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**PROGRESS REPORT ON MAINSTREAMING DISASTER RISK MANAGEMENT  
IN WORLD BANK GROUP OPERATIONS**

Attached is the document entitled “Progress Report on Mainstreaming Disaster Risk Management in World Bank Group Operations” prepared by the World Bank Group for the April 21, 2018 Development Committee Meeting.



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March 28, 2018



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# Progress Report on Mainstreaming Disaster Risk Management in World Bank Group Operations

## A. Summary

1. **This report presents the World Bank Group’s (WBG) *Progress in Mainstreaming Disaster Risk Management (DRM) in its operations*. It follows on the previous progress report, which was presented to the Development Committee in 2016.** It is organized around three main areas of the WBG’s DRM program: (i) the portfolio of DRM lending; (ii) the mainstreaming and integration of risk management across its entire portfolio, including non-DRM operations; and (iii) the development of new tools and instruments to become more agile and better able to respond to the disasters that cannot be avoided. The progress made in these areas can be summarized as follows:

2. **First, at more than 10% of the WB’s overall financing commitments, the volume of DRM projects is high and distributed across all sectors of engagement.** The previous Progress Reports on Mainstreaming DRM in WBG Operations (presented to the Development Committee in April 2014 and 2016) showed growth in annual financing commitments driven by strong client demand. The present Progress Report shows that client demand continues to be strong, and almost all of the WB’s Global Practices are now active in financing resilience-enhancing projects. The type of DRM financing is also evolving, as there is an increasing focus on strengthening DRM policy frameworks (through Development Policy Financing and Programs for Results), in addition to Investment Project Financing. While effective recovery and resilient reconstruction, in line with the principle of “Build Back Better”, continue to be vital components of the WBG’s DRM work, a wide range of activities is now contributing to reducing disaster risks and supporting resilient development.

3. **Second, the WBG has made progress in mainstreaming DRM in all operations, through systematic risk screening, integration of natural risk reduction measures in its operational system, and a wide range of technical initiatives.** In an important step for mainstreaming DRM, the WBG updated its Operational Risk Assessment Framework to include natural risks, which requires that all new projects are systematically screened for disaster and climate risks (including slow onset disasters), and that disaster and climate risks are considered in all country strategies. In addition, the WBG continues to develop and roll out innovative risk management approaches and tools – both financial and analytical – such as ThinkHazard!, an accessible online tool for assessing natural hazards. Analytical and advocacy efforts – such as prominent flagship reports – have also played an important role in establishing a culture of risk management within the institution to engage a wide range of actors from the public and private sectors and shape the overall adaptation agenda.

4. **Third, new tools and instruments have made the WBG more agile in supporting rapid and effective response and recovery.** In the aftermath of several recent large-scale events, the WBG has demonstrated its ability to act swiftly to respond to the needs of its client countries and support recovery and reconstruction, including in fragile and post-conflict situations. Moreover, the use of financing instruments with a Catastrophe Deferred Drawdown Option (Cat-DDO), which provide rapid liquidity following disasters, have strengthened the ability of governments to respond to shocks. The WBG continues to innovate and broaden the choice of contingency financing mechanisms, such as Contingency Emergency Response Components (CERC).

5. **Finally, while casualties from natural hazards have been decreasing, economic losses are still on the rise, underscoring the inadequacy of current actions and policies.** Four priority areas have been identified for the coming years: (1) leveraging resources and mobilizing private capital for resilience, including through insurance; (2) improving the resilience and quality of urbanization and infrastructure; (3) supporting development that is resilient to a changing climate; and (4) improving the effectiveness of working in fragile and conflict environments.

**B. The WBG has built an effective DRM program, with a strong and stable DRM portfolio.**

6. **The volume of lending commitments to DRM-specific activities is high, amounting to approximately 10% of the WB's overall financing commitments.**<sup>1</sup> DRM commitments have been stable over the last five years, with fluctuations due to changes in total lending volumes and variability in requests for reconstruction support that are linked to the occurrence of disasters. Delivered by about 100 specialized DRM staff across the WB's Global Practices, annual financing commitments to DRM stood at an annual average of US\$5 billion over FY16/17, representing more than 10% of total WB commitments. This is a conservative estimate since it is based on investments that directly contribute to DRM, and does not include operations, such as water management or financial inclusion projects, which contribute *indirectly* to mitigating or managing impacts of weather variability. While changes in the methodology for tagging DRM project create uncertainty for the analysis of trends, it is evident that DRM represents a major component of WBG activities.

