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2017 GLOBAL PLATFORM FOR DISASTER RISK REDUCTION

FROM COMMITMENT TO ACTION

Think Piece

National Disaster Risk Reduction Strategy Requirements

(Draft)

Prepared for Consultations for:

Words into Action Guidelines: National Disaster Risk Reduction Strategy Requirements

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The United Nations Office for Disaster Risk Reduction

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For Consultation

Background

This “Think Piece” has been developed with the objective of sharing best practices in developing national DRR strategies and of providing some insight as to minimum requirements for DRR strategies as outlined by Sendai Framework for Disaster Risk Reduction (2015).

While there is now a global trend towards reduced disaster morbidity and mortality, the annual cost of disasters continues to escalate. Economic losses alone are now reaching an average of US\$250-350 billion per year (GAR, 2015). Extensive risk (minor but recurrent disaster risks) is trending up and between 2005-2015 more than US\$94 billion in extensive risk losses were recorded across 85 countries. Unfortunately, most of this risk is absorbed by low-income households, communities, and small businesses, and consequently even these figures tend to underestimate these costs.

Notably, several countries are actively working to reduce disaster risk by undertaking a wide variety of initiatives. These countries, though, are largely moving forward without guidance as to DRR best practices and priorities, particularly with respect to disaster risk assessment. Continued development, without an adequate disaster risk assessment guiding policy and planning has led to new risks accumulating faster than existing risks can be reduced. GAR 2015 estimates that some 60% of expected development by 2030 remains to be built, and much of this growth will occur with little regard for disaster risk-sensitive planning, particularly in developing nations.

Similarly, many countries are neglecting quantification and planning with respect to their residual risks. Consequently, many countries now face a ‘residual risk financing gap’, and would not pass a stress test of their resilience to a 1-in-100-year disaster loss.

This cannot continue. With global average annual loss estimates expected to reach US\$415 by 2030, annual investments of US\$6 billion could prevent new and reduce existing losses by more than 20% (GAR, 2015).

Sendai Framework Guidance on National DRR Strategy

The Sendai Framework for Disaster Risk Reduction 2015 – 2030 identifies the “substantial reduction of disaster risk and losses” as the desired outcome of the Framework. This marks a crucial shift in the approach to disaster management, as it moves focus from managing ‘disasters’ to managing ‘disaster risk’ and it establishes resilience-building as a shared vision of the 2030 Agenda. The Sendai Framework calls for strong political leadership, commitment and involvement of all stakeholders at all levels to pursue the goal of “Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience”.

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Pursuit of such a comprehensive goal, requires a strategic approach and a well-defined plan to ensure the efforts are: coordinated, inclusive of whole of society, and use resources efficiently across all sectors and by all stakeholders. Reflecting this foundational requirement, Target E of the Sendai Framework specifically calls for “substantially increase the number of countries with national and local disaster risk reduction strategies by 2020”.

A review of the Hyogo Framework for Action (HFA) achievements, including lessons learned from design and implementation of disaster risk reduction strategies, and advances in understanding the complexities and interlinkages of disaster risk components have been used as the basis for the critical guidance that is outlined in various parts of the Sendai Framework for developing or updating national DRR strategies.

Disaster risk is a complex phenomenon. It involves the interactions between hazard, exposure and vulnerability and their underlying drivers. Sendai Framework calls for policies and practices for disaster risk management to be based on an understanding of disaster risk in all its dimensions:

- All **natural and manmade hazards**, extensive and intensive, sudden and slow onset hazards and the interactions among hazards
- All dimensions of **exposure** and **vulnerability** such as physical, social, economic and environmental and the interactions among vulnerabilities
- All **variety of assets** including people, their health and livelihoods, physical and productive assets, environmental and cultural assets
- Underlying **disaster risk drivers** such as poverty and inequality, climate change and variability, unplanned and rapid urbanization, weak governance, lack of disaster risk considerations in land use and natural resource management, etc.
- All **dimensions of impact**, both direct and indirect, in the short, medium and long term, and
- **Impact on the whole-of-society**, especially non-economic and indirect impact on the most poor and vulnerable

Sendai Framework Guiding Principles and Priorities of Action provide clear recommendations on the approach and requirements of DRR strategies.

Better understanding of disaster risk as a system of components enables a better selection and use of variety of disaster risk management measures categorized as:

1. Have explicit objectives and measures aimed at:
 - I. Preventing of new disaster risk through prospective disaster risk management activities which focus on addressing disaster risks that may develop in future if disaster risk reduction policies are not put in place, including measures to ensure new investments in development are not considering disaster risk.
 - II. Reducing of existing disaster risk through corrective disaster risk management activities which are meant to remove or reduce disaster risks which are already present and which need to be managed and reduced now through structural or non-

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structural measures such as retrofitting of critical infrastructure or the relocation of exposed population or assets

- III. Managing of residual disaster risk through compensatory disaster risk management activities which focus on building the social and economic resilience of individuals and societies in the face of disaster risk that cannot be effectively reduced. They include preparedness, response and recovery activities, but also a mix of different financing instruments, such as national contingency funds, contingent credit, insurance and reinsurance and social safety nets¹.

Annex I, provides examples of prevention, mitigation, preparedness, response, recovery and rehabilitation measures under each of the three categories.

2. Be based on legislative or regulatory frameworks to mainstream and integrate disaster risk reduction within and across all sectors;
3. Have a governance mechanism that is transparent and inclusive for effective and efficient management of disaster risk;
4. Promote policy coherence and compliance notably with the SDGs and the Paris Agreement, national and local level, and across all sectors;
5. Guide public and private sectors by defining roles and responsibilities for whole-of-society;
6. Have clear time frames, targets and indicators;
7. Be based on comprehensive assessment of disaster risk from all hazards as well as evaluation of technical, financial and administrative disaster risk management capacity at the local and national level to inform the DRM measures;
8. Strengthened mechanisms to follow-up, periodically assess and publicly report on progress

In addition to the above requirements ensuring national DRR strategies have the means to be implemented and achieve the risk reduction outcome, National and local DRR strategies are guided and aligned with the development objectives and priorities of the country or the locality. They are designed for the context of the society and environment as defined by relevant hazards, high priority risks and socio-economic setting. Selection of risk reduction targets and the balance of different type of measures will be situation-specific, and vary not only with the environmental, physical, social, cultural and economic conditions, but will also depend on the risk perception and risk tolerance of the society represented by decision-makers.

