

## UNDRR Bulletin



A publication of the International Institute for Sustainable Development

Monday, 20 May 2019 Vol. 141 No. 17

# Summary of the sixth session of the Global Platform on Disaster Risk Reduction: 13-17 May 2019

The sixth session of the Global Platform on Disaster Risk Reduction (GP2019) took place at the International Conference Center Geneva (CICG), from 13-17 May 2019, and was organized by the UN Office for Disaster Risk Reduction (UNDRR) and the Government of Switzerland on the theme of "Resilience Dividend: Towards Sustainable and Inclusive Societies."

GP2019 comprised two preparatory days followed by several days of high-level dialogues, ministerial roundtables, working sessions, and side events, from 15-17 May. Events in and around GP2019 included the Fourth World Reconstruction Conference; the Second Multi-Hazard Early Warning Conference; the UNDRR Stakeholder Forum; and the Science and Policy Forum.

The conference highlighted the economic, social, and environmental value of resilience against disasters, and shared practical actions that countries, regions, and local communities are taking on prevention and recovery. Delegates discussed national actions and possibilities for international collaboration to achieve the four priorities and seven global targets of the Sendai Framework for Disaster Risk Reduction (DRR), including Target E, which aims to substantially increase the number of countries with national and local DRR strategies by 2020.

Policymakers and practitioners also highlighted the increasingly global and systemic nature of risk, underscoring the need for international cooperation, as well as the role of technology and concrete action at the ground level.

GP2019 promoted gender and social inclusion: half of all panelists and 40% of participants were women, and more than 120 persons with disabilities attended the conference. More than 4,000 participants came from 182 countries, including many ministerial-level delegates. Many forums and side events took place in and around the main conference venue of the CICG, organized by UNDRR and its partners, including the World Meteorological Organization (WMO), the UN Development Programme (UNDP), universities, and international organizations.

At the meeting, UNDRR launched the 2019 Global Assessment Report, which provides an overview of countries' progress toward achieving the Sendai targets. The World Health Organization (WHO) also announced its Health Emergency and Disaster Risk Management (DRM) framework.

Two award ceremonies took place during the week: the UN Sasakawa Award for Disaster Reduction, which recognizes the world's best initiatives for inclusive, accessible, and non-discriminatory participation in DRR, and the RISK Award, which recognizes outstanding projects in the field of risk reduction and disaster management, and provides EUR 100,000 for project activities, given by the Munich Re Foundation.

The conference adopted a Chairs' Summary of the event, which includes recommendations for a mid-term review of the Sendai Framework, and for DRR to be fully integrated in the implementation of the Sustainable Development Goals (SDGs).

This summary reports on the two ministerial roundtables and five high-level dialogues that took place during the week, the special session on women's leadership in DRR, and a selection of working sessions and preparatory events.

#### In This Issue

A Brief History of the Global Platform for DRR2
Report of the sixth session of the Global Platform for
DRR
World Reconstruction Conference
Multi-Hazard Early Warning Conference6
Science and Policy Forum8
Opening of the Global Platform
High-Level Dialogues
Ministerial Roundtables
Special Session on Women Leadership in DRR 15
Working Sessions
Closing Events
Chairs' Summary
Upcoming Meetings
Glossary

The UNDRR Bulletin is a publication of the International Institute for Sustainable Development (IISD) <info@iisd.ca>, publishers of the Earth Negotiations Bulletin © <enb@iisd.org>. This issue was written and edited by Delia Paul, Laura Bullon-Cassis, and Amanda Rude. The Digital Editor is Ángeles Estrada. The Editor is Brett Wertz <br/>funding for IISD Reporting Services coverage of GP2019 has been provided by UNDRR. IISD can be contacted at 111 Lombard Avenue, Suite 325, Winnipeg, Manitoba R3B 0T4, Canada; tel: +1-204-958-7700; fax: +1-204-958-7710. The opinions expressed in the Bulletin are those of the authors and do not necessarily reflect the views of IISD. Excerpts from the Bulletin may be used in other publications with appropriate academic citation. Electronic versions of the Bulletin are sent to e-mail distribution lists (in HTML format) and can be found at http://enb.iisd.org/. For information on the Bulletin, including requests to provide reporting services, contact the Director of IISD Reporting Services, Lynn Wagner, Ph.D. <a href="https://enb.iisd.org">https://enb.iisd.org</a>.

#### A Brief History of the Global Platform for DRR

Natural hazards, such as floods, droughts, earthquakes, and tsunamis, are becoming more regular and intense, increasing the impact on people and communities. Compounding the situation, poor planning, poverty, and a range of other underlying factors create conditions of vulnerability that result in insufficient capacity to cope with natural hazards and disasters. Action to reduce risk has grown in importance on the international agenda and is seen by many as essential to safeguard sustainable development efforts and achieve the SDGs.

DRR includes all the policies, strategies, and measures that can make people, cities, and countries more resilient to hazards, and reduce risk and vulnerability to disasters. Recognizing that natural hazards can threaten anyone unexpectedly, UNDRR builds on partnerships and takes a global approach to disaster reduction, seeking to involve every individual and community in moving toward the goals of reducing the loss of lives, socioeconomic setbacks and the environmental damages caused by natural hazards. The following highlights the development of the international DRR agenda.

First World Conference on Disaster Reduction: The first World Conference on Disaster Reduction (WCDR) convened in Yokohama, Japan in 1994 and saw the adoption of the Yokohama Strategy for a Safer World and its Plan of Action. The Yokohama Strategy set guidelines for action on prevention, preparedness, and mitigation of disaster risk. These guidelines were based on principles of risk assessment, disaster prevention and preparedness, the capacity to prevent, reduce, and mitigate disasters, and early warning. The strategy also stated that the international community should share technology to prevent, reduce, and mitigate disasters, while demonstrating strong political determination in the field of disaster reduction.

International Strategy for Disaster Reduction: At its 54th session in 1999, the UN General Assembly (UNGA) agreed to establish the International Strategy for Disaster Reduction (ISDR), and an Inter-Agency Secretariat and Task Force for Disaster Reduction (IATF/DR) for the implementation of the ISDR (Resolutions A/RES/54/219 and A/RES/56/195, respectively). Among its mandated tasks, the IATF/DR was to convene *ad hoc* expert meetings on issues related to disaster reduction.

Second World Conference on Disaster Reduction: The Second WCDR convened from 18-22 January 2005 in Kobe, Japan. The 168 states attending the conference adopted the Hyogo Framework for Action 2005- 2015: Building the Resilience of Nations and Communities to Disasters (HFA) and the Hyogo Declaration. UNGA Resolution 60/195 endorsed the HFA and committed governments to five priorities for action to: ensure that DRR is a national and local priority, with a strong institutional basis for implementation; identify, assess, and monitor disaster risks and enhance early warning; use knowledge, innovation, and education to build a culture of safety and resilience at all levels; reduce the underlying risk factors; and strengthen disaster preparedness for effective response at all levels.

Global Platform for DRR: In 2006, the UN Under-Secretary-General for Humanitarian Affairs launched a consultative process to consider practical ways of strengthening the ISDR system to support governments in meeting their commitments to implement the HFA. It aimed to extend participation of governments and organizations, raise the profile of disaster reduction, and construct a more coherent international effort to support national disaster reduction activities. The Global Platform for DRR was formed as an expanded and reformed successor to the IATF/DR, envisaged to serve as the primary multi-stakeholder forum for all parties involved in DRR to raise awareness of DRR, share experiences, and guide the ISDR system.

The first session of the Global Platform was held from 5-7 June 2007 in Geneva, Switzerland, and included a high-level dialogue on DRR challenges and opportunities, a series of workshops on DRR as a national priority and integrating DRR into sector agendas, and sessions on assessing and implementing the HFA. At the second session of the Global Platform, held from 16-19 June 2009 in Geneva, Switzerland, participants focused on increasing investment in DRR, reducing disaster risk in a changing climate, and enabling community resilience through preventive action. The third session of the Global Platform was held from 8-13 May 2011 in Geneva, Switzerland, and discussions focused mainly on reconstruction and recovery, the economics of DRR, and synergies with the international climate change and development agendas. The fourth session of the Global Platform convened from 19-23 May 2013 in Geneva, Switzerland, and provided an opportunity to review the status of the HFA as well as encourage information sharing among decision makers, development partners, experts, and practitioners.

Mid-Term Review of the HFA 2005-2015: The Mid-Term Review, released in March 2011, concluded that progress in DRR is occurring, especially institutionally through the passing of national legislation, establishment of early warning systems, and strengthening of disaster preparedness and response. It raised concerns about: the lack of systematic multi-hazard risk assessments and early warning systems, factoring in social and economic vulnerabilities; the poor integration of DRR into sustainable development policies and planning at national and international levels; and the insufficient level of implementation of the HFA at the local level.

Third UN World Conference On DRR: This meeting convened from 14-18 March 2015, in Sendai, Japan, and adopted the Sendai Framework for Disaster Risk Reduction 2015-2030. The Sendai Framework aims to achieve the following outcome over the next 15 years: substantial reduction of disaster risk and losses in lives, livelihoods, and health as well as of losses in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries. This is intended to be done through four priorities of action (understanding disaster risk; strengthening disaster risk governance; investing in DRR; and enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction), to achieve a set of seven global targets.

**Fifth session of the Global Platform:** The fifth session of the Global Platform for DRR convened from 24-26 May 2017 in Cancún, Mexico on the theme, "From Commitment to Action," and was attended by more than 5,000 delegates from over 170 countries. The fifth session was the first to convene after the adoption of the Sendai Framework for DRR 2015-2030 at the Third World Conference on DRR in March 2015. A key outcome of the meeting was the release of the Cancún High-Level Communiqué, the result of a closed-door Leaders' Forum. Under the theme "Ensuring the resilience of infrastructure and housing," the Communiqué commits to, inter alia, implement the Sendai Framework for DRR 2015-2030 in coherence with the SDGs, the Paris Agreement on climate change, and the New Urban Agenda; and promote people-centered, gender-sensitive, accessible, and resilient urban development that supports all of society, including the vulnerable, poor, and marginalized. The fifth session also issued a Chair's Summary, which addressed the priority action areas that emerged from the meeting. The Chair's Summary was forwarded to the July 2017 session of the High-Level Political Forum under the auspices of the Economic and Social Council of the UN in New York.