7. **Beyond mainstreaming of risk management in all sectors, the DRM Portfolio also reflects the continued demand for specialized disaster reduction and recovery.** As highlighted in previous DC reports, the WBG now place a strong focus on mitigating disaster impacts and ex-ante reduction of risk. Nonetheless, providing support to effective disaster response and recovery continues to be an essential element of the WBG's DRM efforts. The WBG's support for reconstruction and recovery now also integrates resilience building measures, in line with the principle of "Building Back Better." Overall, DRM specialization and sectoral integration enable the WBG to deliver comprehensive client support, which includes disaster risk financing, civil protection, applied risk assessments, social protection, and efforts in complex urban environments.

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<sup>1</sup> Disaster Risk Management (DRM) includes the operations that aim at reducing the impact of natural hazards on populations, either by responding to a disaster or by acting *ex ante* to avoid a disaster or reduce its potential impact. Natural hazards include rapid-onset events like earthquakes and floods, and slow-onset events like droughts. Many of these natural hazards are affected by climate change, but not all of them. Classifying DRM operations can be challenging. First, many interventions reduce risk, but only indirectly. For instance, financial inclusion can help people manage risks. And increased income and reduced poverty also helps people to cope with disasters, so that any development intervention could potentially be considered as contributing to risk management. However, the WBG considers only those operations with DRM as *an explicit objective* as DRM operations. Also, certain types of interventions that help manage weather variability (such as water management or irrigation) or that support long-term adaptation to climate change (such as changes in agriculture systems) are not considered DRM interventions, even though they contribute indirectly to resilience.

**Table 1. A stable share of DRM commitments, distributed across almost all sectors.**  
(IBRD, IDA and TF DRM commitments by Practice Groups, in US\$ millions per year)

	Average FY12/13			Average FY14/15			Average FY16/17		
	IBRD	IDA	TF	IBRD	IDA	TF	IBRD	IDA	TF
Agriculture	116.0	115.5	44.4	304.6	303.4	22.3	63.2	275.3	0.0
Education	0.0	21.7	0.0	0.0	50.0	0.0	0.0	31.7	5.4
Energy & Extractives	9.0	305.0	0.4	149.6	105.8	12.3	53.9	24.1	20.4
Environment & Natural Resources	61.2	256.1	96.0	1.0	131.5	55.1	137.7	250.2	11.5
Finance & Markets	0.0	0.0	0.0	31.3	50.0	0.0	0.0	9.8	20.4
Governance	43.1	0.5	0.0	24.7	0.2	0.0	0.0	0.0	0.0
Health, Nutrition & Population	15.1	43.4	0.0	0.0	20.5	13.5	0.0	39.2	0.0
Macro Economics & Fiscal Management	157.3	27.3	0.0	173.9	29.6	4.1	57.7	6.9	0.0
Poverty & Equity	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Social Protection & Labour	0.0	150.5	0.0	0.0	626.9	5.5	224.4	285.2	3.0
Social, Urban, Rural & Resilience	875.5	522.5	51.0	973.3	1604.3	53.8	783.8	958.1	83.9
Trade & Competitiveness	1.8	0.8	0.0	41.9	5.5	0.0	0.0	22.9	8.6
Transport & ICT	11.6	153.7	11.4	87.3	203.1	19.5	101.5	404.4	34.4
Water	221.6	366.6	13.1	158.2	362.8	11.9	752.9	306.3	37.2
<b>Sub total</b>	<b>1562.2</b>	<b>1963.7</b>	<b>216.3</b>	<b>1945.8</b>	<b>3493.5</b>	<b>198.0</b>	<b>2175.2</b>	<b>2614.1</b>	<b>224.7</b>
<b>Total (per year)</b>	<b>3742.2</b>			<b>5637.3</b>			<b>5014.0</b>		
<b>DRM share</b>	<b>9.9%</b>			<b>12.3%</b>			<b>10.7%</b>		

### **C. The WBG is mainstreaming risk management in its entire portfolio**

*The portfolio of DRM financing is distributed across all sectors of engagement and now includes significant policy operations.*

8. **The DRM portfolio is implemented by almost all Global Practices.** While DRM investments total US\$5 billion per year over FY16/17, they are components to integrated projects that amount to US\$8.2 billion in commitments (that is around 20% of total commitments). Some Global Practices account a large share of the total volume of DRM operations – the Social, Urban, Rural, and Resilience Practice, Agriculture, Environment and Natural Resources, Transport & ICT, and Water together accounted for 84% of DRM financing in FY16/17. This emphasis reflects the fact that these GPs – especially GSURR – hosts WBG’s core experience and expertise on DRM. In addition, other GPs also provide large commitments, including some outside the Sustainable Development Group – for instance the Social Protection Practice financed on average about US\$511 million per year in DRM over FY16/17, accounting for is 11% of total DRM spending. However, not reflected in these figures is that in addition to the main implementing GPs, many projects are jointly delivered with other contributing GPs.

