE-DENAC. E. Evan P. Garcia, Permanent Representative of the Philippines to the United Nations Office at Geneva, Filipe Nainoca, Director General, Fiji Red Cross Society.

The session focused on the need to improve data and knowledge on displacement risks in the context of disasters. It presented the latest available global figures as well as best practices from the regional and national levels to address gaps in terms of data collection and availability. The session highlighted the need to strengthen

disaster displacement data collection at the national level as both a preventive, risk reduction measure and as a key element in support of response to disasters. Understanding which populations are at risk of displacement and the reasons for this can help design timely appropriate resilience and protection measures that will help to significantly reduce the risk of displacement and limit the social impacts of disasters while strengthening communities' resilience.

The session highlighted that displacement associated with disasters outnumbers displacement associated with conflict and violence – in 2016 alone, 24.2 million people had been displaced by disasters, compared with 6.9 million displaced by conflict. On average, since 2008, 25.3 million people have been displaced by disasters every year. Half of the displacement takes place in low and lower middle income countries, predominantly in Asia. Panellists noted that there are examples of effective methodologies and practices to collect data on displacement in the context of disasters, and of the integration of displacement into national DRR and risk management policies and strategies based on collected data and research.

Recommendations

- Data collection on displacement risks, vulnerabilities, patterns of displacement and needs of affected people must be a priority for all countries working on strengthening their DRR efforts.
- Strengthen national capacity to systematically measure and collect disaggregated data on displacement to provide adequate assistance and to assess vulnerabilities and identify individuals and communities at risk of displacement.
- Promote exchange and use of existing effective practices in terms of data collection and research on disaster displacement and strengthen collaboration and partnerships among governments, humanitarian agencies, the research community and all stakeholders involved in data collection and analysis.
- Establish national targets and indicators both for national reporting and for reporting into the Sendai Framework Monitor at the global level.

Disaster Reduction Experiences in the Pacific

Wednesday, 24 May, 13.30-14.30

Chair: Audrey Aumua, Deputy Director General, Pacific Community, Nabua, Suva, Fiji.

Speakers: Taneti Maamau, President of Kiribati. Mattlan Zackhras, Deputy President and Minister in Special Assistance to the President of the Marshall Islands. Meleti Bainimarama, Permanent Secretary, Ministry of Rural Development, Maritime and Disaster Management, Fiji. Morika Hunter, Chair, Fiji Business Disaster and Resilience Council, Fiji.

The session provided opportunities to share experiences, and to learn about climate change and rapid and slow disaster risk. The President of Kiribati underscored that for every step taken in development, the country is knocked back two or three steps by climate change and disasters.

Speakers underlined that climate change continues to be one of the greatest challenges to development. Sustainable Development Goal 13 on combatting climate change acknowledges these

challenges, and it is not possible to talk about DRR without talking about climate change. It was distressing to see people continuing to fight the rise of sea levels, flooding and disasters.

The Deputy President of the Marshall Islands said that in 2015 and 2016 extremely low precipitation and an intense El Niño resulted in one of the longest droughts in the history of the country. This posed a serious challenge for outer island communities. Water distribution points had to be set up from one side of the island to the other.

The agricultural sector was the most severely affected by the drought, sustaining a decline in US\$1.77 million in gross production. Therefore, the Marshall Islands' vulnerability to climate risk is real and cannot be ignored.

The Permanent Secretary of the Ministry of Rural Development, Maritime and Disaster Management of Fiji detailed the impacts on Fiji of tropical cyclone Winston. Around 40 per cent of the population was affected, 90 per cent of structures were destroyed in hard hit areas, 100 per cent of structures were destroyed on some small islands of the Fiji group, and between 150,000 and 250,000 persons needed emergency shelter, water and assistance.

He said the cyclone was a learning

process for the Ministry about gaps in recovery and rehabilitation but also successes. All the houses that had been built under the previous build back better programme had not been destroyed by Winston.

The Chair of Fiji Business Disaster and Resilience Council underlined that one in four businesses will not survive a disaster. It is therefore important to help communities to have a business continuity plan in place and to know how to put it into practice. It is also important to ensure that the supply chains are resilient. A collaborative process avoids work having to be done at the last minute, after a disaster.

Mitigation of, Response to, and Recovery from El Niño: Is Africa Learning from past Disasters?

Wednesday, 24 May, 13.30-14.30

Chair: Thandie Mwape Villadsen, Humanitarian Diplomacy Coordinator, Partners for Resilience.

Speakers: Josefa Sacko, Commissioner, Department of Rural Economy and Agriculture, African Union Commission. Francesco Rocca, Vice-President, IFRC; Mitiku Kassa, Commissioner / State Minister, DRM & Food Security Sector,

Ethiopia. Zachary Atheru, Programme Officer DRR, Intergovernmental Authority for Development. Papa Zoumana Diarra, Head, Contingency Planning Division, African Risk Capacity, South Africa. Zeituna Roba Tullu, Cordaid Kenya, and Country Manager, Partners for Resilience.

The session explored how to mainstream humanitarian responses to long-term resilience of communities and enhance knowledge of effective mitigation, response and recovery policies, and best practices. The objective of the session was to create awareness, to hear from those who have shown resilience to the impacts of El Niño, to tap into their collective experiences and suggest resilient and viable interventions and programmatic responses to the challenges triggered by El Niño and other disaster risks.

The main discussion focused on the preparations being made in response to the possibility of eastern and southern Africa being hit by El Niño with increasing frequency.

The session stressed the value of preparedness for risks related to climate change, as well as other risks, and emphasized the important role of linking humanitarian responses to long-term development.

Panellists recognized the capacities of local communities in responding to various risks and building resilience; and with regard to El Niño, suggested that interventions in building resilience need to be inclusive, action oriented and yield results.

Recommendations

- Enhanced support for effective mitigation, response and recovery policies, and scaling up best practices in interventions for DRR with respect to the El Niño weather phenomenon and other climate-related risks.
- Strengthened advocacy for scaling up resilience initiatives.
- A call for accountability regarding implementation of commitments made at various global and regional conferences.
- Investment needed to strengthen the resilience of production systems and livelihoods in the Sahel, and in eastern and southern Africa.
- Mainstream response and recovery interventions into the national development planning and budgeting processes.

People Centered Early Warning Systems - Can we really bring about change?

Wednesday, 24 May, 13.30-14.30

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A fundamental shift in DRR: integrating ecosystem-based solutions with climate and development dimensions

Wednesday, 24 May, 13.30-14.30

Chair: Jane Madgwick, CEO, Wetlands International.

Speakers: Fabrice Renaud, Head, Environmental Vulnerability and Ecosystem Services Section, Institute for Environment and Human Security, UNU. Juriaan Lahr, Head, International Relations, Netherlands Red Cross. Javier Gonzales Iwanciw, climate change policy researcher, Helvetas Swiss Inter-cooperation. Margaret Arnold, Senior Social Development Specialist, World Bank. Francis Ghesquiere, Head, GFDRR. Shukri. Farah Ahmed, Deputy Strategic Programme Leader on Resilience, FAO.

The session underlined that the importance of ecosystem solutions for DRR is well recognized in all major post-2015 frameworks and in high-ranking scientific journals. Ecosystems such as wetlands can help to absorb shocks and long-term changes and support livelihoods of the most vulnerable people, which are key factors to achieving resilience.

Panellists underscored the major gap in terms of implementation at scale, and investments in “business as usual” solutions, major water infrastructure and coastal defence prevail, considering that over 90 per cent disasters are water-related. In this context of ongoing loss of ecosystems such as wetlands, the water regulators in the landscape, requires much higher attention in DRR strategies and investments.

The session also highlighted that civil society plays a key role as they bring in perspectives from communities who depend on ecosystems for their survival and livelihoods, which can inform investments and policies. They can also help to build capacity of governments and other stakeholders based on their field work.

Recommendations

- Create a platform of champion countries to build momentum and galvanize action for integrating green infrastructure in

DRR and climate change adaptation strategies.

- Put ecosystems at the centre of national and local DRR plans, and national adaptation plans, which will feed into sectoral policies.
- Promote at all governmental levels the prior consideration of green infrastructure solutions before considering grey solutions in urban, rural, coastal and marine areas to boost disaster resilience.
- Map and quantify risks, costs and benefits of different infrastructure (grey/green) approaches and use of scenario planning to consider options for land and water management to reconcile different sectoral demands and at landscape scale.
- Reshape policies, regulations and incentives to enable risk-informed planning for agricultural and infrastructure development and enable implementation of green infrastructure solutions.
- Communicate simply and clearly why and how an ecosystem-based approach is beneficial.
- Move towards intersectoral collaboration in ecosystem, water and land management, with joint understanding of exposure, vulnerability and the root causes of risk.

Resilient Businesses: Approaches and Strategies for Integrating Disaster Risk Management and Climate Change Adaptation into Private-Sector Investments

Wednesday, 24 May, 13.30-14.25

Chair: Katharina Schaaff, Adviser, Management Unit of the Global Initiative on DRM GIZ.

Speakers: Ingrid Hoven, Director General, Global Issues, Sector Policies and Programmes, Federal Ministry for Economic Cooperation and Development, Germany. Marianella Feoli Peña, CEO, Fundecooperación, Costa Rica. Hans Guttman, Executive Director, Asian Disaster Preparedness Center. Bijan Khazai, Senior Research Scientist, Karlsruhe Institute of Technology. Joseluis Samaniego Leyva, Director, Division for Sustainable Development and Human Settlements, ECLAC.

The session highlighted that businesses, especially small and medium-sized enterprises, have to deal with increasing climate and disaster risks that have to be reduced in order to avoid severe consequences for the economy and society at large. These businesses are an

important part of the solution. They can be a pioneer for innovative solutions and the identifier of viable resilience investment opportunities. They can be investors in resilience, drivers of innovation and responsible employers who protect their staff and their dependents from falling into poverty.

The session underscored that businesses are often not aware of their climate and disaster affectedness, and even if they are they often do not know how to invest effectively into their resilience. A potential solution could be to engage in awareness-raising campaigns on the one hand and assist them in developing adaptation and disaster and climate risk management strategies, based on risk assessments individualized to their needs and capabilities.

Recommendations

- Businesses need the right environment to realize their full potential. They need policies, rules and regulations that support risk-informed investment and innovation over the long term on the national but also, where necessary, on the regional level.
- Increasing access to insurance and integrating businesses into a comprehensive risk management approach is important to create

incentives for risk-informed investments.

- The financial sector needs to be involved from the beginning when discussing resilience and climate change adaptation in the private sector.

Water and Disasters: Sustainable, Resilient and Innovative Water Cycle Management

Wednesday, 24 May, 13.30-14.30

Chair: Toshio Koike, International Centre for Water Hazard and Risk Management (ICHARM).

Speakers: Mario López Pérez, Hydrology Coordinator, Mexican Institute for Water Technology. **Jan Daňhelka**, Head of Hydrology Division, Czech Hydrometeorological Institute. **Toshihiro Sonoda**, Senior DRM Specialist, GFDRR, World Bank.

The session highlighted that the water cycle and its interaction with society is a complex process/system and thus demands a balanced set of measures and instruments and an interdisciplinary and transdisciplinary cooperative framework to be put in place for successful DRM and strengthening of resilience.

Panellists underscored that risk

communication needs to be strengthened at national, regional and, in particular, community level. Also, knowledge sharing in DRR among practitioners should be further facilitated, and a science-based approach should be taken to address current and future disaster risk.

The session encouraged the implementation of the principles of Integrated Water Resources Management through the Hydrological Cycle, including Integrated Flood Risk Management and Integrated Drought Risk Management as holistic approaches that are as feasible for water-related DRR as for water resources management and environment preservation.

From Sendai to the SDGs: Institutionalizing Grassroots Women's Leadership for Greater Resilience

Wednesday, 24 May, 17.45-18.45

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Enhancing the effectiveness and evaluation of risk governance across scales

Wednesday, 24 May, 17.45-18.45

Chair: Stéphane Jacobzone, Deputy Head, Division of Public Governance, OECD.

Speakers: Saini Yang, Associate Professor, Beijing Normal University. **Rosa Malango**, United Nations Resident Coordinator, and UNDP Resident Representative in Uganda. **Emily Wilkinson**, Senior Research Fellow, Overseas Development Institute. **Urbano Fra Paleo**, Associate Professor, Disaster Risk Governance, University of Extremadura.

The session explored three critical issues in disaster risk governance: (a) using national frameworks to empower local governments to engage in DRM; (b) promoting an “whole-of-society” approach and (c) establishing methods for evaluating progress.

Panellists discussed how DRM is organized in different countries and how institutional structures and functions for DRM are in line with the political system. China and other OECD countries have

a national plan and significant levels of national commitment, but in many of the world's wealthiest countries there is an implementation gap.

In Uganda, decentralization has promoted the role of district governments in DRM, as in service delivery more broadly. By 2040, Uganda aims to be a middle-income country, which will require empowering local government to manage risk, promote sustainable development and build inclusive resilience. Holding government to account on managing risk is becoming possible now due to:

- Hazard and risk profiles being created for 112 districts.
- Establishing targets and indicators for Sendai Framework implementation.
- The national government fostering decentralized and local-level action to manage risks, enhance capacity and coordination.

Panellists shared lessons on developing targets and indicators for measuring progress at national and subnational levels, and techniques for evaluating disaster risk governance.

One of the key problems they identified was the difficulty in measuring risk governance or evaluating how well a risk governance system is doing.

Panellists discussed the need for governments to be flexible and try out innovations in DRR. Developing a theory of change for DRR policies was discussed and the panel felt that such an approach could be useful for decision-making and understanding progress. This would create the flexibility needed in many countries, including Uganda, where according to UNDP the approach needs to be “strategically opportunistic”.

Recommendations

Key recommendations for improving disaster risk governance systems focused on enhancing accountability mechanisms.