**Regional Platforms:** Regional inter-governmental organizations have increasingly taken responsibility to follow up on risk reduction activities by organizing a series of regional multi-stakeholder platforms for DRR. Regional meetings have taken place in Canada, India, Finland, Mauritius, Mexico, and Turkey.

The sixth session of the Africa Regional Platform and the fifth High-Level Meeting on DRR took place in Balaclava, Mauritius, from 22-25 November 2016. From 22-24 November, the Africa Regional Platform convened and focused on enhancing understanding of disaster risk, improving disaster risk governance, increasing national and regional resilience, enhancing disaster preparedness, and linking the Sendai Framework on DRR to Africa, through an African Programme of Work. The Fifth High-Level Meeting on DRR convened on 25 November adopting the outcomes of the Platform. Ministers and high-level representatives considered and agreed to the Programme of Action for Implementation of the Sendai



Swiss yodeling performance at the WRC4 opening ceremony

Framework for DRR 2015-2030 in Africa, and the Mauritius Declaration on the Implementation of the Sendai Framework in Africa.

Five regional and sub-regional platforms for DRR took place in 2018 in preparation for the Sixth Global Platform, hosted by the Governments of Armenia, Colombia, Italy, Mongolia, and Tunisia.

### Report of the sixth session of the Global Platform for DRR

#### World Reconstruction Conference

The Fourth World Reconstruction Conference 4 (WRC4), took place from 13-14 May under the theme "Inclusion for Resilient Recovery." This overview of WRC4 includes the opening and closing plenaries and a selection of the 16 parallel sessions that took place.

In welcome remarks, Maria Luisa Silva, Director, UN Development Programme (UNDP), said WRC4's focus on inclusive recovery builds on previous editions of the conference, where access to all was recognized as key.

Sameh Wahba, Director, World Bank Group, cited groups that are more likely to be left behind, including: the elderly; people with disabilities; people who live in remote areas; certain groups of women; and those who live in poverty. Mami Mizutori, Assistant Secretary-General (ASG) and Special Representative of the Secretary-General (SRSG) for Disaster Risk Reduction, and Head, UN Office for Disaster Risk Reduction (UNDRR), said post-disaster reconstruction efforts could be seen as opportunities to correct inequalities in societies. Asako Okai, ASG, UNDP, said that while national governments have made great advances in the past decade, better social inclusion in recovery is still needed. Carl Hallergard, Deputy Head of Delegation of the EU in Geneva, noted that recovery requires a whole-of-society approach.

**Opening plenary:** Keynote speaker Pinarayi Vijayan, Chief Minister of Kerala, India, spoke of efforts to make the recovery of the August 2018 Kerala floods inclusive. Setsuko Saya, Cabinet Office, Japan, said a focus on inclusivity should be mainstreamed



Keynote speaker Pinarayi Vijayan, Chief Minister of Kerala, India

in all recovery policies, and underlined the need to support those who take care of vulnerable people. Edward Ndopu, disability advocate and UN Secretary-General's Sustainable Development Goals (SDG) Advocate, said a reconstruction of societal attitudes toward those most at risk is needed.

Responding to questions from the audience, speakers then touched on: identifying those left behind; ensuring people with disabilities can be heard in decision-making spaces; and recognizing the unique characteristics of recovery and reconstruction in post-conflict areas.

Thematic session: Ensuring the inclusion of displaced persons in recovery: Panelists highlighted that top-down programmes without local ownership do not work. Instead, they advocated participatory planning involving displaced communities as well as inclusivity in profiling and researching internally displaced persons (IDPs). On the latter, one speaker said that important findings are often revealed through comparisons of population groups and analyses of "people and place." Another panelist noted the need to ensure land rights and housing tenure before disasters occur, and acknowledged the difficulties of implementing integrated approaches in difficult policy environments.

Plenary: Inclusion for people with disabilities: Speaker Ian Cristoplos pointed to the need to move away from the vague and broad category of "vulnerable groups," and to engage with local partners that work with persons with disabilities. Md Mohsin, Ministry of Disaster Management and Relief, Bangladesh, spoke of best practices to prevent fatalities in the aftermath of cyclones and floods. Khil Bahadur, a man with visual-impairment from Nepal, described his experience with receiving housing reconstruction aid from UNDP in the aftermath of the

2015 earthquake. Alexandra Ocles, National Secretary of Risk Management, Ecuador, spoke of policies put in place to protect people with disabilities since a 2016 earthquake. Midori Hirano, Chair, Disabled Peoples' International, Japan, spoke of the need to pressure governments to abide by their commitments to protect people with disabilities.

Thematic session: Fostering social inclusion through culture in city reconstruction and recovery: In this session panelists anticipated the simultaneous challenges of rapid urbanization, increases in climate-related disasters, and armed conflicts. Speakers from the World Bank Group and the UN Educational, Scientific and Cultural Organization (UNESCO) then presented a joint position paper proposing a culture-based framework for city reconstruction and recovery, underlining that cities are cultural constructs and that culture must be both an asset and tool in urban reconstruction. Panelists from Japan and the Philippines shared their experiences in successfully leveraging culture and cultural heritage in the aftermath of the Kumamoto earthquake and conflict in the Marawi region, respectively.

Plenary: Inclusion versus exclusion – risks and opportunities: Margaret Arnold, World Bank Group, moderated this plenary. Babagana Umara Zulum, Governor of Borno State, Nigeria, pointed to exclusion as a root cause of the Boko Haram crisis in Northeast Nigeria, and said that communities should be key actors in, and beneficiaries of, the region's recovery.

Kiyoshi Murakami, City of Rikuzentakata, Japan, spoke of his city's inclusive reconstruction plan in the aftermath of the 2011 tsunami, noting that this emphasis on inclusivity had been inspired by "the philosophy of the SDGs."

Mino Ramaroson, Huairou Commission, urged that grassroots women's groups be involved in the preparation to, and recovery



Delegates during the opening plenary

from, disasters, pointing to the need to leverage their unique expertise and address their needs.

Pablo Suarez, Red Cross Red Crescent Climate Centre, facilitated an interactive workshop with the audience, in which participants broke into small groups to discuss hurdles and opportunities in disaster risk reduction (DRR), and then drafted questions for the panelists.

Speakers responded to questions on how to devise an inclusive reconstruction plan, and Charlotte V. McClain-Nhlapo, World Bank Group, summed up the various presentations and concluded the session.

Thematic session: Building back better (BBB) and inclusive recovery for small island states: In this discussion, panelists from Caribbean and Pacific islands noted their countries are not only the most vulnerable to natural hazards, but are also at the frontline of climate change. Panelists gave their responses to a 2018 World Bank report entitled "Building Back Better: Achieving Resilience through Stronger, Faster, and More Inclusive Post-Disaster Reconstruction." One panelist noted that the term "Build Back Better" should be examined more deeply, taking into account the specific characteristics of small island developing States (SIDS), such as multi-hazard environments that may require trade-offs among the three objectives of building "stronger," "faster," and more "inclusively." Another speaker underlined that BBB must be adopted as a preventive measure, rather than a post-disaster response. Other speakers noted challenges in translating BBB into practical terms when working with governments and NGOs that have limited capacity, or when grassroots women are excluded from the reconstruction process. Speakers also noted difficulties in assisting the most vulnerable when working in a context of antiquated legislation on land tenure or housing.

Thematic session: How can disaggregated data support inclusion? Speakers from international organizations, NGOs, India, and the Pacific region agreed that unless disaster prevention and relief operations are able to understand "the shape

of a problem" through data, they will not know where to start and whether progress has been made. Several panelists spoke of the need to collect disaggregated data before crises strike to ensure effective recovery efforts, as data collected during emergencies may be less reliable. The discussion acknowledged methodological hurdles to including marginalized populations in data collection, such as the need to invest time and expertise in identifying the right data categories, and to account for context-specific inequalities and vulnerabilities. One speaker presented the disability DRR programme launched in 2016 in Kerala, India, which, he said, had successfully prevented fatalities among people with disabilities during the 2018 floods in the region.

Closing plenary: The closing plenary emphasized inclusion as a right for all. Moderator Maitreyi Bordia Das, World Bank Group, noted that WRC4 had consisted not only of formal sessions but also of informal exchanges of ideas.

Ocles described various policies established in her country to guarantee the rights of all people in disasters, citing emergency plans that were circulated in indigenous languages.

Asif Saleh, BRAC International, Bangladesh, said his country has vastly improved its disaster preparedness, bringing fatalities from cyclones down from 350,000 in 1970 to 191 in 2009. He attributed this improvement, in part, to the role that NGOs have played in creating a bridge between governments and communities.

Fatou Sow Sarr, University of Dakar, Senegal, warned against disaster response policies that deepen existing inequalities by, for example, ignoring the perspectives of women and people with disabilities.

Toshizo Ido, Governor, Hyogo Prefecture, Japan, spoke of the unequal impact that earthquakes have on the elderly and people with disabilities, and underlined several policies implemented in Japan to assist them in evacuations. Panelists then responded to questions from the audience related to building effective relationships with communities and addressing cultural or behavioral barriers to disaster relief.



L-R: **Asif Saleh**, BRAC International, Bangladesh; **Alexandra Ocles**, Minister of Disaster Risk Management, Ecuador; **Maitreyi B. Das**, World Bank Group; **Toshizo Ido**, Governor of Hyogo Prefecture, Japan; and **Fatou Sow Sarr**, University of Dakar, Senegal



L-R: Amb. Léonard Emile Ognimba, ASG, ACP; Asako Okai, ASG, UNDP; Bernice Van Bronkhorst, World Bank Group; and Ricardo Mena, UNDRR

Bernice Van Bronkhorst, World Bank Group, noted that over 2,000 participants had attended the conference. She welcomed the "nuanced perspectives" that had emerged from the discussion on bottlenecks and best practices for inclusive recovery.

In a closing address, Okai called for taking inclusion "beyond symbolism," for example, by investing in community-based organizations. Leonard-Emile Ognimba, ASG, African, Caribbean and Pacific Group of States (ACP), noted the positive commitments made throughout the conference towards the goal of inclusive resilience.