9. **New initiatives aim to ensure that all infrastructure systems are designed, built, and maintained with quality to maximize resilience.** This work is a key priority of the Japan-World Bank



Program for Mainstreaming DRM in Developing Countries. It is supported and promoted by a range of sector-level initiatives as well as internal and external partnerships that bring together sector specialists and DRM experts. Examples of such efforts include the Resilient Transport Initiative, the Communities of Practice on Resilient Water Supply and Sanitation, and Resilient Energy Systems. The Safer Schools initiative, for instance, aims to increase the resilience of school infrastructure by reducing physical impact from natural hazards, thus minimizing disruption in education and protecting lives. Its engagements have started in 13 countries across five regions, including the FY18 National Disaster Risk Management Project, which focuses on safer schools in Turkey (US\$300 million), and the disaster-resilient School Construction Projects under the Facility for Refugees in Turkey (FRiT; US\$159 million). In FY17 the WBG also initiated the first lending operation under its resilient energy systems initiative, by approving an Investment Project Financing (IPF) to enhance the resilience of Belize's energy system to weather and climate shocks. The US\$10 million IFC-Rockefeller Resilience Program supports infrastructure projects that build economic, social and environmental resilience, including by developing risk screening tools in key sectors (such as port infrastructure). And the Global Themes of the WBG – especially, the Climate Change Group – support the integration of such initiatives across units and sectors within the institution.

**10. Investments in early warning systems and hydromet services have more than tripled in the last decade to over US\$870 million in FY17.** The World Bank is supporting countries to strengthen their capacity to monitor and forecast hydrological and meteorological (hydromet) hazards, and install early warning systems that best suit country needs. Since 2010, WBG hydromet engagements have grown up from US\$270 million to over US\$870 million in FY17, – and they are likely to grow further in FY18. The anticipated future growth is thanks to dedicated hydromet programs for Africa and South Asia supported by numerous partners of the Global Facility for Disaster Reduction and Recovery (GFDRR), and targeted initiatives like the Climate Risk and Early Warning Systems (CREWS) initiative, which was launched in 2015. This initiative aims to strengthen effective, impact-based, gender-informed early warning systems for hydro-meteorological and climate risks in small island developing states and the world's least developed countries. To share knowledge, GFDRR worked jointly with UNISDR to organize the WMO Multi-Hazard Early Warnings Conference on the sidelines of the 2017 UN Global Platform on Disaster Risk Reduction in Cancun, Mexico.

**11. Financial protection solutions have been supported in more than 50 countries, with lending volumes exceeding US\$500 million per year.** Disaster-responsive safety nets programs – that is, safety nets programs that can be rapidly scaled up after disasters – are mainly supported by the Social Protection & Labor Practice, which committed DRM project components totaling more than US\$1 billion in total over FY16 and FY17. Social protection systems haven proven to be critical to channel resources to those that are most in need following a disaster. In Uganda, the Northern Uganda Social Action Fund safety net has disbursed over US\$6 million to approximately 50,000 households (250,000 people) in response to drought in 2016/17. In Kenya, the livestock insurance program has protected approximately 30,000 pastoralist households (150,000 people) against the impacts of drought, with policies underwritten by local and international insurance companies. Furthermore, the Hunger Safety Net program, a shock-responsive cash transfer safety net, has disbursed about US\$8 million to approximately 180,000 households (900,000 people) in response to drought. By strengthening the adaptive capacity of financial protection systems, governments are not only better equipped to support vulnerable population groups, but also improve their fiscal and budgetary resilience.