- Evaluations of risk governance that make greater use of participatory methods. The University of Extremadura has developed a tool for this.
- Peer reviews of risk governance. OECD has supported a peer review process in some countries, which could be expanded to many more (outside OECD).
- Other mechanisms for measuring outcomes that promote learning and course correction.
- Using “soft laws” and other instruments that do not necessarily require legal enforcement.

- Encouraging national platforms to play a stronger role in monitoring and measuring progress. This could become a core function for these platforms.

Resilience from within: protecting animals, securing livelihoods, saving families

Wednesday, 24 May, 17.45-18.45

Chair: Gerardo Huertas, Director of Disaster Management, World Animal Protection.

Speakers: César Dávila González, livestock producer. Ejido Aldama, Chihuahua. Jorge Rivera, Deputy Director, National Centre for Disaster Prevention. Santosh Kumar, Executive Director, National Institute of Disaster Management. Mayra Valle, Executive Secretariat, CEPREDENAC.

The session showcased examples in different regions of how including the protection of livelihoods, mainly livestock and farm animals among national policies can reduce disaster risk and improve resilience to climate change in the most vulnerable communities. The side event could enable other countries and

stakeholders to learn from the experience of Mexico and other countries to align themselves with the Sendai Framework, as well as to learn how to measure the impact of disasters on the livestock sector. The discussion and case studies showcased how the protection of animals can play an essential role in the protection of livelihoods for enhancing DRR both at the local level and at the highest level of policy, which is one of the main goals of the Sendai Framework.

The session demonstrated how animal protection can increase the capacity of communities to recover after a disaster. It also illustrated how DRR and climate change adaptation can be integrated in development programming and support the poorest and most vulnerable livestock-producing communities.

Successful experiences were shared on integrating the protection of livelihoods including livestock and working animals within national policies for DRR while building local capacity for resilience in small agricultural communities. The Government of Mexico explained how they have included animal census in their National Risk Atlas and are therefore working to locate the productive units that are more exposed to natural hazards. Recommendations and commitments Mexico detailed its commitment to

increasing resilience and protecting livelihoods by strengthening national policies for DRR to achieve comprehensive risk management that considers the needs of both people and animals.

India officially presented the launch of the Animal Disaster Management Forum and explained how including animals has been essential, as they represent the livelihoods of the communities.

CEPREDENAC underscored the importance of including regional entities in the process for policy development, and how animal protection needs to be included as a major element of regional policy.

Community response and recovery in Fukushima nuclear and radiological disasters – the case of Kawauchi village

Wednesday, 24 May, 17.45-18.45

Co-Chairs: Kazuhiko Moji, Vice-Dean, School of Tropical Medicine and Global Health, Nagasaki University. Tadanori Inomata, Strategic Adviser, Center for International Collaborative Research, Nagasaki University and Visiting Professor at the UN University.

Speakers: Dr. Noboru Takamura, Professor and Chair, Atomic Bomb Disease Institute, Nagasaki University,

Makiko Orita, Department of Global Health, Medicine and Welfare, Atomic Bomb Disease Institute, Nagasaki University. **Dr. Masaaki Ohashi and Takeshi Komino**, Japan civil society organizations coalition for DRR. **Jenny Nielson**, Information Officer, Comprehensive Nuclear-Test-Ban Treaty Organization.

The session reported on the assessment of six years after the Fukushima Daiichi nuclear disaster, the lessons learned from the response and recovery process, and the community response and recovery in nuclear and radiological disasters; in particular, the case of Kawauchi village.

Panellists underlined that UNISDR has a clear mandate on nuclear and radiological disasters, which it should implement with a multi-hazard approach to radiation disaster, with due regard to the Bangkok Principles for the Implementation of the Health Aspects of the Sendai Framework for DRR.

The characteristics of nuclear and radiological disasters are unique, being of large-scale disaster, slow-onset and sudden-onset or acute and chronic, having direct or indirect but lasting impacts and damages.

Panellists repeated that these disasters

require an intensive evidence-based science/policy interface to implement a national multi-hazard DRM plan integrated with the national public-health strategy.

Recommendations

- Comprehensive health check-up of all Individuals is indispensable for evaluating dose-responsive relationships and achieving resilience and a countermeasure against public fear and anxiety about radiation.
- There must be a paradigm shift from radiation safety principles based on radioactive doses to the tackling of societal factors that are determinants of public health. Public health not only of evacuees but also of the general population is greatly affected by social, environmental and psychological impacts of both the nuclear accident and countermeasures, e.g. evacuation, relocation, decontamination and constraints on freedom of residence and movement, as well as the reduced use of the ecosystem for livelihood.
- Comprehensive risk management is required both during the crisis and during the period after the

nuclear accident. The reliability and credibility of crisis communication is high priority, together with post-crisis risk communication with the affected population, to address face to face the concerns of inhabitants.

- Develop guidance for the multi-hazard management of disaster risk stemming from radiation exposure.
- Develop “Words into Action” of the Sendai Framework with a conceptual framework and a work plan for nuclear DRR and recovery, which is still missing. The Nagasaki University substantive input to this process, with special attention to radiological or nuclear power plant accidents, fills this lacuna and supports the full implementation of the Sendai Framework.
- Establish an international platform for global health security on nuclear radiation DRR under the aegis of UNISDR to promote best practices, professional capacity-building, education in nuclear DRM, and reduction and recovery that are conducive to risk communication with the affected population and other stakeholders.

And... Action! How can media and communication go beyond «public awareness» and prompt real change for DRR?

Wednesday, 24 May, 17.45–18.45

Contact for more information:

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Arab Communities Resilience within Sendai Framework on DRR

Wednesday, 24 May, 17.45-18.45

Chair: Emad Adly, General Coordinator, Arab Network for Environment and Development (RAED).

Speakers: Nina M. Birkeland, Senior Adviser on Disasters and Climate Change, Partnerships and Policy Department, Norwegian Refugee Council. **Michelle Yonetani**, Senior Strategic Adviser on Disasters and Climate Change, Norwegian Refugee Council/Internal Displacement Monitoring Centre.

The session focused on the challenges and opportunities facing the Arab communities for achieving resilience. It recognized the existence of a concrete foundation by having a strategy for DRR

in the Arab region, the political will and focal points.

However, the session highlighted that there is the long way to go in order to be ready by 2020.

The need to have an increased number of powerful partnerships and to have good governance was also highlighted.

The key principles of good governance were identified as: Information disclosure, communication, consultation and participation, involvement, cooperation and partnerships.

In terms of displacement, the session underscored the importance of conducting studies to highlight the impacts that result from climate change and disasters.

Panellists also discussed prevention measures to decrease the displacement and to be prepared through building the capacities of communities and different stakeholders. So, should displacement occur, we should be ready to face it or to be reallocated and help those communities to get the support and services they need. Panellists finally emphasized that displacement as a result of disasters is becoming a real challenge in all regions and in the Arab region, which was also clear through the project implemented by RAED in Egypt and Sudan, and the successful model presented by Emad Adly.

Recommendations

- Importance of having governmental institutions in charge of collecting data and also providing and disseminating the information collected and analysed for the monitoring process, as well as documentation of the different cases.
- Importance of addressing the case of slow onset disasters or events such as drought, as a real challenge for data collection of people affected and the consequent displacement.
- Importance of capacity-building of the institutions and stakeholders working in the area of displacement and DRR so that they can monitor and collect data and observe the specific situations in vulnerable communities.

Strengthening local resilience and national policy by integrating animal protection

Wednesday, 24 May, 17.45 – 18.45

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Climate Services for Disaster Risk Reduction in Africa: Lessons learned

Wednesday, 24 May, 17.45–18.45

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From Sendai to Cancún: Understanding disaster risk in Latin America and the Caribbean

Wednesday, 24 May, 17.45-18.45

Chair: Johannes Luchner, Director, Emergency Management Directorate, ECHO, European Commission.

Speakers: Wendy Cue, Head of Regional Office for Latin America and the Caribbean, UN-OCHA. Sergio García Cabañas, Executive Secretary, and Hardany Navarro, Head of Risk Analysis, National Coordination for Disaster Reduction (CONRED), Guatemala. Ronald Jackson, Executive Director, CDEMA.

The Latin America and Caribbean region is one of the world's most disaster-prone regions, with varying levels of national and local response capacity. The lack of systematic information to

analyse, comprehend and present the magnitude of the risks is a key challenge in reducing disaster risks, increasing resilience and securing sustainable development. While science is rapidly improving our understanding of disaster risks and relevant data are increasingly available, there is often a gap in translating this into useful, actionable information that can support the decision-making of governments and their partners.

The session looked at examples from the region of how shared risk analysis can support decision-making and development. It examined how different risk analysis frameworks and methods can be integrated and what kind of resources and capacity are needed by different stakeholders to make risk analysis credible and sustainable.

The INFORM approach involves a wide range of actors contributing the perspective of multiple sectors. This participatory process enables true partnerships with a myriad of government entities, organizations and agencies, bringing them together to solve a common problem: to manage the risk of crises and disasters and ensure resilient development. The session contributed to:

- An improved understanding of different frameworks for risk analysis being used in the Latin

- America and the Caribbean region and how they can be integrated.
- Showcase how shared risk analysis initiatives have supported decision-making around risk reduction and preparedness in the region.
- A better understanding of the resources and capacity required for shared risk analysis and in particular how governments can be supported to undertake it.

Recommendations

- Help overcome institutional barriers between governments, development, DRR, humanitarian and other multilateral actors.
- Support collaborative and coordinated action between all those working on disaster and crisis risk management.
- Strengthen and reinforce implementation of the Sendai Framework at national and regional levels.

Inclusive DRM: Persons with Disabilities and elders

Thursday, 25 May, 13.00–13.55

Contact for more information:
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Managing Global Catastrophic Risks: The Sendai Framework and the “New Shape Prize” for disaster governance

Thursday, 25 May, 13.00–13.55

Contact for more information:
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Strengthening resilience and food security of rural communities

Thursday, 25 May, 13.00–13.55

Contact for more information:
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Removing barriers and promoting public-private cooperation in DRR

Thursday, 25 May, 13.00–13.55

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Global open spatial data for monitoring disaster risk and the Sendai targets

Thursday, 25 May, 13.00–13.55

Chair: Daniele Ehrlich, European Commission, Joint Research Centre, Institute for the Protection and Security of the Citizen, Italy.

Speakers: Bapon Shm Fakhruddin, Senior Specialist in DRR and Climate Resilience, Tonkin & Taylor, New Zealand. Virginia Murray, Co-Chair, International Council for Science : Committee on Data for Science and Technology (CODATA) task group Linked Open Data for Global Disaster Risk Research (LODGD) and Integrated Research on Disaster Risk (IRDR) disaster loss data (DATA). Julio César Castillo Urdapilleta, Director of Space Security, Mexican Space Agency, representing Global Partnership using Space-based Technology Applications for DRR (GP-STAR). Richard Sliuzas, University of Twente, Netherlands. Daniele Ehrlich, European Commission, Joint Research Centre, Institute for the Protection and Security of the Citizen, Italy.

Gap analysis for open data for DRR authored by CODATA and IRDR.
Atlas of the Human Planet 2017: Global

Exposure to Natural hazards, by Joint Research Centre, European Commission.

- Open data may be available but not used in disaster risk assessment or policymaking.
- Potential resources on open data to collaborate for accessibility and use for DRR and CODATA and IRDR disaster loss data.
- Satellite imagery are data that need to be processed into information products before they can be used in disaster management.
- Open data may be available but the data with the right characteristics are not always available (i.e. data in different formats or standards).
- No policy and guidelines for interoperability of open data.
- National government has insufficient capacity for understanding and using open data for planning.

Recommendations

- Enhancing disaster data copyright protection and acceptable use policy to ensure the legality and appropriate use of data during disaster mitigation.
- Study, design and ultimately create the next-generation disaster data infrastructure



Road map to community resilience
International Federation of Red Cross and Red Crescent Societies

Stage 1
Engage and connect

Stage 2
Understand community risk and resilience

Stage 3
Taking action for resilience

Stage 4
Building resilient communities



- Private-sector engagement.
- Data study for DRR: pilot project
- Global/regional/national collaboration on disaster data by coordinating the utilization of disaster data.
- Enhancing the call to establish common definitions and data standards.
- Improve the accessibility and usability of disaster-related data and realize the CODATA principle of data sharing.
- Encourage the Earth Observation data providers to coordinate and engage with users through regional mechanisms (e.g. CODATA) in order to deliver and engage national authorities

Connecting public and private sectors in Disaster Risk Management for sustainable development

Thursday, 25 May, 13.00–13.55

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Preventive Community Relocations as a DRR Strategy

Thursday, 25 May, 13.00–13.55

Chair: **Nina M. Birkeland**, Senior Adviser on Disasters and Climate Change, Partnerships and Policy Department, Norwegian Refugee Council.

Speakers: **Filipe Nainoca**, Director General, Fiji Red Cross Society. **Michael Sembenombo**, Project Manager, DRM Project, UNDP, Papua New Guinea. **Robin Bronen**, Executive Director, Alaska Institute for Justice, United States.

The session underscored that planned relocations are a critical DRR strategy that can protect people's lives. Panellists described how planned relocations are a long-term process that occurs while members of a community continue to reside in their homes and have not been displaced by an extreme weather event. Also, planned relocations are a voluntary process where communities are making all the decisions related to relocation, including whether relocation is the best long-term DRR strategy

The session highlighted the importance for national and local DRR strategies to incorporate the issue of planned relocation through designing and implementing a governance and institutional framework.

Enhancing Urban Resilience: Reaching the Most Vulnerable and Promoting Sustainable Development in Cities

Thursday, 25 May, 14.00–14.55

Chair: **Sarah Davis**, Overseas Development Institute.