¹ Definitions of prospective, corrective, compensatory DRM are from the Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction, Seventy-first session of the UN General Assembly, 1 December 2016

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Figure 1: Core Requirements and Enabling Elements of a Comprehensive National DRR Strategy



About this Think Piece

UNISDR and partners (UNDP and CADRI Partnerships) are currently gathering inputs from member states and stakeholders in preparation for the development of a national DRR strategy guideline as part of the “Words into Action” guidelines series. This Think Piece along with the issue brief of the Plenary 1 session of Global Platform 2017, are intended to provide the basis for such consultations and will be presented by UNISDR and UNDP at a pre-conference event at the Global Platform 2017. At the preconference event, country case studies will be used to illustrate and discuss best practices and potential minimum design requirements to be included in the pending guideline.

The **issue brief of Plenary 1** provides key findings and recommendations regarding the elements that enable implementation of DRR strategy:

- ✓ governance mechanism
- ✓ understanding of disaster risk and coping capacities
- ✓ financial resources
- ✓ implementation capacities
- ✓ mechanisms to follow-up and report on progress

This **Think Piece (DRAFT)** presents 5 of the core requirements of DRR strategies:

- DRR Enforced by legislative frameworks

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- Mainstream and Integrate disaster risk reduction
- Promote policy coherence
- Guide public and private sectors by defining roles and responsibilities
- National and local DRR financing

The topics are presented in modular format, meaning they can be read independently if the reader is only interested in specific topic. Each Module includes the rationale, respective challenges and opportunities, as well as recommended approaches. These are draft text and are offered to begin the discussion on design requirements for national DRR strategies.

The Way Forward

After the Global Platform 2017, the way forward to develop the Words into Action guidelines on National DRR Strategies is as following:

June-August 2017

- Inviting partners, member states, and expert individuals to join the team for developing WIA guidelines
- Developing methodology and work plan

June-August 2017

- Based on inputs from consultations at Global Platform and users survey results:
 - Adjusting the format of Modules to meet the users' needs better
 - Enhancing the content of the existing Modules
 - Identifying additional topics to be included
 - Identifying countries with good practice on each topic to be added to the Modules

July 2017-March 2018

- Based on further research and using country cases will develop the guideline:
 - (i) improving the topics covered in the Think piece
 - (ii) developing Modules for the new topics
 - (iii) elaborating on the topics that are briefly covered in the issue brief of plenary 1

The readers from governments, stakeholders, experts and practitioners are encouraged to provide comments and inputs using this form: <https://www.research.net/r/DFV7LDM>

DRR ENFORCED BY LEGISLATIVE FRAMEWORKS

Main Message:

National DRR strategies and action plans need to prioritize specific measures that can support the implementation/operationalization and enforcement of legal and regulatory provisions for disaster risk management. Vice-versa, legal and regulatory frameworks provide the enabling environment and official mandate upon which national DRR strategies and action plans can draw upon.

Rationale:

The Sendai Framework's second Priority for Action calls on nations to strengthen disaster risk governance. It further identifies the role of laws and regulations as a central element in strengthening disaster risk governance. For legal frameworks to be effective, they need to embrace disaster risk management (DRM) principles and address the whole-of-society's roles and responsibilities, across various levels of governance and across various private and public sectors.

Legal frameworks play two critical roles in ensuring the adoption of disaster risk management procedures across the whole-of-society. First, they provide formal authorities to reduce existing risk. In defining the mandates, roles and responsibilities of key stakeholders nationally and locally the foundation of an efficient and effective risk management system is established and accountabilities are outlined. Second, legislative frameworks guide national, local and sectoral development actors to address underlying disaster exposures, vulnerabilities and to discourage risk generating behaviors and investments.

Strengthening risk governance through legal and regulatory frameworks, is paramount for countries to curb the drivers of disaster risk, such as unplanned and rapid urban development; growing concentrations of people and assets in areas exposed to natural hazards, intentional and unintentional hazards. And, whilst legal and regulatory provisions have reached considerable level of sophistication in some countries, there are still significant legal gaps that need to be addressed, either in national, local or sector specific laws.

Challenges:

Even with a formal, legal risk management framework in place, hurdles and challenges remain in linking them to effective operational risk management. Perhaps chief among these challenges is the weak enforcement of legal provisions. This can be due to weak public support, a lack of political will, inadequate enforcement structures, limited

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technical capacities, and/or a lack of resources (both human and financial) to undertake enforcement measures.

Citizen engagement and participation in formulating, enacting, and enforcing these laws is critical to widespread acceptance and operational effectiveness of DRM laws. These participatory processes need to be open, accessible and transparent, so as to facilitate broad cultural understanding and support of the value of these laws.

Opportunities:

DRM legal frameworks, formulated to cross-cut private and public sectors and to structure cross-governmental roles and responsibilities, can help establish a competitive, sustainable development approach across all sectors that not only protects, but also enhances marketability and investment opportunities by demonstrating stability and security. Not only do they help create a structure for risk management activities across society, these formal legal DRM frameworks also help create greater awareness of the need for disaster risk management at local administrative and community levels. Moreover, formal DRM legal frameworks ensure minority, potentially marginalized groups (women, youth, people with disabilities), are formally recognized and integrated in whole-of-society DRR efforts. Lastly, a DRM legislative framework can mandate specific budget lines for sectoral disaster risk management.

