



GFDRR SUPPORT TO RESILIENCE TO CLIMATE CHANGE

UPDATE AND PROPOSED PROGRAM FOR FY17

*Prepared for the Second Meeting of the
Resilience to Climate Change Advisory Group*

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2016 Global Facility for Disaster Reduction and Recovery

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Notes:

Fiscal year 2016 (FY) runs from July 1, 2015 to June 30, 2016.

All dollar amounts are in US dollars (\$) unless otherwise indicated.

Overview

Building resilience¹ to climate change is a growing part of the Global Facility for Disaster Reduction and Recovery's (GFDRR) mandate to integrate and mainstream disaster risk management into countries' development strategies. GFDRR established the Resilience to Climate Change (RCC) cross-cutting theme to respond to increasing demand from countries and donors to help formulate enabling policies and investment programs that take into consideration climate and disaster risks. The RCC cross-cutting theme has a specific focus on resilience to hydro-meteorological hazards, adaptation to climate change, and management of residual risk of climate-related disasters. Within these areas, the RCC cross-cutting theme supports all of the strategic pillars of GFDRR (risk identification, risk reduction, preparedness, financial protection and resilient reconstruction).

A recent World Bank report (See box 1) shows that climate change, if not addressed, has the potential to push more than 100 million people back into poverty over the next fifteen years. Climate change is therefore one of the most daunting challenges of our time and has a high priority on the international agenda.

GFDRR's work in building resilience to climate change is guided by the Sendai Framework for Disaster Risk Reduction 2015-2030; the Sustainable Development Goals (in particular goal 13 on Climate Action); and the Paris Agreement, adopted under the United Nations Framework Convention of Climate Change on December 2015.

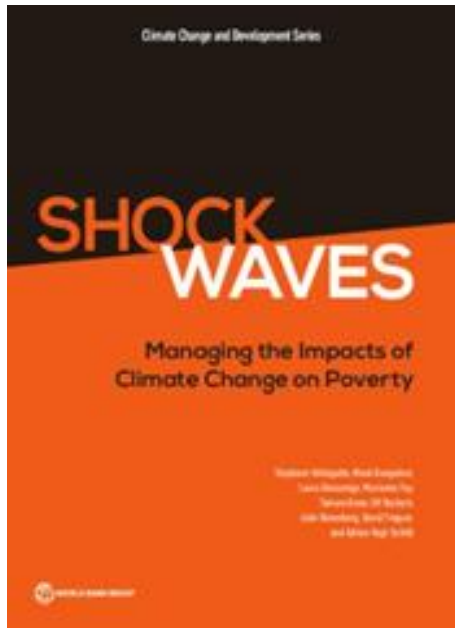
With its unique combination of global knowledge and investment leveraging assistance, GFDRR is well positioned to contribute to the post-Paris implementation of elements of the global climate agreement – particularly in the areas of adaptation, loss and damage, capacity building, coordination, and delivery of resources in support of country-driven strategies which combine expertise from disaster risk management with adaptation.

The World Bank Group is finalizing a post-Paris Climate Action Plan to guide its future investments on climate change. It is expected that GFDRR will have an increasingly important role to play in integrating disaster and climate risk management in World Bank operations, as the demand for mainstreaming disaster and climate resilience into countries development strategies increases – particularly in areas where GFDRR has recognized value-added, such as urban resilience, resilient transport, risk-based asset and spatial planning, social and financial protection, climate services, and small island states. GFDRR is also envisaged to provide technical assistance to selected countries in the formulation of investments guided by Nationally Determined Contributions. As part of its analytical work, GFDRR would also contribute to improving the measurement of resilience, and help apply these metrics in results-based aid. Finally, GFDRR envisages a stronger participation at international policy fora and in sharing global experiences on climate and disaster risk management.

This objective of this overview is to (1) provide an update of the climate change-related GFDRR portfolio since the First Meeting of the RCC Advisory Group in September 2015; (2) present the proposed FY17 portfolio; and (3) highlight examples of ways whereby GFDRR is building technical capacity and leveraging climate resilience operations. GFDRR's role in contributing to post-Paris implementation is discussed at the end of Section II.

¹ GFDRR uses the latest Intergovernmental Panel on Climate Change (IPCC) definition of resilience to climate change, which is *"the ability of a system and its component parts to anticipate, absorb, accommodate or recover from the effects of a hazardous (climate-related) event in a timely and efficient manner..."*

Box 1: Example of GFDRR support to Resilience to Climate Change: *The Shock Waves - Managing the Impacts of Climate Change on Poverty* report



In 2016, with GFDRR support, the World Bank published the report “*The Shock Waves: Managing the Impacts of Climate Change on Poverty*”. The report aimed to underscore the need for development partners to tackle climate change and ending poverty jointly in order to achieve sustainable development. The report further provides guidance on how to design climate policies so they contribute to poverty reduction, and how to design poverty reduction policies so they contribute to climate resilience.

The key findings of the report was that climate change threatens the global objective of eradicating poverty. More specifically it concluded that without rapid, inclusive and climate-smart development, combined with emissions-reductions efforts that protect the poor, more than 100 million additional people could be pushed into poverty by 2030, particularly in Africa and South Asia.

The report is available on: www.worldbank.org/climate

I. Resilience to Climate Change across GFDRR's Active FY16 Portfolio

As resilience to climate change is a cross-cutting theme in GFDRR, it permeates across all of GFDRR's results pillars, geographical regions and specialized thematic programs. This is reflected in the increasing proportion of grants that contain components addressing resilience to climate change.

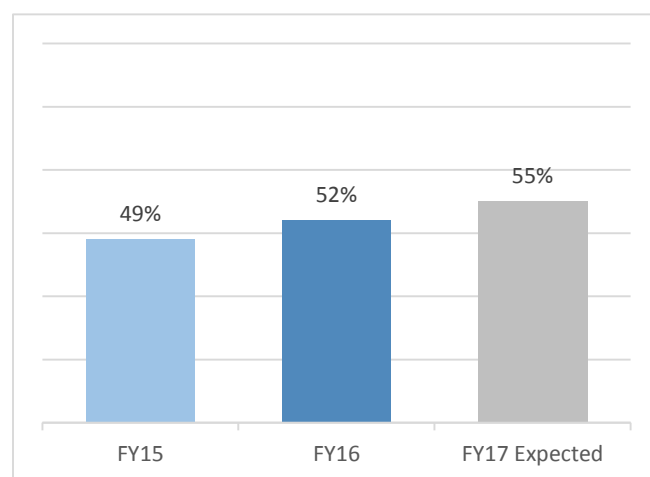
In FY16, 52 percent of the cumulative portfolio of active GFDRR grants – 175 grants totaling US\$144 million - included components relevant to climate resilience (Figure 1). This reflects a modest but steady increase from FY15, where the proportion was 49 percent (137 grants)². GFDRR supports grants in countries that are vulnerable and exposed to weather-related disasters. Examples include technical assistance to national hydrological services, integration of disaster risk reduction and climate change adaptation in development strategies, assessments of socio-economic impacts of disasters amongst vulnerable people, and rapid damage assessments of El Niño effects.

Amongst grants newly approved in FY16, there is a growing focus on resilience. In 2015, the Swiss Agency for Development Cooperation's Global Program for Climate Change (SDC-GPCC) contributed US\$14.9 million equivalent to GFDRR in support of resilience to climate change. The SDC-GPCC funding has been an important (albeit not the only) contribution to the strengthening of climate resilience in GFDRR's portfolio. To date, GFDRR has awarded 55 new grants in FY16, of which 67 percent support climate resilience.

Funding for resilience to climate change continues to be supported by all major GFDRR funds (Figure 2). The highest relative increase was

amongst the Japan-World Bank fund, where the proportion of grants supporting climate resilience grew from 58 percent in FY15 to 65 percent in FY16. However, both the Multi-donor Trust Fund (MDTF) as well as the EU-ACP funds, both of which reflect older portfolios, increased their proportion by, respectively, 3 and 4 percentage points during this period. As older grants are scheduled to close within the next few years, and with the relative rise of new grants addressing climate resilience, it is expected that resilience to climate change will continue to grow across GFDRR's portfolio.

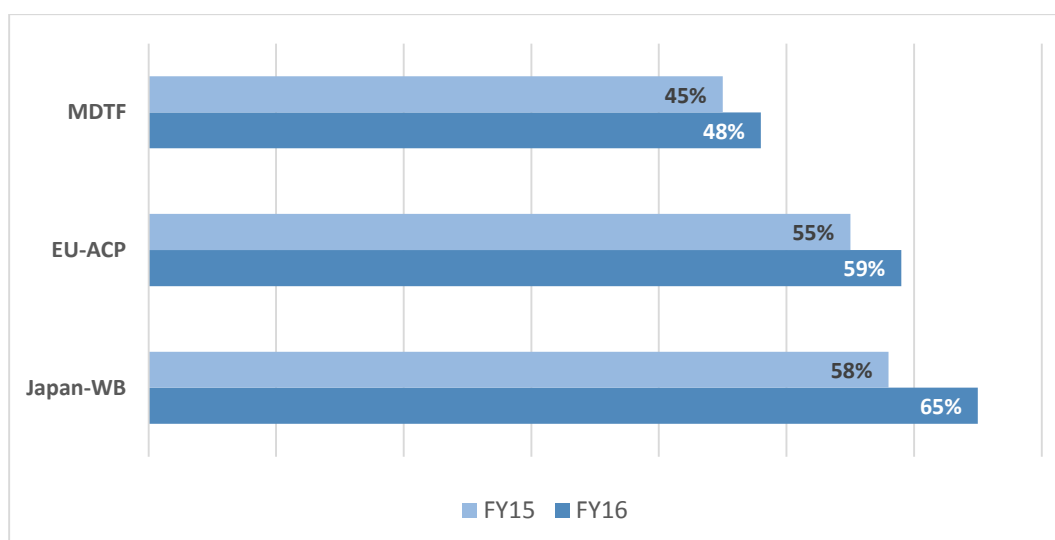
Figure 1. Trends in Proportion of GFDRR Active Grants in FY15 to FY17 Supporting Climate Resilience
(see Footnote 2 for methodology)



Note: Active grants refer to the cumulative portfolio that is under active implementation in the fiscal year shown.