**12. In the last ten years, the World Bank has enabled over US\$3.9 billion in risk transfer solutions for client countries to strengthen economic and fiscal resilience.** Risk transfers in the form of insurance,

catastrophe (CAT) bonds, and derivatives are important resource mobilization options that add value to countries as non-debt instruments to finance a wide range of disaster related expenditures. FY16/FY17 engagements included the preparation of the largest sovereign CAT bond in market history, providing US\$1.36 billion of earthquake coverage for the members of the Pacific Alliance – Chile, Colombia, Peru and Mexico. Financial protection instruments and insurance solutions are supported by the Finance, Competitiveness, and Innovation (FCI) Global Practice, which worked in over 50 countries providing financial, advisory, and convening services in all regions in collaboration with several WBG units. For instance, a program approved in FY17 in the Philippines provides the equivalent of US\$206 million in coverage to the government and 25 participating provinces against losses from major typhoons and earthquakes. Most recently, the WBG is providing a comprehensive set of financial and advisory services on disaster risk finance to Cambodia, Lao PDR, and Myanmar to establish a new regional catastrophe risk pool – the Southeast Asia Disaster Risk Insurance Facility (SEADRIF). Overall, the WBG is promoting the use of comprehensive financial packages (including reserves, risk transfer, and contingent financing instruments) to increase the financial protection of client countries against climate and disaster shocks. This is of particular importance in small states for reinforcing budget and fiscal resilience. Moreover, by 2017, the WBG has provided over 7 million individuals with weather index-based crop insurance coverage through the IFC’s Global Index Insurance Facility (GIIF), including farmers in Bangladesh, Rwanda, and Kenya.

**13. To help countries mainstream DRM in their own actions, the WBG is increasingly using policy instruments to support reforms for strengthening DRM capacity and policy frameworks.** Investment Project Financing (IPF) has been the WBG’s primary lending instrument for strengthening DRM policy frameworks. However, there is a notable increase in Development Policy Financing (DPF) and Program for Results (PforR), that now account for 12-15 percent of the overall volume of WBG DRM operations. PforRs have only recently been adopted for DRM purposes, but hold significant potential for strengthening and expanding ongoing risk management programs. For instance, in Morocco a PforR project is being implemented to enhance the institutional framework to finance DRM activities and strengthen financial resilience to natural disasters. This project supports the government’s ongoing initiative to develop an integrated approach for DRM, combining institutional reform with risk reduction investments and insurance. Similarly, the emergency recovery DPF in Sierra Leone not only aims to rehabilitate critical infrastructure, but also to strengthen government capacity for managing disaster risk. These policy efforts are in line with the WBG’s commitment to achieving Target E of the Sendai Framework for Disaster Risk Reduction: *Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.*

***All WBG projects are now screened for disaster and climate risks.***

**14. Climate and disaster risks are now integrated into the WBG’s systematic project risk assessment.** “Mainstreaming DRM” requires moving beyond targeted DRM interventions toward the inclusion of DRM and risk considerations in all policies, plans, and investments across all sectors. With support from the Climate Change Group, and in line with commitments from the Climate Change Action Plan and IDA18, all country strategy papers (the Systematic Country Diagnostics and Country Partnership Frameworks) and all projects now account for disaster and climate risks. In particular, all projects – including those not featuring a DRM component – are screened for disaster and climate risks as part of their systematic Project Risk Assessment Framework. To this end, 1,157 WBG staff have been trained in climate disaster risk screening since July 2014. At the IFC, DRM is also considered integral to supporting

sustainability and resilience. Importantly, DRM has been incorporated in the IFC Performance Standards and risk screening tools have been developed for the sectors that are most exposed to natural hazards and climate change.

15. **ThinkHazard! was developed to support WBG operations and has been integrated into standard operation management systems.** In May 2016 the WBG, through the GFDRR's Innovation Lab, launched ThinkHazard! – the first free, open-source, online tool to help countries identify natural hazards in a user-friendly manner – which has had 125,000 users from 206 countries. Its information is now fully integrated into the WB's Systematic Operationalization of Risk Tool (SORT) and it is available through the operational portal managed by OPCS. Task team leaders at the World Bank can easily access it, facilitating the inclusion of natural risks in the full range of risks that projects face (from exchange rates to implementation issues).

16. **The WBG is also striving to ensure a gender-sensitive and inclusive approach to DRM , and that solutions account for marginalized and disadvantaged groups** – as emphasized, for instance, in the Sendai Framework for Disaster Risk Reduction and the Dhaka Declaration on Disability and Disaster Risk Management. The 2016-2021 gender action plan of the GFDRR, which builds on the World Bank Group Gender Strategy 2016-2023, is an illustration of these efforts.