Speakers: **Mohammed Adjei Sowah**, Mayor of Accra. **Nehal Hefny**, Undersecretary-General, Egyptian Red Crescent Society. **Stefan Brem**, Head of Risk Analysis, Swiss Federal Office of Civil Protection, **Joe Leitmann**, Lead DRM Specialist, World Bank.

The session identified rapid urbanization as a particular driver of risk. In the next 20 years, more infrastructure and houses are expected to be built than in the past 6,000 years of civilization. Also, urban growth rate will continue to be particularly rapid in urban areas of less developed regions, averaging 2.3 per cent per year between 2000 and 2030.

The session described the work achieved in more than 7,000 cities and towns across 130 countries, with over US\$ 50 billion committed through more than 900 projects with climate-related activities and over US\$ 5 billion annually invested in DRM.

However, more investments are needed and it is estimated that in the developing world, cities alone will demand a trillion dollars a year just to keep the current level of development. The session underscored that public financing alone is not enough to face this challenge. Therefore, leverage private capital is a key issue in urban resilience.

Panellists underscored that tackling the most vulnerable demands a different approach to cost-benefit analysis. Investing in poor slums may result in lower revenue in terms of economic exposure; however, people living in informal settlements can lose their livelihoods with no opportunities to recover. This means that we need to calculate and evaluate risk in a different way.

Recommendations

- Urban resilience and DRM should be understood as entry points for addressing a wider range of natural, technological and socioeconomic shocks and stresses in cities.
- Local communities living in informal slums must be included as key actors of urban resilience. Community base work should start at the very beginning of the initiatives, and must be oriented towards solving real problems, selecting effective entry points.

- It is essential to consider the voice of local communities in urban resilience. Working with children in public schools is one of the best ways to disseminate information among local communities.

Words into Action: National Disaster Risk Assessment Guideline

Thursday, 25 May, 14.00–14.55

Contact for more information:
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Forecast-based financing: Investing in humanitarian action before disasters strike

Thursday, 25 May, 14.00–14.55

Chair: Alexandra R uth, Climate Change Adaptation Coordination, German Red Cross.

Speakers: Peter Felten, Head, Humanitarian Assistance/Policy Division, German Federal Foreign Office. Peter H ppe, MunichRe. Pablo Su arez, Associate Director, Research and Innovation, Red Cross/Red Crescent Climate Centre. Anthony Craig, Senior Preparedness Adviser, WFP/Inter Agency Standing Committee. Shukri Ahmed, Senior Economist, FAO. Juan

Bazo, Technical Adviser, Red Cross/Red Crescent Climate Centre.

The session discussed the initiatives to create an anticipatory humanitarian system using extreme-weather forecasts to release humanitarian funding. The methodology has been offered as a solution for potential donors or humanitarian organizations who would like to invest in forecast-based action; discussions with a high-level public on opportunities to include forecast-based financing in existing humanitarian initiatives and funding mechanisms have taken place. The funding possibilities based on scientific forecast information were also discussed.

The session highlighted the interest in investing in preparedness measures and early actions. Humanitarian assistance needs to be provided efficiently, but the question is not how to serve victims of humanitarian disasters most efficiently but about each and every individual. Action is needed as soon as there is a probability of facing a disaster.

Panellists insisted on the fact that communicating science to humanitarians is crucial. Weather forecast programmes had great successes not only in forecast-based financing but also in integrating it into government structures. However,

not all governments have the capacities to develop these systems.

Panellists explained why climate change requires the use of available information technologies. In this regard, forecast-based financing is an important initiative. Examples were given, including Peru, where forecasts for different timescales and different areas have been identified and early actions have been successfully implemented in relation to various hazards: El Ni o events, cold waves in the southern Andes and flooding in the Amazon region.

Investing into DRR and sustainable development – Novel socio-economic methods and tools for bolstering DRR and resilience

Thursday, 25 May, 14.00–14.55

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One Year after the World Humanitarian Summit: Istanbul Achievements and Sendai Principles

Thursday, 25 May, 14.15–15.15

Chair: Azamat Baialinov, President, Red Crescent Society Kyrgyzstan.

Speakers: Jesper Holmer-Lund, Chief, Emergency Services Branch, OCHA. Setsuko Saya, Director, International Cooperation Division, Disaster Management Bureau, Cabinet Office, Japan. Ricardo de la Cruz, Director General, Civil Protection, Mexico. Zuhal Karako  Dora, Head, Department of Strategy Development, Disaster and Emergency Management Presidency (AFAD), Turkey.

The session promoted the humanitarian-development nexus in disaster preparedness for effective response, by linking the World Humanitarian Summit (May 2016 in Istanbul) follow-up in alignment with the Sendai Framework, related to the Sendai Guiding Principles F (Empowering local decision-makers) and G (Multi-hazard approach and inclusive risk-informed decision-making).

The session brought together representatives of Mexico, Japan and Turkey, countries hosting the

international conferences in their countries, assuming the role of “driver for change”. Panellists introduced the linkage between Sendai and Istanbul, promoting partnerships in emergency preparedness and response. The session also discussed innovative approaches, such as forecast-based financing, as part of emergency preparedness and funding.

The session described how improved understanding of different frameworks for risk analysis are being used in the Latin America and Caribbean region and how they can be integrated.

The session also showcased how shared risk analysis initiatives have supported decision-making around risk reduction and preparedness in the region, and finally helped for a better understanding of what resources and capacity are required and, in particular, how governments can be supported in undertaking it.

Recommendations

- Pre-disaster agreement among local governments swiftly led to an effective response, though waiting for a national-level response .
- Effective early warning based on risk analysis is the key to effective response.

- Innovative approaches such as forecast-based financing should be promoted
- Preparedness partnerships and initiatives to be widely informed (e.g. Inter-Agency Standing Committee (IASC) Emergency Response Preparedness approach, Global Preparedness Partnership).

Towards 1 million safe hospitals for the most vulnerable: how a public-private partnership can help improve neonatal and maternal health in Mexico

Thursday, 25 May, 14.00–14.55

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International cooperation for resilience in Mesoamerica and the Caribbean

Friday, 26 May, 13.00–13.55

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Strengthening resilience for and with young people – Showcasing what works in advancing the Sendai Framework

Friday, 26 May, 13.00-13.55

Chair: Saúl Zenteno Bueno, Regional Focal Point for Latin America and the Caribbean, UN Major Group for Children and Youth.

Speakers: Christian Skoog, Country Representative, UNICEF. **Lenny N. Rosalin**, Deputy Minister for Child Growth and Development, Ministry of Women’s Empowerment and Child Protection, Indonesia. **Sandra Delali Kemeh**, Junior DRM Expert, UN Major Group for Children and Youth. **Gloria García Parra**, Programme Specialist, Plan International, Germany. **Karen Demerutis Finkenthal**, Social Responsibility Coordinator, World Vision.

The session underscored the importance of engaging children and youth at all levels, in order to create a resilient society. Children have a fresh and different perspective on DRR.

Panellists reiterated that national and local DRR policies should take into consideration children and youth’s special needs in different sectors (e.g. education, protection,

social inclusion, nutrition and health). It is also important to strengthen capacities and reduce disaster vulnerability.

Panellists called for a shift from sectoral to system-based management, and to address

underlying risk factors such as violence and inequality, in order to create a resilient society.

Recommendations

- Invest in child and youth-friendly services during disasters, including social services and infrastructure.
- Include children, adolescents and youth in participatory disaster risk assessment.
- Institutionalize platforms for children and youth to contribute to resilience at all levels.
- Invest in vulnerable societies through long-term and locally adapted capacity-building activities.

Technological hazards: Engaging a new Community in DRR / Session Information

Friday, 26 May, 13.00-13.55

Chair: Wendy Cue, Head of Regional Office for Latin America and the Caribbean, OCHA.

Speakers: Irma Gurguliani, Deputy Head, Waste and Chemicals Management Service, Ministry of Environment and Natural Resources Protection, Georgia,. Hans Guttman, Executive Director, Asian Disaster Preparedness Center, Thailand. Jack Radisch, Senior Project Manager, High Level Risk Forum, Organisation for Economic Co-operation and Development, Elisabeth Krausmann, Principal Scientist, European Commission Joint Research Centre.

Preparedness for technological hazards is limited, yet these disasters can have severe effects on a community and its finances, especially where people are most vulnerable. Even more, the interconnectedness and interdependencies of technological systems create the conditions for knock-on effects, and industrial accidents caused by natural hazards can create major secondary disasters affecting the population, the environment, the economy and the supply chain. However,

the vulnerability of hazardous industry to natural-hazard impact is not always recognized.

Participants also discussed specificities of natural hazard triggering technological disasters (Natech), including that it is a risk class of global relevance and requires a targeted risk management approach. Natech risks, industrial accidents and chemical emergencies often fall into the mandate of environment ministries, which do not have the capacity to implement response actions to contain this kind of emergency. Natech risk reduction is hampered by the scarcity of methodologies and tools to analyse and map the risk, and there is a lack of guidance on Natech risk management. Participants confirmed that Natech risk is expected to increase in the future owing to the presence of more hazards (both natural and technological) and the increasing vulnerability of society. Natech emergencies, therefore, create humanitarian impacts, loss and damage, which are often not appreciated and are underreported.

Recommendations

- The profile of technological hazards within the DRR agenda must be raised and interaction between all communities improved.

- Cooperation among all stakeholders is essential and is most important at local level. The prevention and preparedness planning stages are crucial.
- A multi-hazard approach implies that technological hazards must be included in ongoing DRR activities. Further research is needed to determine how disasters can cause technological accidents and how Natech accidents can be avoided.
- Accidents often have recurring causes. It is essential to learn from past events and invest in implementing and monitoring the lessons learned.
- It should be recognized that Natech and environmental emergency risk reduction often falls outside both environmental and humanitarian funding streams. Low-income countries, in particular, struggle to access financial support to reduce risks.
- Technological risks should be properly assessed. This requires awareness-raising, knowledge transfer and capacity-building efforts.
- Risk assessment criteria for hazardous waste disposal, including historical waste sites, should be developed.
- Potential single points of failure

should be identified to understand the market forces that led to them. Public policy can reduce the stock of risk by creating investment incentives.

- Risk information should be made available to those potentially affected by the risk.

Innovative Actions on Build Back Better – Unpacking International and Local Cooperation Experiences

Friday, 26 May, 13.00-13.55

Chair: Stefan Kohler, Chair, Steering Committee of the International Recovery Platform.

Speakers: Oscar Gómez, Research Fellow, Japan International Cooperation Agency Research Institute. V. Thiruppugazh, Adviser on Policy and Planning, National Disaster Management Authority, India. Roy Barboza Sequeira, Executive Secretary, CEPREDENAC, on behalf of Luis León Munguía, CONRED, Guatemala.

Innovative programmes on build back better commonly highlighted “good governance of recovery process” as one of key factors for successful

implementation. To achieve this, the following actions were specified:

- Promoting local ownership of the recovery process: A comparative study of Hurricane Mitch, the Indian Ocean tsunami and Typhoon Haiyan revealed that local ownership of the recovery process is fundamental to achieving build back better. Ownership of the process promotes a more decisive and accountable decisions. It implies learning from past experience to effectively achieve the recovery vision. The stronger the local ownership the lesser the role of international actors. However, it was noted that local ownership does not necessarily mean denying the importance of external support and assistance.
- Ensuring responsibility with authority: This includes a strong institutional system that handles political dynamics and continuity of efforts effectively. It includes the ability to delegate roles such as making use of experts, consulting with stakeholders, community engagement, timely decision-making, effective coordination, and the application of lessons learned from previous experience.
- Adopting a National Disaster Recovery

Framework: The framework helps promote effective governance of the recovery process, as it specifies the recovery protocols, roles of stakeholders, and tools to use for planning.

- For example, Guatemala adopted a National Disaster Recovery Framework in 2013, which was put into practice effectively during the recovery from the San Marcos earthquake of 2014. The same municipality had been impacted by an earthquake in 2012.
- The Framework facilitated a better recovery for the following reasons: (a) a more coordinated role-sharing among agencies of the public sector owing to prior knowledge and understanding; (b) better distribution of resources in the short-and mid-term phases; and (c) reduced information gaps. The country was also able to provide technical assistance for recovery in neighboring Ecuador following the earthquake there in April 2016.

The session identified some issues that need further understanding and solutions: (a) legal gaps, bureaucratic delays and rotation of personnel in charge of managing recovery; (b) change of mindsets and

institutional arrangements; and (c) strategy for consolidating local capacities.

Recommendations

- From the Vice-Mayor of Sendai City: to build back better from the impacts of tsunami: (a) build multiple layers of defence such as levees and elevated roads and plant tsunami-resistant trees; (b) construct evacuation towers, and design evacuation routes and hills; and (c) relocate residents of tsunami-risk areas to safer locations.
- From the Guatemala experience: (a) generate technical guides for housing evaluation and recovery needs; (b) promote DRR criteria in public investment planning; and (c) create a permanent liaison between emergency coordination centers and recovery commissions to reduce information gaps and improve coordination.

Promoting safer buildings, schools and hospitals

Friday, 26 May, 13.00-13.55

Chair: Marla Petal, Senior Adviser for Education and Risk Reduction Save the Children, Australia.

Speakers: Emma Lovell, Senior Research

Officer, Risk and Resilience Programme, Overseas Development Institute. **Santosh Sharma**, Team Leader, Emergency Response and Recovery Programme, CARE. **Rebekah Green**, Associate Director, Resilience Institute, Western Washington University. **Surya Narayan Shrestha**, Deputy Executive Director and Senior Structural Engineer, National Society for Earthquake Technology, Nepal. **Felipe Cruz Vega**, Mexican Social Security Institute.

