



Japan–World Bank Program

for Mainstreaming Disaster Risk Management in Developing Countries

ANNUAL REPORT

2018-19





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ACRONYMS AND ABBREVIATIONS

AFR	Africa Region
BRR	Building Regulations for Resilience
DRFI	Disaster Risk Financing and Insurance
CoP	Community of Practice
DRM	disaster risk management
DRR	disaster risk reduction
EAP	East Asia and Pacific Region
ECA	Europe and Central Asia Region
EP&R	Emergency Preparedness and Response
EWS	Early Warning System
GFDRR	Global Facility for Disaster Reduction and Recovery
GoS	Government of Sindh, Pakistan
GPURL	Urban, Resilience and Land Global Practice* <i>(*formerly known as GSURR, Global Practice for Social, Urban and Rural Development, and Resilience)</i>
LAC	Latin America and Caribbean Region
MENA	Middle East and North Africa Region
MoF	Ministry of Finance, Japan
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
SDGs	Sustainable Development Goals
SAR	South Asia Region
SEADRIF	South East Asia Disaster Risk Insurance Facility
UNDRR	UN Office for Disaster Risk Reduction (formerly known as UNISDR)

EXECUTIVE SUMMARY

This Annual Report summarizes and presents the progress and achievements made under the “Japan-World Bank Program for Mainstreaming Disaster Risk Management (DRM) in Developing Countries” (hereinafter referred as “the Program”) from the period between July 2018 and June 2019. Data in this Annual Report is as of August 31, 2019.

The Program is implemented by the Tokyo Disaster Risk Management Hub (Hub), a partnership of the government of Japan and the World Bank, since 2014. Progress is measured mainly against the objectives of the Program and the targets stated in the 2018-2019 Work Plan submitted to the Ministry of Finance (MoF) Japan in December 2018.

KEY HIGHLIGHTS OF FY19

At the meeting held in March 2018, the Steering Committee agreed on the following priorities for the Program in FY19:

- Priority 1: **Resilient Infrastructure** - An increased emphasis on supporting countries to **build resilient infrastructure**, aligned with Japan’s priorities in the context of the G20 agenda;
- Priority 2: **Risk Identification, Risk Reduction, and Preparedness** - An increased emphasis on supporting countries to **identify natural hazard risk and strengthen risk reduction and preparedness capacity**, particularly for geohazards; and,
- Priority 3: **Disaster Risk Financing and Insurance (DRFI)** - An increased emphasis in strengthening the capacity of countries to **build resilience to fiscal shocks**, aligned with Japan’s priorities in the context of the G20 agenda.

In alignment with these priorities, in April 2018, the Government of Japan agreed to renew the Program with an additional \$100 million contribution from MoF Japan to be implemented through fiscal year 2024. Subsequently in 2019, MoF disbursed the first tranche of its contribution (US\$ 20 million) as the Program commenced the first year of its renewed phase.

The period covered by this Annual Report represents the transition from the Program’s Phase 1 to Phase 2 and first year focusing on the three priorities agreed with MOF upon renewal. **Key highlights of Program activities in FY19** include:

- The Hub **approved 19 projects amounting to \$12.44 million** under the Country Program.
- Of the funding commitments in FY19, **65 percent contribute to Resilient Infrastructure; 23 percent to Risk Identification, Risk Reduction, and Preparedness; 6 percent to Disaster Risk Finance and Insurance (DRFI) and remaining 6% to the Tokyo DRM Hub activities.**
- The **Program informed a portfolio of approximately \$2.9 billion of World Bank investment lending operations** in FY19. The Program leveraged an estimated \$2.9 billion in new, ongoing, and planned World Bank investment lending operations in FY19, amounting to more than 32 percent of the \$9.2 billion the overall portfolio has leveraged since its inception in 2014. Of the \$2.9 billion leveraged amount, **\$705 million (24% of the total amount) was in Resilient Infrastructure projects, and \$2.2 billion (76% of the total amount) in DRM projects.**
- Additionally, the Hub placed emphasis on funding activities closely linked to project preparation for investment programs, and on integrating specialized Japanese expertise and experience

in such programs. To this end, **14 Japanese experts were deployed** in FY19 to support Japan Program TA grants and World Bank operations compared to 4 experts in FY18.