Good Practices:

Promotion of DRM through proactive legislation - In countries like Algeria, Armenia, Indonesia, Mexico, Mozambique, Philippines, Serbia, and Vietnam, a growing number of DRM laws help prioritize DRR and prompt donors and development partners to allocate funding for DRR. In the Philippines and Vietnam, DRM laws have given impetus to strengthening the institutional and policy frameworks for DRR at national and local levels and in Armenia and Cuba laws have helped decentralize the DRM systems and capacities.

Coordinated DRM Policy and Law – Coordinated legislation and policy directives can mutually reinforce each other to enhance the effectiveness of DRM and promote DRR. In Bhutan, India, and Vanuatu, for example, law and policy making are coordinated and presented in a complimentary manner to move disaster risk reduction objectives ahead. In Vanuatu, for example, sector laws and DRM law reviews are held in parallel across the ministries of land management, forestry, agriculture, infrastructure and finance to coordinate the development of a draft state DRM Act.

Legal Standards Reflect Local Capacities - Adjusting the legal standards to reflect local capacities and resources whilst still providing a sufficient level of incentive to advance disaster risk reduction is key for successful formulation, implementation, and adoption of new provisions. One such example is the Nepal National Building Code (NBC 205:1994)

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which incorporates the Mandatory Rules of Thumb (MRT) to provide ready-to-use dimensions and details for residential buildings commonly being built by owner-builders in Nepal. Their purpose is to achieve the minimum seismic safety requirements specified by NBC 105 (a draft Nepal Seismic Design Standard).

Recommended Approaches:

Proactive and coordinated DRM legislative and policy provisions should be formulated and enacted outlining the DRM roles and responsibilities for the whole-of-society. That is for all public and private sector entities operating nationally or locally. These provisions should outline minimum DRM expectations to ensure the post-disaster continuity of organizations and their respective operations, as well as the minimum expectations in both preventing the creation of new risk and materially reducing existing risk. While a specific piece of disaster risk reduction legislation may provide the back-bone of DRM requirements, DRM laws should be developed as a system of laws coordinated and integrated across sectors. For example, DRM legislative requirements should be incorporated in such legislation as finance, transportation, natural resources, education, health and public safety. Regardless of how the legal framework is devised nationally and locally, it must specifically provide:

- Authorities needed to designate DRM mandates, roles and responsibilities,
- Authorities needed to formally empower those with DRM responsibilities by ensuring the provision of necessary DRM education and training, and by ensuring the necessary human and financial resources are sustainably provided to meet their designated roles and responsibilities.
- Authorities needed to address DRM compliance with a mix of ‘carrot’ and ‘stick’ incentives.
- Authorities needed to require on-going DRM monitoring and should be regularly reviewed and updated based on the results of monitoring activities.

To the greatest extent possible, legislation should require open, accessible disaster risk information be shared, and should promote the broad engagement, participation and representation of groups from across society, including women, youth, the impoverished, and the disabled.

Further, in support of these DRM laws and regulations, practical DRM guidance and implementation support plans should be made available to strengthen the understanding of disaster risk, and outline substantive steps.

Outstanding questions:

- Where (and how) have laws and regulations been used to promote greater coherence of policy and strategy frameworks that bring DRR, CC, environmental management closer together, including integration with the SDGs?

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- Where (and how) have national DRR strategies and action plan helped set legal standards and incentives that are within the reach of existing capacities and resources?
- Where (and how) have national DRR strategies and action plans helped increase compliance and enforcement of laws and regulations?

For Consultations

MAINSTREAM AND INTEGRATE DISASTER RISK REDUCTION WITHIN AND ACROSS ALL SECTORS

Main Message:

National DRR Strategies need to elevate DRR as a legislative and policy priority by including specific measures that promote the integration of disaster risk reduction into national, local and sectoral development planning and budgeting. DRR Strategies need to approach mainstreaming as an incremental process with the objective to provoke a shift in organizational culture that ensures that development gains are protected from the impact of disasters, and that development does not increase existing and future levels of natural hazard risk.

Rationale:

The second and third Sendai Priorities for Action recognize the importance of mainstreaming and integrating disaster risk reduction within and across all sectors of development to achieving disaster risk informed development. In many parts of the world, disaster risk has been exacerbated by inadequate development planning. That is rapid economic and urban development without due consideration of the risks being created has led to increasing concentrations of people and economic assets in hazard prone areas. And given that this development has occurred for decades, a significant level of risk now exists in communities worldwide. Moreover, this disaster risk continues to increase as the growing exposure of people and assets to hazards outpaces a countries' risk reduction capacities.

Mainstreaming disaster risk management and implementing associated risk management practices is a dynamic and on-going process. It aims to embed or integrate "risk" at the heart of all activities, and particularly in all aspects development. This includes legislative, policy making, planning, budgeting, programming, implementation, monitoring and evaluation activities at national and subnational levels as well as across both the private and public sectors.

The long-term 'whole-of-society' benefit of disaster risk mainstreaming is that it ensures that the environment, people and assets are protected through forethought and careful planning whether done by the developer, the builder, or by private sector and/or government regulators providing oversight. The objective is the long-term continuity of new and existing developments despite the disaster risks.

Challenges:

Despite a growing political commitment to DRR mainstreaming demonstrated by the signatories to the Sendai Framework, and the increasing number of global and national policy frameworks, two overriding challenges remain. The first centers around a lack of

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understanding as to how mainstreaming occurs, how it is operationally implemented, and how it is best supported by international development partners. The second, is the lack of political will to adequately resource these commitments and operationalize DRM mainstreaming. Recognizing these two fundamental challenges, it is perhaps not surprising that the adoption and implementation of DRM mainstreaming is still slow and unevenly implemented across countries. The challenge before us is to ensure DRR mainstreaming is both formally and informally adopted by the whole-of-society, and that it is openly, vocally supported by community leaders and decision-makers.