Speaking on behalf of Mizutori, Ricardo Mena, UNDRR, reiterated that investing in inclusion must be a long-term and multifaceted effort. Van Bronkhorst then announced the release of a joint communiqué by the organizers, namely the World Bank, UNDP, UNDRR, and the European Commission, on key outcomes from the conference.

#### Multi-Hazard Early Warning Conference

The Second Multi-Hazard Early Warning Conference (MHEWC-II) took place at World Meteorological Organization (WMO) Headquarters in Geneva from 13-14 May. The conference focused on progress made toward Sendai Framework Target G on increased access to multi-hazard early warning systems (EWS).

Petteri Taalas, Secretary-General, WMO, highlighted key findings from the State of the Global Climate Report 2018 and reminded participants of the greater risk of disasters in years going forward as global temperatures rise. He emphasized the importance of the multi-hazard approach to EWS in future climate adaptation. Several panelists echoed its importance for addressing hazards such as drought and hydrological events.

Mussa Mustafa, National Institute of Meteorology, Mozambique, discussed lessons learned from the recent cyclones Idai and Kenneth. Mustafa stated that power and communication systems went down early and consequently communities were isolated. He said there is an immediate need for restoration of early warning capacities, building institutional response resilience, and training local communities as they often play an important role in disaster response.

A second panel focused on "The Last Mile," namely, the final link in the EWS chain of communication with local communities. Panelists cited the achievement of effective partnerships with satellite companies and the World Food Programme (WFP),

which are bringing pre-planned solutions to communities facing disasters through supplying training, building capacity, and improving Internet bandwidth. Several panelists also highlighted the crucial need to partner with local community members so they increase communication within their community and assist in mapping of resources.

Panelists discussed the importance of time-scale consideration in disasters such as earthquakes, during which seconds are crucial, and the need to improve both satellite and cellular technology for EWS through partnerships with satellite companies and mobile network providers.

During the afternoon of the first day, a panel discussion took place on enhancing the link between early warning and early action (EWEA) through impact-based forecasts (IBF). The Food and Agriculture Organization of the UN (FAO) featured a video on its early warning action system for winter weather events in Mongolia, called *dzuds*, which explained how this system has been able to predict high-risk areas and enable preparations to provide feed for affected livestock. Panelists highlighted the value of acting before areas become vulnerable, noting that this aim can be better achieved with IBF.

Panelists spoke about the importance of improving information and data gathering, undertaking effective information dissemination to spur earlier action, drawing on local knowledge, and using community volunteers to both gather and spread information.

After small group breakout discussions, panelists focused on specific needs and obstacles to the adequate communication of early warnings. Panelists mentioned examples of governments and organizations that had acted too late on information, for example, by not acting on predicted food security risks until they reached famine level. A solution, panelists stated, could be for decision makers and donors to prioritize funding for early action, observing that, "to save lives we need to be more comfortable with uncertainty." They highlighted that communication needs to be better tailored to audiences so it can spur action, rather than being overly technical.

The final afternoon panel on the first day discussed the role of science, technology, and innovation. Panelists presented specific technologies for EWS for a variety of disasters. All panelists discussed the importance of mapping, big data, and machine learning for the improvement of EWS capabilities. Many focused on the switch to a multi-hazard approach, for

example the multiple hazards from earthquakes beyond just the shaking damage to include potential losses from landslides. Panelists closed by urging improved data collection, especially in data-scarce areas, through crowd-sourcing and collaboration, noting that greater availability of data will lead to more effective warnings.

Making early warning systems (EWS) multi-hazard:
Panelists from Indonesia, Chile, and several other organizations stressed the importance of good communication among agencies and between agencies and the public. Several panelists stressed that public communication must be simple and usable, and should avoid any potential confusion, thus saving more lives. Some mentioned government buy-in and support for EWS as key to success, adding that these systems must be innovative and well-maintained in readiness for future disasters. Two panelists from intergovernmental organizations emphasized that the development of EWS must consider the possibility of the

Panelists listed some challenges to making EWS multihazard: financial and human resource constraints; a focus on technological innovation over social innovation and traditional knowledge; and a lack of investment in observation equipment.

cascading impacts of hazards.

One pitfall of moving to a multi-hazard EWS, a panelist from Indonesia stated, is potential confusion and lack of trust from the public. For example, she said, a citizen might receive EWS warnings regarding both tsunami and tidal wave impacts, but is then left questioning which message they should respond to and what action they should take. Several panelists concluded that it is essential to "get communication right" in shifting to a multi-hazard approach.

Measuring the effectiveness of MHEWS: Laouan Magagi, Minister of Humanitarian Aid and Disaster Risk Management, Niger, presented a keynote address on measuring effectiveness of multi-hazard early warning systems (MHEWS) and especially emphasized the return on investment (ROI) for implementing such systems. In Niger, he stated, floods are becoming common in addition to regular drought events, and EWS has a large focus on farmers. Magagi said that with an EWS, the agricultural sector can increase its earning potential through better planning for hazards. Panelists from the Democratic Republic of Congo, Nepal, and international financial institutions supported these statements on cost savings with calculations on ROI for EWS. Many affirmed the necessity of government buy-in to EWS for financing and success of these systems.

Governance for MHEWS: This panel discussion featured many national and regional government representatives who reiterated the need for increased coordination and collaboration among agencies and the public, academia, and various stakeholders. Panelists reminded participants that messaging should be simple and relevant, and the recipient must be able to understand what action is expected of them.

Dwikorita Karnawati, Indonesia, highlighted the importance of the national government decree to better engage all agencies in coordination on EWS and announced a soon-to-be-signed decree on MHEWS, rather than just a tsunami EWS. Fatiman Alher Wariou, Niger, spoke about the value of community



Dwikorita Karnawati, Indonesia

warning systems and traditional knowledge and the need for their incorporation into EWS planning by local and national governments. Wariou highlighted the crucial involvement of women as they are often facing and managing risks, arguing that these systems, to be successful, must account for the role of women and traditional knowledge.

The last discussion touched upon the designation of critical facilities, so that the public receives the timeliest hazard information. Panelists stated that governance and coordination is important but that it must be flexible because each hazard is different and has disparate impacts.

In the Tuesday closing session, moderators presented lessons learned and highlights from each panel. Ania Grobicki, Green Climate Fund (GCF), reiterated the importance of community participation in order to "turn the last mile into the first mile." She asked participants to support the replenishment of the GCF so that it can continue to fund EWS and national climate adaptation plans. Taalas detailed plans to elevate the importance of EWS at future climate meetings and the upcoming WMO Congress, noting that this is "not the end of the story" on EWS as it is crucial for climate adaptation.



Petteri Talas, Secretary-General, WMO (center), with participants from the Second Multi-Hazard Early Warning Conference



**Jacqueline McGlade**, University College London and Maasai Mara University, Kenya, and **Andrew Revkin**, National Geographic Society

#### Science and Policy Forum

The Forum took place from 13-14 May at the Assembly Hall of the UN Office at Geneva. Opening the event, moderator Andrew Revkin, National Geographic Society, invited panelists to share their views on how the world can avoid the syndrome of ignoring scientific warnings until disaster actually strikes.

Mami Mizutori, ASG and SRSG for Disaster Risk Reduction, and Head, UNDRR, urged participants to reach out to audiences beyond the DRR community, and noted the potential value of combining academic approaches with traditional and indigenous knowledge.

Flavia Schlegel, International Science Council, noted the need to work in an interdisciplinary manner, bring together the natural and social sciences, and encourage the work of young scientists.

Jacqueline McGlade, University College London and Maasai Mara University, Kenya, encouraged deliberative governance processes to better plan and implement post-disaster responses, for example, on providing opportunities for smallholders and farmers to produce food in the aftermath of disasters. She highlighted the potential of promoting community access to Earth observation data through initiatives such as the Open Government Partnership and the Global Environment Outlook (GEO) reports of the UN Environment Programme (UNEP).

Panels then took place on the Global Science and Technology Road Map, the case for better data, and the need for consistent scientific terminology on hazards.



**Mami Mizutori**, SRSG for Disaster Risk Reduction, and **Flavia Schlegel**, International Science Council (ISC) Special Envoy for Science in Global Policy

On the road map, Rajib Shaw, Chair, Scientific and Technological Advisory Group (STAG), described its purpose as providing guidance to the science and technology community for implementing the Sendai Framework. Other speakers elaborated on the roadmap development process and presented work by the various regional STAGs to further the four Sendai Framework priorities of understanding disaster risk, strengthening disaster risk governance, investing in DRR for resilience, and BBB.

Several panelists highlighted work done through the 10-year Integrated Research on Disaster Risk programme, including its publication of seven working papers. Jörgen Sparf, European Science and Technology Group (E-STAG), announced the online publication on the Prevention Web portal on "Socio-Economic and Data Challenges."

On better data, Muhammad Dimyati, Ministry of Research, Technology and Higher Education, Indonesia, presented Indonesia's experiences and achievements in using data for DRR. He presented six policy directives from President of Indonesia Joko Widodo, which allow for development planning to be based on DRR, and for greatly increasing the involvement of academics in predicting the threats and impacts of disasters. He highlighted the Government of Indonesia's creation of a data portal on disaster risk.

Ailsa Holloway, Stellenbosch University, presented the results of a survey that identified 24 academic programmes in Asia and Africa on disaster risk, with 79% of such programmes being in countries at high risk of disasters. She called increased funding support for women working in disaster risk and incorporation of disaster risk programmes into humanities departments at universities.

Other speakers addressed the need to produce and use "data that matters," and the need to communicate data as part of a deliberate strategy within DRR initiatives. Participants discussed: how data may be used to promote accountability, especially in relation to action on climate change; the need for political will; and the steps involved in moving from data to action.

In a session on hazard terminology, Virginia Murray, Public Health England, announced that an online survey will be open from June to July 2019 for scientists to contribute to developing consistent terminology. Wenjian Zhang, ASG, WMO, described the WMO's efforts to improve the accuracy and range of long-range forecasts. Noboru Takamura, Nagasaki University, described the university's testing of mushrooms and creation of a "mushroom map" to identify radiation levels, and its liaison with community members in a village affected by the Fukushima nuclear disaster one year after the event.

Other speakers affirmed the need for consistent hazard terminology and gave examples of how this would be valuable. Participants considered the need for "hyper-local" data and the scale at which risk is experienced, and they expressed concern about "data deserts" in poor countries where many people may not have access to digital devices, noting that traditional methods of data collection are still needed.