The session reiterated that those affected by disasters are the first to respond, and should be consulted in decision-making that affects their lives to help support safer self-recovery. This will ensure that interventions support people's needs and priorities, and promote ownership. It will also support policies and practice that can reduce loss of life, assets and livelihoods

It is important to provide adequate support and technical assistance to help reassure families that their structures comply with build back better and safer building codes. Also, housing construction should not be isolated from other interconnected aspects, such as water, sanitation, hygiene, health, livelihoods and social protection.

Panellists also underscored that school

safety cannot be reduced to mere safe building construction. It is achieved through a comprehensive approach based upon a sustained community engagement that addresses construction, school disaster management and DRR education. Safe and resilient hospitals are a priority to strengthen the effort to protect.

Recommendations

- Promoting safer buildings, schools and hospitals supports the Sendai Framework. Community-based safer school construction projects increase community understanding of disaster risk in ways that support effective school disaster management and, post-earthquake, allow communities to begin building back better using safer construction practices they observed and put into practice during the construction of their community school.

Building through historical knowledge: Social construction of disasters and DRR

Friday, 26 May, 13.00–13.55

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Predicting and preventing Pandemics

Friday, 26 May, 13.00–13.55

Chair: Catherine Machalaba.

Speakers: Dr. William B. Karesh, Executive Vice-President for Health and Policy, EcoHealth Alliance. Dr. Timothy A. Bouley, Global Health and Environmental Specialist, World Bank, Cristina Romanelli, Coordinator, United Nations secretariat of the Convention on Biological Diversity. Dr. Massimo Ciotti, European Centre for Disease Prevention and Control.

The session reaffirmed that pandemics present a significant threat to health and economy and are increasing in frequency. Technical and donor agencies represented on the panel reported major advances along the prevention-detection-response-recovery spectrum in order to proactively prepare for pandemic threats to reduce their frequency and impact. Analytical findings, tools and other resources are available to assist countries and communities in understanding and managing pandemic threats. These include risk assessments and scientific guidance, disease and pathogen surveillance, response capacity, data on health disaster losses, and innovative financing mechanisms.

The session highlighted that pandemic preparedness requires multi-disciplinary frameworks. It is crucial to expand collaboration beyond the health community to improve understanding of pandemic threats and take coordinated action through a “whole-of-society” approach. Examples of key sectors include environment and agriculture, under a “One Health” approach, to target drivers of disease emergence. At the same time, pandemic preparedness in the health sector is a climate resilience strategy.

Recommendations

- Biological hazards warrant full consideration as disaster risks under the Sendai Framework. Implementation of the Bangkok Principles can support risk reduction for pandemics.
- Countries and communities have opportunities to get ahead of pandemics to reduce loss of life by improving understanding of risk and addressing the underlying drivers of disease, including through land-use planning processes. There are good examples of countries advancing a “One Health” approach to help promote multi-hazard and whole-of-society action.
- Indicators from other sectors (e.g.

biodiversity/environment) may help countries track pandemic threats. Similarly, strategies for improving ecosystem resilience (e.g. ecosystem-based adaptation and management) may help reduce vulnerability to health disasters and their many effects.

- As climate-smart healthcare facilities can promote multi-hazard resilience, including for health disasters, they should be viewed as an integral part of the pandemic preparedness infrastructure.

Enhancing The Financial Resilience Of Asean Against Disaster And Climate Risks

Friday, 26 May, 13.00–13.55

Contact for more information:
nadya.tarigan@asean.org

From managing disasters to managing risks: The power of forecast-based action, index insurance and multi-year recovery finance

Friday, 26 May, 16.00–16.55

Contact for more information:
giorgia.pergolini@wfp.org



Ms. Lour

Lourdes Tibán, member of the National Parliament of Ecuador, panellist during the Special Session on Disaster Preparedness and Build Back Better

Global partnership on space technology applications for Disaster Risk Reduction [GP-STAR]

Friday, 26 May, 16.00–16.55

Contact for more information:
juan-carlos.villagran@unoosa.org

Partnering for risk-informed development

Friday, 26 May, 16.00–16.55

Contact for more information:
gremillet@undp.org

Disaster Risk Management and fostering resilience in SIDS and LDCs

Friday, 26 May, 16.00–16.55

Contact for more information:
uthowfeequ@un.org

Worldwide initiative for Safe Schools: Promoting disaster resilience in the education sector

Friday, 26 May, 16.00–16.55

Contact for more information:
marla.petal@savethechildren.org.au

Geospatial Information And Earth Observations For Disaster Risk Reduction

Friday, 26 May, 16.00–16.55

Chair: Rolando Ocampo, Vice-President, National Institute of Statistics and Geography (INEGI), Mexico, and Co-Chair, UN-GGIM.

Speakers: Rohan Richards, Principal Director, National Spatial Data Management Division, Jamaica. **Steven Ramage**, Head of External Relations, Group on Earth Observations (GEO) Secretariat, **Daniele Ehrlich**, European Commission, Joint Research Centre, Institute for the Protection and Security of the Citizen, Italy. **Ivan Petiteville**, European Space Agency, and former Chair of the Committee for Earth Observation Satellites (CEOS) Working Group on Disasters, Data Access for Risk Management (GEO-DARMA) contact point. **José Eduardo de la Torre Bárcena**, Planning Director, Vice-presidency of Economic Information, National Institute of Statistics and Geography (INEGI), Mexico.

The session reiterated that geospatial/ Earth observations information, tools and services are essential components

in disaster prevention, prediction, response and management, as well as in planning and monitoring for sustainable development. These technologies and institutional arrangements have achieved such maturity that they should have a prominent role during decision-making. Participants underscored that international cooperation and partnerships are key to achieving integral, comprehensive and inclusive approaches to effective DRR, resilience-building and sustainable development.

They also highlighted that the data needed for DRR must integrate different sources of information, including: household surveys, government censuses, geospatial and Earth observations data, administrative registers, quality of services surveys, volunteered geospatial information, Big Data, etc.

This also includes listening to the people affected or potentially affected by disasters and integrating them in a systematic manner in the planning and decision-making process.

Recommendations

- Integration of geospatial and statistical information (with other data sources, such as volunteered geographic information (VGI) and

Big Data) facilitates location and assessment of progress in achieving the SDGs and disaster monitoring over time and at all scales.

- Powerful synergies emerge in such integration. Benefits are particularly evident during disasters and can be instrumental in building resiliency.
- Harmonization among the SDGs and the Sendai Framework, their indicators and the communities in charge of implementing them is essential to ensure an integrated approach to DRR, to create synergies and maximize (not dilute or duplicate) efforts and resources.
- This convergence can be greatly enhanced by geospatial and EO information. It also includes interactions between the geospatial, Earth observations, and statistical communities, and their contribution to policymakers and emergency responders for evidence-based decisions (a requisite is that decision makers are ready, willing and able to listen to and act upon evidence).
- Access to data is a major component of this objective. Data generators, managers, brokers and providers must ensure that data follow the following criteria: quality, frequency, and following common standards,

- open-access, accessibility through common platforms and portals.
- Inter-institutional coordination – with coordination at the highest level, technical coordination from NSOs or other expert agencies, and active and open participation from academia, civil society and the private sector – is key to generating, integrating, analysing and adequately using information for policy-making.
- Examples of such coordination may be found in Mexico’s National System of Statistical and Geographic Information (SNIEG), as well as in its newly formed National Council for Agenda 2030.
- Other examples of coordination and cooperation can be found in the European Union, and other members of UN-GGIM.

The Sendai Framework in the Arab Region: A Climate Risk Nexus Approach

Friday, 26 May, 16.00-16.55

Chair: Amjad Madani Abbashar, Head, Regional Office for Africa, UNISDR.

Speakers: Fadi Hamdan, Co-Founder, DRM Centre, Lebanon. **Djilali Benour**, Director of Research, University of Bab Ezzour. **Houari Boumediene** University of Science and Technology, Algeria. **Mohammed Fadi Janan**, Regional Programme Officer, UNISDR. **Oscar Ekdahl**, Regional Programme Officer, Disaster Risk and Climate Change, World Food Programme, **Zubair Murshed**, Regional Adviser, UNDP. **Nathalie Zaarour**, Project Manager, DRM Unit, Presidency of Council of Ministers, Lebanon.

The session focused on challenges and opportunities in implementing the Sendai Framework in the Arab region. It presented lessons learned from the Hyogo Framework for Action and its related implementation in the region, highlighting progress made and how this would inform the implementation of the Sendai Framework.

Panellists underscored the specifics

in the region in relation to disasters, pointing out difficulties in monitoring slow-onset disasters, how food security strategies need to manage risks around trade and food import dependency, and more broadly how DRR efforts would need to be holistic – taking into account socioeconomic trends and challenges – in order to be successful in the longer term.

The session also gave a brief overview of the Doha Declaration and the Arab position on the Sendai Framework and provided examples of country experiences from Lebanon and Algeria in terms of how national governments have implemented the Framework.



A team of volunteers promoting resilience in the margins of the 2017 Global Platform.

Multi-Hazard Early Warning Systems Conference

22-23 May

Co-organized by the World Meteorological Organization, the United Nations Educational, Scientific and Cultural Organization, the World Bank, the Government of Mexico and UNISDR

Over 450 practitioners from a wide variety of institutional and technical backgrounds met for two days at the Multi-Hazard Early Warning Conference immediately prior to the 2017 Global Platform.

The discussions were aligned with the Sendai Framework seventh global target (G) – “to substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030”.

The following key messages emanated from the sessions:

Risk information is the first mile of an early warning system. It identifies the main threats and the most vulnerable groups.

- Risk information is needed for impact-based warnings and communication to communities at risk.
- Risk information needs to be people-centred and downsized to community level.
- Climate change is increasing the risk of extreme weather.
- Examples demonstrated that all countries – including developing countries – can successfully develop and implement early warning systems when all sectors work together, including meteorology, hydrology, health and information technology. Take advantage of new technologies, such as mobile/cellular networks and the internet, as well as older technologies, such as radio.
- Public-private partnerships should be forged to work closely with mobile/cellular, satellite and other operators to develop communication tools and strategies in the case of disasters.
- By developing standardized communications, such as the Common Alerting Protocol, harmonized alerts can be disseminated and reach more people. Shift from forecasting what the weather will be to what the weather will do. This entails introducing impact-based hazard alerts at global level.

- Many disasters have a cascading effect (e.g. earthquakes lead to tsunamis which lead to flooding and economic, health, food security and nuclear crises).
- Countries’ early warning programmes remain fragmented. The responsibility for managing multiple portfolios with many partners rests with the national institutions. Space for improvement exists in increasing the effectiveness of investments in early warning systems. Initiatives such as CREWS (Climate Risk Early Warning Systems) can contribute to addressing the current resource gap in least developed countries and Small Island Developing States.

Recommendations

- Develop guidance on measuring the access to and effectiveness of early warning systems, in support of countries’ efforts to monitor Sendai Framework global target G.
- Disseminate widely the checklist on multi-hazard early warning systems and the compilation of good practice.
- Reconvene in two years’ time to assess progress on the recommendations contained in the proceedings of the conference.



Intra African, Caribbean and Pacific [ACP] Group of States Forum

Thursday, 25 May, 13.00-15.00

Panellists: Léonard-Émile Ognimba, Assistant Secretary General, ACP Secretariat (by video). **Samuel Eaney Manetoali**, Minister of Environment, Climate Change, Disaster Management and Meteorology, Solomon Islands. **Hussein Mar Nyuot**, Minister of Humanitarian Affairs and Disaster Management, South Sudan. **Max Rudolph Saint-Albin**, Minister of Interior, Haiti. **Josefa Leonel Correa Sacko**, Commissioner, Rural Economy and Agriculture, African Union Commission. **Enrique Guerrero Salom**, Member of European Parliament. **Johannes Luchner**, Director of Emergency Management, ECHO.

The Intra-ACP Forum, jointly organized by UNISDR and the ACP Secretariat, brought together ministers from Haiti, Solomon Islands and South Sudan, along with the ACP Group of States, the European Parliament and European Commission, the African Union Commission, the Pacific Community Secretariat and the Caribbean Community Secretariat.

Participants shared lessons and best practices from DRR programmes funded in ACP countries through the European Development Fund.

Panellists recognized the political commitment made by ACP Heads of State and Government in 2016 to strengthen coordination and dialogue among the 79 countries in all international forums. Panellists highlighted the need to enable the ACP Member States to work in favour of reforms to multilateral architecture that serve their interests and enhance their role in all areas of global governance and thereby contribute to their development.

The session underlined the opportunities provided by the Cotonou Agreement and emphasized that it provides a basis for collaborating with the European Union, ACP regional institutions and United Nations organizations on issues related to understanding disaster risks. These include adopting strategies to enhance the process of assessing and identifying risk, promoting capacity-building and mainstreaming DRR, and developing policies to promote initiatives for risk transfer,

post-disaster recovery and long-term reconstruction in Member States. Ministers from the three ACP regions shared challenges and experiences in DRR efforts funded through the European Development Fund. Participants shared information about their ongoing projects.

The session underscored the need for shared responsibility to reduce risk, based on varying capabilities, the need to work to mainstream DRR into all policies, including public and private investments, as well as the need to ensure support takes place in the context of regionally agreed strategies for disaster risk reduction.

Participants committed to continue working together with other international and ACP regional institutions, to achieve the targets of the Sendai Framework by 2030.

The session was convened as part of the programme on Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities, funded by the European Union with €80 million, for a five-year implementation period in Africa until 2020, as part of a dedicated cooperation for DRR between the European Union and ACP. This cooperation also includes three other DRR programmes supporting the ACP States, with additional funding from the 10th European Development Fund of €100 million.