- During FY19, the Hub deepened and developed new partnerships, including the Japanese government, donor agencies, private sector, academia, research institutions, CSOs and governments of beneficiary countries. As a result, throughout the year, **33 expert exchange activities benefited from external partners, of which 4 were new partners (1 private company, 2 municipalities, and 1 civil society organization).**
- In FY19, **27 TA grants supported by the Hub utilized Program-commissioned knowledge products**, which increased by more than double from FY18.
- As in previous years, the Hub integrated the Sendai Framework priorities in all its projects by aligning project activities to the Framework's priorities through the proposals. The Hub monitors project progress and results throughout implementation, against the Sendai Framework for Disaster Risk Reduction on four priorities of action and seven targets, the GFDRR Pillars for Action ¹, and the Program's Results Framework indicators.
- As of August 2019, the Japan-World Bank Program's total portfolio **consists of 95 grants, with total commitment of \$112.44 million.**

STRUCTURE OF REPORT

SECTION 1: provides the Program's overview, including the renewed program of 2018 and the priority areas of the Program.

SECTION 2: provides the overall progress of Program's activities in FY19 for both components - the Country Program and the Tokyo DRM Hub.

SECTION 3: provides results from monitoring of the Program against its objectives, Sendai Framework, and Program priority areas. It also includes results on expert's engagement and beneficiaries of Hub's TA grants and World Bank operations.

SECTION 4: provides stories of impact and results of select projects of the Hub.

Lastly, the Annexes include details of data of the Program, which supports the information and analysis provided in the four sections mentioned above.

¹ GFDRR's Five Pillars of Action were identified in GFDRR's strategy for 2012- 2015, and are: Risk Identification, Risk Reduction, Preparedness, Financial Protection, and Resilient Recovery.



SECTION 1

PROGRAM OVERVIEW

1.1 BACKGROUND

Disaster and climate resilience have become central to the development process. Under the partnership between the Government of Japan and the World Bank, the Program has played a key role in supporting the global development agenda and helping developing countries achieve the targets set out in the 2030 Agenda for Sustainable Development, the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction. These objectives are embedded in the GFDRR Strategy 2018-21, through which the World Bank will be able to respond to the growing demand from its client governments to develop comprehensive, multi-sector approaches to integrate disaster risks into the design and implementation of development plans and projects. The Program has been and will continue to be an enabler of the World Bank's strategic goals by achieving its two overarching objectives:

- 1) Support developing countries in mainstreaming DRM in national development planning and investment programs through World Bank operations.
- 2) Connect Japanese and global expertise in DRM with developing countries and World Bank teams.

Under these objectives, the Program has been progressively contributing to increased country capacity in disaster risk-informed policy design and analysis; the adoption of national policy frameworks for mainstreaming disaster and climate resilience across infrastructure and social sectors; and strengthening building codes and land use planning systems. Additionally, Program activities are helping countries leverage World Bank investment financing for resilient infrastructure investments. In April 2018, an external review of the Phase I (2014-18) of the Program was conducted, which concluded that the Program is highly relevant in the context of disaster and resilience related international policy frameworks, including the Sendai Framework. Moreover, the heart of the Program is helping the World Bank increase its capacity to support developing countries in mainstreaming DRM, is aligned with the World Bank's growing DRM agenda, and facilitating coordination with programs supported by the Japanese government. Based on these positive results, the Government of Japan and the World Bank has committed to continuing funding to the Program for an additional five years.



Damaged powerlines and poles following the passage of a major hurricane / supertyphoon. Adobe Stock Photo.