Opportunities:

DRR Mainstreaming has a tremendous potential to reduce disaster losses by ensuring that all activities, particularly around asset maintenance and development, is risk informed to ensure the safety of people, as well as protect the natural and built environment. This is especially true for mainstreaming DRR activities around critical infrastructure whether owned or operated publicly or privately (e.g. schools, hospitals, transportation lifeline structures (e.g. bridges), or utility networks (e.g. water, sewage, phone, power networks). Risk-based land use policy and planning practices offer perhaps the single most important DRR mainstreaming opportunities to ensure reduction of future risks and sustainable growth.

One of the strengths of DRR Mainstreaming is that through the adoption of DRM practices across all sectors, at all levels of governance, and across the private and public sectors it ensures an integrated, multi-dimensional, and comprehensive risk platform that transcends any existing organizational “silos”. Additionally, by distributing risk knowledge, roles and responsibilities, DRR Mainstreaming also effectively distributes individual and organizational risk and liabilities associated within any given project, activity or initiative.

Good Practices:

Systematic planning actions can operationalize DRR across sectors – In Indonesia, with UNDP support, the National Development Planning Agency lead the integration of DRR objectives into Indonesia’s Mid-Term Development Plan 2010-2014. Through this planning effort, Government annual work plans ensured twenty-four line ministries received funds for DRR activities.

Cross-agency collaborations in DRR mainstreaming – The mainstreaming of DRR in Ghana, led to the development of cross-sectoral district development plans. This was a collaborative effort of the Environmental Protection Agency, the National Disaster Management Organization (NADMO) and the National Development Planning Commission (NDPC), that promoted participation, enabled district and local assemblies to validate the approach, and led to systematic mainstreaming trainings.

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Cross-sectoral DRR training breaks down barriers, encourages sharing of expertise - In Ethiopia, the Africa Climate Change Resilience (ACCRA) led partner agencies in developing a training programme for government and civil society organizations to mainstream DRR and CCA. The initiative enabled practical learning, shared knowledge and skills and brought together expertise from a variety of agencies (Twigg, 2015).

Sharing Mainstreaming experiences ensures effectiveness and efficiency - The UNDP developed a DRR mainstreaming tool in 2010 (UNDP, 2010) that is informed by country experiences, practitioner consultations, and UNDP programme feedback. The tool provides advice in five DRR Mainstreaming spheres: Policy, Organization, Stakeholders, Knowledge and Finance.

Recommended approaches:

Mainstreaming DRR into cross-sectoral legislation, policies and planning, and institutionalizing it in day-to-day cross-sectoral operations should be a central long-term objective of national and local governments. It must be recognized though that Mainstreaming cannot simply be ‘turned on’. It is an incremental process that requires a sustained effort, constant nurturing, evaluation and revision. Similarly, it cannot be achieved through formal, doctrinal changes alone. Mainstreaming also requires a commensurate change in organizational culture, and the larger the organization, the longer and complex the DRR mainstreaming process will be.

National DRR mainstreaming efforts must be supported by similar systematic efforts at the local level with sufficient financial and capacity development support. In the end, “all disasters are local” and it is at this level of governance that DRR mainstreaming has its biggest impact in terms of preparing for responding to and recovering from a disaster.

Finally, it must be recognized that Mainstreaming is highly context specific, and what will work for one country may not work for another. Recognizing this, it will be important to learn by doing and sharing experiences widely so that others may proactively adopt best practices.

Outstanding questions:

How can DRR strategies help overcome some of the specific challenges encountered with DRR mainstreaming?

How can DRR strategies foster DRR mainstreaming and establish linkages to related policy areas such as climate change or environmental management?

How can DRR strategies ensure that development actors take the lead role in DRR mainstreaming?

PROMOTE POLICY COHERENCE AND COMPLIANCE

Main Message:

National legislative and policy coherence on DRR initiatives, as well as SDGs and CCA matters is critical both internally, at national and local levels, and externally, with outside agencies and partners. Internally, policy coherence ensures strengthened policy effectiveness (improved results), relevance (policies aligned with national and international priorities), and efficiency (reduce the costs of duplication and inconsistency). Externally, coherent legislation and policy imparts a sense of focus, stability and confidence which is more likely to mobilize aid, investment, and partnership in meeting DRR objectives.

Rationale:

Climate change is the principle driver behind the increasing intensity and frequency of hydro-meteorological and climatological disasters and its impact is evident globally in both the number of slow onset hazards such as droughts and sea level rise and extreme events such as high intensity tropical storms and flooding. As with other disaster risks, national DRR Strategies must be developed to address climate change adaptation (CCA) in concert with progress towards achieving identified sustainable development goals (SDG) and with efforts to reduce the risk to communities.

Priority 2 of the Sendai Framework calls for strengthening disaster risk governance and specifically identifies the need for coherence in the development, strengthening and implementation of policies and practices. Moreover, these practices are recognized in the 2030 Agenda, the Paris Agreement on Climate Change and the New Urban Agenda. Each of these international agreements explicitly or implicitly recognizes the following benefits of ensuring policy coherence between DRR initiatives, SDG and CCA.

1. The minimization of duplicative efforts across sectors and between initiatives.
2. The opportunity to capitalize on respective areas of expertise and resources in the development and implementation of national priorities in achieving DRR, SDG and CCA objectives.
3. Meeting the increasing demands of both UN entities, partner agencies and countries for coherence.
4. Increases funding potential for countries demonstrating coherence with UN entities, I/NGOs and international partners.

Challenges:

While the common-sense benefits of policy coherence are clear, the challenges to effectively implementing such policy coherence is in the operationalizing of the task. Collaboration and partnership towards achieving coherence is a laudable objective,

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functional silos exist across both public and private sectors. Significant negotiation is often required to reallocate resources, both human and financial, and to sort out individual roles and responsibilities in achieving the new cross-sectoral objectives.