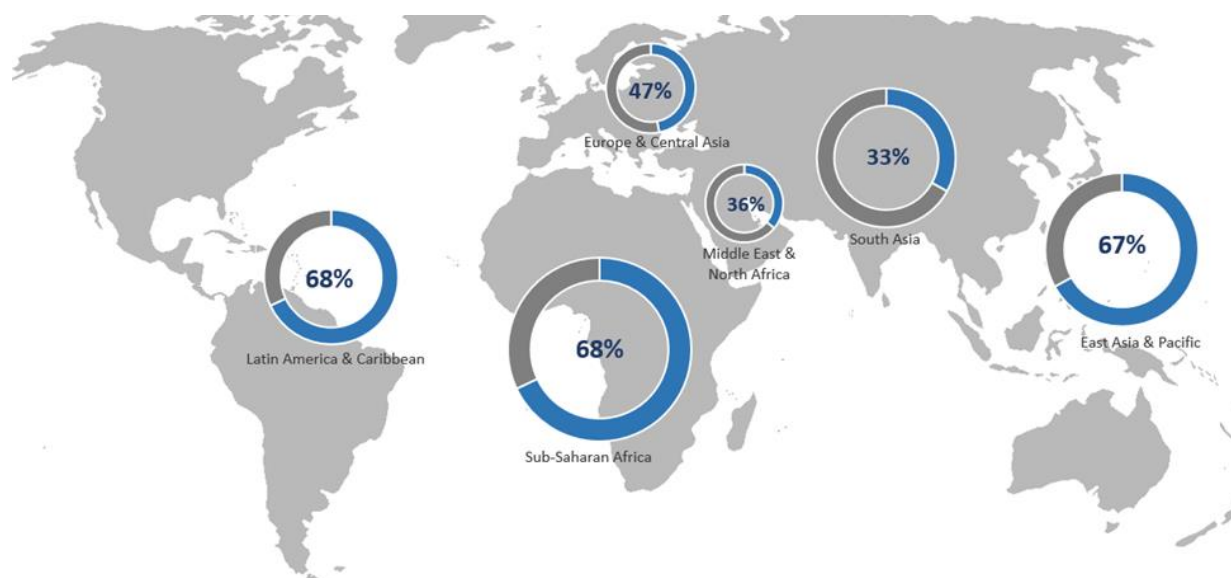
² Starting from FY15, GFDRR classified all of its active grants on whether they included components with a specific intent to support resilience to climate change. Only grants that reflected this specific intent were counted as supporting resilience to climate change. This is consistent with the World Bank methodology for tracking climate change co-benefits in economic and sector work, and non-lending technical assistance activities. It is a conservative methodology since it only captures grants that explicitly address resilience to climate change (and not those which addresses resilience to hydro-meteorological disasters and therefore contribute to climate resilience indirectly). The FY15 and FY16 portfolios reflect grants which were under active implementation during those fiscal years.

Figure 2. Proportion of Active GFDRR Supporting Climate Resilience by Source of Funds



GFDRR grants with climate resilient components are currently implemented in 74 countries. Of all regions, Latin America and Caribbean and Sub-Saharan Africa have the largest relative portfolio on climate resilience, with 68 percent of the grants addressing resilience to climate change in both regions. This is followed closely by the East Asia and Pacific region with 67 percent of the grants (Figure 3). About half of the portfolio in this region support activities in Small Island States, an area of particular focus for GFDRR through the Small Island States Resilience Initiative (SISRI).

Figure 3. Active GFDRR Portfolio Supporting Climate Resilience by Region in FY16



Note: Size of circles indicates relative portfolio amounts

While all three regions – Latin America and Caribbean, Sub-Saharan Africa and East Asia and Pacific - registered an increase in the proportion of grants supporting climate resilience compared to FY15 portfolio, Europe and Central Asia had the largest relative increase, with 47 percent of the funds allocated to the region supporting resilience to climate change. This is an increase of 6 percent compared with FY15, largely due to a US\$1.2 million grant on “*Strengthening Early Warning of Mountain Hazards in Central Asia*” funded by the SDC-GPCC contribution. The support to climate resilience in the Middle East and Northern Africa region remained the same as in FY15, as the focus there has been primarily on linkages to conflict and fragility. The South Asian region has had a small decrease (1 percent) compared with FY15.

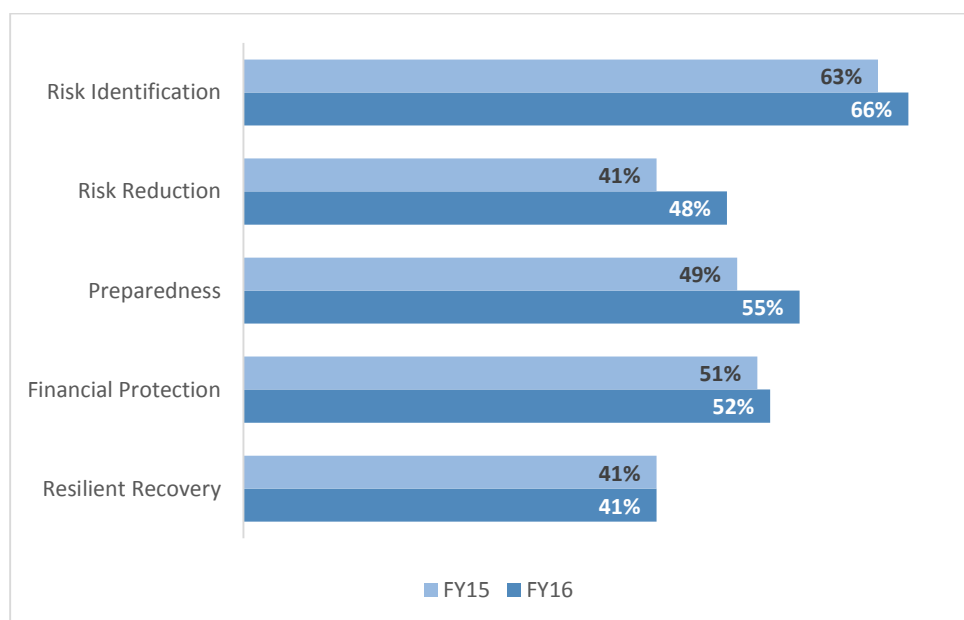
GFDRR’s portfolio also includes global grants, of which 52 percent supported climate resilience in FY16 - an increase of five percent compared with the FY15 portfolio. Thus, with the exceptions noted above, there has been an increased global and regional trend in the GFDRR portfolio supporting resilience to climate change.

In terms of GFDRR’s results pillars, a significant proportion of the GFDRR FY16 active grants contributing to risk identification, preparedness and financial protection also supported resilience to climate change. The largest increase relative to FY15 has been on preparedness, reflecting a significant recent increase in GFDRR support to hydromet and early warning (Figure 4).

Amongst FY16 grants supporting risk reduction, less than half (45 percent) support resilience to climate change, a proportion only slightly higher than in FY15. This requires attention to help ensure that reduction of natural disaster risks is not only focused on immediate events but also takes into account longer-term climate change trends, thus helping to prevent maladaptation. In resilient recovery, similarly, there may be scope to further strengthen the integration of climate adaptation and climate trends into recovery planning and responding to disasters caused by hydro-meteorological hazards.

The FY16 active portfolio supporting resilience to climate resilience is summarized in Annex B, while highlights and case studies are shown in Annex A.

Figure 4. Proportion of Active GFDRR Portfolio Supporting Climate Resilience by Results Pillars



II. GFDRR's Planned FY17 Portfolio on Resilience to Climate Change

The GFDRR FY17 Work Plan reflects its commitment to continuously deepen its engagement in resilience to climate change in areas where it has a comparative advantage. Amongst the new grants proposed for FY17, **66 percent (60 grants) address resilience to climate change** (Table 1). Assuming that all new planned grants are approved and that all grants in the FY16 portfolio remain active, the addition of these new grants to GFDRR's cumulative portfolio would result in 55 percent of total active grants supporting climate resilience in FY17 - up 6 percent from FY15 (see Figure 1).

Table 1. Proportion of GFDRR Grants Planned for FY17 that Support Resilience to Climate Change (RCC), by Region

<i>Region</i>	<i>Number of planned new Grants FY17</i>	<i>Number of new Grants addressing RCC</i>	<i>% of new grants addressing RCC</i>
South Asia	17	13	77
East Asia and Pacific	12	8	67
Sub-Saharan Africa	18	16	89
Europe and Central Asia	10	4	40
Latin America and Caribbean	8	8	100
Middle East and North Africa	9	3	33
Global	17	8	47
Total planned new grants FY17	91	60	66

Through the FY17 portfolio, GFDRR is working to address several challenges identified in the last report to the RCC Advisory Group³. Disaster risk management traditionally involved sectors such as urban and social resilience, but adding a climate angle has provided an opportunity to reach out to sectors that are also climate sensitive, such as land, water and coastal management. The proposed grant “*Climate Resilient Enterprise Development*” in Bangladesh will explore the opportunity to build small enterprises through micro-credits that will be further invested in new climate resilient systems. Another example is the planned “*Support for Landslide Risk on Tea Plantation Settlements*” in Sri Lanka, which aims to protect livelihoods through improved resilience of settlements exposed to landslides. The *Small Island States Resilience Initiative (SISRI)* has a strong emphasis on increased resilience and enhanced livelihoods for the most vulnerable people. In Kiribati, in particular, GFDRR is expected to contribute analytical insights to national strategies on whether to protect or retreat from atolls, using principles of decision making under uncertainty. The grant is also envisaged to contribute to an investment portfolio that will help Kiribati strengthen coastal resilience, water resources management and raising and forming new land for more concentrated urban expansion.