***The WBG is mobilizing a wide range of actors by building on internal and external partnerships, and investing in methodologies, tools, and data.***

17. **The WBG is developing analytical, advisory, and advocacy initiatives to increase collaboration among its global practices, and to engage a broad range of actors on the DRM agenda.** In addition to its DRM interventions, the WBG supports a wide range of initiatives on knowledge generation, awareness building, methodological development, and a variety of cross-sectoral initiatives. Through targeted analytical, advisory, and advocacy activities, the WBG continues to play a prominent role in (i) convening communities of practice and other stakeholders to strengthen collaboration and data sharing; (ii) disseminating technical knowledge, data, and tools; and (iii) galvanizing DRM efforts by multilateral, national, public and private institutions. Internally, the WBG's GPs continue to improve cross-sectoral collaboration on DRM – such as through the Resilience and Disaster Risk Management Global Solutions Group (facilitated by GSURR) as well as 16 DRM-related Knowledge Silo Breakers (KSBs). To increase the effectiveness of its DRM operations, the WBG is also developing and mainstreaming innovative technological solutions (for instance based on remote sensing from satellites and drones, machine learning and other big data methodologies, and mobile phone and internet applications).

18. **The WBG has published a series of flagship reports on DRM and resilience in recent years.** Following on the 2014 World Development Report (WDR) *Risk and Opportunity*, the objective of these flagship reports is to raise awareness and to create and diffuse knowledge on the policies and interventions for disaster risk reduction. For instance, The *Unbreakable* Report, launched at COP22 in Marrakech, Morocco, provides evidence on the close link between disaster risks and poverty alleviation. It estimates that 26 million people are falling into poverty every year due to natural disasters, and it demonstrates the alignment between DRM and the WBG's twin goals. The report also provides an assessment of the benefits that can be expected from various interventions and policies, along with quantifying a “socio-economic resilience” indicator in 117 selected countries. The flagship report, *Investing in Urban Resilience*, was launched at the 2016 Habitat III conference in Ecuador. It shows that – by 2030, without significant investment into making cities more resilient – natural disasters may cost cities US\$314 billion each year,

up from around US\$250 billion today, and climate change may push up to 77 million more urban residents into poverty. In addition, based on such evidence, the WBG has developed Massive Open Online Courses (MOOCs), including one on Climate Change (“From Climate Science to Action”) and one on “Managing Risk” (with the latter reaching over 40,000 registered participants in over 100 countries). The WBG also continues to provide a wide range of technical and sectoral studies, such as the 2016 report on *Enhancing Power Sector Resilience* to weather and geological risks, which was co-financed by the WBG’s Energy Sector Management Assistance Program (ESMAP) and GFDRR.

**Box 1 Partnerships are key to advancing the DRM agenda.**

Various initiatives are helping the WBG to enhance cross-sectoral collaboration (internally and externally) to ensure mainstreaming of DRM and resilience into all WBG’s operations. The WBG’s GFDRR plays a central role in coordinating such collaboration and convening key partners and practitioners.

**The Japan-World Bank Program for Mainstreaming DRM in Developing Countries.** Launched in 2014, this technical assistance program is a partnership between the Government of Japan and the World Bank. It helps developing countries integrate DRM into national development planning and investment programs. Managed by the GFDRR, this program is financed by a US\$100 million contribution from Japan’s Ministry of Finance. Under the Program, the World Bank established a dedicated DRM Hub in Tokyo to support and enhance the World Bank’s in-country and knowledge activities. In its first four years of operation, the Tokyo DRM Hub has enabled over 43 technical assistance projects and 170 knowledge and technical exchanges. These activities have brought together over 3,500 developing country officials and Japanese experts on a wide range of DRM issues (including transport and school infrastructure, flood management, cultural heritage protection, emergency management, and seismic risk). Overall, the program has helped leverage an estimated US\$6.3 billion in new World Bank-financed DRM investments, benefitting nearly 11 million people in over 50 countries. Building on the results to date, the Government of Japan and the World Bank are renewing their commitment to continuing the Program.

**The Africa, Caribbean, and Pacific-European Union Natural Disaster Risk Reduction (ACP–EU NDRR) Program.** This program aims to address natural hazard prevention, mitigation and preparedness in the African, Caribbean and Pacific (ACP) Group of States. It was launched in 2011 as an initiative of the ACP countries with US\$75.6 million in contributions from the European Union (EU), and it is managed by GFDRR. Since its inception, the ACP-EU NDRR Program has organized 389 training events, benefitting 13,854 participants, and it has leveraged over US\$960 million through projects that are either co-financed or have had a direct link to a broader DRM or post-disaster operation.