Despite this challenge, there is currently a lack of guidance as to how best to encourage and facilitate policy coherence. Similarly, guidance as to how to systematically measure and track coherence is missing.

Opportunities:

A number of synergies are created by ensuring national cross-sectoral policy coherence in addressing DRR, SDGs, and CCA. Chief among these synergies are information management, collaboration and leadership. Joint data collection, analysis and evaluation for instance informs and enables coordinated policy development and ensures efficient and effective planning with respect to reducing existing risks, preventing the creation of new risk as SDGs are achieved, and managing residual risk. Similarly, joint collaboration and problem solving enables a cross-pollination of ideas and perspectives in all sectors and encourages innovation and a diversity of options in reducing risk and building resilience. Lastly, local governments and other local entities across the private and public sectors look to national policy frameworks for guidance and inspiration. The development and implementation of a coherent national DRR policy that effectively addresses the minimization of risk, while guiding and encouraging sustainable development in the face of such issues as climate change provides effective mentorship.

Good Practices:

Cross-sectoral Coordination - Swaziland and a number of other countries have initiated a cross-sectoral coordination function that aims to integrate national climate change commissions with disaster management authorities and to “localize” Sustainable Development Goals.

Integrated Development Frameworks - The Pacific Region, with the support of several island nations, have developed a voluntary “Framework for Resilient Development in the Pacific: An Integrated Approach to Address Climate Change and Disaster Risk Management (FRDP)” to provide high-level strategic guidance to different stakeholder groups on how to enhance resilience to climate change and disasters, in ways that contribute to and are embedded in sustainable development.

Legislative and Policy Coherence - Vanuatu is currently revising its DRR legislation and enacting a Meteorological, Geological Hazards and Climate Change Act to strengthen coordination between CCA and DRR.

Integrated Risk Assessment – The Threshold 21 Model was developed to provide the Government of Kenya with a dynamic, quantitative, and transparent tool to understand

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and analyze the multi-sectoral impacts of climate change, and develop institutional and systemic capacity to manage its risks.

Recommended approaches:

Through holistic approaches to sustainable development, climate change and disaster risk reduction, public and private sector have new opportunities to coherently update their building practices, land-use, energy and other infrastructure in ways that deliver the core economic benefits, sustainability and resilience. This must be conducted through strong national leadership and a concerted effort to ensure internal coherence with respect to DRR, SDGs and CCA. Nationally, the whole of government must provide clear legislative and policy direction, provide incentive funding to support implementation of coherence initiatives, demand cross-sectoral collaboration in the collection, analysis and sharing of disaster risk information, and outline clear objectives, measures and timelines to gauge progress.

Policy coherence must also be clearly communicated locally within countries and externally to international partners. Local promotion of coherent national DRR policies and strategies provides certainty, clear direction and leadership to local governments to emulate. While promotion of national DRR policies and strategies, similarly provides certainty and direction it also instils confidence and mobilizes partners to generate resources and support policy and capacity development.

Outstanding questions:

How can national DRR strategies foster coherence and establish linkages to related policy areas such as sustainable development, climate change and environmental management?

How can national DRR strategies promote and foster the adoption of policy coherence in the private sector?

How can national DRR strategies encourage policy coherence that attracts international support and funding?

GUIDE PUBLIC AND PRIVATE SECTORS BY DEFINING ROLES AND RESPONSIBILITIES

Main Message:

Disaster Risk Reduction is the responsibility of the whole-of-society. All individuals and organizations, across both the public and private sectors, have a responsibility to understand disaster risk management and have a role to play in implementing DRR measures to ensure disaster risk is minimized. National DRR strategies plans need to help define public and private sector roles and responsibilities and guide the operationalization of these roles and responsibilities through legislative (formally) and mainstreaming efforts (informally).

Rationale:

The Sendai Framework, building on the experiences of the Hyogo Framework, calls for “the substantial reduction of disaster risk and losses” through the application of four broad Priorities for Action. To better understand disaster risk, strengthen risk governance, resource risk reduction, and enhance response and recovery preparedness, all individuals and organizations need to understand their respective DRR roles in the broader national context. While some roles and responsibilities are common to all, others necessarily vary with size, position, and role of the organization in society.

Outlining these roles and responsibilities in national DRR Strategies addresses two fundamental imperatives. First, it ensures a common understanding of the overall disaster risk reduction architecture. It identifies key agents in managing societal disaster risk generally, as well as outlines the respective roles, responsibilities and linkages of all agents in the reduction of disaster risk before, during and after an event.

Second, providing broad guidance as to the roles and responsibilities in DRR Strategies removes uncertainty as to societal expectations of individuals or organizations in reducing disaster risk. Clarification of risk management expectations provides certainty to all regarding roles and responsibilities in reducing existing risk, but also in avoiding or reducing disaster risk in new or emerging development opportunities.

Strengthening risk management across the whole-of-society by clearly delineating DRM roles and responsibilities is essential for countries to control risk at its many sources. Whether formally prescribed, through the implementation of legislative and policy changes, or informally attained, through a shift in cultural or attitudinal changes, the widespread and common understanding of DRR roles and responsibilities is foundational to reducing disaster risk locally, nationally and globally.

Challenges:

A number of short, medium and long term challenges present themselves as hurdles to outlining national DRR roles and responsibilities. First and foremost, the DRR roles and responsibilities need to be openly debated and affirmed through a legitimate participatory process, and any legislative changes must be constitutionally vetted so as not to impact on the rights of individuals. In jurisdictions where DRR roles and responsibilities can be formally codified, challenges may exist in coordinating and integrating this legislation locally.

Beyond any formally prescribed roles and responsibilities, challenges remain in encouraging their adoption and enforcement. As identified earlier, adoption and enforcement challenges may result from weak public support, a lack of political will, inadequate enforcement structures and/or a lack of resources.