³ GFDRR (2015): *Resilience to Climate Change – an Overview of Support Provided by GFDRR*. Prepared for the First Meeting of the Resilience to Climate Change Advisory Group, October 25, 2015, Berlin, Germany

There is an increasing recognition that resilience to climate change and poverty reduction must be addressed jointly. Weather-related natural disasters are increasing in intensity and threaten to undermine international efforts to eradicate poverty by 2030 and booster shared prosperity. Up to 325 million extremely poor people, for example, will be living in 49 of the most hazard-prone countries in 2030⁴. Consequently, disaster and climate resilience must be an integral part of poverty reduction efforts and livelihood protection. The planned GFDRR grant on *“Measuring the Impact of Disaster and Climate Events”* in Latin America will analyze the impact of disasters and climate events on poverty and social vulnerability to better inform and influence World Bank-funded investments and Government strategies.

In FY17, several GFDRR grants will address social protection, to help target the most vulnerable people and buffer them from shocks. The grant *“Linking community early warning and early action for better social protection”* in Kenya, will enhance national social protection programs of cash transfers through development of a financial mechanism designed to enable forecast-based financing for preparedness. Another planned grant, *“Climate change and disaster-responsive Social Protection in Ghana, Côte D’Ivoire, Kenya and Madagascar”*, will analyze the state of social protection systems in selected countries to ascertain their suitability and readiness for the implementation of additional climate and disaster responsive components.

While there are indications that the FY17 grants supporting climate resilience are broadening in scope, GFDRR will continue to work on increasing its support to grants addressing “softer” sectors that directly contribute to improved livelihoods and poverty reduction.

The proposed FY17 pipeline is also contributing to addressing institutional challenges, in particular the need to promote resilience across development planning and work more with institutions with broader inter-sectoral mandates (such as Planning and Financial Ministries). Several of the proposed grants have listed Planning and Financial Ministries as partners, and 16 (about a third of the country-focused grants) are specifically targeting inter-sectoral institutions. Further integration of climate resilience considerations into disaster risk management projects is likely to increase the likelihood of more cooperation with institutions with a broader inter-sectoral mandate, as climate change generally involves a broader scope than disaster risk management.

The grants proposed for FY17 financing that support resilience to climate change are summarized in Annex C.

⁴ Overseas Development Institute October 2013

Looking Ahead - Contribution to Post-Paris Implementation

The Paris agreement places a strong international focus on adaptation, capacity-building, loss and damage, coordination, and delivery of resources in support of country-driven strategies. With its unique combination of global knowledge and investment leveraging assistance, GFDRR is well positioned to contribute to post-Paris implementation in these areas. Funding for resilience to climate change is expected to increase, both internationally, as well as through the World Bank Group's commitment to increase the climate-related share of its portfolio from 21 to 28 percent by 2020 and to scale up support for resilience and adaptation – as reflected in its recent Climate Change Action Plan.

The extent to which GFDRR would be able to support the post-Paris agenda and the Climate Change Action Plan will depend on access to resources, internal capacity, and feedback from the RCC Advisory Group. The following suggestions for GFDRR engagement are given for consideration of the Advisory Group:

1. **Supporting transformative policies and strengthening institutions, particularly by transforming climate commitments and priorities into action.** It is proposed that GFDRR continue to support the development of *resilience metrics*, in particular the application of a socio-economic resilience indicator to selected countries. Assuming access to scaled-up resources, GFDRR could also support the application of these metrics to *results-based aid* (such as Program for Results, and Resilience Development Policy Financing instruments). Finally, it is proposed that GFDRR assist selected countries to enhance their ability to deliver on their *Nationally Determined Contributions* (NDCs). This is already envisaged in Pakistan under the FY17 plan, through the proposed project “*Climate Resilient Development Compact*” (See Annex 2).
2. **Leveraging resources by optimizing the use of concessional financing.** Under the Small Island States Resilience Initiative (SISRI), supported by Luxembourg, GFDRR is collaborating with OECD on a *joint report on financing for climate change and disaster risk reduction in Small Island Developing States*. The report is expected to serve as a basis for discussion with development partners on how to reduce aid fragmentation and optimize financing to vulnerable island states. Subject to scaled-up resources, GFDRR could also assist selected countries in formulating *simple investment plans* guided by their National Determined Contributions, and help them *prepare a pipeline of scaled up resilience projects*.
3. **Scale up climate action.** GFDRR has the potential to play an important role in helping to scale up resilience in World Bank operations, particularly in areas where GFDRR has recognized expertise and sectors that are receptive to mainstreaming. This would be primarily provided through analytical work and specialized technical assistance in support of *resilient cities*; *resilient transport* (building from on-going grants to Mozambique and Myanmar); *risk-informed land use*, especially in sensitive coastal, mountainous and river basin areas; and in contributing to the Climate Action Plan's “*leave no one behind*” strategy, through its support to *financial and social protection, early warning and the Small Island States Resilience Initiative (SISRI)*.
4. **Work in partnership with others to build knowledge base and create new solutions.** GFDRR envisages a stronger participation at international policy fora and in sharing global experiences on climate and disaster risk management. Knowledge partnerships are expected to accelerate under the *Climate Risk and Early Warning Systems Initiative (CREWS)*, through collaboration with the World Meteorological Organization and UNISDR; and more informally, under SISRI, with OECD and the IMF. Looking forward, GFDRR is also expected to contribute to the body of knowledge guiding *the Loss and Damage Agenda*, and the approval procedures of the *Green Climate Fund*.

Annex A. Highlights of Current Portfolio:

How GFDRR Supports Resilience to Climate Change

GFDRR's grants supporting resilience to climate change fall into the following categories:

- a) **Technical and Implementation Assistance Grants:** Outputs related to technical knowledge, analysis and operational tools to address resilience to climate change.
- b) **Just-in-time Capacity Building and Advise:** Rapid technical assistance to client-countries that responds to a window of opportunity for critical policy reforms, or where waiting for normal processing of technical assistance grants would not be feasible. These grants are limited to a maximum of US\$50,000.
- c) **Analytical Products:** Funding of high-priority analytical work that emphasizes climate resilience, including Best Practice Notes.

Below is an update of the most recent grants and initiatives supported by all sources of funds. In addition, case studies are provided to give a better insight in the types of grants funded through GFDRR that are supporting resilience to climate change.

Technical and Implementation Assistance Grants

In FY16, GFDRR approved funding for around 30 technical and implementation assistance grants, including the projects *"Strengthening Early Warning of Mountain Hazards in Central Asia"* and *"Capacity Building for Climate Resilient Infrastructure in Bhutan and Nepal,"* both funded by SDC-GPCC. Bhutan and Nepal face difficult challenges managing their landslide risks from their challenging terrain, the young geology of the Himalayan Mountains, and annual monsoon rainfall. The objective of this grant is to reduce the impact of climate change on critical transport infrastructure for communication, connectivity and livelihoods in Bhutan and Nepal. The roads targeted are key networks connecting rural areas to the capitals of Nepal and Bhutan, and are essential for maintaining the lifeline of goods and services. Ensuring that climate risk assessment is incorporated into their design and maintenance ultimately contributes to building the resilience of both nations to weather-related disasters and climate change risks.

The grant *"Climate Change Adaptation and Disaster Risk Reduction for Sustainable Development in Madagascar"* also funded by SDC-GPCC, is still pending, but expected to be approved in FY17.

The following case study examples illustrate how GFDRR currently is supporting resilience to climate change through technical assistance grants.

Box 2: Strengthening Early Warning of Mountain Hazards in Central Asia

The objective of this US\$1.2 million technical assistance grant, funded through SDC-GPCC support and approved by GFDRR in late 2015, is to strengthen the capacity of Central Asia National Meteorological and Hydrological Services (NMHSs) to monitor, forecast, and develop impact-based early warning of mountain hazards. The timescales range from weather nowcasting (hours) to seasonal and decadal climate predictions, and include weather, avalanche, flash floods, debris flow and landslide forecasting, and early warning. The grant covers NMHS in five countries - Kazakhstan, Kyrgyz Republic, Tajikistan, Uzbekistan, and Turkmenistan.

The technical assistance is provided through a “twinning” approach, where highly developed NMHSs with relevant expertise in mountainous regions work together with the Central Asian NMHSs on a daily operational basis while also providing specialized training, aligned with the methodologies of the World Glacier Monitoring Service (WGMS).

The technical assistance also supports regional meetings to enhance cooperation and information sharing on glaciers, pursuing both higher level political and more specific technical agreements on monitoring and forecasting. It is developing regional training modules in both Russian and English, based on a modular approach, where different modules cover separate but related topics (such as snowmelt forecasting, decadal climate projections and downscaling, and merging of climate projections with hydrology to generate long-term runoff projections).

The grant complements a number of World Bank operations and partner projects that aim to strengthen the Central Asian NMHSs’ capacities with technical assistance aimed at filling key capacity gaps on preparedness for weather-related events in Central Asia.



Box 3: Building Disaster Resilience to Natural Hazards in Sub-Saharan Africa Regions, Countries and Communities

The Inter-Governmental Authority on Development (IGAD) is mandated to promote regional cooperation, development and drought control across six Eastern African states - Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda - covering a population of around 250 million. IGAD member have made encouraging progress towards this common goal, but important gaps remain in disaster risk management and climate change adaptation policies.

Through US\$2.5 million financing from the European Union Intra-Africa, Caribbean and Pacific program (EU-ACP), GFDRR has been supporting IGAD countries with the program *“Building Disaster Resilience to Natural Hazards in Sub-Saharan African Regions, Countries and Communities”*. The objective is to strengthen and accelerate the effective implementation of a comprehensive disaster risk reduction and risk management framework at the regional level. The four-year program aims to, amongst other goals, promote a more coherent regional strategy to integrate disaster risk management and climate adaptation; strengthen an IGAD Disaster Response Fund; strengthen flood early warning systems at the regional level; develop capacity at the level of the IGAD Secretariat and member states; mainstream disaster risk management in school curricula and foster youth engagement; and promote pilot initiatives in climate smart agriculture.

The activities of this program are closely coordinated with ongoing programs developed by the European Union, United Nations Agencies and other development partners to ensure synergies and maximize results.



Box 4: Bhutan Weather and Disaster Resilience

Bhutan is highly prone to a range of hydro-meteorological hazards including glacial lake outburst floods, flash floods, river floods, landslides, cloudbursts, and windstorms. Most of the infrastructure, fertile agricultural land, and over 70 percent of the settlements are located along the main drainage basins and are at high risk of flooding. This makes the country one of the most disaster-prone countries in the South Asia region.