At the close of the day, the publisher Elsevier launched a new open access journal, 'Progress in Disaster Science,' which, it was



Katja Samuel, Director, Global Security and Disaster Management Limited, moderated the session on Technology for DRR

explained, would contain peer-reviewed original research and commentary by invited guest writers.

Technology for disaster risk reduction (DRR): On Tuesday, Katja Samuel, Director, Global Security and Disaster Management Limited, moderated the session. Panelists discussed the enormous possibilities afforded by technology, but also the vulnerabilities created by new technologies and society's increasing reliance on them. The International Telecommunication Union reported, for example, that only 20% of e-waste is being treated appropriately, and called for moving toward a circular economy in which "urban mining" will allow for recovery of needed minerals and materials.

Speakers discussed the role of platforms in bridging the gap between various research and development communities engaged in mapping and Earth observation systems, and in bringing together DRR agencies with technology developers. They considered that, while technology can be used to promote resilience, specific technologies, such as mobile phones or electronic payment systems, are not necessarily being designed to be resilient. One panelist cited the example of a building fire in Seoul, Republic of Korea, which had extensively disrupted computer networks and caused the failure of electronic security and online payment systems.

Responding to participants' questions, panelists highlighted global inequity in use of digital technologies as an important issue to address. One speaker raised the possibility of using digital capabilities to quantify the value of public infrastructure to businesses, suggesting this could open up the option to "personalize risk" and thus incentivize private sector finance to upgrade public infrastructure.

Science and Technology for Resilience - Towards
Sustainable and Inclusive Societies: Shuaib Lwasa, World
Resources Institute, chaired the session and Revkin moderated discussions.

Speakers discussed examples of national action, including Cuba's multi-disciplinary research project that assessed the vulnerability of coastal zones, and Japan's national platform for DRR.

América Santos Riveras, Vice-Minister of Science and Technology, Cuba, described the evolution of DRR policy in her country, from disaster management plans, to DRR in 2005, and then in 2015, the incorporation of future risk evaluation. Policy steps, she said, have included prohibiting new buildings in highly vulnerable areas, and reforesting "to the maximum" to protect soil and water resources.

Toshio Koike, Director, International Center for Water Hazard and Risk Management, presented Japan's National Platform for DRR, which links local government, business and industry, and civil society, and is chaired by the Prime Minister.

Other speakers highlighted the need to connect each consecutive stage of DRR action so as to avoid implementation failure, and to update and implement safe building standards in developing countries.

Concluding the session, speakers agreed on the need to improve the effectiveness of dialogue between science and policy. The Forum closed at mid-day on Tuesday.





L-R: **Shaila Shahid**, UNDRR Stakeholder Engagement Mechanism; **Laura Tuck**, Vice-President for Sustainable Development, WBG; **Manuel Bessler**, Swiss Agency for Development and Cooperation; **Mami Mizutori**, SRSG for DRR; **Petteri Taalas**, SG, WMO; and **Fekitamoeloa Katoa** '**Utoikamanu**, Under-Secretary-General, UN-OHRLLS

#### Opening of the Global Platform

Welcome: On Wednesday morning, the Co-Chairs opened proceedings of the three-day high-level segment of the sixth session of the Global Platform for DRR (GP2019). Co-Chair Mami Mizutori, ASG and SRSG for Disaster Risk Reduction, and Head, UNDRR, noted that the Sendai Framework expanded the DRR constituency to include all of society. Co-Chair Manuel Bessler, Swiss Agency for Development and Cooperation, described Switzerland's history in the area of DRR and resilience, arguing that, while investing in DRR has a price, the results pay off in the long term.

Petteri Taalas, Secretary-General, WMO, said that EWS are the engine of DRR. Laura Tuck, World Bank Group, called for integrated and inclusive solutions to achieve the common goals of the Sendai Framework, the SDGs, and the Paris Agreement.

Fekitamoeloa Katoa 'Utoikamanu, Under-Secretary-General and High Representative for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States (UN-OHRLLS), described outcomes from the Fourth Meeting of the Small Island States Resilience Initiative (SISRI) Practitioners, which took place from 13-14 May.

Shaila Shahid, UNDRR Stakeholder Engagement Mechanism, stated that resilience of the global financial system should not be at the cost of local communities.

**Official opening:** The 45-minute ceremony took place at midday, opening with a video on "locking in resilience," and a live dramatization of the Sendai Framework targets by the Theatre Breaking Through Barriers troupe.

Michael Møller, Director-General, UN Office at Geneva, affirmed the meeting's focus as being "squarely on implementation," noting that achieving the 2030 Agenda will not be possible unless DRR is mainstreamed across all activities.

Manuel Sager, State Secretary and Director-General, Swiss Agency for Development and Cooperation, related Switzerland's development successes through its historic investments to increase the arable land in its floodplains, while undertaking risk management in mountain areas, ultimately allowing its tourism industry to develop. He informed delegates that the Chair's Summary from GP2019 outcomes will be submitted to the July 2019 session of the High-Level Political Forum on Sustainable Development (HLPF).

In a video message, Amina J. Mohammed, UN Deputy Secretary-General, underlined that joining forces could leverage an enormous "resilience dividend" from nature-based and technology-enhanced solutions.

Jayathma Wickramanayake, UNSG Special Envoy on Youth, urged leaders to tap into the potential of young generations and respond to their calls for action.

Mizutori highlighted the launch of the Sendai Framework Monitor to facilitate reporting against the Sendai Framework targets, and the existence of UNDRR's stakeholder engagement mechanism.



At the opening ceremony, actors from the Theatre Breaking Through Barriers troupe present a dramatization of the Sendai Framework targets, highlighting the importance of Target E on developing national and local strategies for DRR.



L-R: Nazhat Shameem Khan, Fiji; Mami Mizutori, SRSG for DRR; and Aromar Revi, Director, Indian Institute for Human Settlements

Global Assessment Report (GAR) launch: Following the opening ceremony, Nazhat Shameem Khan, Permanent Representative of Fiji, introduced the 2019 GAR, commenting that the report challenges readers to think about the plurality of risk, and warning that the world is approaching the point beyond which it may not be possible to repair systemic and cascading risks in the global system.

Mizutori presented the main findings, noting that the report provides a first update on governments' progress on the Sendai Framework's seven targets. She drew attention to the risks created by unplanned urbanization, particularly in low and middle-income countries.

Aromar Revi, Director, Indian Institute for Human Settlements, offered comments on the report, noting that the impacts of global warming of more than 2°C are unknown and could bring "an explosion of risk." He called for implementing the five "critical agendas" contained in the SDGs, the Paris Agreement on climate, the Sendai Framework, the Addis Ababa Action Agenda, and the New Urban Agenda in an integrated manner, also emphasizing that bottom-up processes can provide the speed and scale required to achieve these agendas in an integrated manner, given that fewer than 4,000 days remain to achieve the Sendai Framework targets by 2030.

#### High-Level Dialogues

Progress Made in Implementing Sendai Framework - Global and Regional Perspectives: Moderator Beatrice Marshall, Kenyan news anchor, opened the dialogue and introduced the five regional platforms for DRR that took place in 2018. In a keynote speech, Malini Mehra, Chief Executive, GLOBE International, outlined statistics on the increasing number of disasters, which have caused the displacement of some 265 million people since 2008, more than three times as many as those caused by conflict. She called for addressing not only natural hazards but also the human-made risks of technologies such as artificial intelligence and geoengineering. Kirsi Madi, UNDRR, further commented on the impacts of disasters in displacing millions of people and costing USD 500 billion to economies worldwide.

Marshall introduced the panel of speakers representing regional platforms. Ulziisaikhan Enkhtuvshin, Deputy Prime Minister, Mongolia, summarized his region's platform's emphasis on resilient infrastructure and risk-informed development.

Feliks Tsolakyan, Minister of Emergency Situations, Armenia, highlighted the relevance of reducing risk to promote further infrastructure development. Edoardo Rixi, Minister of Transport and Infrastructure, Italy, announced the establishment of a regional coalition to discuss safety of infrastructure and emerging risks such as threats to cybersecurity.

Walid Doudech, Permanent Representative of Tunisia, highlighted two regional ministerial declarations and the focus on dedicated funding to advance implementation of the Sendai Framework. Eduardo José González Angulo, Director-General, National Unit for Disaster Risk Management, Colombia, highlighted work in his country and region on financial protection and the reduction of financial vulnerability in the face of disaster. The session closed with panelists' call for collaboration at all levels to ensure success in meeting the Sendai Framework targets.

Advances in national and local DRR strategies (Target E): Chandran Nair, founder and CEO, Global Institute for Tomorrow, moderated this Wednesday session. In a keynote address, Puan Maharani, Minister for Human Development and Cultural Affairs, Indonesia, highlighted her country's interest in cooperating with other countries on disaster management through joint research, studies, and empowering local communities, noting that less than one year remains to achieve Target E of the Sendai Framework.

Asako Okai, ASG, UNDP, congratulated countries who have reported progress on DRR at the national and local levels, and noted the challenge of undertaking multi-stakeholder consultations to develop DRR strategies that are fully owned by government and stakeholders.

Akihiro Nakamura, Vice-Minister for Policy Coordination, Cabinet Office, Japan, gave an overview of DRR policy in his country, noting that all 1,700 local government authorities have developed their own DRR strategies. He stressed the importance of ensuring that national land use plans are consistent with these strategies.

Anna Giacometti, Mayor of Bregaglia, Switzerland, described the DRR actions taken after rock slides of August 2017 killed eight people and displaced the 1,500 residents of her commune. She detailed preparedness measures implemented since then, including improvements to hydraulic systems, EWS, and an urban plan that identifies danger zones.



Malini Mehra, Chief Executive, GLOBE International



A view of the room during the High-Level Dialogue on progress made in implementing the Sendai Framework

Ronald Jackson, Executive Director, Caribbean Disaster and Emergency Management Agency, described the use of diagnostic tools to frame all-of-government priorities for action on DRR, which then are turned into country work programmes. He noted that the agency's 18 Member States can access funding based on developing a "strategic pathway" to resource contribution.