Public engagement is critical in developing and adopting proposed DRR roles and responsibilities, either formally or informally. While this is perhaps the largest long-term challenge, a strategic, incremental, and sustained effort must be made to ensure DRM becomes engrained in the culture of the country.

Opportunities:

Identifying roles and responsibilities in national DRR strategies offers the opportunity to outline a whole-of-society approach to reducing disaster risk. This leads to safer communities and more stable, competitive environments for sustainable development. Ensuring that all of society understands DRM and the roles each citizen plays ensures disaster risk is managed at all levels and across all sectors. It means that individuals, private and public sector organizations alike are working towards reducing existing risk in their respective spheres of influence and are vetting new development against the DRM standard of avoiding and preventing the creation of new risk. The result of this whole-of-society approach to reducing risk, is that countries become, and are seen to become, safer and more stable. This engenders a sense of economic certainty which can be capitalized on to stimulate economic development.

Good Practices:

To be completed

Recommended approaches:

While national DRR Strategies should clearly outline that DRM is a whole-of-society undertaking and that all individuals and organizations have responsibilities to reduce disaster risk, there are a number of classes of society that have differentiated roles and responsibilities. Outlined below are some basic roles and responsibilities of all, plus four distinctive segments of society with unique DRM responsibilities.

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Basic roles and responsibilities for all – ultimately disaster management (preparedness, response and recovery) is an individual responsibility and individual roles center around educating oneself as to the hazards and risks, preparing oneself, one's dependents and one's visitors to respond and recover from a disaster, and being able to offer assistance to one's neighbors.

Local governments – Local government roles and responsibilities include ensuring relevant risk information and regulations are in place and regulate any new investments by public and private accordingly, strategize and invest in structural and non-structural measures to reduce existing risk, and surviving any potential disaster and ensuring a continuity of service to both residents and visitors affected by a disaster. Specifically, local governments have a responsibility to maintain an active and well-resourced emergency management team to support citizens and visitors in preparing for, responding to and recovering from disasters. This support involves both coordinating laterally with neighboring jurisdictions to provide mutual aid, and coordinating vertically with higher orders of government to ensure the post-disaster provision of essential services (e.g. water, shelter, food, power).

Central to this role is 1) conducting and updating disaster risk assessment, 2) developing, updating, and enforcing risk informed land use plans, 3) the calculation of the residual disaster risk to drive response and recovery planning, and 4) communicating the risk and residual risk both laterally (with neighboring jurisdictions) and vertically (with its citizens and higher orders of governance). Additionally, local governments are responsible to oversee and ensure private-sector entities providing essential services in their jurisdiction have adequate disaster preparedness, response and recovery plans to ensure the continuity of essential services during and after the disaster (e.g. water, food, power companies). This includes ensuring the effective disaster management planning of suppliers, distributors and retailers associated with any of these organizations.

Private sector entities WITH NO public service responsibilities – Commercial, non-profit, academic and non-government organizations whose products or services do not directly aid in the provision of basic necessities (e.g. water, shelter, food, power) have the same disaster roles and responsibilities as all individuals, but with the additional role of ensuring continuity of services. This includes working with all suppliers and distributors to ensure their post-disaster continuity of service and a rapid, effective and efficient recovery.

Private sector entities WITH public service responsibilities – Commercial, non-profit, non-government and arms-length to government (e.g. crown corporations) organizations whose products or services are directly linked to providing basic necessities (e.g. private water supply companies; food suppliers, distributors and retailers; power companies, communication companies) have the same roles and responsibilities as private sector entities with no public service responsibilities, plus the additional responsibilities of regularly stress testing post-disaster service

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provision and, where necessary, establishing or contracting redundant systems and/or post-disaster surge support systems.

The list to be completed for the WIA guideline

Outstanding questions:

Could the participatory approach to developing DRR Strategies on roles and responsibilities be more effective in forging attitudinal change and adoption of DRM practices than a formally legislated one?

How can DRR Strategies ensure private sector participation and adoption of DRR roles and responsibilities?

Once roles and responsibilities are defined, how should resources be apportioned to ensure responsibilities are adequately funded?

For Consultations

NATIONAL AND LOCAL DRR FINANCING

Main Message:

It is through investment that the public and private actors either enhance or reduce their disaster risk. New investment in both public and private-sector disaster risk reduction at all levels, and the redirection of current investments are required to minimize existing risk and to prevent the creation of new risk. The largest responsibility for DRR financing rests with the public sector which must ensure relevant policy, regulation and institutions to attract financing, as well as mobilize and leverage outside resources. However, the whole-of-society, from individuals to organizations, is responsible to invest in the mitigation of existing disaster risk and to ensure new development is sufficiently funded to avoid the creation of new risk.

Rationale:

The Sendai Framework highlights the need for integrated DRR financing in each of its four Priorities for Action. Whether understanding disaster risk, strengthening DRR governance, investing in DRR resilience, or preparing to respond and recover from disasters, comprehensive and innovative national and local financing and financing mechanisms are required. It is through these financing measures that countries will be able to effectively minimize existing risk, prevent the creation of new risk, and manage residual disaster risk. While financing alone cannot effectively address the scope of DRR challenges, integrated DRR financing at all levels of governance in concert with coherent legislative and policy frameworks, and strategic DRR budget allocations across all sectors, will promote not only the reduction in societal disaster risk, but the responsible management of residual risk through appropriate retention and transfer mechanisms.

Challenges:

While the challenges in adequately funding and allocating DRR activities may appear insurmountable, many of these challenges may be linked to two inter-connected perceptions. The first is that disaster risk management is an issue dealing with exogenous shocks rather than endogenous risks. The second is that risk reduction priorities must compete against other government priorities for scarce resources, rather than actually being an enabler of sustainable development and stable economic growth. Overcoming these two perceptions, realizing that all we undertake inherently involves managing risk, and realizing that by aligning DRR with existing development initiatives, efficiencies can be realized in ensuring reducing our risk exposures.