In FY 16, GFDRR approved a US\$1 million technical assistance grant for “*Bhutan Weather and Disaster Resilience*” through the Japan-World Bank Trust Fund. The objective is to strengthen the capacity of the Royal Government of Bhutan to collect and disseminate weather, flood forecasting and climate information to improve disaster preparedness. It will also pilot an agromet decision support system to help farmers adapt to changing weather patterns and support a community based disaster early warning system in selected *thromdes* (municipalities) and *dzongkhags* (districts).

Trainings and exchange visits between the Bhutanese and the Japanese experts on water hazard and disaster risk management are expected to be organized, focusing on early warning systems, snow and glacier monitoring, landslide management and other relevant aspects.



Box 5: The Small Island States Resilience Initiative (SISRI)



Small Island States are marked by small sizes, geographical isolation, high degrees of exposure, and low or volatile economic growth, making them especially vulnerable to climate change and natural disasters. In 2014, the World Bank launched the Small Island States Resilience Initiative (SISRI) with the objective of helping up to 24 countries in the Caribbean, Pacific and African/Indian Ocean reduce climate and disaster risk. The initiative is expected to become an important contributor to implementing the Paris Agreement on Climate Change.

GFDRR has supported SISRI through a US\$400,000 core MDTF contribution, and a US\$960,000 contribution by the Government of Luxembourg approved recently. The technical assistance is helping to:

- Support a community of practice both internally in the World Bank and externally amongst Small Island States. This helps promote south-south exchanges, enhanced cross-regional learning, and links to international centers of expertise;
- Develop and disseminate knowledge, focusing on challenges common to Small Island States (such as management of population retreat, social protection, and coastal resilience);
- Support countries in preparing a pipeline of climate and disaster resilience investments and resolve implementation bottlenecks through just-in time and operational support – helping them absorb and use resilience funds more efficiently, and move towards a country-led resilience program that is integrated with development priorities.
- Facilitate Small Island States' access to scaled-up and more efficient financing, by helping to map out, prioritize, and aggregate sources of funds for climate and disaster resilience, and seek to fill gaps where needed.

Depending on future resources, SISRI could help mobilize a pipeline of investment financing for climate and disaster resilience of US\$510-820 million over the 2016-18 period, benefiting 20-24 Small Island States.

Just-in-time Capacity Building and Advice

To date, GFDRR has funded 8 just-in-time capacity building and advice activities, of which 6 were approved in FY16. Demand for this type of grants, which were introduced in 2015, is expected to rise as they become more widely known within the World Bank, and will be further reassessed at the end of 2016.

Priority has been given to activities with the potential to leverage wider investments and/or support policy reforms that helps build resilience. The grant given to Morocco's Emerging Resilience Funds (see case story below) is a good example of this type of leveraging. The most recent award was a US\$35,880 to Paraguay for *"El Niño Emergency Technical Assistance for Transport Infrastructure"*. This proposal aims to assist the Ministry of Public Works in carrying out an infrastructure damage assessment, using the political momentum of the recent El Niño floods to promote better consideration of climate and disaster effects in the transport sector.

Box 6: Capacity Building for Morocco's Emerging Resilience Fund



Morocco is exposed to significant recurrent hazards, particularly floods, droughts, and heat waves, all of which are being exacerbated by climate change. Recognizing that disasters can have severe impacts and create social instability, Morocco has invested significantly in recent years to develop a risk management reform program, combining institutional reform with risk reduction investments, insurance to cover residual risks, and a safety net program for the most vulnerable. Climate change has also become an area of particular interest for Morocco in light of the CoP22 which will be hosted there at the end of 2016.

In early 2015, the Government issued an open call for proposals to pilot an emerging resilience fund for climate and disaster risk resilience. GFDRR mobilized a just-in-time grant of US\$50,000, supported by SDC-GPCC financing, that helped refine criteria for project selection and evaluated 90 proposals, of which 23 were selected for funding. This also contributed to a US\$200 million World Bank operation which will be the first resilience program financed under a Program for Results (PforR) instrument. PforR's unique features include using a country's own institutions and processes, and linking disbursement of funds directly to the achievement of specific program results. The Morocco operation is expected to provide a test case for the application of results-based aid more widely to resilience programs.

Analytical Products

GFDRR has provided funding to several analytical products that support resilience to climate change. Amongst them was a US\$295,000 grant funded through SCD-GCCA support, to develop a more systematic monitoring and evaluation approach for resilience-building operations. A second grant of US\$350,000, also supported by SCD-GCCA, was awarded in September 2015 to strengthen the impact assessment of climate change on poverty. These two grants are described in more detail on the September 2015 RCC Report.

More recently, GFDRR has approved an analytical product aimed at better understanding the impact of floods and droughts on poor households in Bolivia (see selected case study below).

Supporting analytical products, particularly to improve the measurement of resilience and the understanding of climate and disaster impacts on the most vulnerable, will continue to be a high priority for GFDRR.

Box 7: Generating Disaster Risk Information to Build Resilience in Poor Communities in Bolivia

Bolivia has the highest climate change vulnerability risk in South America. Despite recent gains, most of its population is still battling poverty and is extremely vulnerable to natural hazards. Breaking the poverty cycle requires a better knowledge of the linkages between disaster risk management, climate change and poverty alleviation policies.

In January 2016, GFDRR approved a US\$118,000 study (funded through SDC-GCCA support) to better understand how households constantly exposed to droughts and floods in Bolivia adapt to these events, and derive policy recommendations to mitigate their impact on the poor. The study will look at how the impact of disasters can exacerbate or move people in or out of poverty, and help target DRM interventions to better assist the poor. Deepening the understanding of the relationship between flood and droughts and impacts on vulnerable households is paramount to the design of better climate change adaptation strategies. The study will also include a gender perspective by assessing whether/how women are disproportionately affected by these events; whether men and women opt for different coping mechanisms and; if these potentially different interests and needs are represented in existing policies.



The study is in its initial stages, and results are expected by September 2016. It would be linked to the World Bank's Disaster Risk Management Development Policy Credit to Bolivia to ensure alignment with the broad Country Strategic Alliance.

GFDRR Thematic Contribution to Resilience to Climate Change

GFDRR's specialized technical teams also provide focused technical support on resilience to climate change. Below is a short description of the thematic programs and how they contribute to the RCC cross-cutting theme.

The Innovation Lab

Supports the use of science, technology, open data, and innovation to empower decision-makers to increase resilience

Think Hazard!

This tool helps non-experts consider natural hazard information in project design, determine the potential likelihood of occurrence and what actions to take to make projects more resilient. In addition, 14 grants under the Innovation Lab supported resilience to climate change in the FY16 portfolio. Examples include "The Challenge Fund and Open Data for Resilience Scoping Project" and "Innovation in Risk Assessment and Risk Financing – Scale Up"

Resilient Cities

Supports cities to prepare and adapt to changing climate conditions, and to withstand and recover rapidly from disruptions related to natural disasters and systemic shocks

Strengthen DRM and Resilience in Central American Cities

Support to national and local governments in Central America to better understand climate change and disaster resilience of in their urban systems, identify policy actions and specific priority investments.

Disaster Risk Financing and Insurance

Working to strengthen the financial resilience of governments, businesses, and households against the budgetary and economic shocks caused by natural hazards and other climatic shocks.

Caribbean Disaster Risk Financing Program

Through this program, GFDRR is supporting Belize, Grenada, Jamaica, Saint Lucia and Vanuatu in building a technical and institutional capacity in disaster risk financing. This work is undertaken under the umbrella of the Comprehensive Debt Framework (CDF) for the Caribbean

Hydromet

Supporting countries to develop modern, sustainable, and service-oriented weather, climate and hydrological services

CREWS – Climate Risk and Early Warning Systems Initiative

CREWS is a partnership between GFDRR, with the World Meteorological Organization (WMO) and the UN Office for Disaster Risk Reduction (UNISDR), funded by the Governments of France, Luxembourg, Australia, Canada and Netherlands, with Japan and the UK as supporting partners. CREWS's objective is to help the most vulnerable countries enhance their early warning systems to fully cover the population exposed to extreme climate events by 2020. The expected result is strengthened early warning systems that protect lives, livelihoods and assets in Least Developed Countries and Small Island Developing States.

Inclusive Community Resilience

Supporting community driven development, social inclusion, gender equality, and increased civil society engagement in disaster and climate risk management

Mozambique: Integration of Disaster Risk Reduction and Climate Adaptation into District Development Plans

This grant provides technical assistance to integrate DRR and CCA in District Development Plans to increase the resilience of vulnerable communities in three districts in the Gaza Province, targeting 25,000 people in 32 communities. Community members will be trained on assessing hazards, risks and vulnerabilities, and establishing early warning systems.

Safer Schools

Aims to make schools more resilient by reducing the physical impacts of climatic hazards on school infrastructure

Climate Resilient Schools

GFDRR launched the Safer School Program in 2014, with the objective of making schools more resilient by reducing the impacts of climatic hazards on school infrastructure. GFDRR has supported activities on school safety in several countries exposed to weather-related disaster such as Mozambique – where up to 1000 classrooms are damaged each year due to cyclones and floods. The Safer School program is expected to be extended to Samoa and Tonga in FY17.

Resilient Recovery

Supports post-disaster assessments and recovery frameworks to help countries mainstream disaster risk management, climate resilience and recovery readiness into development policy

Support to Resilient Recovery Frameworks

The Resilient Recovery program has provided support to multiple Post Disaster Needs Assessments (PDNAs), including most recently to Fiji following cyclone Winston. As the Resilient Recovery Program develops it helps plan prioritize and fund sustainable recovery, taking into account building back better principles. Disasters often provide unique opportunities to strengthen climate resilience.

Small Island States Resilience Initiative (SISRI)

Supporting Small Island States to reduce climate and disaster risks through specialized technical and operational support, a dedicated community of practice, knowledge sharing and assistance in accessing scaled up and more efficient financing

Financing for climate change and disaster risk reduction in SIDS

The SISRI team is collaborating with OECD on a joint report mapping all development financing for climate and disaster resilience in Small Island Developing States (SIDS). This report will identify patterns of financing vis-à-vis the countries vulnerabilities and income status, and recommend ways to make it more efficient and targeted.