Fatimetou Abdel Malick, President of the Regional Council of Nouakchott, Mauritania, said that urbanization leads to greater risk, and thus, the role of local government is more important than ever in ensuring social cohesion through economic and land-use planning. She stressed that sustainable, inclusive growth will depend on local economies and the empowerment of local and regional authorities.

Risk-informed Public and Private Sector Investment:
Davis Eades, Director, Allday Media, moderated this dialogue, inviting ministers from the Dominican Republic and Zambia, representatives of the UN Global Compact and the Japan Aerospace Exploration Agency (JAXA), and the Chairman of property developer SM Prime to share their experiences of risk-informed investment.

Hiroshi Yamakawa, President, JAXA, described the agency's work with the Sentinel Asia consortium in coordinating Earth observation, providing images of disaster-affected areas to support emergency response, and precipitation data for early warning purposes. He noted a major challenge is that of codesigning systems with end-users.

Isidoro Santana, Minister of Economy, Planning and Development, Dominican Republic, and Sylvia Chalikosa, Minister in the Office of the Vice-President, Zambia, highlighted the importance of policy frameworks and partnerships, such as standards for climate-resilient buildings.

Panelists discussed how to overcome the private sector's prioritization of profits over resilience. Hans Sy, SM Prime, cited his practice of putting 10% of development investment toward resilience, and his work with the National Resilience Council of the Philippines on working with informal settlement dwellers in Metro-Manila to reduce security risk. Sandra Wu, UN Global Compact, anticipated a world of "radical"

transparency" as investors demand more data on how companies are addressing environmental, social, and governance issues.

Speaking from the floor, Aris Papadopoulos, Resilience Action Fund, noted that most residential and light commercial property developers, unlike SM Prime, are not long-term builder-owners but usually aim to re-sell developments within three years. He called for inviting "the segment of the economy that is creating the risk" to Global Platform discussions. Chalikosa noted the twin challenges of corruption and enforcement of existing policies and standards, and discussed Zambia's efforts to address charcoal burning through promoting alternative energy sources and replanting trees and bamboo. Santana highlighted the need to foster trust in public institutions.

Leaving No One Behind - Investing in Local Action and Empowering those Most at Risk: Veronica Pedrosa, journalist, opened this dialogue, and the International Federation of Red Cross and Red Crescent Societies (IFRC) presented a video showing that many people are "left off the map" when governments create risk reduction plans.

Elhadj As Sy, Secretary-General, IFRC, urged considering human dignity in DRR, prioritizing "the last mile" in humanitarian response, and building trust between governments and local communities before disaster hits.

Kerryann Ifill, Chairman, CARICOM Advisory Panel on Disabilities, reminded participants that awareness, education, and accessibility policies for DRR should be established in advance of disasters. Alexandra Ocles, National Secretary of Risk Management, Ecuador, elaborated on her country's prioritization of people with disabilities through its laws that address accessibility and employment opportunities.

Nella Canales, Stockholm Environment Institute, described innovative financial solutions such as index-based insurance that can provide funding to communities after disasters. Mohamed Béavogui, Director-General, African Risk Capacity, agreed that index-based insurance can be helpful in closing the finance gap when post-disaster humanitarian aid is delayed. Ifill added that middle-income countries, such as some in the Caribbean, may not qualify for humanitarian aid, noting that almost 40% of Dominica's households are still under repair two years after a hurricane.



Panelists at the High-Level Dialogue on progress made in implementing the Sendai Framework

Thomas Helfen, Federal Ministry of Economic Cooperation and Development, Germany, agreed that donor funds must be available more quickly after a disaster, and called for greater attention to the nexus between fragility, conflict, and violence in relation to DRR, noting that more than half of post-disaster deaths occur in the world's 30 most fragile states. Deepak Malik, HelpAge International, reported study findings that indicated a lack of attention to older people in DRR, and urged further data collection and analysis.

In closing, Pedrosa presented the results of an electronic poll of participants' views on who should lead efforts to reach those left behind, which showed more than 50% of participants saw it as a government responsibility.

Pursuing Coherence Between the Sendai Framework, the 2030 Agenda for Sustainable Development and the Paris Agreement: This dialogue was moderated by Audrey Aumua, Pacific Community, who described working towards coherence between the Sendai Framework, the 2030 Agenda for Sustainable Development, and the Paris Agreement as "pursuing the holy grail," and asked how an integrated approach can bring a stronger focus on reducing vulnerability and poverty.

Norbert Barthle, Federal Ministry for Economic Cooperation and Development, Germany, said all three agendas share the common goal of addressing the harmful effects of natural disasters and climate change, and warned that there are costs to policy incoherence.

Javier Abugattás Fatule, President, National Center for Strategic Planning, Peru, pointed to the importance of accounting for the local context in the search for coherence, as well as of combining long-term planning with short-term urgency.

Minata Samate-Cessouma, African Union, said SDG 9 (resilient infrastructure, sustainable industrialization, and innovation), SDG 11 (sustainable cities), SDG 13 (climate action), and Article 8 of the Paris Agreement (loss and damage), relate to DRR, and described some of the African Union's efforts to ensure coherence between these agendas as well as with the African Union's Agenda 2063.

Koko Warner, UN Framework Convention on Climate Change (UNFCCC), emphasized the catalytic potential of upcoming milestones in the implementation of the Paris Agreement, such

as the Climate Action Summit in September 2019 and a global stocktaking exercise in 2023.

Okai stated that UNDP works to integrate disaster and climate risk potential into its development programmes, giving an example from a program in the Solomon Islands on climate-resilient farming. She said that there is great synergy between sustainable development, climate change, and DRR and that the principle of leaving no one behind can foster coherence. Barthle mentioned that the German government is also working on a comprehensive approach to action on climate change and DRR, by creating a new multi-stakeholder initiative for integrating the Sendai Framework targets into national government policies and strategies.

Abugattás noted that the provinces in his country understand best their unique geography and risks, so the disaster risk management (DRM) national action plan incorporates provincial plans. On potential redundancy from too many agreements on climate change and DRR, he stated "for us there is one agreement, the 2030 Agenda," adding that Peru works to mainstream these priorities throughout government. Samate-Cessouma described the DRR action plan for the African continent, noting that additional targets unique to the region were added as well as trained focal points who monitor and report progress, soon to be put online. She added that they are raising awareness with the private sector on climate change and DRR, as well as on the connected issues of forced displacement, refugees, and returnees.

Responding to questions and in closing, panelists spoke on national efforts on plastic waste in Rwanda, decouple production and consumption through national policy, as well as the importance of inclusion and listening to the values of indigenous people.

#### Ministerial Roundtables

**DRR, climate change, and the SDGs**: Mizutori opened this roundtable by noting the importance of coordinating DRR implementation with national adaptation plans, in light of the impact of extreme events caused by climate change. Tarja Halonen, former President of Finland, congratulated ministers on their successful monitoring of progress of the Sendai Framework targets, and urged them to scale up action on climate change.



Tarja Halonen, former President of Finland (center)



Ministerial Roundtable participants discuss DRR, climate change, and the SDGs

Many ministers highlighted the impacts from climate change that their countries face, such as wildfires, glacier ice melt, and extreme drought, with some requesting financial and technical assistance from the donor community. Ghana reminded participants of the negative correlation between poverty and resilience to disasters. Portugal highlighted its 'Safe Village, Safe People' program which decentralizes aspects of DRR and mobilizes local communities to play an active role.

Zambia reported progress on community-level disaster management, farmer insurance, and climate-smart agriculture. Romania drew attention to the need for citizen education in the face of new kinds of extreme weather events, adding that a mobile app has been deployed to convey alerts and educational messages. The Republic of Korea announced that 171 local governments have participated in a campaign to incorporate disaster risk into their urban development plans.

Italy introduced plans to increase cultural awareness of disaster risk, including through schools. Botswana highlighted government partnerships with mobile phone companies, which have improved the delivery of early warning messages to citizens around the country.

Canada noted that her country is warming at a rate two times the global average, and has developed an action plan that incorporates all of government, stakeholders, and civil society. Colombia said that protecting ecosystems has been a successful strategy in dealing with natural disasters. The World Bank announced USD 50 billion in direct financing for adaptation and resilience, a new set of metrics to aid countries in building resilience, and its work on cross-sectoral issues, such as the role of ecosystem services in reaching climate change and disaster risk management goals. The WMO urged implementation of the Paris Agreement, noting that global warming of more than 2°C will exacerbate disasters.

#### Risk-informed investments and economics of DRR:

Mizutori opened the roundtable and urged the private sector to integrate DRM into business models. Raymund Furrer, State Secretariat for Economic Affairs, Switzerland, cautioned that enhancing resilience requires sizeable funds from both public and private sources.

Keynote speaker Mauricio Cárdenas, former Finance Minister, Colombia, proposed that finance ministries create public financing strategies for disasters.

Malaysia announced the creation of comprehensive hazard maps alongside further engagement of the private sector. Ghana said private funds are critical to meeting shortfalls in public funds, citing private sector investments in sanitation and waste management in its capital city.

New Zealand described a multi-stakeholder resilience project launched after the 2016 Kaikoura earthquake. Jamaica stressed the difficulties SIDS face in allocating contingency funds for disasters. Niger referred to its use of pan-African risk insurance. Germany said public investment in resilience and anticipatory risk financing provides for stable economic development. India emphasized the need for better mechanisms to ensure that investments are risk-informed.

Bolivia said investments across sectors must include DRR considerations. Turkey described a project for improving the resilience of houses, hospitals, and schools. Somalia drew attention to its 2.6 million IDPs, the result of a combination of natural and human-made disasters. The EU stressed that risk-proof investments are a priority both within and outside its borders.

Zambia described its national DRM framework. Nepal noted the need to improve access to appropriate know-how to promote DRR. Mozambique announced the establishment of its postdisaster recovery and reconstruction office to assess losses related to two recent cyclones. Uruguay reported that it has established DRR plans at all levels of governments. Madagascar noted its vulnerability to cyclones and need for assistance. Fiji stated that Pacific SIDS require more assistance due to their isolation and vulnerability.

The US announced its 2018 Disaster Recovery Reform Act. Palestine lamented difficulties in DRR cooperation in its region, due to political issues. The Netherlands welcomed the new Global Commission on Adaptation and the work of its managing partner, the Global Center for Adaptation. Norway called for a "whole of society" approach to DRR. Nigeria described its national integrated infrastructure master plan. Finland underlined the importance of better and more accessible data to manage risks. Mongolia said that private sector investment in DRR is encouraged.