**Understanding Risk (UR).** To create strong cross-sectoral communities of practice, the WBG also supports UR, an open and global community of over 7,000 experts and practitioners in disaster risk assessment from more than 125 countries. They represent government agencies, the private sector, multilateral organizations, NGOs, research institutions, academia and civil society. It convenes every two years at UR Forums – five-day events that provide a space for collaboration among non-traditional partners, showcasing best practices and sharing knowledge. Forums provide organizations and individuals with the opportunity to highlight new activities and initiatives, build new partnerships, and foster advances in the field. The overall goal of these events is the increased use of risk information to make informed decisions.

19. **The WBG is advocating DRM through high-level engagements with governments and international platforms.** For instance, the WBG contributed to the establishment of the InsuResilience Global Partnership, led by Germany and the UK, which emerged from a report prepared by the WBG on Sovereign Catastrophe Risk Pools. The vision of this partnership is to strengthen the financial resilience of developing countries through climate and disaster risk financing and insurance solutions. Moreover, the WBG has convened or participated in a series of other high-level meetings to further raise the importance of DRM in global policies and priorities – including the 2017 UN Global Platform for Disaster Risk Reduction, Habitat III, and meetings with the Vulnerable Twenty (V20) and other key partners (such as the IFRC and the United Nations).

#### **D. The WBG is becoming more agile and effective in responding to disasters**

20. **Rapid and effective recovery remains a key component of WBG DRM activities.** In FY16/17, the WBG has supported client countries to respond to 23 major disasters with 12 Post-Disaster Needs Assessments (PDNAs) and US\$ 1.82 billion in investments to finance 23 recovery programs.

21. **The WBG has improved its ability to respond to the needs of its client countries when they are hit by a disaster** – including the ongoing famine in several African countries, the 2015 earthquakes in Nepal, the 2015 Cyclone Pam in Vanuatu, and the 2017 hurricanes Maria and Irma in the Caribbean. In each of these crises, resources from IDA’s Crisis Response Window (CRW) were allocated and provided. In Africa, the IDA CRW was tapped to address the food security crisis, and the response was co-designed and implemented with relevant UN Agencies. Standard templates for policy waivers have been developed to enable the WBG to work with UN Agencies and the International Committee of the Red Cross (ICRC) on issues such as crises in Yemen and Somalia. In August 2017 the WBG also launched the Agricultural Intelligence Observatory (AIO) to facilitate an early response to emerging threats related to food insecurity and famines, and to avoid an escalation of critical situations into famines, and humanitarian and socio-economic crises. In Vanuatu, the WBG, through the EU-funded ACP–EU Natural Disaster Risk Reduction (NDRR) Program managed by GFDRR, moved quickly to support post-disaster recovery efforts. This was done initially by conducting a Post-Disaster Needs Assessment, and then by providing continued support for preparing the resilient recovery and reconstruction of public infrastructure in line with the Build Back Better principle.

22. **DPFs with a Catastrophe Deferred Drawdown Option (Cat-DDO) are now available for all client countries.** First introduced in 2008, the Cat-DDO provides countries with a pre-approved credit line that can be accessed immediately after the declaration of an emergency following a natural disaster. Cat-DDOs, however, require governments to commit to developing an integrated DRM strategy before disasters strike. Hence, Cat-DDOs have provided a strong platform for IBRD countries to advance national policy frameworks and DRM investments that go beyond disaster response. As of FY17, 13 Cat-DDOs have been approved, of which nine have been triggered. For instance, the WBG prepared DPFs with Cat-DDOs in Sri Lanka (US\$102 million) and Serbia (US\$70 million). In Sri Lanka, following severe flooding and landslides in 2016, the Cat-DDO was triggered to expedite post-disaster recovery. Responding to the need for contingent financing mechanisms (and as proposed in the 2016 Progress Report), the IDA18 replenishment introduced Cat-DDOs for IDA countries as an instrument for crisis preparedness and response. The first projects of this kind are currently being developed with the governments of Saint Lucia, Cabo Verde, Kenya, Malawi, and the Maldives. A continuous evaluation and learning process, led by the Independent Evaluation Group (IEG), ensures that the effectiveness of Cat-DDOs continues to improve.