Opportunities:

Encouraging the development of risk transfer markets - With disasters often generating significant fiscal risk and creating major budget volatility, countries need to consider sovereign the feasibility of various risk retention and transfer instruments, such as working with other countries to pool disaster risk across a region. Additionally, countries need to work with the private sector to increase the availability and uptake of individual and commercial insurance products, to reduce the insurance rates, and increase accessibility for all especially for the most vulnerable populations.

Coherence with Climate Change Adaptation – Climate change is a major driver of DRR activities, and in the wake of the Paris Agreement governments and international agencies are focused on supporting CCA goals. Where CCA initiatives, such as early warning systems, there is a tremendous opportunity to align DRR financing with these initiatives. Given the likely increase in international attention to CCA it is imperative that national governments integrate and align adaptation funding with DRR financing to address disaster risk.

Good Practices:

National Public Investment Guidance - The Ministries of Finance in Peru, Uzbekistan, Tajikistan and elsewhere have recognized the need to more closely align public investment decisions with a strong understanding of disaster risk and its potential economic impacts. Accordingly, these governments are creating internal mechanisms to ensure public investment in new development is vetted from a DRR perspective.

Recommended approaches:

The 2017 OECD Recommendation on Disaster Risk Financing Strategies highlights the need to focus National financing efforts on the establishment of a DRR financial strategy led by the national Ministry of Finance. Key to the development of this strategy is an up-to-date comprehensive understanding of national risks, key national vulnerabilities and the net national residual risk. The financial strategy must encourage risk-informed activity across the private and public sectors and clearly outline the funding of 1) mitigative measures to reduce existing risk, 2) incentives and disincentives in preventing the creation of new risks, and 3) a comprehensive plan to fund the net national residual risk.

While financing stand-alone DRR elements nationally is critical, encouraging public and private investments in DRR nationally and locally is fundamental to achieving core elements of DRR Strategies. This can only take place through the support of coherent legislative and policy frameworks and DRR mainstreaming across sectors.

While a deeper understanding of disaster risk and of public and private sector financial actors and investment opportunities is required, it is leadership and high-level advocacy driving the coherence and coordination of all financing of risk-related issues that will lead to financial and economic security while reducing disaster risk for all.

Outstanding questions:

What is needed to change public and private-sector financing behavior with respect to reducing existing disaster risk, as well as preventing the creation of new risk?

How can we ensure that risk is adequately calculated and accounted for in new developments?

Is there a bigger role for private markets to aid in funding public residual risk?

What role might national and local finance institutions play in incentivizing private disaster risk management in new developments?

For Consultations

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The Think Piece

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Issue Brief of Plenary 1: National and local DRR Strategies

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For Consultations

Annex I: Examples of DRM indicators for each objectives

This Annex provides examples of DRM measures for the following objectives:

- Towards Comprehensive Disaster Risk Management
- Preventing New Risk
- Reducing Existing Risk
- Managing Residual Risk

The measures and indicators presented in this table are simply examples to show how variety of DRM measures (i.e. prevention, mitigation, response, etc) fit under various objectives as described in the Sendai Framework goal.

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	DRM Measure	Indicators	Priority for Action (PA)	Comments
Towards Comprehensive Disaster Risk Management				
	Accountable DRM program established at the highest organizational levels of national and local governance	<p>Does the National government have an established DRM program?</p> <p>Is the National DRM program established at the highest organizational level?</p> <p>Percentage of local governments with an established DRM program?</p> <p>Percentage of local governments with a DRM program established at the highest organizational level?</p>	PA 1b PA 2a, f PA 3 PA 4	Pakistan established its National Disaster Management Authority within the office of the Prime Minister
	DRM legislations in place to empower risk management measures before, during and after a disaster	<p>Is national government legally empowered to manage risk before, during and after a disaster?</p> <p>Percentage of subnational governments with legal mandate to act before, during and after a disaster?</p> <p>Percentage of governments lead by a DRM team empowered with the knowledge and skills to manage disaster risk?</p>	PA 1b PA 2f PA 3a PA 4	Mozambique and Moldova both have developed DRM laws and emphasize mainstreaming of disaster risk considerations nationally, locally and across sectoral development plans.

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		<p>Does the national government annually funding their DRM program to the equivalent to 1-2% of their calculated residual risk?</p> <p>Percentage of local governments annually funding their DRM program to the equivalent to 1-2% of their calculated residual risk?</p>		
	A committee of technical experts on hazards and risk management is established to advise on legislation, policy and planning.	<p>Does the national government have and established technical advisory committee?</p> <p>Percentage of local governments with an established technical advisory committee?</p>	PA 1 PA 2 PA 4 ISDR A17	
	National DRM review of local DRM programs.	Has the national government conducted administrative, financial and technical reviews of local government DRM programs in the past 5 years?	PA 1 PA 2 ISDR B14,15	
	Disaster Risk Assessment regularly completed at national and local levels	<p>Has the national government completed a Disaster Risk Assessment in past 3 years?</p> <p>Percentage of national sectoral government entities completing a comprehensive disaster risk assessment in past 3 years?</p> <p>Percentage of local governments with</p>	PA 1 a, b, c, i, l, PA 1 n PA 2 PA 4 ISDR A1,7,8, 9, 10, 11, 12, 13, 14	

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	completed cross-sectoral DR Assessment completed in last 3 years?		
Non-sensitive aspects of DR Assessments are freely available, accessible and openly shared	<p>Does the national government make the DR Assessment publicly available and easily accessible?</p> <p>Percentage of subnational governments making the DR Assessment publicly available and easily accessible (e.g. with the use of risk or hazard mapping)?</p> <p>Does the national government integrate disaster risk information in legislation, policies and planning (e.g. evacuation policies; development planning)?</p> <p>Percentage of local governments integrating disaster risk information in policies and planning?</p>	PA 1a, b, c, e, f PA 4m ISDR A21,22, ISDR A23	
An ‘Exposure Database’ is maintained detailing inventories of exposed assets including critical facilities, lifeline infrastructure, and other commercial and public assets	<p>Does the national government maintain an exposure database of assets?</p> <p>Percentage of local governments with an exposure database of assets?</p> <p>Percentage of governments with an exposure database updated in the past 5 years?</p>	PA 1 PA 2 PA 4 ISDR A2, 15	
Design and construction codes integrate the latest risk assessment data	Do national design and construction codes exist?	PA 1 PA 2, PA 3h PA 4	Iraq integrates the latest probabilistic seismic hazard data into its national building code