#### Special Session on Women Leadership in DRR

Tarja Halonen, former President of Finland, moderated this special session. In opening remarks, Mizutori recounted her experience witnessing female leadership in creating resilient cities in Kenya, and said women were essential to achieving Sendai Framework Target E.

Wan Azizah Wan Ismail, Deputy Prime Minister, Malaysia, noted the vulnerability of women in disasters, saying that, for example, four times as many women than men died during the 2004 tsunami. She described Malaysia's efforts to remove gender-discriminatory policies and empower women in DRR.

Saber Hossain Chowdhury, Member of Parliament, Bangladesh, said his country was first in gender equality among South Asian nations, and that this has been an essential driver of the country's overall economic development.

Tuck said international organizations should make it a requirement to integrate a gender perspective in all investments and programmes.

Samate-Cessouma spoke of her organization's efforts to promote gender parity in DRR, despite sometimes facing cultural hurdles.

Dolores Devesi, Oxfam, Solomon Islands, called for addressing structural inequalities that disadvantage women, and for better tracking of gender indicators in DRR.

#### **Working Sessions**

Global Assessment Report 2019: On Wednesday, Ricardo Mena, UNDRR, introduced the report. McGlade stated that "environmental degradation is a relentless silent killer," and drew attention to extensive systemic risks from climate change and the impacts of over-development. She stated that air pollution is one of the largest causes of non-communicable diseases, and that the cascading effects of air, water, and chemical pollution are a challenge of our time.

Roger Pulwarty, National Oceanic and Atmospheric Administration, noted that GAR 2019 reports on the systemic risks of hazard, exposure, and vulnerability. He announced upcoming reports and research on the complexity of drought and disaster links to security and conflict. Kamal Kishore, National Disaster Management Authority (NDMA), India, highlighted India's success in making disaster risk management peoplecentered, saying that this approach had reduced mortality from the recent Cyclone Fani by 96%.

Juan Pablo Sarmiento, Florida International University, urged collective accountability and action aimed at compound events. Mandisa Kalako-Williams, South Africa, noted countries' progress in reporting on Sendai targets. She reminded participants that they should analyze the accessibility of the policies on DRR for local community members.

Panelists acknowledged that locations further away from the center of disaster events tend to receive less attention. This tendency, panelists concluded, can exacerbate inequality, and should be addressed in the next GAR.

**Sendai Framework implementation:** Timothy Wilcox, UNDRR, introduced moderator Marcie Roth, CEO, Partnership for Inclusive Disaster Strategies. Mena presented data collected from the Sendai Framework Monitor, a tool through which Member States report back on progress in implementing the



The dais during the special session on Women Leadership in DRR. L-R: **Saber Hossain**, Member of Parliament, Bangladesh; **Laura Tuck**, Vice President for Sustainable Development, World Bank; **Tarja Halonen**, former President of Finland; **Mami Mizutori**, SRSG for DRR; **Minata Samate Cessouma**, Commissioner for Political Affairs, African Union; and **Dolores Devesi**, OXFAM, Solomon Islands.



A view of one of the well-attended working sessions.

Sendai Framework. He reported that: disaggregated data shows that lower-income African and Asian countries are disproportionately affected by disasters, and that Member States are most frequently reporting on Targets A (substantially reduce global disaster mortality) and B (substantially reduce the number of affected people globally), with A displaying the most progress globally. Kishore said there was a reasonably good chance that Targets A, E (substantially increase the number of countries with national and global DRR strategies by 2020), F (substantially enhance international cooperation to developing countries by 2030), and G (substantially increase the availability of and access to MHEWS and disaster risk information and assessments to the people by 2030) could be achieved by the deadline, and that single-hazard approaches should not be dismissed as they are sometimes helpful.

Mohamed Hassaan Felfel Abdelsameaa, Egypt, said Egypt is primarily vulnerable to climate-related disasters that impact economic development, and presented Egypt's new DRR strategy.

Martha Herrera González, CEMEX, described the company's various sustainability strategies, such as partnerships with the public sector and civil society, and urban community transformation projects. María Verónica Bastías, Global Network of Civil Society Organizations for Disaster Reduction, presented 'Views from the Frontline,' an independent review of progress towards the implementation of DRR, which elicits responses from organizations in over 50 countries.

**Unlocking the resilience dividend:** Emily Wilkinson, Overseas Development Institute, moderated this session, opening with a question about how the DRR community can incentivize the private sector to invest in resilience.

Bärbel Kofler, Federal Government Commissioner for Human Rights Policy and Humanitarian Aid, Germany, highlighted the work of the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions, which is making insurance available to the world's most vulnerable people. Noting the increasing scale of humanitarian needs around the world, she said that taking action earlier will help create a more effective humanitarian system.

Shaun Tarbuck, CEO, International Cooperative and Mutual Insurance Federation, cited industry examples of resilience-focused work, such as that of MBA, the world's leading microinsurance supplier, which covers 18 million people and delivers services to 140,000 community centers around the Philippines, providing USD 5 million annually for social investment.

Wang Yingzi, Ministry of Housing and Urban-Rural Development, China, highlighted China's 30-city pilot project for resilient cities, based on improving sewage systems and rainwater capture and purification, which is being funded through government bonds, private sector investment, and citizen donations. She also described action to reinforce old buildings to an earthquake-resistant standard.

July Moyo, Minister for Local Government, Public Works, and National Housing, Zimbabwe, highlighted efforts to mainstream resilience in national economic planning, based on intensifying small- scale food and livestock production, nutritional security, and sustainable livelihoods.

Kate Levick, E3G, noted the European Commission's Action Plan on sustainable finance, a roadmap designed to channel around EUR 180 billion worth of additional investments into achieving climate targets. Alex Mung, World Economic Forum, noted that high-impact, high-probability risks are mostly related to climate and biodiversity, and will not "fall off the chart" in the future. Several speakers concurred that DRR makes good business sense, and Kofler highlighted the need



L-R: **Alex Mung**, World Economic Forum; **Kate Levick**, CEO, Third Generation Environmentalism; and **Shaun Tarbuck**, CEO, ICMIF

to save livelihoods as well as lives, for example by allowing enough planning time to move livestock to safety. Tarbuck cited examples of investment strategies such as bonds that target reduction of food waste and building of green infrastructure.

Health in all DRM strategies: Emily Chan, Chinese University of Hong Kong, moderated this session on Thursday afternoon. Keynote speaker Jaouad Mahjour, World Health Organization (WHO), announced the launch of WHO's Health Emergency and DRM framework, which supports a multistakeholder approach to the nexus between health and DRR.

Raed Arafat, Ministry of Internal Affairs, Romania, described a pilot project that integrates health into national disaster preparedness plans and includes comprehensive laws on emergency medical care.

Ciro Ugarte, Pan American Health Organization (PAHO), argued that health outcomes are also a consequence of investments and policies in other sectors besides public health. Based on regional monitoring by PAHO, he suggested the best performers are ones who embrace a multisectoral approach to health and disaster preparedness.

Vinya Ariyaratne, Sarvodaya Shramadana Movement, Sri Lanka, described how this community- and faith-based organization supports DRM by training first responders to provide first aid and psychological support, highlighting recent work in assisting the victims of the recent terrorist attacks in Colombo.



Ciro Ugarte, PAHO, and Virginia Murray, Public Health England

Marco Becerril, Children and Youth Major Group, noted that it is young people who will experience the impacts of countries' success or failure to achieve the Sendai Framework.

Virginia Murray, Public Health England, said that the WHO Health Emergency and Disaster Risk Management framework represents a paradigm shift from event-based, reactive, single-hazard responses to risk-based, proactive, all-hazard approaches.

Participants raised concerns about attacks on health personnel in conflict zones, outsourcing of emergency responses to the private sector, and the challenges of building capacity in health systems that may be overwhelmed by emergencies such as the Ebola epidemic. Ugarte stressed that community involvement is essential to protection of health workers. Arafat suggested that, depending on the situation, sometimes military protection is needed for medical personnel, and may be helpful in providing and transporting much-needed supplies. He noted the growth of commercial emergency response services, which, he said, should not be allowed to access public funds in competition with public-sector providers, citing Romania's experience of successfully fighting this issue in its constitutional court.

Disaster displacement and DRR: On Thursday afternoon, Andrew Harper, UN Refugee Agency (UNHCR), noted that climate change will become the biggest driver of population displacement in the near distant future, and called for infrastructure to be put in place to respond to future disruption. Walter Kaelin, Platform on Disaster Displacement, delivered a keynote address, arguing that data collection and policies must address the increased risk of disaster-induced displacement. Tasneem Siddiqui, University of Dhaka, said Bangladesh suffers from a lack of coherence across climate, migration, DRR, and urban policies, as well as from the sheer number of IDPs resulting from disasters.

Jessica López Mejía, Office for Domestic Affairs, Mexico, said inclusive policies must be based on human rights and on improving the resilience of local communities.

Kamal Abou Jaoudé, Governor of Bekaa, Lebanon, spoke of the pressure displaced people put on host communities, noting that the 1.5 million Syrians that have entered Lebanon represent one-third of the total Lebanese population, and that increased unemployment and water scarcity have since resulted. Guleid Artan, Director, Inter-Governmental Authority on Development - Climate Prediction and Application Centre, Kenya, said Northeast Africa lacks a comprehensive legal framework for addressing cross-border migration in the context of natural disasters. Issues related to conditions under which migrants are permitted to stay or return, he argued, have yet to be addressed.

Panelists then discussed best practices in addressing disasterinduced displacement, such as initiatives to enable researchers from neighboring countries to collaborate on data collection, and engage displaced people in policy planning in host regions. They also heard interventions from two young women from the Philippines and Indonesia, who drew from their own experiences to discuss policymakers' blind spots. These included, they said, the vital need for people with special needs to be better accommodated, and for local customs to be respected in



Panelists at the working session on "Ensuring Coordination in the Development and Implementation of National Risk Reduction Strategies and NAPs." L-R: **Hana Hamadalla Mohamed**, Chair of the Least Developed Countries Expert Group; **Emmanuel Guzman**, Climate Change Commission, Philippines; and **Nazhat Shameem Khan**, Fiji.

shelters. Speaking from the floor, representatives of, among others, France, the Philippines, and Saudi Arabia, voiced their commitment to prioritizing action on displacements due to disasters.