23. **The WBG continues to broaden the choice of contingency financing mechanisms, through agile instruments such as CERCS.** The CERC is an additional tool for any WB team to support emergency response and preparedness at the project level and across sectors to quickly mobilize pre-approved funds in the face of a disaster (including a disease outbreak). It allows for the rapid reallocation of investment project funds toward urgent post-disaster recovery needs, following the adequate ex-ante technical preparation and logistical planning for its disbursement and use. In FY16 the WBG included 21 CERCS in its projects (up from 3 in FY12) covering US\$ 2 billion of lending (compared to US\$ 175 million in FY 12) for client countries in all regions. CERCS were, for example, successfully triggered in Myanmar and following tropical storms in Saint Vincent and the Grenadines and Dominica, enabling the financing of pre-approved post-disaster emergency works. To support the further adoption of CERCS, the Legal Vice Presidency (LEG) and GFDRR have launched dedicated operational clinics for task team leaders. In addition, in 2017 the Board approved further flexibilities to support rapid and effective disaster response – including streamlined restructuring and increasing the Project Preparation Facility commitment authority.

**E. Major challenges remain at the forefront of the DRM agenda.**

24. **While casualties from natural hazards have been decreasing, economic losses are still on the rise, underscoring the need to continue the course and scale up actions in all sectors.** Four priority areas for action have been identified for the coming years: (1) leveraging resources and mobilizing private capital for resilience, including through insurance; (2) making more resilient and quality urbanization and infrastructure; (3) supporting development that is resilient to a changing climate; and (4) improving the effectiveness of work in fragile and conflict environments.

25. **Meeting development and resilience challenges will require a significant increase in investment, including from the private sector.** It is imperative to increase private capital flows and continue to leverage and channel public resources toward developing countries – especially toward risk-informed quality infrastructure in these countries. Challenges persist, especially with respect to transforming DRM benefits into financial flows and addressing political risks and uncertainty. The WBG is addressing these challenges by supporting a wide range of analytical, advisory, and advocacy initiatives, as well as policy reforms. While these activities are proving successful in promoting awareness, enhancing collaboration, and boosting investor confidence, further progress needs to be made. This is why the WBG is exploring ways to better leverage additional financing through its own resources – for instance, by partnering with other financiers and developing instruments to mobilize private capital (such as land value capture in cities). Financial protection through risk transfer – e.g. in the form of insurance – is emerging as one example of an effective and promising avenue for engaging the private sector in resilience building.

26. **The WBG needs to step up its mobilization of capital from the private sector to help countries manage the financial impacts of disasters and finance preventive action.** Successful public-private initiatives, supported by the WBG, illustrate promising models for engaging the private sector in DRM. In the Pacific, the newly established Pacific Catastrophe Risk Insurance Company achieved a US\$38 million coverage limit using private sector reinsurers to support Pacific islands manage the impacts of earthquakes and tropical cyclones. Similarly, MIGA supported the São Paulo State Sustainable Transport Project, which aims to make the State’s transport system more reliable, safe, and resilient to natural disasters. By issuing guarantees that protect against non-payment by the State, MIGA helped to mobilize a US\$300-million loan from Spain’s Banco Santander, which was crucial for implementing the project. The International Finance Corporation (IFC) is currently in the process of executing a Trade Finance Facility for Food Imports in Yemen, as an emergency response mechanism to the current drought and food security crisis. The aim is to

provide an interim solution to address constraints on financing Yemen's imports of critical food commodities. The first platform of this mechanism aims to establish a US\$100 million trade finance facility to be accessed by two Yemeni financial institutions to finance imports of wheat, rice, and milk by local importers. The Insurance Development Forum (IDF), co-chaired by the WBG CFO, facilitates partnerships on disaster risk financing between public and private stakeholders. Overall, these efforts exemplify how the WBG is working to engage the private sector in financial protection, the development of domestic insurance markets, and DRM more broadly.