Climate and Disaster Resilience in Small Island Developing States: Practical Solutions

Sunday 21 - Tuesday 23 May

Co-organized by the World Bank Global Facility for Disaster Reduction and Recovery (GFDRR), the United Nations Department of Economic and Social Affairs and UNISDR

Over 100 policymakers and practitioners from 34 Small Island Developing States (SIDS) gathered to discuss their successes and lessons, to reflect on opportunities and obstacles, and to share cutting-edge technical solutions for reducing their disaster risk and building climate resilience.

The meeting facilitated peer-to-peer learning and strengthened the community of practice between SIDS to identify solutions to achieve the global targets of the Sendai Framework.

Participants underscored the importance of collaboration among disaster and climate change institutions, and of mainstreaming climate and disaster risks into national and sector planning. Such integration takes time, needs political leadership at the highest level, requires engagement with key government officials through existing channels rather than creating parallel processes, and must be based on broad and multi-sectoral participatory consultations.

To this end, institutional reforms that enhance coordination and bring different sectors and institutions together have been a promising solution among SIDS. They provide a single entry point for development partners, which can avoid duplication and enhance internal coordination.

The impact has been greatest when the integration of climate and disaster resilience is tied to budgetary processes, national strategies and plans. Ministers of finance were urged to take an active role in the resilience agenda in order to make risk-informed policy and investment decisions.

Participants noted that climate and disaster resilience are well integrated at the community level, and that community-based approaches provide the evidence needed to advocate for an integrated approach to climate and disaster resilient development among national policymakers. They also highlighted the importance of institutional arrangements that ensure data and information are widely shared among all stakeholders.

The benefits of a holistic approach to reducing disaster risks in these countries were emphasized. These include a better understanding of risks, risk-informed spatial planning, early warning systems, and insurance and financial tools to transfer risks. Information systems need to be adapted to local contexts and to the specific needs of SIDS.

Participants discussed how local data and accurate resolutions are essential for damage assessment and that periodic capacity-building exercises are key to ensuring sustainability of risk-based spatial planning, as local conditions and risks are dynamic and need regular updates.

Participants also highlighted context-specific communication systems capable of interconnection and interoperation, forming an integrated whole, as well as code-alert systems adapted to the physical and social local contexts and needs. South-south collaboration was seen as critical for planning of adaptation and risk reduction options. Coastal protection was discussed as a priority for SIDS. Effective solutions were seen to be collaborative – engaging stakeholders at all levels, and comprehensive – drawing on combinations of protective measures both “green” and “grey”, and a deeper understanding of the interaction between coastal erosion, climate change and socioeconomic development.

Television Debate

Thursday, 25 May, 14.00-15.00

The 2017 Global Platform included a televised debate with the private sector. Facilitated by José Martín Sámano, a Mexican anchor from TV Azteca, the one-hour debate included a panel of five speakers: Aris Papadopoulos, retired CEO of Titan America and member of the board of UNISDR ARISE; Saber Chowdhury, Member of Parliament, Bangladesh; Martha Herrera González, Cemex; Simon Clow, Axa Group; and Carlo Papa, Enel Foundation.

The panellists discussed what should be done to achieve more resilience in the future and what incentives, policies and practices should be in place to invest in more risk-informed investments, given that some US\$ 6 trillion will be invested globally in urban infrastructure such as roads, bridges, public utilities, hospitals, schools and houses in the next ten years.

The debate was transmitted live by CENOPRIE, the main Mexican governmental broadcasting network, to Mexican and European channels, with audiences ranging from 10 to 12 million viewers.

Part 1

Part 2



Panellists of the TV Debate during the 2017 Global Platform

Women Leadership in Disaster Risk Reduction for Resilience

Thursday, 25 May, 13.00-15.00

Co-Chairs: Amina Mohammed, United Nations Deputy Secretary-General. **Robert Glasser**, Special Representative of the Secretary-General for Disaster Risk Reduction
Panellists: Inonge Mutukwa Wina, Vice-President of Zambia. **Elhad As Sy**, Secretary-General, IFRC. **Laura Tuck**, Vice-President for Sustainable Development, World Bank, **Sandra Wu**, CEO, Kokusai Kogyo, **Madeleine Redfern**, Mayor of Iqaluit, Canada, **Yannick Glemarec**, Deputy Executive Director, UN-Women. Message from **Tarja Halonen**, former President of Finland, introduced by **Riikka Laatu**, Deputy Director General, Department for Development Policy, Ministry for Foreign Affairs, Finland.

The discussion featured powerful cases of women leadership models in DRR from the public and private sector and international institutions, highlighting the challenges faced by women in reaching senior managerial positions and proposing recommendations for future generations.

The session stressed the urgency to recognize and promote women's leadership and participation at all levels of decision-making as a precondition for addressing key challenges such as poverty, inequality, and violence against women. The SDGs provide the opportunity to galvanize the support needed to achieve women's full, equal and meaningful public and political participation in shaping the implementation of the 2030 Agenda and Sendai Framework priorities by 2030.

Building on the principle of "no one left behind", the session called on governments to better build on women's knowledge and expertise and involve women more systematically in designing, planning, implementing and resourcing inclusive and gender-responsive national and local DRR strategies by 2020.

Women's right to equality must be embedded across institutional processes and legal systems, and upheld both in laws and in legal practices.

Governments were also urged to guarantee the systematic collection, availability and analysis of gender disaggregated data to recognize women's needs, capacity, achievements and meaningful contribution to DRR.

Education and capacity-building are core principles that require particular attention and long-term investment to build women and younger generations' skills

and understanding around DRR to allow them to access leadership positions and influence the national and local DRR decision-making process.

Women leadership and empowerment in DRR is not just about women and girls; it requires an inclusive and people-centred approach that also engages men and boys to anchor the core principles of gender equality in cultural approaches and long-term institutional and governance practices.

The session called for further efforts to be made to cut the roots of gender discrimination wherever they appear and to allow for equal opportunities for all women and girls to access information, job opportunities and funding mechanisms and contribute to economic wealth opportunities. A Global Programme in Support of a Gender-Responsive Sendai Framework Implementation: Addressing the Gender Inequality of Risk and Promoting Community Resilience to Natural Hazards in a Changing Climate was jointly launched by UN-Women, UNISDR and IFRC to promote gender-sensitive DRR and bring the necessary transformative change to build a safer, more equal and inclusive world for all.



Inonge Mutukwa Wina, Vice-President of Zambia and panellist during the Special Event on Women Leadership in DRR for Resilience



Inonge M. Wina



Sasakawa Award

The biennial Sasakawa Award recognised projects that have made a substantial contribution towards saving lives and reducing global disaster mortality.

For the 2017 edition, efforts to reduce disaster death tolls in Portugal, Iran, Brazil and Fiji have been honoured by this award from the United Nations and Japan's Nippon Foundation.

The joint laureates were the Municipality of Amadora, in Portugal, and the Iran-based Organization for Development, Renovation, and Equipping Schools (DRES). A certificate of distinction was issued to the GIDES project, run by Brazil's Ministries of Cities, National Integration, Mining and Energy, and Science, Technology and Communications, while Fiji's Habitat for Humanity won a certificate of merit.

Ms Marcie Roth, President and CEO of Inclusive Emergency Strategies LLC, part of the jury mentioned that the finalists were the ones who demonstrated the most durable, sustained, inclusive and comprehensive institutional efforts in DRM.

To date, more than 100 people have received Sasakawa Award honours. Together with the World Health Organization Sasakawa Health Prize and the UN Environment Programme's Sasakawa Environment Prize, the UN Sasakawa Award for Disaster Risk Reduction is one of the three prestigious prizes established in 1986 by the founding Chairman of the Nippon Foundation, Mr. Ryoichi Sasakawa.



RISK Award

Issued every two years by the Munich Re Foundation, UNISDR, and the Global Risk Forum Davos, the Risk Award honours innovative plans and approaches to reducing risk and enhancing disaster management. The 100,000-euro prize, provided by Munich Re, enables the winners to move from the drawing board to the real thing.

A cutting-edge plan to deploy the power of technology to monitor health risks in Nepal won this international award at the 2017 Global Platform. The Nursing Association of Nepal won the prize for its "EpiNurse" project – short for "Epidemiology Nurse" – which will equip nurses in the Himalayan nation with monitoring and surveillance tools to prevent and control infectious diseases after disasters.

The theme of this year's edition of the Risk Award was "Innovative concepts and technologies for information and communication", with the entrants presenting digital projects to help communities better anticipate disasters. After intense deliberations that helped identify the ten best entrants, the Risk Award jury in February released a final shortlist of three. Besides EpiNurse, the other two projects were in Kenya and India.

The goal of EpiNurse is to train frontline health workers in earthquake-prone urban areas to act as health security monitors. The information collected through the monitoring process will feed a database that will help experts to further develop models that support risk-management decisions in disaster situations and thereby help to reduce future risks.



Preparatory Meetings

MONDAY 22 MAY Afternoon

Disability-inclusive Sendai implementation

Policy messages for Caribbean coastal resilience

Views from the Frontline

Pacific Regional Organizations briefing

National DRR strategies: Taking Commitment to Action

Child Centered DRR Researchers

Global Preparedness Partnership

Pacific HoS briefing

Partnership for Environment & DRR

TUESDAY 23 MAY Morning

Americas regional briefing

African regional briefing

European regional briefing

Arab regional briefing

Asia regional briefing

City Resilience Consultation meeting

ARISE Board Meeting

Local Governments Summit

Pacific Delegations briefing

Towards a safer world consultation meeting

ECCAS,OCHA,ROWCA,EPS consultation meeting

ASEAN consultation meeting

CEPRENAC consultation meeting

EFDRR consultation meeting

Sendai Framework Priority 1: Understanding Disaster Risk

Community Practitioners platform caucus

NGOs CSOs preparatory meeting

IGOs briefing

Parliamentarians meeting (1)

Children & Youth preparatory meeting

Capacity Development Consultation Seminar

TUESDAY 23 MAY Afternoon

WISS Safer School Construction

National Platforms briefing

DRR in post-2015 Agenda

Indigenous Peoples preparatory meeting

Persons with disabilities preparatory meeting

Science & Technology consultation meeting

Private Sector consultation meeting

Health & DRR

DRR Governance at the Local Level

Insurance sector consultation meeting

CASC regional briefing

Historical Research in Coastal Communities

Parliamentarians meeting (2)

European Union information meeting

Global Alliance for DRR Education

UN Heads preparatory meeting

Global Strategy for DiDRR: next steps for the Sendai Commitment

Partners for Resilience

Meet the experts: WIA Guide on National Disaster Risk Assessment

Women Leadership preparatory meeting

Post-disaster construction: Case studies and lessons learned



◀ PREVIOUS PAGE

Ignite Stage [By order of appearance]

WEDNESDAY 24 MAY

Education in Disaster Risk Reduction, Resilience and Business Continuity

Impact based multi-hazard Early Warning Systems in Latin America

Meteoalarm - a user oriented early warning system for 36 European countries

Long wave radio aimed at implementing "National Center Of Dissemination"

Building resilience in Morelia, Mexico

Measuring progress in urban resilience - MCR tools

"Roadmap to Community Resilience", IFRC's people-centred, holistic and demand-driven approach to DRR

Integral Risk Management Strategies for sub-national economies: The case of Oaxaca

Developing young professionals programmes for effective urban governance and resilient cities

Professionalisation of the resilience community: Experience from the Pacific

Academia: Strategic training ground for future DRR practitioners

ACT Alliance: Field practitioners' blended e-learning for DRR

Community psychosocial resilience and recovery from natural disasters: The case of Haiti

Community-based psycho social support: A vehicle for resilience in disaster prone areas

Integration of DRR and CCA for sustainable development

Towards Resilient Post 2015 era: Bangladesh reconciles DRR, CCA and sustainable development

Community-driven DRR and pre-disaster recovery planning

Extending impact by Building Back Better: what do disaster effected people really think?

Promoting safer self-recovery after a disaster

Civil defense in schools - Rio de Janeiro

Guidance for implementing Build Back Better in recovery, rehabilitation, and reconstruction

Rebuilding the devastated city of Rikuzentakata, Japan

Aftershock forecasting for humanitarian emergency planning and response

Linking humanitarian response and resilience

Disaster Risk Reduction funding and practice in difficult environments

'The Cure for Catastrophe': how risk auditing will become central to DRR

Engaging private citizens in DRR

THURSDAY 25 MAY

Public partnership between Japan and Mexico on disaster mitigation of large earthquake and tsunami hazards: the SATREPS project

How a little investment can make a big difference: Moving urban poor communities towards resilience (Metro Manila, Philippines)

Overcoming unpaid care as barrier to women's leadership in DRR

we4DRR - a network of female experts in disaster risk reduction

Empowering Disaster Governance: Grassroots women-led partnerships to localize the Sendai Framework for DRR

Invisible threads: the role of informal networks

Xô, Mosquito! - The fight against Aedes aegypti

Participatory numbers for DRR

Flood and diseases: recommendations for urban areas

Enabling evidence for effectiveness: Developing health-DRR research partnerships for the implementation of the Sendai Framework

Using science & technology to implement the Sendai Framework at the local level.

When disaster preparedness pays off: evidence from Hurricane Matthew

Building the resilience of small-scale fisheries in the Caribbean

New open data for monitoring the Sendai targets

Project Hieron and Emergency Call App

HoloDisaster: Holographic disaster simulations

Stop Disasters 2.0: Video Games as Tools to foster participation in learning about disaster

Disaster Preparedness: How to supply 4 million people with 3 liters of drinking water a day

Seismology and engineering: Key to earthquake disaster risk reduction

Devolved Disaster Risk Reduction

The Alberta Community Resilience Program

"REaL" Innovation in DRR : Insights on risk education and learning from Africa

Role of faith-based organizations on innovative locally-led DRR interventions: ACT Award

Quantifying flood risks to support decision-making: The Tegucigalpa case

Operation Resilience

Innovative flood resilience building for the poorest

Disaster and business in the Pacific

Desplazamiento por desastres y el Marco de Sendai - disaster displacement and the Sendai Framework

Challenges for people-centred Early Warning Systems - bridging culture, education and citizen science

European Commission's disaster risk-informed approach: an action plan on Sendai Framework

Engaged youth driving change for DRR in the Caribbean

Child-Centred urban resilience

Children and youth in disaster risk reduction in Latin America and the Caribbean

Safer Schools: Entry point for community resilience

Voices of Latin American children and youth on the Sendai Framework

Safe school leader countries in Latin America and the Caribbean Region.