Ensuring Coordination in the Development and Implementation of National Risk Reduction Strategies and National Adaptation Plans (NAPs): Moderator Nazhat Shameem Khan opened the session, calling for a practical discussion that should help identify barriers to coordination in DRR and climate adaptation efforts. Daniela Jacob, Coordinating Lead Author, Intergovernmental Panel on Climate Change (IPCC) report, spoke of some of the conclusions of the IPCC Special Report on Global Warming of 1.5°C, namely, that: policies must address today's climate with knowledge of what is coming in the future; there are no longer contradictions between the sustainable development, DRR, and climate agendas; and the international community must urgently "close the gap" between climate change adaption and DRR.

Hana Hamadalla Mohamed, Co-Chair, Least Developed Countries (LDCs) Expert Group, described how the organization has been offering technical and financial assistance to LDCs on climate adaptation and promotes coherence by engaging a wide range of organizations in contributing to National Action Plans (NAPs) and the 2030 Agenda. Emmanuel de Guzman, Secretary, Climate Change Commission, the Philippines, outlined several of the country's interventions to ensure coherence of national strategies on climate change adaptation (CCA) and DRR, including: a People's Survival Fund in support of local adaptation plans; efforts to mainstream and monitor CCA-DRR policies and programmes; and programmes to strengthen institutional arrangements by drawing on indigenous knowledge and other sources.

Paul Desanker, UNFCCC, noted that only 14 NAPs have been completed since 2011, so there is much work to be done and it must be looked at from a systems perspective. As an example of the interconnectedness of development, climate, and disaster risk, he mentioned the impacts of Hurricane Katrina in depressing US corn production, causing Japan to turn to South Africa for its corn supplies, which in turn led to rising prices and corn shortages among local communities in South Africa.

Loti Yates, Director, National Disaster Management Office, Solomon Islands, noted that the government uses regional frameworks to inform national strategies on resilient and sustainable development through a national committee, provincial plans, and operation centers. He added that man-made disasters create problems, citing, for example, the case of a recent container ship that ran aground during a storm, spilling thousands of liters of oil in the marine environment. Anais Rouveyrol, Pacific Community, spoke about the Pacific Resilience Partnership which integrates climate change, resilience, and DRR through a multi-stakeholder approach informed by risk assessment.

Jacob highlighted two areas for improvement: data sharing and incorporation of local and indigenous knowledge into strategies. De Guzman mentioned the need for analysis of climate change expenditures to determine gaps where that can be filled by international climate mechanisms. Panelists concluded by encouraging integration of climate NAPs and DRR strategies, and undertaking capacity building across sectors.

MHEWS: Progress and Challenges to Achieve Target G: Peter Felten, Federal Foreign Office, Germany moderated the session, highlighting the importance of forecast-based financing and the need for the interconnectedness of EWS. Petteri Taalas, Secretary-General, WMO, gave the keynote, summarizing key themes from the week's completed Multi-Hazard Early Warning Conference including governance, investments, and capacity development. He stated that since around 90% of disasters are related to climate, WMO has a large role to play in this process.

Osvaldo Luiz Leal de Moraes, Director, National Early Warning and Monitoring Centre of Natural Disasters (CEMADEN), Brazil, said that in his country there has been an evolution of emergency preparedness and response but challenges such as lack of coverage, sustainability of the network and shortcomings in technical capabilities still exist.

Saima Hossain, Shuchona Foundation, Bangladesh, spoke on the inclusion of people with disabilities in disaster response activities and EWS, noting that this group represents about 20% of the population, so everyone should be doing more. She said that one person with disability cannot speak for all those with disabilities and so response efforts and shelters must be prepared for all kinds of cases.



Panelists address the room at the working session on "MHEWS: Progress and Challenges to Achieve Target G." L-R: **Peter Felten**, Germany; **Petteri Taalas**, Secretary-General, WMO; and **Saima Hossain**, Shuchona Foundation, Bangladesh.

Esline Garaebiti, Ministry of Climate Change, Vanuatu, noted the particular vulnerability of the country to multi-hazard exposure and that Vanuatu has a geohazard team that monitors multiple threats and promotes hazard awareness in schools. Garaebiti said that challenges on infrastructure and finances remain so partnership is essential.

Artan elaborated on the interagency competition on DRR and EWS work, and that there is a need for national and regional frameworks to aid in ownership and planning, especially for seasonal events like floods. Further, he said, there is a need for more comprehensive hydrometeorological data, for example, not only satellite images showing cloud cover, but also the resulting rainfall totals.

Taalas said that borders remain a problem and that national players should reach across borders to share data and work together for a multi-hazard approach. Garaebiti noted a successful joint effort with New Caladonia to share data on tsunamis.

Charles Zangie, Office of the Prime Minister, Tanzania, described a law that supports government agencies, NGOs, and other stakeholders to work together on EWS and seasonal forecasts. He said that they need increased technical capacity to ensure all community members receive the messages, especially on seasonal floods. Panelists closed with comments on the possibilities of enhanced mobile phone technologies, the relevance of not just technology but the social realities of living, and linking early warning with early action.

Cities on the forefront of achieving inclusive climate and disaster resilience: Moderator Maruxa Cardama, Secretary-General, Partnership on Sustainable, Low Carbon Transport, this session, observing that urbanization is the defining demographic trend of this century, and that it must be met with resilient and inclusive infrastructure.

Aromar Revi, Director, Indian Institute for Human Settlements, and Co-Chair, UN Sustainable Development Solutions Network, called for the "transformational adaptation" of cities, suggesting cities have to be seen as places where carbon can be captured in order to avoid going beyond 1.5°C of global warming.

Desmond McKenzie, Minister of Local Government and Community Development and former Mayor of Kingston, Jamaica, touched on the need for national and municipal legislation to address the new environmental realities and develop the resilience of cities. He noted that local governments are nearest to the people and play an important role in ensuring inclusive policies.

Cinthia Borjas Valenzuela, Municipality of the Central District of Tegucigalpa, Honduras, said the country is one of the most vulnerable in the world to climate-related disasters, and noted important efforts by her municipality to address this, such as setting up a center for risk management and entering a USD 23 million international cooperation agreement with Germany, the first between Germany and a local government in Honduras.

Farah Kabir, ActionAid International, Bangladesh, described challenges faced by Dhaka, which has grown significantly to host 20 million inhabitants, in part due to displacements in the region.



Farah Kabir, Country Director, ActionAid, Bangladesh

She called for a well-rounded and systemic approach, ranging from infrastructural to people-centered adaptation policies, noting that IDPs are vulnerable populations that need access to public services. Sami Kanaan, Mayor of Geneva, Switzerland, outlined best practices that have enabled Geneva to become a resilient city, such as ensuring effective coordination among stakeholders and taking the time to draw lessons from past disasters. However, he said that these practices are suitable to crises that have a beginning and an end, and that, in the face of climate change, the world has entered a state of permanent crisis. A conversation with the audience followed on best practices for achieving inclusive climate and disaster resilience, touching on issues such as how informal settlements can be made resilient without affecting people's livelihoods.

Revi said "building in place" was essential to avoid displacing communities, and urged improvement of basic services across urban and rural environments. McKenzie stressed the need for urban planning that accounts for social factors. Kanaan agreed, suggesting that even resilient cities like Geneva benefit from urban planning to help tackle issues such as demographic growth and social inequality. Borjas Valenzuela added that the focus for all initiatives should be the individual and their well-being.



Cinthia Borjas Valenzuela, Municipality of the Central District of Tegucigalpa, Honduras



L-R: **Thomas Loster**, Chairman, Munich Re Foundation; **Mami Mizutori**, SRSG for DRR; and **Nandan Mukarjhee**, University of Dundee

#### Closing Events

RISK Award: Mizutori explained that the RISK Award, which is supported by the Munich Re Foundation, rewards operational projects in the area of DRR every two years. This year's award, she added, was on the theme of coastal resilience, which she described as an urgent issue, considering that 40% of the global population lives within 100 km of a coastline and that coastal communities are feeling the brunt of climate change-related weather events.

Thomas Loster, Chairman, Munich Re Foundation, explained that the financial award goes to the implementation of the winning project and that, this year, 109 applications were received from NGOs, think tanks, and research programmes from 48 countries. After noting that two-thirds of Bangladesh qualifies as flood zones, he announced the prize winner, Nandan Mukherjee from Dundee University and Resilience Solution, for his submission titled, "Upscaling the concept of floating homes in Bangladesh." Mukherjee explained the project was originally conceived after learning of a child's drowning in a home that had been flooded by water in his home country. The child's mother, he continued, had no choice but to stay in her flooded home, considering the sometimes unsafe conditions of emergency shelters. From this, he said he saw a need to upscale flood-resilient homes. To conclude, he stressed the difference between a house and a home, noting the latter has subjective connotations such as a sense of belonging. His objective, he said, was to investigate how floating houses can be transformed into residential homes, starting with one community in Bangladesh and eventually scaling it up worldwide.

Closing ceremony: Co-Chair Sager presented highlights from the Chairs' Summary of discussions and recommendations from GP2019. Noting that the conference had taken stock of progress towards the implementation of Sendai Framework



Officials celebrate the successful conclusion of GP2019. L-R: **Marwa El-Menshawy**, UNDRR Stakeholder Mechanism; **Mami Mizutori**, SRSG for DRR; Co-Chair **Manuel Sager**, State Secretary and Director-General of the Swiss Agency for Development Cooperation, Switzerland; and **Kirsi Madi**, Director, UNDRR.

for DRR, he expressed concern that, while 116 countries are reporting progress through the Sendai Framework Monitor, this progress is too slow and only 91 countries so far have reported developing their own DRR strategies. The summary, he announced, thus calls for greater ambition, commitment, and leadership, including: the inclusion of women in all stages of development; long-term integrated planning; and further use of ecosystem-based approaches. He added the summary underscores the security implications of climate change and that multilateral action remains essential to tackling disaster risk. He welcomed the gender parity achieved on GP2019 panels, as well as the trend towards the integration of DRR and climate perspectives.