Annex B - List of GFDRR Active FY16 Portfolio

Country	Project	USD	Source of Funds
South Asia (SAR)			
Bangladesh	Capacity Building for Managing Storm Surge, Saline Intrusion and Climate Change in Coastal Bangladesh (GFDRR_Track 2-MDTF)	200 000	MDTF
Bhutan	Bhutan Weather and Disaster Resilience	500 000	Japan-WB
Bhutan and Nepal	Capacity Building for Climate Resilient Infrastructure in Bhutan and Nepal	700 000	MDTF/SDC
India	India: Support to India's National Cyclone Risk Mitigation Program (GFDRR: Track II TA Core)	267 300	MDTF
India	India (Supervision) Support to India's National Cyclone Risk Mitigation Program	29 700	MDTF
India	India - Support to Strengthen India's National DRM Capacity	450 000	MDTF
India	Improving service delivery of DRM in India	2 000 000	Japan-WB
Nepal	Nepal - Developing Climate Services in Nepal - Track 2 MDTF	150 000	MDTF
South Asia	GFDRR: Accelerating implementation: support to SAR priority country programs	1 360 997	MDTF
South Asia	SOUTH ASIA: PROMOTION OF RESILIENT INFRASTRUCTURE	1 000 000	Japan-WB
Sri Lanka	Sri Lanka - Mainstreaming Disaster Risk Management at Urban Level	910 000	Japan-WB
Sri Lanka	Strengthening Capacity to Mainstream Disaster Risk Management	225 000	MDTF
Sri Lanka	Development of a Comprehensive Climate Risk Mitigation Investment Plan for "Mundeni Aru" River Basin	570 000	Japan-WB
East Asia and Pacific (EAP)			
Indonesia	Indonesia: GFDRR Mainstreaming Disaster Risk Reduction in Indonesia	1 635 000	MDTF
Indonesia	Disaster Risk Management Program for the Third National Program for Community Empowerment in Urban Areas Project	2 380 000	MDTF
Indonesia	Indonesia (BETF) PNPM-DRR Co-Financing	630 000	MDTF
Indonesia	Just-in-time Support for Capacity Building of National and Sub-national DRM Agency - GFDRR Track 2-MDTF	800 000	MDTF
Kiribati	(RETF) Kiribati Adaptation Project (Phase III) (GFDRR: Tk2 T	900 000	MDTF
Kiribati	Kiribati Adaptation Project - Phase III	90 000	MDTF
Lao PDR	Lao PDR – EAP DRM Specialist	45 313	Japan-WB
Lao PDR	Lao PDR's Public Investment and Financing Systems	588 000	MDTF
Mongolia	Support to the Mongolia DRM Program – GFDRR Track 2 MDTF	966 000	MDTF
Myanmar	Myanmar: Floods Needs Assessment and Recovery Planning	320 000	MDTF
Pacific Islands	Marshall Islands - Pacific Catastrophe Risk Insurance Pilot	250 000	Japan-WB
Pacific Islands	Tonga - Pacific Catastrophe Risk Insurance Pilot Season 3	250 000	Japan-WB
Pacific Islands	Sustainable Energy Industry Development Project GFDRR Financing	270 000	Japan-WB
Pacific Islands	Sustainable Energy Industry Development Project Implementation Support GFDRR Grant	30 000	Japan-WB

Pacific Islands	Vanuatu - Pacific Catastrophe Risk Insurance Pilot Season 3	250 000	Japan-WB
Papua New Guinea	Papua New Guinea: (RETF) PNG Disaster Risk Management & CCA	1 703 200	MDTF
Papua New Guinea	Papua New Guinea: (BETF) PNG Disaster Risk Management & CCA	170 000	MDTF
Philippines	Visayas Region Damage and Vulnerability Assessment for Sustainable Recovery	203 500	MDTF
Philippines	Philippines - Supporting the Philippine Disaster Risk Reduction	700 000	MDTF
Philippines	Philippines: Supporting the Philippine Disaster Risk Reduction and Management (DRRM) Agenda (GFDRR: Tk2 TA Core)	2 050 000	MDTF
Philippines	Support to institutionalization of Post-Yolanda Recovery	206 307	MDTF
Philippines	Enabling Scaled up Risk Reduction Investments in the Philippines	1 850 000	Japan-WB
Solomon Islands	Community Resilience to Climate Change and Disaster Risk in Solomon Island Project	1 800 000	EU-ACP
Solomon Islands	Solomon Islands – PDNA Solomon Islands Floods April 2014	525 000	EU-ACP
Solomon Islands	Community Resilience to Climate and Disaster Risk Project (CRISP) - BETF Supervision	200 000	EU-ACP
Tonga	Technical Assistance for Recovery and Reconstruction Planning	98 000	EU-ACP
Tonga	Tonga Cyclone Ian Reconstruction and Climate Resilience _ACP-EU W2	1 800 000	EU-ACP
Tonga	Pacific Resilience Program - Tonga - GFDRR Co-financing Grant (RE)	1 500 000	Japan-WB
Tonga	BETF Supervision - Tonga Cyclone Ian Reconstruction and Climate Resilience (GFDRR: ACP-EU W2)	200 000	EU-ACP
Vanuatu	BETF Supervision – Increasing Resilience to Climate Change and Natural Hazards in Vanuatu (GFDRR: ACP-EU Window 2)	270 000	EU-ACP
Vanuatu	EAP: Vanuatu - RETF - Increasing Resilience to Climate Change and Natural Hazards in Vanuatu (GFDRR: ACP-EU Window 2)	2 730 000	EU-ACP
Vanuatu	Rapid Post-Disaster Needs Assessment of Tropical Cyclone PAM	160 692	EU-ACP
Vietnam	Natural Hazard Risk Management Program for Viet Nam – Phase III	1 000 000	MDTF
Vietnam	Vietnam - Strengthening National DRM Investments in Vietnam	800 000	MDTF
Sub-Saharan Africa (AFR)			
Comoros	Mainstreaming Disaster Risk Reduction for Sustainable Poverty Reduction in the Union of Comoros (GFDRR Track II TA Core)	525 000	MDTF
Burkina Faso	(BETF) B. Faso Mainstreaming Disaster Reduction and CCA (GFDRR TRACK II Core)	240 000	MDTF
Burkina Faso	Burkina Faso - Disaster Risk Management and Climate Adaptation Project	1 260 000	MDTF
Burundi	Burundi - Flood and Landslide Preparedness to Improve Community Resilience	743.982	EU-ACP
Democratic Republic of Congo	Improving DR Congo's capacity to manage, monitor and respond to natural hazards in the region of Goma	1 800 000	Japan-WB
Ethiopia	ET - Woreda Disaster Risk Reduction and Climate Change Adaptation Planning	750 000	EU-ACP
Ghana	(RETF) Ghana: Disaster Risk Management Country Plan (GFDRR: Track II TA Core)	800 000	MDTF
Ghana	(BETF) Ghana: Disaster Risk Management Country Plan (GFDRR: Track II TA Core)	700 000	MDTF
Kenya	Kenya - Policy Dialogue for the Development of a Comprehensive Natural Disaster Risk Management Program	500 000	MDTF

Malawi	Disaster Risk Management in Malawi Country Plan II (GFDRR Track II)	1 000 000	MDTF
Mali	Mali: Mainstreaming Disaster Reduction in Mali (GFDRR Track II TA Core)	1 260 000	MDTF
Mali	Mali: (BETF) Mainstreaming Disaster Reduction in Mali (GFDRR Track II TA Core)	140 000	MDTF
Mozambique	Roads and Bridges Management and Maintenance Project Phase 2	15 634 830	MDTF
Mozambique	Mozambique - DRM Country Framework Project	1 000 000	MDTF
Mozambique	Mozambique: Enhancing Spatial Data for Flood Risk Management Project (Zambezi) - Track III Callable	4 053 129	MDTF
Mozambique	Mozambique Safer Schools Program - Phase 2	1 500 000	MDTF
Mozambique	Mozambique: Integration of DRR and CCA into District Development Plans	580 309	MDTF
Niger	Niger: Comprehensive Flood Impact Assessment and Recovery Planning	146 275	MDTF
Niger	Niger: Community Based Disaster Risk Reduction	930 000	EU-ACP
Nigeria	GFDRR Track 2-Transforming Emergency Response towards Long Term Disaster Risk Reduction in Nigeria Project	200 000	MDTF
Nigeria	Nigeria - Strengthening Capacity for Disaster Risk Management	650 000	EU-ACP
Rwanda	Rwanda: Development of Comprehensive Disaster Risk Profiles	691 000	EU-ACP
Rwanda	Building Resilience to Flood Hazards in Northwest Rwanda through Improved National and Local Capacity	500 000	MDTF
Senegal	Senegal: (RETF) Disaster Risk Management and Climate Change Adaptation	1 100 000	MDTF
Senegal	Senegal (BETF Supervision) Disaster Risk Management and Climate Change Adaptation in Senegal	140 000	MDTF
Sub-Saharan Africa	Support the establishment of a Technical Centre for Disaster Risk Reduction and Climate Change Adaptation (GFDRR ACP-EU Window 1)	900 000	EU-ACP
Sub-Saharan Africa	AFR: The Horn of Africa Open Data Mapping Project: Building Resilience by Sharing data to Rebuild Region (GFDRR: ACP/EU W1)	290 000	EU-ACP
Sub-Saharan Africa	AFR Region: IGAD's Horn of Africa Regional Disaster Resilience and Sustainability Program (GFDRR: ACP/EU W1)	990 000	EU-ACP
Sub-Saharan Africa	Preparing Collaboration with Regional Organizations in Africa	500 000	EU-ACP
Sub-Saharan Africa	Sahel- National and Regional Disaster Response and Resilience Program	420 000	EU-ACP
Sub-Saharan Africa	Development of Risk Reduction Measures, Preparedness and Response to Disaster Risk in Central Africa	300 000	EU-ACP
Sub-Saharan Africa	Strengthening Flood Management in White Volta Basin	1 500 000	Japan-WB
Sub-Saharan Africa	Modernizing Hydro-Meteorological Services to Strengthen Climate Resilience in Africa	1 000 000	MDTF
Sub-Saharan Africa	GFDRR Innovation Labs: Creating the Enabling Environment for Risk financing	2 307 206	EU-ACP
Sub-Saharan Africa	GFDRR Innovation Labs: Facilitating Regional Risk Financing and Knowledge Sharing Initiatives	1 539 380	EU-ACP
Sub-Saharan Africa	Strengthening DRR Coordination, Planning and Policy Advisory Capacity of ECCAS (R2-BE, phase 1)	1 369 100	EU-ACP
Sub-Saharan Africa	Strengthening DRR Coordination, Planning and Policy Advisory Capacity of IGAD (Supervision of R2-RE, phase 1)	275 750	EU-ACP