Youth as Today's DRR Leaders: Launching the UNISDR youth engagement platform

La construcción de resiliencia en la infraestructura física educativa de México.

Prepared pet owners mean safer families

How businesses mainstream Sendai into their operations: an example from Japan

Resilience in a box – a solution for business & communities

Engaging the small business community in disaster risk reduction and business continuity

Non-business private investment: Achilles heel of urban resilience - What, why and how to change?

Missing maps: Putting 200 Million People on the world map for the first time

FRIDAY 26 MAY

Inclusion of people with disabilities in DRR based on the Sendai Framework for Action

Integration of the Charter on Inclusion of Persons With Disabilities In Humanitarian Action in DRR policy and processes

Promoting Inclusive DRR initiatives among people with disabilities and the elderly

Urban growth and climate change: Mapping risks and designing adaptation measures in public infrastructure investment projects in Lima (Peru)

Planning for catastrophic disaster events

How a little investment can make a big difference: Moving urban poor communities towards resilience (Metro Manila, Philippines)

Understanding disaster risk in a Metropolitan City: Istanbul

Levels of risk and vulnerability associated with floods and climate change adaptation in Binational Basin Puyango - Tumbes

Can (and should) social protection support disaster response and resilience?

Cultural competency for DRR, recovery and Long-term preparedness pathways

Risk reduction and resilient development in protected areas in Mexico

The ethical premise of leadership in adversity

Resilient communities and municipalities in action

Mutual learning, shared knowledge: EU Peer review programme as a way to implement Sendai

Comprehensive school safety assessment suite

Communicating climate science for DRR decision-making

Lead user, positive deviance, and social entrepreneurship models for DRR

How women are using resilience indexes to become leaders in DRR

Framework for resilient development in the Pacific

Multi-hazard risk assessment at sub-national level: the INFORM method

Practical risk assessments for DRR

Algerian experience in engaging local authorities at all levels

When disaster preparedness pays off: evidence from Hurricane Matthew

Risonance. A system for evaluating disaster risk governance

Bio-engineering measures for DRR

The Science of Citizen Science: working with communities to evaluated community-based initiatives in the East Coast Lab (ECLab), New Zealand

Fostering citizen participation with new technologies

The impact of DRR awareness programs in the Municipality of Amadora

Participatory mapping: a creative methodology to foster multi-stakeholder engagement

Participatory mapping for disaster risk reduction

Open earth observation data for DRR

Increasing the Resilience in the livestock sector: Costa Rica Case Study

A GIS Based Risk Communication Tool for Istanbul - GeoGIS

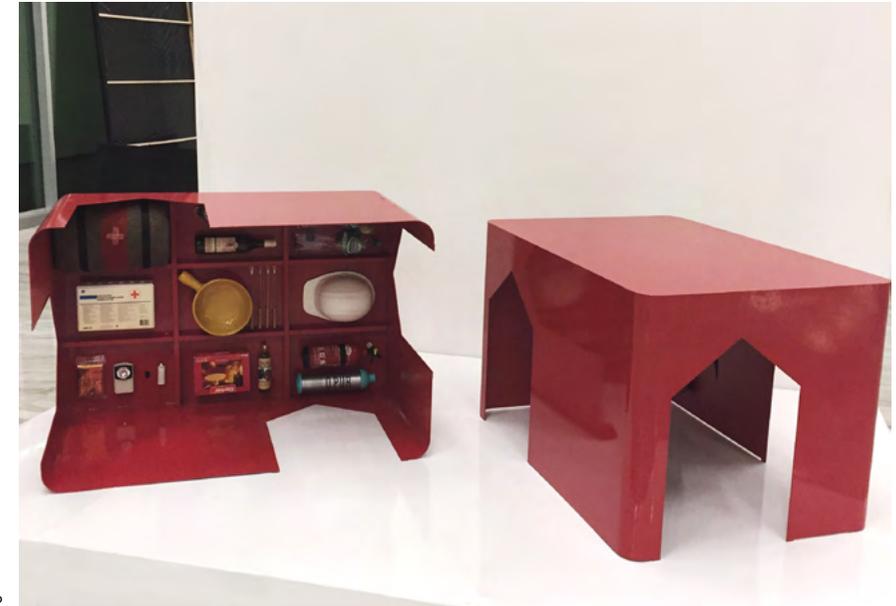
Market Place

O2	1 Billion Coalition for Resilience	C3	Humanitarian Data Exchange
Q1	Academia, science and technology in DRR	D1	Inclusion of people with disabilities in DRR
F6	ACT Resilience Award	O1	Integrated DRR
H8	ARISE	J11	International Recovery Platform (IRP)
J6	BRAC	Q6	JICA / Japan
I2	BRACED and ODI	F7	New Zealand
B3	Children and Youth in Latin America and the Caribbean	C4	Pacific Partnership
J5	Children and Youth	H16	Seismology and Engineering
J12	Comprehensive Nuclear-Test-Ban Treaty Org.	Q3	Sendai Monitor Prototype Test Drive
I10	Crowdsourced Open Mapping for DRR	C1	Sendai Framework: Knowledge, Collaboration, and Action
F14	Disaster and Emergency Management/ Presidency (AFAD) / Turkey	D2	Soka Gakkai International (SGI)
C2	Disaster Monitoring and Preparedness	Q4	Sphere Project
D5	DRR and Climate Change	P1 – P8	United Nations - supporting the Sendai Framework for DRR
O3	DRR in Africa	O5	Women's rights and leadership in DRR
H7	DRR Initiatives in Nepal	O4	Schools
O6	Dynamic mountains – vulnerable societies		
B7	Earth Observation for CBDRR		
I9	Earth Observations and DRR		
F15	European Commission		
D6	Food Security and DRR		
I1	Gender and Disaster Network		
B8	Germany		
Q5	GFDRR		
Q2	Global Network of CSOs for DRR		
B4	Health and DRR		



1.

1. Drowning World, by Gideon Mendel
2. Earthquake Tables by ECAL, Switzerland and D'Esposito Martino
3. Parazite, by Gilles Perez for Risk Insight Exhibition



2.

DRR Exhibition

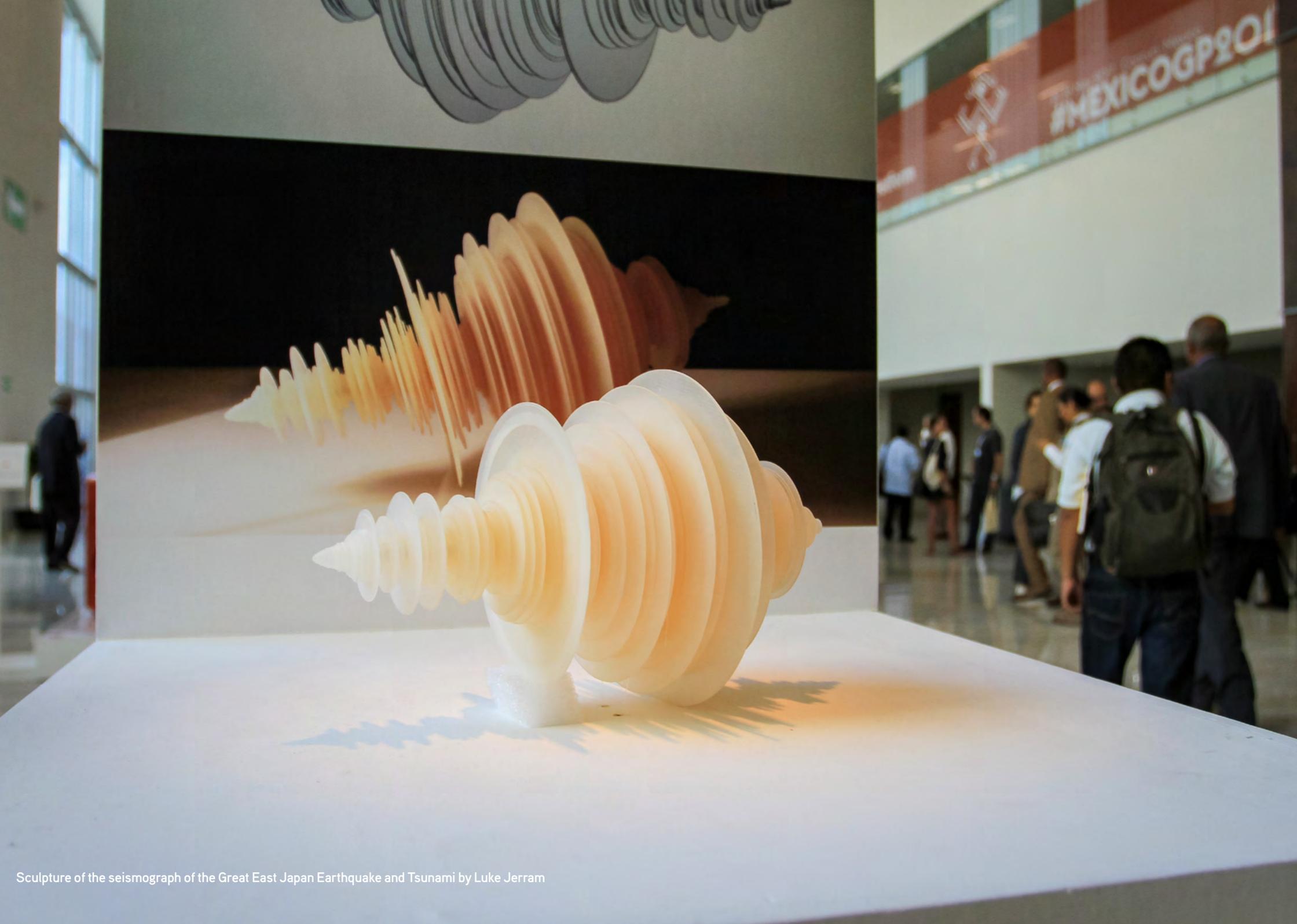
In Cancún, the Global Platform welcomed for the first time an art exhibition dedicated to DRR. The exhibition demonstrated how risks in general, and disasters in particular, inspire and inform the work of artists, designers, architects, and a plethora of cultural activities worldwide.

The works on display came from El Salvador, France, Israel, Japan, Switzerland, Togo, United States of America, and United Kingdom of Great Britain and Northern Ireland. They represented examples of the multifarious perspectives on risk as seen by the design and artistic community. From works that seek to capture the essence of risk in illustrated form, to objects designed to reduce risk or represent resilience, they are diverse in nature and are each the result of a singular, scientific, artistic perception which confirm the prevalence of risk in our societies.

The exhibition benefited from the helpful expertise of Ms. Claire Favre Maxwell from the MUDAC, of Lausanne, Switzerland.



3.



Sculpture of the seismograph of the Great East Japan Earthquake and Tsunami by Luke Jerram

Participating States

Afghanistan	Cook Islands	Holy See	Mauritius	Saint Vincent and the Grenadines	United Kingdom of Great Britain and Northern Ireland
Albania	Costa Rica	Honduras	Mexico	Samoa	Ireland
Algeria	Côte d'Ivoire	India	Micronesia (Federated States of)	Sao Tome and Principe	United Republic of Tanzania
Angola	Croatia	Indonesia	Mongolia	Saudi Arabia	United States of America
Antigua and Barbuda	Cuba	Iran (Islamic Republic of)	Montenegro	Senegal	Uruguay
Argentina	Cyprus	Iraq	Morocco	Serbia	Uzbekistan
Armenia	Czech Republic	Ireland	Mozambique	Sierra Leone	Vanuatu
Australia	Democratic People's Republic of Korea	Israel	Myanmar	Slovenia	Venezuela (Bolivarian Republic of)
Austria	Democratic Republic of the Congo	Italy	Namibia	Solomon Islands	Zambia
Azerbaijan	Denmark	Jamaica	Nepal	South Africa	Zimbabwe
Bahrain	Dominica	Japan	Netherlands	South Sudan	
Bangladesh	Dominican Republic	Jordan	New Zealand	Spain	
Barbados	Ecuador	Kazakhstan	Nicaragua	Sri Lanka	
Belgium	Egypt	Kenya	Niger	Sudan	
Belize	El Salvador	Kiribati	Nigeria	Suriname	
Benin	Equatorial Guinea	Kuwait	Norway	Swaziland	
Bhutan	Ethiopia	Kyrgyzstan	Oman	Sweden	
Bolivia (Plurinational State of)	Fiji	Lao People's Democratic Republic	Pakistan	Switzerland	
Bosnia and Herzegovina	Finland	Lebanon	Palau	Tajikistan	
Brazil	France	Lesotho	Palestine (State of)	Thailand	
Burkina Faso	Gabon	Liberia	Panama	Timor-Leste	
Burundi	Gambia (Republic of The)	Libya	Papua New Guinea	Togo	
Cabo Verde	Georgia	Luxembourg	Paraguay	Tonga	
Cambodia	Germany	Madagascar	Peru	Trinidad and Tobago	
Cameroon	Ghana	Malawi	Philippines	Tunisia	
Canada	Grenada	Malaysia	Poland	Turkey	
Central African Republic	Guatemala	Maldives	Portugal	Turkmenistan	
Chad	Guinea Bissau	Mali	Qatar	Tuvalu	
Chile	Guyana	Malta	Republic of Korea	Uganda	
China	Haiti	Marshall Islands	Romania	Ukraine	
Colombia		Mauritania	Russian Federation	United Arab Emirates	
Comoros			Saint Lucia		