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		Have codes been updated with disaster risk information in the past 5 years?		
	Design and construction compliance is independently reviewed by qualified engineers.	Proportion of local jurisdictions with compliance enforcement at both the design and construction phases?	PA 1 PA 2 PA 4	Turkey requires independent engineering review of structural designs and construction practices
	Disaster response and recovery program and plans are regularly reviewed and updated based on recent experiences globally, new research, and/or new assessment data.	Has the national government revised its disaster management plan in the past 5 years? Proportion of local governments having revised their disaster plans in the past 5 years?	PA 1 PA 2 PA 4a	
	Disaster loss tracking is legally required and established to quantify losses and trends so as to better understand both extensive and intensive disaster risk	Does the national government legally require disaster loss monitoring? Proportion of local governments tracking and publishing disaster loss data? Proportion of local governments tracking and publishing disaster loss data?	PA 1d PA 2 ISDR A3, A4	
	Disaster research program is established and stable funding is allocated for both physical science and social science research	Does the national government fund a coordinated disaster research program? Percentage of local governments contributing to a coordinated disaster research program? Total annual contributions to disaster research from national and local governments?	PA 1j, 1k, PA 2 ISDR A24	

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	A 'DR assessment' is legally required for all new development projects	Does the national government require DR assessments for new development projects? Percentage of local governments requiring DR assessments for new development projects? Percentage of Local Development projects with a disaster risk assessment?	PA 1b PA 2	
	Land use development and urban planning integrate DR Assessment information, anticipating demographic and environmental changes.	Percentage of local governments requiring mainstreaming of DR Assessments in urban and rural planning?	PA 1 PA 2 PA 3f PA 4	Drought risk in Sudan is addressed in specific land-use solutions between settled cultivators and nomadic pastoralists.
	National and/or subnational construction codes considering DR exist for a range of structures (e.g. buildings, bridges, railways, pipelines, tunnels, towers, dams, and piers) and are regularly revised and updated based on current research and/or experience	Number of legally mandated construction codes as a percentage of the number of codes required? Percentage of legally mandated codes updated in the past 10 years?	PA 1 PA 2 PA 3 PA 4	Australia reviews and updates its construction codes annually through an independent National Construction Code Board
	National and/or local hazard monitoring program identifies, assesses and monitors emerging, new and existing threats.	Does the national government require a functioning hazard monitoring program? Does the national government regularly monitor and assess hazards? Do the national and local governments	PA 1 PA 2 PA 3 PA4	

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		transparently sharing non-sensitive hazard information internally?		
Reducing Existing Risk				
	Strengthened critical structures and infrastructure critical for post-disaster functioning, including utilities, schools, hospitals, roads, and bridges.	Proportion of Critical Infrastructure retrofitted to meet current Codes?	PA 3c	
	Integrated disaster risk assessment in critical and basic services' business continuity/ emergency response plans.	Proportion of utilities, hospitals and schools integrating DR Assessment in their business continuity/emergency response plan?	PA 1 PA 2 PA 3i	
	Use community centres as centres for disaster risk info dissemination and stockpiling	Number of communities using community centres to locally stockpile disaster supplies?	PA 1 PA 2 PA 3d PA 4	
	Maintain regular disaster preparedness, response, and recovery exercises	Does the national government fund national and subnational disaster exercising? Proportion of subnational communities conducting annual disaster exercises?	PA 1 PA 3 PA 4h	

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Managing Residual Risk				
Residual Disaster Risk is quantified and monitored with the changing risk environment	<p>Does the national government document calculated national residual risk?</p> <p>Percentage off local governments documenting calculated residual risk?</p> <p>Percentage of local governments revising the residual risk estimates in the last 3 years</p>	PA 1b PA 2c PA 4 ISDR A18, A19		
Completed Residual Risk Management Plan	<p>Does the national government have a completed Residual Risk Management Plan?</p> <p>Percentage of local governments with a Residual Risk Management plan?</p>	PA 1b PA 2c PA 3b PA 4		
Financing residual disaster risk	<p>Does the national government have a Financial Plan to manage the residual risk through sovereign risk financing?</p> <p>Does the national government have a Financial Plan for risk transfer (i.e. insurance)?</p> <p>Percentage of local governments with reserves to meet the retained Residual Risk obligation?</p>	PA 2c PA 4		
Bi-lateral and multi-lateral mutual aid agreements are in place with adjacent	Does the national government have bi-lateral or multi-lateral mutual aid	PA 2 PA 4i		

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	jurisdictions to minimize losses and hasten recovery	agreements with adjacent States? Proportion of local governments with mutual aid agreements with adjacent jurisdictions?		
	Public disaster awareness and training programs are conducted across multiple media platforms and targeting specific audiences	National annual per capita disaster awareness and education funding totaled over 5 years?	PA 1l,m,n PA 3 PA 4	
	Plan for disaster reconstruction, including land-use planning and structural standard improvement	Does the national government with national reconstruction strategy/plan? Proportion of local jurisdictions with reconstruction strategy/plan?	PA 2 PA 4k	
	Plan for post-disaster psycho-social/mental health support services	What level of per capita funding does the national government provide for disaster psycho-social planning, training, exercising? What proportion of local governments fund a disaster psycho-social/mental health plan?	PA 2 PA 3 PA 4	