Sub-Saharan Africa	Strengthening the capacity of National Hydrological Services in Sub-Saharan Africa	450 000	MDTF/SDC
Sub-Saharan Africa	Strengthening DRR Coordination, Planning and Policy Advisory Capacity of IGAD (R2-RE, phase 1)	2 486 250	EU-ACP
Sub-Saharan Africa	Climate and Disaster Risk Management Multi-Sectoral Plan Preparation in Selected Sub-Saharan African Countries	450 000	MDTF
Tanzania	Strengthening Community Capacity for DRR Interventions in Drought Prone Regions Through Children (ACP/EU W2)	793 000	EU-ACP
Togo	Togo: Integrated Disaster and Land Management Project	4 290 000	MDTF
Togo	Togo - RETF - AFR: Integrated Disaster and Land Management P	3 000 000	EU-ACP
Uganda	Uganda: Risk Assessment and Resilience Action Plan	650 000	EU-ACP
Zimbabwe	Mainstreaming DRR and CCA into Local Dev. Planning in Zimbabwe through the Zambezi River Basin Initiative	499 831	EU-ACP
Europe and Central Asia (ECA)			
Armenia	Armenia: Vulnerability Assessment of Public Facilities	220 000	MDTF
Armenia	Armenia National Disaster Risk Management Program	1 250 000	Japan-WB
Central Asia	Kyrgyz Republic: Strengthen the Kyrgyz Republic Disaster Risk Reduction and Response Institutions and improve the Cou (GFDRR: Track II TA Core)	400 000	MDTF
Central Asia	Strengthening Early Warning of Mountain Hazards in Central Asia	1 200 000	MDTF/SDC
Europe and Central Asia	Enhancing knowledge management and mainstreaming DRM in the ECA region	600 000	MDTF
Georgia	Advancing the DRM Agenda in Georgia	350 000	MDTF
Kyrgyz Republic	Kyrgyz Republic Safe Schools Program BE	98 000	MDTF
Moldova	GFDRR: Moldova Disaster and Climate Risk management Capacity	100 000	MDTF
Serbia	Serbia Rapid Damage Assessment Floods May 2014 - GFDRR Track 3 MDTF TA	250 000	MDTF
Turkey	Building Resilience in Turkey	1 500 000	Japan-WB
Latin America and Caribbean (LCR)			
Belize	Belize: Hazard and Risk Assessment Framework Framework for Belize: Prioritization of an Investment Plan (GFDRR: ACP/EU W2)	1 150 000	EU-ACP
Bolivia	Generating Disaster Risk Information to Build Resilience in Poor Communities in Bolivia	150 000	MDTF
Bolivia	Bolivia: Qualitative Study of Floods, Droughts and Pathways out of Poverty	118 000	MDTF/SDC
Bolivia	Socio-Economic Impact of Disaster	96 500	MDTF
Brazil	Innovation in Disaster Risk Management Decision Making in Brazil	1 265 000	Japan-WB
Caribbean	MoSSaiC Caribbean Community of Practitioners (GFDRR_ACP-EU W1)	550 000	EU-ACP
Caribbean	Belize - Caribbean Disaster Risk Financing Program	233 000	EU-ACP
Caribbean	Jamaica - Caribbean Disaster Risk Financing Program	233 000	EU-ACP
Caribbean	Grenada - Caribbean Disaster Risk Financing Program	233 000	EU-ACP
Caribbean	Saint Lucia - Caribbean Disaster Risk Financing Program	233 000	EU-ACP

Caribbean	ACP-EU NDRR Program – W1: Strengthening Public Investment in Disaster Risk Reduction and Climate Change Adaptation in the Eastern Caribbean	636.900	EU-ACP
Central America	Central America Disaster Risk Financing Engagement (GFDRR Track II MDTF)	500 000	MDTF
Central America	Strengthening Climate Information and Early Warning Systems	700 000	Japan-WB
Central America	Strengthen DRM + Resilience of CA cities	1 000 000	Japan-WB
Dominica	Spatial Data Management and Identification of Vulnerable Schools and Emergency Shelters (GFDRR: ACP/EU W2)	722 000	EU-ACP
Ecuador	Ecuador _Furthering DRM Dialogue at the Municipal Level in Ecuador	200 000	MDTF
El Salvador	Mainstream Disaster Risk Management in El Salvador Education Sector	1 040 000	Japan-WB
Guatemala	GUATEMALA: AGRICULTURE INSURANCE MARKET DEVELOPMENT (GFDRR: TK3 MDTF CALLABLE)	491 142	MDTF
Jamaica	Jamaica - Strengthening Disaster Risk Management and Climate Resilience in Jamaica's Development Planning Process	859 849	EU-ACP
Latin America	LCR Region: - BETF: Caribbean Risk Information Programme to support the Integration of DRM Strategies in Critical Sectors (GFDRR: ACP-EU Window 1)	1 340 000	EU-ACP
Latin America	Technical Assistance and Capacity Building to Expand and Mainstream DRM Activities in the LCR Region - GFDRR Track 2 MDTF	728 000	MDTF
Mexico	Sharing Best Practices and Lessons Learned from Mexico	100 000	MDTF
OECS Countries	Saint Lucia: Hazard and Disaster Risk Assessment Framework	300 000	EU-ACP
Peru	Mainstreaming DRM in Peru's Education Sector	1 400 000	Japan-WB
Uruguay	Strengthening Uruguay Meteorological Services	200 000	MDTF
Middle East and North Africa (MNA)			
Saudi Arabia	Saudi Arabia: Comprehensive Risk Profiling and Assessment	850 000	MDTF
Egypt, Arab Rep	Strengthening DRM in Egypt Project - GFDRR	500 000	Japan-WB
Global			
World	Best Practices on Building Power Sector Resilience to Weather and Geological Risks	100 000	MDTF
World	Report Series Contributing to the Global Assessment Report 2	300 000	MDTF
World	Technical input to the Global Assessment Report 2015 (GFDRR_TRACK 3 TA	229 500	MDTF
World	Award for Using Post-Disaster Social Impacts Analysis to Complement DaLA	330 000	MDTF
World	Global: Disaster Recovery Framework Guide and Case Studies	1 228 000	MDTF
World	Disaster Risk Assessment Capacity Building and Community Building	200 000	EU-ACP
World	GFDRR Country Evaluation 2015	500 000	MDTF
World	Global: GFDRR Anchor - Strengthening Weather and Climate Information Systems	2 499 598	MDTF
World	Resilient Cities - Rapid Risk Diagnostic Framework - GFDRR TRACK 2 MDTF-TA	800 000	MDTF
World	Knowledge and Learning in East Asia and Pacific	887 883	MDTF
World	Tracking International Financing for DRM through a Policymaker	150 000	MDTF

World	Learning Exchange for 201 WCDRR in Sendai	355 000	MDTF
World	Socio-Economic Benefits of DRM Report - GFDRR Track 2 MDTF	200 000	MDTF
World	Mainstreaming DRM through Simple and Robust Hazard Analytics	825 000	MDTF
World	Evolving risk: Influencing Decision Makers on the Potential to Reduce Disaster Risk of Tomorrow	210 000	MDTF
World	GFDRR: Civil Society Partnership Strategy	150 000	MDTF
World	LOSS & DAMAGE ESW - GFDRR T2-MDTF	340 000	MDTF
World	GFDRR Innovation Labs: Partnerships, Training and Communication	270 000	MDTF
World	GFDRR Innovation Labs: Enhancing Risk Identification Quality	230 000	MDTF
World	Open Data for Resilience Technology Development” Project	185 000	MDTF
World	Small Island States Resilience Initiative (SISRI)	400 000	MDTF/Luxembourg
World	Innovation in Risk Assessment and Risk Financing – Scale up	600 000	MDTF
World	Just-in-Time Capacity Building and Advice for Climate Resilience	3 000 000	MDTF/SDC
World	Challenge Fund and Open Data for Resilience Scoping Project	1 514 480	MDTF
World	Support to Urban Flood Community of Practice (UFCOP) Knowledge Management	450 000	MDTF
World	Strengthening Global Hydromet System - Investment Support	600 000	MDTF
World	Strengthening Global Hydromet System - Knowledge Management and Partnerships	400 000	MDTF
World	Resilience Results Monitoring & Evaluation	295 000	MDTF/SDC
World	Understanding Risk 2016	700 000	MDTF
World	Promoting Contingent Financing in IPFs	150 000	MDTF
World	Leveraging Japanese Experience for Building Regulation for Resilience	300 000	MDTF
World	Recovery Framework Guide Roll Out in Africa, Caribbean and the Pacific	890 000	EU-ACP
World	Agriculture Insurance Development Program	906 400	MDTF
World	Socio-economic resilience to natural disasters and climate change impacts	350 000	MDTF/SDC

MDTF: Multi-Donor Trust Fund

ACP-EU: the Africa Caribbean Pacific-European Union Programs

Japan-WB: Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing countries

SDC: the Swiss Agency for Development Cooperation

Annex C - List of Grants Proposed under the FY17 Work Plan (Grants proposed for SDC funding are highlighted with X)