INTERGOVERNMENTAL ORGANIZATIONS

African Union

African, Caribbean and Pacific Group of States - ACP

Andean Community

Association of Caribbean States - ACS

Caribbean Disaster Emergency Management Agency - CDEMA

Centro de Coordinación para la Prevención de los Desastres Naturales en América Central - CEPREDENAC

Committee on Earth Observation Satellites - CEOS

Cooperation Council for the Arab States of the Gulf

Council of Europe - COE

East African Community

Economic Community of Central African States - ECCAS

Economic Cooperation Organization - ECO

European Union - EU

Group on Earth Observations - GEO

Intergovernmental Authority on Development - IGAD

International Civil Defence Organization - ICDO

International Union for the Conservation of Nature - IUCN

Latin American and Caribbean Economic System

League of Arab States - LAS

Organisation for Economic Co-operation and Development - OECD

Organization of Islamic Cooperation - OIC

Pacific Community

Pacific Islands Forum

Pan American Health Organization - PAHO

Secretariat of the Pacific Regional Environment Programme - SPREP

Southern African Development Community - SADC

Sovereign Military Order of Malta

West African Economic and Monetary Union

UNITED NATIONS SYSTEM AND RELATED ORGANIZATIONS

Food and Agriculture Organization - FAO

International Labour Organization - ILO

International Organization for Migration - IOM

International Telecommunication Union - ITU

Preparatory Commission for the Comprehensive Nuclear-Test Ban Treaty Organization - CTBTO

United Nations Children's Fund - UNICEF

United Nations Development Programme - UNDP

United Nations Economic Commission for Latin America and the Caribbean - ECLAC

United Nations Educational, Scientific and Cultural Organization - UNESCO

United Nations Economic and Social Commission for Asia and the Pacific - ESCAP

United Nations Entity for Gender Equality and the Empowerment of Women - UN Women

United Nations Environment Programme - UNEP

United Nations Framework Convention on Climate Change - UNFCCC

United Nations High Commissioner for Refugees - UNHCR

United Nations Human Settlements Programme - UN-Habitat

United Nations Industrial Development Organization - UNIDO

United Nations Office for Project Services - UNOPS

United Nations Population Fund - UNFPA

United Nations Programme on HIV/AIDS - UNAIDS

United Nations Secretariat

United Nations Volunteers - UNV

United Nations University - UNU

Universal Postal Union - UPU

World Bank

World Food Programme - WFP

World Health Organization - WHO

World Meteorological Organization - WMO

INTERNATIONAL ORGANIZATIONS AND FUNDS

Green Climate Fund

International Committee of the Red Cross - ICRC

International Federation of Red Cross and Red Crescent Societies - IFRC

REGIONAL DEVELOPMENT BANKS

Asian Development Bank - ADB

Development Bank of Latin America - CAF

PARLIAMENTARIAN ORGANIZATIONS

Cámara de Diputados

EuroLatin American Parliamentary Assembly - EUROLAT

Global Legislators Organization for a Balanced Environment

Grupo Consultivo de Parlamentarios Pro-rd Lac

Inter-Parliamentary Union - IPU

Parlamento Centroamericano Parlacen

NON-GOVERNMENTAL AND OTHER MAJOR GROUP ORGANIZATIONS

ACT Alliance	Baha'i International Community	Cinco Panes y Dos Peces, A.C.	Disaster Preparedness And Prevention Initiative South Eastern Europe
Action for Sustainable Change	BBC Media Action	CITYNET Yokohama Office	Disaster Resistant Business Toolkit
ActionAid International	Bill and Melinda Gates Foundation	Civil Air Patrol (Civilian Auxiliary of US Air Force)	Disaster Risk Management Association «AZUR»
Adventist Development and Relief Agency	BRAC	Climate Wednesday	Dishari
Aga Khan Foundation - AKAH	Brigada de Rescate del Socorro Alpino de México Seccion A.C.	Coalition of Services of the Elderly, Inc.	Duryog Nivaran
Alaska Institute for Justice	British Geological Survey	Colegio Médico Hidalguense	Earth Literacy Program - ELP
Alianza	C40 Cities Climate Leadership Group	Colegio Mexicano de Profesionales en Gestión de Riesgos y Protección Civil	Earthquakes and Megacities Initiative
American Jewish Joint Distribution Committee	CANEUS	Comitato Internazionale per lo Sviluppo dei Popoli	EcoHealth Alliance and Future Earth
APPC de la Republica Mexicana A.C.	CARE	Community Development Association	Enlace Comunicación y Capacitación A.C.
Arab Network for Environment and Development	Caritas Internationalis	Community Support Group Nepal	Evidence Aid
Arbeiter-Samariter-Bund Deutschland e.V.	Catholic Organization for Relief and Development Aid	Comunidad Judía de México	Faculty of Disaster Medicine India
Asesoría y Servicios Rurales A.C.	Catholic Relief Services	Concern Worldwide	Feconori
Asia Pacific Alliance for Disaster Management	CBM International	Consejo Consultivo Ciudadano del Estado de Hidalgo	femLINKpacific
Asian Disaster Preparedness Center	Center for Disaster Preparedness	Consejo de Fed. de Bomberos Voluntarios de la Rep. Argentina	Fiji Women's Rights Movement
Asian Disaster Reduction Centre	Center for Strategic and International Studies	Construyendo Sociedad	Focus Humanitarian Assistance - Pakistan
Asociación Civil Argentina Puede	Centre for Culture and Communication of the Deaf	Consultoría Social Integral Vinni Cubi A.C.	Fondació Sendas
Asociación de Organismos no Gubernamentales, ASONOG	Centro de Estudios Económicos y Sociales del Tercer Mundo	Coord Médica y Jefe de Misión en Desastres Internacionales	Fondo Mexicano para la Conservación de la Naturaleza AC
Asociación de prof. en protección civil de la República Mexicana	Centro de Instrumentación y Registro Sísmico, A. C.	Coordinadora Sostenibilidad	Food for the Hungry
Asociación mexicana de Heridas a.c.	Centro Mario Molina	CWS Japan	Forum for Awareness and Youth Activity - Nepal
Asociación Nacional de Bomberos Municipales dep. de Guatemala	Centro Mexicano de Derecho Ambiental, A.C.	Damayan ng Maralitang Pilipinong Api Inc	Foundation for the Peoples of the South Pacific Kiribati
Asociación de Seguridad e Higiene y Protección Civil, A.C.	Centro para la Acción de la Responsabilidad Social Empresarial en Guatemala	Development Network of Voluntary Indigenous Associations	Four Paws International
Association Ecologique de Boumerdes	Childfund International	Dhaka Community Hospital Trust	Fundació Ayuda en Accion
Ayuda en Acción México	Children and Youth International	Diakonie Katastrophenhilfe	Fundación Ciudad de la Alegría
	China Charity Alliance	Disability Inclusive Emergency Management	Fundación Hondureña de Responsabilidad Social Empresarial
	Christian Aid	Disaster Management Initiatives and Convergence Society	Fundación Integral Risk Management
			Fundación Manatí para el Fomento de la Ciudadanía A.C.

Fundación Sendas	Iniciativas para la Autonomía SC	Lutheran World Federation	Philippine Disaster Resilience Foundation (PDRF)
Fundación Todo Tuyo Maria Riadis	Instituto Global Attitude	Manos Solidarias TYT de la Boca	Plan International
Fundecooperación para el Desarrollo Sostenible	InterAction	Mercy Corps	Plataforma Comunitaria Comité y Redes de Honduras «Wagucha»
GEA Search and Rescue	Internal Displacement Monitoring Centre	Mesa Nacional de Incidencia para la gestión del Riesgo - MNIGRH	Post Crisis Counseling Network
Geotechnology, Environmental Assessment and DR	International Amateur Radio Union	Metrópolis: Democracia, espacio público y ciudadanía A.C.	Practical Action
Global Network of Civil Society Organizations For Disaster Reduction	International Association of Applied psychology	Molina Center for Strategic Studies in Energy and the Env.	Proayuda, I.A.P.
GreenAid / SuccesGuide	International Code Council	Muhammadiyah Disaster Management Center (MDMC)	Professionals for Humanity
GROOTS	International Consortium of Landslides	Munich-Re Foundation	Programa de la Vivienda Sustentable A.C.
Groupe Urgence - Réhabilitation - Développement	International Cooperative and Mutual Insurance Federation	National Association of the Deaf and Hard of Hearing	Project Concern International
Grupamento de Bombeiros Civis Voluntários - GBCV	International Council for Science - ICSU	National Insurance Crime Bureau	Public Services International
Habitat for Humanity International	International Council on Monuments and Sites	National Society for Earthquake Technology-Nepal (NSET)	Pusbinlat Motivator Gereja Toraja
Habitat Professionals Forum	International Federation of Medical Students' Associations	National Youth Council of Fiji	RED Universitaria para la Prevención y Atención de Desastres
Handicap International	International Group of Wind-related Disaster Risk Reduction	Network for Empowered Aid Response	Rehabilitation International
Happy Hearts Fund	International Organization for Standardization	Newcastle International Training Centre	RET International
Heinrich Böll Foundation	International Research Centre on El Niño	Nigerian Institute of Town Planners	Risk Reduction Education for Disasters
HelpAge International	International Seismic Safety Organization	Nippon Foundation	Roseau City Council
Helvetas Swiss Intercooperation	International Society for Photogrammetry and Remote Sensing	Norwegian Refugee Council	Royal Scientific Society
Hong Kong Jockey Club DPR Inst.	International Union of Geodesy and Geophysics	Nursing Association of Nepal	Save the Children International
Huairou Commission	Japan CSO Coalition for Disaster Risk Reduction (JCC-DRR)	Ocean Networks Canada	Search and Rescue Volunteer Association of Canada
Humanitarian Leadership Academy	Kahre	Organización de Bomberos Americanos	Servicio Social de Iglesias Dominicanas
Humanitarian OpenStreetMap Team - HOT	Kawerak, Inc.	Oxfam	Shalom International
ICCO&Kerk in Actie / ACT Alliance	LeadersLink	Oxford Committee for Famine Relief	Shanta Memorial Rehabilitation Centre
ICONTEC Internacional - Societal Security	Lifelong Education and Development	Pacific Disability Forum	Shri Mata Vaishno Devi Shrine Board
IIDEAR	Little Bees International	Partnership for Development in Kampuchea	Sierra Club
Ikatan Petani Pengendalian Hama Terpadu Indonesia - IPPHTI		Perm. Interstate Com. For Drought Control in the Sahel	SIGMAH Home Health
Inclusiva			Soka Gakkai International

Soluciones Prácticas -
Oficina Regional para América Latina

SOS Children's Villages International

Sovereign Order of Saint John of Jerusalem

Sphere

SRI Ramanuja Mission Trust

Sustainable Development Solutions
Network - Youth

Sustainable Environmental and Ecological
Development Society

Swayam Shikshan Prayog

Swedish Mission Council

The Amity Foundation

The British American Cowdray IAP

The Geneva Association

The Nature Conservancy

The Pacific Community

The world Agro Forestry

The World We Want

Tlinada Youth Organization

Tolosa Federation of Senior Citizens
Organization

Tonga Community Development Trust

Transcabo

Unión de Cooperativas de Mujeres
las Brumas

University Institute for Environment
and Human Security

US Chamber of Commerce Foundation

Voluntarios Digitales para Emergencias y
Desastres

Voluntary Architects' Network

Water Youth Network

WaterAid Bangladesh

Wetlands International

Women Political Leaders Global Forum

Women's Environment and Development
Organization

World Animal Protection

World Council of Civil Engineers

World Council on City Data

World Farmers' Organisation

World Vision International

Zanzibar Peace, Truth and Transparency
Association

ACADEMIC & RESEARCH ENTITIES

American Anthropological Association

American University IDPP

Anáhuac Cancún

ARCADA University of Applied Sciences

Arkansas State University

Atomic Bomb Disease Institute, Nagasaki
University

Australian National University

Beijing Normal University

Bezalel Academy of Arts and Design
Jerusalem

Bielefeld University (CIAS)

Bureau de Recherches Géologiques et
Minières

California State University Long Beach

Cambridge Institute for Sustainability
Leadership

Caribbean Institute for Meteorology and
Hydrology

Cautus RRD

Center for Instrumentation and Seismic
Record

Center for Urban Disaster Risk Reduction
& Resilience

Center of Excellence in Population Ageing
Research

Centre for Natural Disaster Science

Centre international de droit comparé
de l'environnement

Centro de Investigaciones y Estudios
Superiores en Antropología Social

Centro Internazionale in Monitoraggio
Ambientale

Centro Nacional de Investigación para la
Gestión Integrada de Desastres Naturales -
CIGIDEN