27. **Rapid urbanization and the large gap in provision of urban infrastructure are making urban resilience a priority for future years.** Over the last five years, the WBG's urban portfolio reached about US\$27 billion, spanning 86 countries, and offering many opportunities to build resilience. Globally, annual financing requirements of US\$4.5–5.4 trillion remain, highlighting the vulnerability of cities to natural hazards due to a lack of investments in effective drainage, coastal protection, or resilient transport systems.<sup>2</sup> Hence, in FY17, the World Bank launched the City Resilience Program to enhance access to finance, both from the private sector and traditional development partners. With pilot activities in 10 cities, engagements will expand to 30 cities around the world in the next three years, aimed at leveraging US\$1.5 billion from public and private sources. This is complemented by the IFC Cities Initiative, which has established strategic long-term relationships with more than 12 cities. In addition, the WBG is continuing to engage at the city level on DRM, for instance by developing a Urban Resilience Master Plan for the City of Beirut. Another example is WBG support for the flood-prone city of Can Tho, Viet Nam, with a focus on climate resilient and sustainable urbanization. The Can Tho Urban Development and Resilience Project exemplifies how WBG projects can address policy, infrastructure, and finance simultaneously to build resilience in a holistic way – and it will be replicated across several cities in FY18. However, by some indications, more than 50% of WBG client countries' populations continue to live in informal and sub-standard housing that is vulnerable to natural hazards, illustrating the scale of the challenge of strengthening urban resilience.

28. **In a changing climate, countries must prepare for more frequent and intense climate shocks.** Client countries – especially small island states – must be prepared for more intense and frequent storms, and increasingly erratic precipitation patterns, all made more likely by rising temperatures. Further, continued urbanization and population growth, especially in coastal areas, are bound to magnify these impacts of climate change in the coming decades. Through IDA18, the WBG is greatly enhancing its focus on resilience and disaster risk management in low-income small states. Moreover, as most economic and human losses due to disasters occur in coastal environments, complex and capital-intensive measures are needed to increase coastal resilience. One example is the West Africa Coastal Areas (WACA) program, which was created in 2015 to help countries access technical expertise and finance to sustainably manage coastal areas (including the effects of climate change, coastal erosion, coastal flooding and pollution). Overall, the WBG recognizes that climate change is a threat to efforts to end poverty. Thus, the WBG's Climate Action Plan (adopted in 2016) details specific measures to boost climate resilience in client countries, such as ramping up investments in early warning systems, integrated quality infrastructure for urban resilience, resilient and high-quality transport infrastructure and buildings, and social protection.

29. **The WBG continues to face complex challenges in strengthening DRM capacity in fragile and rapidly changing environments.** Situations of coinciding weather extremes and fragility have demonstrated the need for a more effective and integrated WBG approach to DRM and crisis management in fragile or conflict affected states, such as Madagascar, Afghanistan, Nepal, Haiti, Somalia, Yemen, and

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<sup>2</sup> World Bank Group. 2016. Investing in Urban Resilience: Protecting and Promoting Development in a Changing World. World Bank, Washington, DC.

South Sudan. Recent experience in Nepal will be useful to inform future work on disaster management and response in fragile and post-conflict environments. The WBG is supporting Nepal's reconstruction efforts and is helping to build resilience to future shocks, including through its US\$500 million Earthquake Housing Reconstruction Project. Similarly, recent experience in Africa, with unprecedented coordination and cooperation with UN partners, can guide better integration of peace efforts and disaster management. In Nigeria and Somalia, the World Bank works closely with UN partners on PDNA to assess the impact and needs of the current drought. It might also provide these countries with technical assistance to develop and operationalize a Recovery and Resilience Framework (RRF) to ensure sustainable recovery and resilience-building against future natural hazard and climatic shocks. Joint crisis-response missions are part of these efforts, aimed at ensuring that the resilient recovery includes an integrated Humanitarian-Development-Peace recovery. Overall, considering the massive human and economic costs of fragility, along with the strong negative spillovers for neighboring countries and the rest of the world, the WBG, and IDA especially, is ramping up its support for countries facing fragility. To this end, the Global Crisis Response Platform was launched in 2016 to enable the WBG to take on an expanded role in crisis management and mitigate the interrelated threats from climate change, natural disasters, conflict, and pandemics.

30. **To meet these challenges, the WBG must not only continue to be a major source for DRM project financing but also engage a wide range of stakeholders.** Frameworks such as the Sendai Framework for Disaster Risk Reduction, the Paris Agreement, the Sustainable Development Goals, IDA18, and the WBG Climate Action Plan, as well as innovative tools and new data, provide a strong basis for continued progress. A strong focus on climate change adaptation in the Nationally Determined Contributions (NDCs) of developing countries further highlights that climate resilience will be crucial for achieving sustainable development and poverty reduction in the WBG's client countries. Following the record US\$75 billion replenishment of IDA18, and guided by the Sendai Framework and the WBG Climate Action Plan, the WBG will keep contributing to making development more resilient.