Country/ region	Title	Summary	Partners	Total Amount (USD)	Proposed for SDC funding
South Asia (SAR)					
Bangladesh, Bhutan, Nepal and Sri Lanka	Supporting evidence-based and innovative solutions to urban issues across the region	Through sharing data and creating open systems, the project seeks to promote transparency, accountability, and ensures that a wide range of actors are able to participate in the challenge of building resilience in urbanization processes.	Government, JICA, and internal bank units incl. Urban and Disaster Risk Management and Climate Change	2,000,000	
Pakistan	Climate Resilient Development Compact for Pakistan	Enhance the Government of Pakistan's ability to plan and deliver on its national climate change policy and Nationally Determined Contributions (NDCs) in the short and medium term – and includes work on both mitigation and adaptation.	Ministry of Finance, Ministry of Planning, Disaster Management Authorities at federal/provincial level, Ministry of Climate Change, line ministries and agencies at the federal/provincial level, Sustainable Development Policy Institute etc.	200,000	X
Regional – Nepal and Sri Lanka	Building Resilience to Landslide and Geo-Hazard Risk in South Asia	This Program aims to build capacities Sri Lanka and Nepal in reducing risks of rural infrastructure to landslides and geo-hazards. Many mountain areas are in tectonically active zones with an increased probability of earthquakes and volcanic eruptions. Mountains are also very sensitive to climate change, as shown by the rapid melting of glaciers worldwide.	Governments, CSOs, Bank teams	2,000,000	
Regional - Sri Lanka, Pakistan and Afghanistan	Strengthening Institutions for Developing Resilience	Strengthen selected agencies mandated with improving disaster resilience to better coordinate and manage risk reduction activities	National disaster management authorities	2,500,000	
Regional	Resilient Infrastructure & Mainstreaming	Provide support to Bank teams to ensure DRM is mainstreamed across the portfolio with a focus on resilient infrastructure.	Varies, depending on sector and team.	2,500,000	

India and Pakistan	South Asia Risk Financing	Strengthen the work on risk financing in India by building a foundation for growth and reduce disaster's costs, budgets drains, and devastation. Based on demand this activity could be relevant and further scaled in Nepal, Sri Lanka and Bangladesh.	Government – federal and provincial/state level.	1,500,000	
Regional focus with Bangladesh and India	Coastal Resilience in South Asia	Leverage ongoing investments to further strengthen coastal resilience in Bangladesh and India. This project would support and exchange of knowledge between the two country programs to in support of increased capacity on coastal resilience in both countries.	Government, communities, CSOs	3,000,000	
Pakistan	Development of a National Risk Financing Strategy and Investment Plan for Resilience	Develop a national risk financing strategy and support investment planning for disaster and climate resilience.	Ministry of Finance & Climate Change, Securities and Exchange Commission, National Disaster Management Authority etc.	1,500,000	
Bangladesh	Collaboration on Dhaka Urban Resilience	The Bank and JICA have been collaborating closely to provide support to Dhaka in strengthening its urban resilience. This grant would provide follow-up support to ensure the collaboration is further strengthened and leveraged.	Government, JICA	1,000,000	
Afghanistan	Showcasing the Benefits of Resilient infrastructure in Afghanistan	This Grant will pilot projects for strengthening resilience in Kabul city through the use of probabilistic modeling of riverine flood and seismic risk, and susceptibility analysis of landslide and avalanche risks. These activities will target low critical transport, water supply, medium-size irrigation, education, health and rural development facilities.	Government, line ministries, Kabul Municipality and World Bank project teams.	1,500,000	
Sri Lanka	Support for landslide risk on tea plantation settlements	Improve resilience of tea plantation settlements through strengthened landslide risk management	Government, local communities	700,000	
Sub-regional South Asia, Himalaya region	Land use planning to build resilience across the Glaciers of the Himalaya	Build resilience in very vulnerable glacier and snow-fed Indus, Ganges, and Brahmaputra basins through the development of land use plans and implementation decisions	Governments, Basins' Authorities of Indus, Ganges, and Brahmaputra, NGOs	1,000,000	
Bangladesh	Baseline Study for Climate Resilient Enterprise Development	Will explore the opportunity in building small enterprises through offering micro-credits to villagers or members of groups formed around new projects. The credits will be further invested in the new climate resilient systems in a broad project that have been developed and tested with assistance of the project.	Palli karma Sahayak Foundation (PKSF) (under Banking Division of Ministry of Finance) NGOs	2,000,000	

East Asia and Pacific (EAP)					
Vietnam	Safe Harbors for the Resilience of Coastal Communities in Vietnam	Enhance protection of assets and livelihoods in selected coastal communities by improving risk information and developing framework for Public-Private-Partnerships for safe and resilient harbors.	Ministry of Agriculture and Rural Development, Provincial Department of Agriculture and Rural Development and relevant Provincial Peopleure and Rural Deve. etc.	3,250,000	
Indonesia	Building Resilience in Secondary Cities and Rapidly Growing Urban Areas	Supporting national and local governments and communities in planning and delivering urban upgrading and development projects that builds resilience to earthquake, flood and landslides	National Agency for Disaster Management, National Development Planning Agency, Ministry of Public Works and Housing, local governments & international agencies	3,250,000	
Indonesia	Building Resilience in Secondary Cities and Rapidly Growing Urban Areas	The grant will support national and local governments and communities in planning and delivering urban upgrading and development projects that builds resilience to earthquakes, floods and landslides. 5 selected high risk secondary cities are expected to undertake systematic investment to build resilience utilizing available and new program and financing from various sources in the next 4 remaining years of the Government's medium-term development plan (2015-2019).	National Agency for Disaster Management, National Development Planning Agency, Ministry of Public Works and Housing, local governments, SECO, USAID, Australian DFAT, Indonesia International Institute for Urban Resilience and Infrastructure	2,500,000	
Regional	Knowledge and Learning in East Asia and the Pacific	Strengthen knowledge and learning in East Asia and the Pacific related to DRM by: i) capturing and facilitating sharing of knowledge and operational experience, ii) supporting capacity-building, and south-south exchange, iii) leveraging Communities of Practice; and iv) contributing to policy dialogue with partners and stakeholders in DRM.	World Bank client countries in EAP, international organizations and other governments	1,560,000	
Myanmar	Mainstreaming disaster and climate-resilience into the transport sector in Myanmar	Support national and local authorities in making national and rural roads more disaster and climate-resilient.	Ministry of Construction; Department of Rural Development (DRD) &	325,000	

			local authorities in select State/Regions		
Philippines	Citywide Approach to Risk-informed Planning for Urban Development and Housing in Quezon City	Assist the government of Quezon City (QC) to develop a citywide urban development and housing plan to reduce the exposure and vulnerability of low-income residents to multiple natural hazards. This will enable risk-informed land use and will underpin the city's strategic investments in affordable housing.	Quezon City government, Social Housing Finance Corporation (SHFC), AlterPlan (NGO that assisted the city government in developing a housing plan for one pilot district).	390,000	
Kiribati	Developing Transformational Approaches for Climate Adaptation in Atolls	Enhance the Government of Kiribati and implement innovative climate adaptation measures for coastal resilience, freshwater supply and urban resilience.	Office of the President, Ministry of Public Works and Utilities, Ministry of Environment, Lands and Agriculture Development (MELAD)	455,000	
Regional (Samoa, Tonga, Vanuatu)	Safe School Program in Samoa, Tonga and Vanuatu	Build the foundation for a long-term engagement with key stakeholders within relevant government ministries on integrating risk considerations into existing and planned education sector investments. This will be achieved through the development of a Safe School Program for each country.	Ministry of Finance for each country	700,000	
Sub-Saharan Africa (AFR)					
Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania, and Uganda	Engaging civil society for social resilience in the Nile Basin	This activity will leverage an ongoing World Bank project to strengthen the Nile River Basin Discourse (NBD) network. It will respond to the demand of network members to strengthen their capacity to share knowledge on and develop community capacity for disaster and climate risk management of vulnerable riparian communities.	The Nile Basin Discourse (NBD)	1,200,000	
Sahel region	Towards climate-smart Adaptive Social Protection	The proposed activity will support the Adaptive Social Protection (ASP) program in the Sahel in the design and implementation of forecast-based financing mechanisms for disaster management	World Bank, Red Cross Red Crescent Climate Centre, BRACED, RCCC, DFID	450,000	

Malawi	Malawi DRM Country Plan	The objective of the Malawi DRM country plan is to support the country's commitment to disaster risk reduction through (i) strengthening their DRM and climate change adaptation policy, strategy and institutional capacity; (ii) identify risks and support early warning and hydro-meteorological systems; (iii) reduce underlying risks; and (iv) strengthen disaster preparedness for effective response	Department of Disaster Management Affairs, Water Resources Department, The Department of Climate Change and Meteorological Service, The Surveys Department The Physical Planning Department	1,000,000	
Ethiopia	Institutional Development of the DRM Coordination Commission and roll-out of the Ethiopia DRM Strategic Programming and Investment Framework (SPIF)	The project will strive to provide institutional development and policy strengthening of the newly constituted DRM Coordination Commission in the Prime Minister's Office in Ethiopia both in terms of policy development and rollout at the federal and regional levels, with an aim to build overall disaster and climate resilience,	DRM Coordination Commission, Prime Minister's Office, Ethiopia; Relevant Line Ministries; UNISDR; UNDP.	2,000,000	
Regional	Hydromet Modernization for Disaster and Climate Resilience in Sub-Saharan Africa	Strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of 15 Sub-Saharan African countries. Improved hydromet and early warning services would allow agencies to better monitor, prepare for and respond to extreme rainfall events and flooding	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	5,000,000	
Burkina Faso	Strengthening Hydro-meteorological and Early Warning Services in Burkina-Faso	Strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of Burkina-Faso. This will be achieved by developing the capacity of national hydro-meteorological and warning services	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	3,000,000	
Chad	Strengthening Hydro-meteorological and Early Warning Services in Chad	Strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of Chad. This will be achieved by developing the capacity of national hydro-meteorological and warning services	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	3,000,000	
Cote D'Ivoire	Strengthening Hydro-meteorological and Early Warning Services in Cote D'Ivoire	Strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of Cote D'Ivoire. This will be achieved by developing the capacity of national hydro-meteorological and warning services	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	3,000,000	