Inga Rhonda King, President, Economic and Social Council of the UN (ECOSOC), urged delegates to use deliberations from the week to inform their country's respective positions and their presentation of Voluntary National Reviews to the 2019 HLPF, as well as to promote DRR during the UN General Assembly highlevel week in September 2019.

Marwa El-Menshawy, UNDRR Stakeholder Engagement Mechanism, called for a whole-of-society approach and for meaningful participation to accelerate the implementation of the Sendai Framework. She also urged all concerned to put in place development policies that are risk-informed, gender-sensitive and evidence-based. Mizutori concluded the closing ceremony, recalling that GAR 2019 suggests that risk is complex and systemic, exacerbates inequality, and affects the vulnerable. She urged the DRR community "to be more convinced than ever that our cause is just and right." She declared GP2019 closed at 5:49 PM.

#### Chairs' Summary

The summary reports that countries have made progress in implementing the Sendai Framework, with 116 countries reporting through the Sendai Framework Monitor. The summary notes that 91 countries have reported the development of DRR

strategies; however, the current pace of implementation is not fast enough to meet the 2020 deadline for Target E and may delay further progress on other targets, including jeopardizing achievement of the SDGs by 2030.

The summary highlights the need to address emerging biological and cyber risks.

The summary recommends advancing implementation of the Sendai Framework by, *inter alia*:

- re-examining approaches to risk, including through the work of the technical working group launched at GP2019 to develop list of consistent terminology on hazards;
- making better use of comprehensive and disaggregated data, especially in relation to those most at risk;
- making available risk data that can enable the pricing of risk;
- taking a more strategic approach to capacity development of governments and stakeholders;
- prioritizing the needs of marginalized groups and those most at risk, strengthening women's leadership in DRR, and institutionalizing the engagement of children and youth in DRR;
- developing mechanisms for better cooperation between national media organizations and UN entities dealing with information that is crucial for DRR;
- governments undertaking measures to achieve Sendai Framework Target E by 2020 (substantially increasing the number of countries with national and local DRR strategies) in coherence with National Adaptation Plans, Nationally Determined Contributions and National Development Plans, and stepping up systematic reporting to the Sendai Framework Monitor:
- developing local strategies and plans that inform national strategies and are locally-led, guided by community knowledge, and built upon local solutions, including city-tocity learning;
- developing disaster-resilient infrastructure through ecosystembased approaches that leverage the complementarity across blue, green and grey infrastructure, and adopting nature-based solutions;
- strengthening planning and action to manage biological hazards, including through enhancing investments in resilient health facilities;
- governments and the international community doing more through DRR strategies and policies to address the drivers and consequences of disaster displacement, including through climate mitigation policies and understanding of disaster risks as factors of migration;
- ministries of finance and planning ensuring budgetary allocation for DRR, greater devolution of financial resources to local authorities, and integration of DRR in donor countries' development assistance strategies;
- integrating prevention as a core element of DRR through fiscal policies that promote resilience, including innovative market-driven products for risk financing, standards that define risk reduction responsibilities of private sector investors, and engaging medium, small, and micro-enterprises in DRR;

- recognizing the security implications of climate change and disasters, and building resilience in conflict-affected countries and fragile contexts based on risk assessments that integrate disaster, climate risk and conflicts;
- increasing technical, capacity building, and financial to LDCs, landlocked developing countries, and SIDS, including prioritizing DRR in the next phase of implementation of the SAMOA Pathway and the Vienna Programme of Action;
- Building Back Better through community participation and risk-informed entrepreneurship; and
- basing preparedness and reconstruction on disaster loss data and risk assessments, as well as implementing and improving MHEWS.

The summary highlights the need for a mid-term review of the Sendai Framework. It reflects participants' calls for the Climate Action Summit 2019 and the Conference of Parties of the UNFCCC to affirm the role of DRR in scaling up action on climate adaptation and resilience, and for DRR to be fully integrated in SDG implementation.

#### **Upcoming Meetings**

Eighteenth World Meteorological Congress (Cg-18): The Eighteenth World Meteorological Congress (Cg-18) will be held from 3-14 June 2019 at the International Conference Centre of Geneva (CICG). Topics for discussions include Global Multi-Hazard Alert System (GMAS), MHEWS, Hydrological Status and Outlook System (HydroSOS), and other topics. dates: 3-14 June 2019 location: Geneva, Switzerland contact: World Meteorological Organization Secretariat www: https://public.wmo.int/en/eighteenth-world-meteorological-congress-cg-18

Resilient Cities 2019: The 10th Global Forum on Urban Resilience and Adaptation: Resilient Cities 2019 will be the 10th anniversary of the Global Forum on Urban Resilience and Adaptation, taking place over three days from 26-28 June 2019. The core objective of the Resilient Cities congress series is to serve as the global resilience implementation forum. dates: 26-28 June 2019 location: Bonn, Germany contact: ICLEI – Local Governments for Sustainability phone: +49-228 / 976299-28 email: resilient.cities@iclei.org www: https://resilientcities2019.iclei.org/

HLPF 2019: The Forum will address the theme, "empowering people and ensuring inclusiveness and equality." It will conduct an in-depth review of SDG 4 (quality education), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 13 (climate action), and SDG 16 (peace, justice and strong institutions), in addition to SDG 17 (partnerships for the Goals), which is reviewed each year. Among other items, the Forum will consider the Global Sustainable Development Report (GSDR), which is issued every four years. dates: 9-18 July 2019 location: UN Headquarters, New York contact: UN Division for SDGs fax: +1-212-963-4260 email: https://sustainabledevelopment.un.org/contact/ www: https://sustainabledevelopment.un.org/hlpf/2019

**51st Session of the IPCC:** The 51st session of the IPCC is expected to approve the summary for policymakers of the

special report on the ocean and cryosphere in a changing climate. dates: 20-23 September 2019 location: Principality of Monaco contact: IPCC Secretariat phone: +41-22-730-8208/54/84 fax: +41-22-730-8025/13 email: IPCC-Sec@wmo.int www: http://www.ipcc.ch/

UN Climate Action Summit: UN Secretary-General António Guterres will convene this summit to mobilize political and economic energy at the highest levels to advance climate action that will enable implementation of many of the goals of the 2030 Agenda. The summit will convene on the theme, "Climate Action Summit 2019: A Race We Can Win. A Race We Must Win." date: 23 September 2019 location: UN Headquarters, New York www: https://www.un.org/en/climatechange/

HLPF under UNGA Auspices: The UNGA will hold a meeting of the HLPF at the level of Heads and State and Government to consider, among other items, the Global Sustainable Development Report, issued every four years. dates: 24-25 September 2019 location: UN Headquarters, New York contact: UN Division for SDGs fax: +1-212-963-4260 email: https://sustainabledevelopment.un.org/contact/ www: https://sustainabledevelopment.un.org/summit2019 and https://sustainabledevelopment.un.org/hlpf/2019

African Climate Risks Conference 2019: The African Climate Risks Conference 2019 (ACRC2019) will convene under the theme, "Dismantling Barriers to Urgent Climate Adaptation Action." The conference aims to disseminate results and share insights from new and ongoing climate science and adaptation research in Africa and provide a forum to identify common priorities in African climate research for development through African-led discussions. dates: 7-9 October 2019 location: Addis Ababa, Ethiopia www: https://www.africanclimaterisksconference2019.org/

2019 UN Climate Change Conference (UNFCCC COP
25): The 25th session of the Conference of the Parties (COP
25), the 15th meeting of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP), and the second meeting of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement (CMA) will convene to review implementation of the Paris Agreement and the Convention. dates: 2-13 December 2019 location: Santiago, Chile contact: UNFCCC Secretariat phone: +49-228-815-1000 fax: +49-228-815-1999 email: Secretariat@unfccc.int www: https://unfccc.int

CBD COP 15, Cartagena Protocol COP/MOP 10, and Nagoya Protocol COP/MOP 4: The 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 15), the tenth Meeting of the Parties (COP/MOP 10) to the Cartagena Protocol on Biosafety and the fourth Meeting of the Parties (COP/MOP 4) to the Nagoya Protocol on Access and Benefit-sharing are expected to address a series of issues related to implementation of the Convention and its Protocols, and adopt the post-2020 global biodiversity framework. dates: 5-20 October 2020 location: Kunming, China contact: CBD Secretariat email: secretariat@cbd. int www: https://www.cbd.int/

2020 Understanding Risk Forum: Understanding Risk is a global community of 8,000+ experts and practitioners active in the creation, communication, and use of disaster risk information. More than 1,000 representatives from all over the world are expected to participate. The five-day event is divided into three days for the main conference and two days dedicated to side events led by the community. dates: 18-22 May 2020 location: Singapore EXPO, Singapore www: https://understandrisk.org/event/ur2020/

Asia-Pacific Ministerial Conference on Disaster Risk Reduction 2020: The 2020 Asia-Pacific Ministerial Conference on Disaster Risk Reduction (APMCDRR) is expected to focus on the need for local and inclusive action to build community resilience in the face of growing disaster risks. It will bring together more than 2,000 delegates from over 50 countries, primarily from Asia Pacific – the most disaster-prone region in the world, with seven of the ten countries with the highest number of disaster-related deaths in 2018. dates: 23-26 June 2020 location: Brisbane, Queensland, Australia www: https://www.unisdr.org/archive/64661

Seventh session of the Global Platform on DRR: The Global Platform for Disaster Risk Reduction is the world's foremost gathering on reducing disaster risk and building the resilience of communities and nations. It takes place every two years. dates: 2021, exact dates to be confirmed location: TBD contact: UNDRR Secretariat www: https://www.unisdr.org/we/coordinate/global-platform

For additional meetings, see http://sdg.iisd.org

#### Glossary

DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EWS	Early Warning System
GAR	Global Assessment Report on Disaster Risk
	Reduction
GP2019	Sixth session of the Global Platform for
	Disaster Risk Reduction
HLPF	High-Level Political Forum on Sustainable
	Development
IDP	internally displaced person
LDCs	Least Developed Countries
MHEWS	Multi-Hazard Early Warning System
SDG	Sustainable Development Goal
SIDs	small island developing States
SRSG	Special Representative for the Secretary-
	General
UNDP	UN Development Programme
UNDRR	UN Office for Disaster Risk Reduction
UNFCCC	UN Framework Convention on Climate Change
WHO	World Health Organization
WMO	World Meteorological Organization