Centro Universitario del Sur

Chinese Academy of Science

Colegio Mexicano de Rescatitas

Colegio Mexicano en Gestión de Riesgos

Cologne University of Applied Sciences

Colombian Society of Geology

Colorado State University

Consejo Nacional de Ciencia y Tecnología -
CONACYT

Copenhagen Centre for DR University of
Copenhagen

Delta Innovation BV

Deltares

Deutscher Wetterdienst

Disaster and Development Network

Disaster Prevention Research Institute

Disaster Recovery Institute International

Disaster Risk Management Centre

Dokuz Eylül University

Ehime University Center for DMIR

El Colegio de México

ETH Zurich /Colorado State University/
Oxford University

Euro-Mediterranean Center for Climate
Change

European Academy of Bozen/Bolzano

European Centre for Disease Prevention and
Control

European Commission Joint Research
Centre

Facultad Latinoamericana de Ciencias
Sociales

Faculty for Disaster Medicine

Flood Hazard Research Centre

Florida International University

Fraunhofer Institute for Open
Communication Systems - FOKUS

George Washington University

German Aerospace Center

GNS Science

Griffith University

Grupo de Sociedad Civil Infancia y Juventud

Hankuk University of Foreign Studies

Hong Kong Polytechnic University

Humanitarian and Conflict Response Institute	Iwate University	Pratt Institute School of Architecture	Universidad Autónoma de la Ciudad de México
Hydro and Agro Informatics Institute	Kalimantan Institute of Technology	Public Health Ontario	Universidad Autónoma del Estado de México
Incheon National University	Karadeniz Technical University	Purdue University	Universidad Autónoma Metropolitana
Institute for Advanced Sustainability Studies	Keio University	RED de Universitarios de Latinoamérica y El Caribe - RRD	Universidad Católica de Córdoba
Institute for Research and Studies on Warning and Risks	King's College London	Redulac	Universidad de Guadalajara
Institute of Care-life, China	Korea Institute of Public Administration	RLCC / Katholieke Uni. Leuven	Universidad de los Andes
Institute of Remote Sensing and Digital Earth	Kyoto University	Royal Melbourne Institute of Technology	Universidad de Quintana Roo
Institute of Research for Development	Kyushu University	Selçuk University	Universidad del Salvador Buenos Aires
Institute on Disability and Public Policy	Loughborough University	Sichuan University	Universidad Especializada de las Américas
Instituto Cerdá - SeCRO	Makerere University	Sociedad de Arquitectos Especialistas en Protección Civil	Universidad Estatal de Bolívar
Instituto de Geofísica	Massey University / Joint Centre for Disaster Research	Southern Alberta Institute of Technology	Universidad Juárez Autónoma de Tabasco
Instituto de Investigaciones Marinas y Costeras	Mid Sweden University, Risk and Crisis Research Centre	Stellenbosch University	Universidad Mexiquense del Bicentenario
Instituto Geofísico de la Escuela Politécnica Nacional	Nagasaki University	Stevens Institute of Technology	Universidad Nacional del Santa
Instituto Privado de Investigación sobre Cambio Climático	National Academy of Medicine	Stockholm Environment Institute	Universidad Nacional Federico Villarreal
Instituto Tecnológico de Cancún	National Autonomous University of México	Tawam Hospital	Universidad Pablo de Olavide - Seville
Instituto Tecnológico de Santo Domingo	National Research Institute for Earth Science	The Disaster Risk Reduction Centre	University Gaston Berger
Integrated Research on Disaster Risk	National Taiwan University	The International Emergency Management Society - India Chapter	University College London
Inter-Agency Network for Education in Emergencies	National University of Colombia	Tohoku University	University for Peace
Inter-Policy School Summit	National University of Engineering	Tsinghua University	University of Alberta, Edmonton Canada
International Council for Science	National University of Tumbes	UC Humanitarian Network	University of Auckland
International Institute for Geo-Information Science - Earth Observation	Northern Ontario School of Medicine	Ukrainian Hydrometeorological Institute	University of Canterbury
International Research Institute of Disaster Science, Tohoku University	Notre Dame Global Adaptation Initiative	Ulster University	University of Concepción
IRDR - LA Red - U.C. Venezuela	Oak Ridge Associated Universities	Unidad Académica de Gestión del Desarrollo	University of Edinburgh
Ireus University of Stuttgart	Ohio State University	Universidad Anahuac - CENACED A.C	University of Extremadura
IRIDeS Tohoku University	Overseas Development Institute	Universidad Autónoma de Baja California Sur	University of Georgia
	Oxford University	Universidad Autónoma de Guerrero	University of Huddersfield
	Peoples' Friendship University of Russia		University of Iowa
	Plymouth University		University of Kochi

University of la Laguna
 University of Manchester
 University of Melbourne
 University of Michoacan
 University of Newcastle - Australia
 University of Rwanda
 University of Saskatchewan
 University of Science and Technology Houari Boumediene
 University of South Australia
 University of South Carolina
 University of Southampton
 University of the Free State
 University of the Philippines
 University of the South Pacific
 University of the West Indies
 University of Tokyo
 University of Tsinghua
 University of Twente
 University of Washington
 University of York
 Water Resources Research and Documentation Center - WARREDOC
 Xavier Institute of Social Service, Ranchi

PRIVATE SECTOR

3T-Innova Consulting Group
 AECOM
 Ámbito Consultants Limited
 AMTRAD
 Analistas de Riesgos y Emergencias de México, S. A. de C. V.
 Aseguradora Tajy Prop Coop SA
 Asesoría Integral para la Gestión de Riesgos
 AXA Group
 BlackBerry
 Bupa Global Latin America
 Caminos Sagrados
 Canacindra
 CEMEX México
 CH2M
 Cinemex
 Cisco Systems, Inc.
 Cloud to Street
 Consultoría Profesional 3 Cautio Especiales
 Cremoposa
 CSI Dynamics S.A. de C.V.
 Dalberg Global Development Advisors
 Dillon Corp, SA. De C.V.
 Drager
 DRR Dynamics Ltd
 Early Warning Labs LLC
 Ecometrica

Elipso Internacional
 EM Capital Soluciones Integrales S.A. DE C.V.
 Empowrd Apps LLC
 Empresa de Transmisión Eléctrica, S.A.
 ENEL
 Equipos Especiales de Seguridad, S.A. DE C.V.
 Expo Rescue
 FMGlobal
 Fomento Social Banamex, A.C.
 GARUD SECURITIES PVT. LTD.
 General Motors / OnStar de México
 Genos Global
 GESAB
 Glatt Stove
 Global Nexus LLC
 Global Risk Management- GRM
 Grupo Consultor Administrativo y Laboral S.C.
 Grupo Crap Especialistas Industriales S.A. de C.V.
 Grupo Laera
 Haiti Systems
 Hospital AMC
 Icatelist
 Impact Asesores
 Impulsora Cora sacv
 Ingeniar
 Ingeniería de Presas SL

INIGER
 Intact Financial
 International Resources Group
 JTB Tourism Research
 Kinometrics, Inc.
 Knowledge Agency Europe AB
 Kokusai Kogyo Co, Ltd.
 Los Riesgosos AC
 Lynker Technologies
 Marhnos
 MIR3 - ECN Company
 Natural Resource Management - NRM
 OnSolve
 Onur Seemann Consulting, Inc
 Operadora de Centros de Espectáculos S.A. de C.V.
 Oxford Policy Management
 Pearce Global Partners Inc.
 Previdere Lex Consultoría Jurídica y Productividad, S. C.
 PROCIV Consultores
 Proyectos Asesoría y Construcciones Atogapan" S.A. de C.V
 PSK Enterprises Private Ltd
 Reavic Consultores
 Resilient Solutions 21
 Resurgence
 Risk Management Solutions - RMS
 Risk Society

Rural Livelihood Risk Management Consulting
 Sadeem Wireless Sensing Systems
 Safehotels Alliance AB
 SARC Consultoría en Análisis de Riesgo SC
 SEPCO Consultoria
 Servicios de Administración de Riesgos S.A. de C.V.
 Servicios Integrales de Seguridad Privada e Industrial
 SES Satellite
 Signalert Sarl
 Silsen
 SkyAlert de México
 Slipstream
 SM Prime Holdings, Inc.
 Sociedad Nacional de Industrias
 Solity International
 Soluzion Systems - Verus Vicis Soluzion Consortio LLP
 Spacenet México
 Swiss Reinsurance
 Techbility
 Techno Silva
 Telecomunicaciones
 Teleperformance
 Televisa SA de CV
 Telmex
 The Economist Group
 Thompson

Titan America
 United Parcel Services - UPS
 Verus Vicis Soluzion Consortio FZ LLC UAE
 Whitespace
 Willis Towers Watson
 Zurich Insurance

MEDIA

ABC Digital
 Acustik media
 Agencia de Noticias Internacionales - EFE
 Agencia de Noticias NVM
 Asian Pacific Broadcasting Union
 Bulgarian National Radio
 Business Week Fiji
 Canal 10
 Canal ONCE
 Caribbean Media Corporation
 Channel Africa - SABC
 Cities Network Campaign
 Conociendo Más México
 ContinentPremier.Com Pan African Magazine
 DIRAJ - DRR Network of African Journalists
 Efektotv Capital Media
 El QuintanaRoo.Mx
 El Universal - México
 En Cero

Esto Es Puerto Morelos - Grupo Informativo Riviera
 Estrategia en línea
 European Broadcasting Union
 Federal Radio Corp. Of Nigeria Headquarters, Garki-Abuja
 Front Page Limited
 Grupo Imagen MultiJ
 Grupo Milenio
 Grupo Radio Centro
 H. Ayuntamiento FCP
 Humanitarian Productions S.C.
 International Press Syndicate
 KTN News
 La Jornada
 Latino Press Worldwide
 Le Soleil
 Libertad de Palabra
 Luces del Siglo/ La Silla Rota
 Malawi TV
 México News Network
 Newnet Cameraman
 Newsnet Reporter
 Noticias MVS
 Notimex - Agencia de Noticias del Estado Mexicano
 Novedades
 NRM
 OEM
 People's Voice

Periódico QUEQUI
 Perspectiva
 Prensa Financiero
 Proyecto 40
 Radio Atogapan
 Radio Centro
 Radio Formula
 Radio Nigeria
 Reforma
 Reportero
 Revista Militar Armas
 Sipse TvCun
 Sistema Quintanarroense de Comunicación Social
 Televisa
 Television Oficial CEPROPIE
 The Jakarta Post
 The Patriot
 The Times of India
 Thirtyrev
 Thompson Reuters TV
 Thomson Reuters Foundation
 TV Azteca
 Veracidad Channel
 W Radio

LIST OF ABBREVIATIONS

ACP - African, Caribbean and Pacific Group of States	IGO - Intergovernmental Organization
AFAD - Disaster and Emergency Management Authority (Turkey)	INFORM - Index for Risk Management
ARISE - UNISDR Private Sector Alliance for Disaster Resilient Societies	INEGI - National Institute of Statistics and Geography (Mexico)
ASEAN - Association of Southeast Asian Nations	IRDR - Integrated Research on Disaster Risk
ASEZA - Aqaba Special Economic Zone Authority	IRP - International Recovery Platform
BRAC - Building Resources Across Communities	LDCs - Least Developed Country
BRACED - Building Resilience and Adaptation to Climate Extremes and Disasters	LLDCs - Landlocked Developing Countries
CASC - Central Asia and South Caucasus	LODGD - Linked Open Data for Global Disaster Risk Research
CBDRR - Community-Based Disaster Risk Reduction	NDC - Nationally Determined Contribution
CCA - Climate Change Adaptation	NGO - Non Governmental Organization
CDEMA - Caribbean Disaster Emergency Management Agency	NSO - National Statistic Office
CEO - Chief Executive Officer	ODI - Overseas Development Institute
CEOS - Committee for Earth Observation Satellites	OECD - Organization for Economic Co-Operation and Development
CEPREDENAC - Centro de Coordinación para la Prevención de los Desastres Naturales en América Central	PAHO - Pan American Health Organization
CODATA - Committee on Data for Science and Technology	PREVFOGO - National Center for Prevention and Combat of Forest Fires (Brazil)
CONACYT - National Council for Science and Technology (Mexico)	RAED - Arab Network for Environment and Development
CONAMOVIDI - National Confederation of Women Organized for Life and Integrated Development	ROWCA - OCHA Regional Office for West and Central Africa
CONRED - National Coordination for Disaster Reduction (Guatemala)	S&T - Science and Technology
CREWS - Climate Risk and Early Warning System initiative	SDGs - Sustainable Development Goals
CSO - Civil Society Organization	SIDS - Small Island Developing States
DARMA - Data Access for Risk Management	SINAPROC - Mexican National Civil Protection Agency
DIPECHO - Disaster Preparedness Programme of the European Commission	SISRI - Small Island States Resilience Initiative
DRES - Organization for Development Renovation and Equipping Schools (Iran-based)	SME - Small and Mid-Size Enterprise
DRM - Disaster Risk Management	SNIEG - National System of Statistical and Geographic Information (Mexico)
DRR - Disaster Risk Reduction	UCLG - United Cities and Local Governments
ECCAS - Economic Community of Central African States	UNFCCC - United Nations Framework Convention on Climate Change
ECAL - Lausanne School of Art	UN - United Nations
ECHO - European Civil Protection and Humanitarian Aid Operation (European Commission)	UN - GGIM - United Nations Committee of Experts on Global Geospatial Information Management
ECLAC - United Nations Economic Commission for Latin America and the Caribbean	UN - OCHA - United Nations Office for Coordination of Humanitarian Affairs
EFDRR - European Forum for Disaster Risk Reduction	UN - OHRLLS - United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
EU - European Union	UN - SPIDER - Space-based Information for Disaster Management and Emergency Response
FEMA - Federal Emergency Management Agency	UNDP - United Nations Development Programme
FLACSO - Latin American Social Sciences Institute	UNESCO - United Nations Educational, Scientific and Cultural Organization
GDP - Gross Domestic Product	UNICEF - United Nations Children's Fund
GEO - Group on Earth Observations	UNISDR - United Nations Office for Disaster Risk Reduction
GFDRR - Global Facility for Disaster Reduction and Recovery	UNOOSA - United Nations Office for Outer Space Affairs
GIS - Geographic Information System	UNU - United Nations University
GIZ - German Society for International Cooperation	WIA - Words into Action
GP - STAR - Global Partnership using Space-based Technology Applications for DRR	WISS - Worldwide Initiative for Safe School
HLPW - High Level Panel on Water	WMO - World Meteorological Organization
IASC - Inter-Agency Standing Committee	
ICHARM - International Centre for Water Hazard and Risk Management	
ICSU - International Council for Science	
IFRC - International Federation of Red Cross and Red Crescent	



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