Democratic Republic of Congo	Strengthening Hydro-meteorological and Early Warning Services in DRC	Strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of DRC. This will be achieved by developing the capacity of national hydro-meteorological and warning services	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	3,000,000	
Madagascar	Strengthening Hydro-meteorological and Early Warning Services in Madagascar	Strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of Madagascar. This will be achieved by developing the capacity of national hydro-meteorological and warning services	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	3,000,000	
Senegal	Strengthening Hydro-meteorological and Early Warning Services in Senegal	The PDO is to strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of Senegal. This will be achieved by developing the capacity of national hydro-meteorological and warning services, which will in turn support risk reduction decision processes for public and private sector users.	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	3,000,000	
Ghana, Cote D'Ivoire, Kenya and Madagascar	Climate Change and Disaster-Responsive Social Protection in Ghana, Cote D'Ivoire, Kenya and Madagascar	Produce country specific assessments that would focus on Climate Change and Disaster-Responsive Social Protection. This will be achieved through the analysis of the state of social protection systems in order to ascertain their suitability and readiness for the implementation of additional climate and disaster responsive components.	Government agencies, International partners (EU, UNDP and French cooperation) and CSOs	800,000	
Djibouti	Djibouti Urban Resilience Master Plan and Green Growth Strategy	Reduce the vulnerability of Djibouti's people, assets, and economy to climate related risks and other external shocks by developing an investment strategy to improve the resilience of the critical drivers of Djibouti's economic growth while establishing a green growth development plan.	MOF, Municipality of Djibouti Ville and Minister of Environment, Housing and Urban Development	500,000	
Kenya	Linking community early warning and early action for better social protection	This activity would aim to engage communities and a number of actors to enhance a new national social protection program of cash transfers being developed	DRFI, Kenya Red Cross, British Red Cross, RCCC, Government of Kenya	900,000	
Nigeria	Improving Community Resilience to floods in select LGAs of Ibadan	This project will pilot community-led flood contingency planning in targeted communities living in high risk areas of Ibadan, Nigeria by working with existing Community Development Committees and Community Development Agencies.	Oyo State Environmental Management Agency; Community Development Committees and Agencies.	2,200,000	

Ethiopia	Forecast-based Financing (FbF) for preparedness in Somali region	Strengthen preparedness in the Somali region through climate informed forecast-based Financing.	DRFi, Ethiopian Red Cross, Netherlands Red Cross IRI, Red Crescent Climate Centre (RCCC), Government of Ethiopia	900,000	
Somalia	Community Resilience and Gender-Based Violence in Somalia	The objective of this pilot is to promote resilience and improved livelihood and economic opportunities for vulnerable populations in Somalia, with targeted support particularly to women		2,200 000	
Europe and Central Asia (ECA)					
Central Asia - Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan C	Central Asia Urban Resilience Program	The activity aims to address the importance of integrating and mainstreaming urban resilience into development	Government of Capital cities of Central Asia	500,000	
Georgia	Tbilisi Urban Resilience Program	Support Tbilisi to build resilience of the city to the impact of adverse natural events. This support may include an evaluation of the feasibility of different options to improve Tbilisi's disaster risk and flood management system, as well as updating of tools to guide implementation efforts.	City of Tbilisi	1,000,000	
Moldova	Reinforcing Weather and Climate Services in Moldova	Strengthen national decision-making and planning for weather and climate risk management by improving hydro meteorological service delivery.	State Hydro-meteorological Service (SHS), Civil Protection and Emergency Situations Service (CPESS), sectoral ministries, Global Framework for Climate Services (GFCS), UNDP	500,000	
South Eastern Europe	Strengthening Severe Weather Forecasting in South Eastern Europe	Provide higher quality and timelier severe weather forecasting at the national and regional levels, thereby improving preparedness for hydro-meteorological disasters.	National Meteorological and Hydrological Services (NMHS), World Meteorological Organization (WMO)	1,500,000	

Latin America and Caribbean (LCR)					
Belize	Enhancing Urban Resilience Investment Decision-making at the National and Municipal Levels in Belize	Support urban resilience initiatives by mainstreaming disaster risk management and climate change adaptation for better decision making at national and local strategic planning.	Government, selected municipalities; Caribbean Development Bank; Inter-American Development Bank	500,000	
Peru	Increasing the Climate and Disaster Resilience of the Rural Road Network in Peru	Facilitate sustainable road access to rural communities in the face of increasing climate variability, through increasing the resiliency of the rural road network in Peru to climatic events and increasing climate variability.	Ministry of Transport and Communications (MTC); Provias Descentralizado (PVD)	200,000	X
Regional	City Risk Transfer for Resilience in LCR Cities	The overall objective will be to (a) enhance the understanding of a city's resource needs to effectively respond to a disaster, (b) strengthen ex-ante planning and management of the response to emergencies and disasters; (c) strengthen the management and execution of budgetary resources post-disaster for the emergency response phase as well as the recovery and reconstruction of public infrastructure; and (d) enhance the coordination of emergency response and management from the national to municipal levels of government.	Ministry of Finance; Select Municipalities	1, 500, 000	
Colombia	Enhancing risk reduction and climate adaptation at the national level in Colombia	Better integration of risk reduction and climate adaptation considerations in the national planning of public investments.	Government of Colombia	2,000,000	
One selected LRC country	Measuring the Impact of Disaster and Climate Events on Poverty and Social Vulnerability	Analyze the impact of disasters and climate events on poverty and social vulnerability – to inform disaster risk management (DRM) and climate change adaptation (CCA) projects, programs and strategies in better targeting the poor and socially vulnerable.	Ministries of Finance; government agencies responsible for social safety nets, social services and poverty reduction; national census bureaus and statistical agencies; international development partners	200,000	
One selected LRC country	Strengthening Climate Information Services and Early Warning Systems (EWS)	Strengthen institutional capacities at the national level to support climate information systems and early warning systems (EWS) for meteorological, hydrological and climate-related hazards in a given country. Institutional capacities would also be strengthened at the sub-national levels through implementation of pilot activities.	Key government agencies, Regional and international meteorological agencies (i.e. WMO)	1,000,000 – 3,000,000	

Any potential LAC Country (excluding Central America)	Strengthening the climate and disaster resilience of municipalities	The grant development objective is to enhance national and local government capacities to identify, design and implement policy measures and capital investment projects to increase the climate and disaster resilience of their urban systems across multiple sectors.	Ministries of Planning, Infrastructure, Housing; sub-national government agencies, municipalities; research institutes; academia; international development partners	1,000,000 – 3,000,000	
Jamaica	Developing a Disaster Risk Management Strategy in Jamaica's Education Sector	Support the Government of Jamaica in mainstreaming disaster risk management in the regulation, planning, designing, construction and management of school infrastructure along with the national education sector development plan.	Ministry of Education, National Education Trust	750,000	
Middle East and North Africa (MNA)					
Lebanon	Beirut Urban Resilience Strategy Phase 2	Identify potential infrastructure investment opportunities that match Beirut's priority development needs and the identified resilience gaps. In the ideal case, the Master Plan would become a best practice of how a technical assistance program can generate and leverage World Bank lending to reduce disaster risk, enhance preparedness, and advance city resilience in the MENA region.	Mayor, PM Office, Urban Planning Agency.	1,000,000	
Morocco	Integrated Risk Management Project and Strategy	Reduce Morocco's vulnerability to catastrophic risks by designing a resilience strategy and build capacity across key ministries to carry out and use risk assessments in their decision making.	Ministry of Interior and Minister of Finance	500,000	
Global					
Global	Improving Disaster Risk Management in Fragile and Conflict Situations	The activity would support technical and operational improvements for DRM engagements in fragile and conflict situations in partnership with FCV or a joint program with the State and Peacebuilding Fund. Preparation for and response to climate-related disasters in FCV settings would be included.	FCV, State and Peacebuilding Fund, regional DRM teams, fragile and conflict-affected governments, peacebuilding organizations, interested donor partners, relevant UN agencies, EU	750,000	
Global	Kickstarting the Recovery Process	This activity would finance a strategic facility to provide initial support to disaster-affected countries so that they are able to meet the start-up costs of planning, coordinating and commencing recovery. The activity will facilitate recovery from climate-related disasters	World Bank task teams, government agencies in charge of post-disaster recovery, UN agencies (UNDG), EU	1,500,000	

Global	Global Program for Strengthening Weather, Climate and Hydrological (Hydromet) Services and Early Warning Systems	The objective of the grant is to increase resilience to extreme weather events and climate variability and also contribute to sustainable development of socio-economic sectors that are vulnerable to extreme weather and climate conditions through the improvement of weather, climate and hydrological service delivery and Multi-Hazard Early Warning Systems in developing countries.	National meteorological and hydrological services, DRM agencies, other beneficiary agencies (agriculture, water resources, transportation) other stakeholders and NGOs	6,500,000	
Global – Small Island States	Small Islands States Initiative (SISRI)	This initiative seek to: (1) Provide better and more intensive operational and technical support to resilience in Small Island States, in the form of demand-based, “just-in-time” assistance; (2) Offer Small Island States a menu of well tested and flexible “building blocks” based on best global practices (3) Build a community of practice to foster the sharing of south-south experiences, as well as strengthen the connection between country practitioners and global centers of expertise. (4) Assist Small Island States in accessing scaled-up and more efficient financing		1,500,000	
Global	Disaster Risk Finance Policy Advisory and Knowledge Management	Ensuring that countries, partners and international institutions have access to relevant information on disaster risk finance to guide actions in support of building financial resilience.		500,000	
Global	City Resilience Program	Assist national and municipal-level decision-makers to better plan for, and unlock new sources of financing for resilience-building investments in cities. This will be achieved by providing a customizable set of solutions, tools, measures, and strategies	Primarily, Ministries of Finance and Planning; City Mayors.	10,000,000	
Global – fastest growing cities in Sub Saharan Africa and South Asia	Strengthening Local and National Organizations to Map in Fastest Growing Urban Areas of Sub-Saharan Africa and South Asia	Supporting non-government and government organizations around the world to use OpenStreetMap technology to map highly vulnerable urban areas with the goal of promoting resilient growth and development in rapidly growing cities, as well as developing a sustainable capacity of volunteers able to respond to assessing any damage post-disaster.	US State Department and American Red Cross, government organizations (national and/or city level), local universities, international NGOs such as Humanitarian OpenStreetMap.	20,000,000 (400,000 per city)	