1.2 A RENEWED JAPAN-WORLD BANK PROGRAM FOR MAINSTREAMING DISASTER RISK MANAGEMENT IN DEVELOPING COUNTRIES

In April 2018, building on the Program’s achievements in four years, the Japan Ministry of Finance (MOF) agreed to renew the Program with an additional US\$100 million contribution, doubling the total Program value to US\$200 million. The renewed Program will be implemented over World Bank Fiscal Years 2019-2024.

To this end, Program activities are fully aligned with, and contribute to, the four Priorities of Action under the Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) (see Table 1 and section 3.1.2 for further information on alignment with Sendai Framework).

Table 1. Alignment of Renewed Program Focus Areas with Sendai Framework

Sendai Framework Priorities for Action	Japan-World Bank Program Pillars / Priorities
1. Investing in Resilience	Resilient Infrastructure
2. Understanding Disaster Risk 3. Enhancing Disaster Preparedness and Response to “Build Back Better”	Risk Identification, Risk Reduction, and Preparedness
4. Strengthening Disaster Risk Governance	Disaster Risk Finance and Insurance (DRFI)

The renewed Program has a new structure and finances grant activities along two components:

Component 1: Country Program - the Country Program funds technical assistance to support and inform preparation of IBRD and/or IDA investment projects. These include, for example, disaster risk analysis, technical assessments, analytical work, and expert engagements to improve capacity and technical knowledge to inform the design and implementation of investment projects.

Component 2: Tokyo DRM Hub - the Hub facilitates stronger linkages and in-country deployment of Japanese and global expertise, knowledge, and good practices on DRM, through operational support and project preparation, expert deployment, knowledge development and exchanges, and strengthened monitoring and evaluation (M&E).

1.3 PRIORITY AREAS UNDER THE RENEWED PROGRAM

All the activities under Component 1 and 2 of the Program are performed based on three priority areas - 1) Resilient Infrastructure 2) Risk Identification, Risk Reduction, and Preparedness, and 3) Disaster Risk Finance and Insurance.

Priority 1: Resilient Infrastructure will finance Grant activities that help integrate DRM principles and processes into infrastructure investments. Activities will foster (i) a life cycle approach to infrastructure resilience, (ii) the adoption of risk-informed solutions in the planning, design, management, and emergency contingency preparedness of infrastructure investments; and (iii) the strengthening of the institutional and regulatory capacities of implementing entities. To ensure support across all quality infrastructure principles, the Hub also actively coordinates with the Quality Infrastructure Investment (QII) Partnership trust fund to plan upstream engagements and shares technical assistance requests for all activities not linked to resilient infrastructure.

Priority 2: Risk Identification, Risk Reduction, and Preparedness will finance grant activities that help strengthen the comprehensive approaches to enhance risk identification, risk reduction, and preparedness in developing countries, including capacities of communities, governments and national DRM agencies on (i) risk information, (ii) hydromet services and early warning systems (EWS), (iii) resilient social protection and inclusion, and (iv) emergency preparedness and prompt response (EP&R) post disaster.

Priority 3: Disaster Risk Finance and Insurance (DRFI) will finance grant activities that help advance policy in global and regional fora, as well as application of DRFI in country, particularly through designing and implementing financial solutions for countries and regions’ to better manage disaster risks and safeguard their critical infrastructure and public/private assets.



SECTION 2

PROGRAM ACTIVITIES IN FY19

2.1 PORTFOLIO OVERVIEW

As of August 2019, the Japan-World Bank Program's total portfolio **consists of 95 grants, with total commitment of \$112.44 million**. During FY19, the **Program approved 19 new projects under the Country Program** across the three focus areas (please refer to table 2 for details). The Program contributed **94% towards the Component 1 - The Country Program and 6% towards the Component 2- The Toyo DRM Hub**.

To date, a total of **55 countries** are being supported under both components of the Program, and the breakdown is as follows: **9 in Africa** (Chad, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Niger, Senegal, Togo, Zambia); **13 in East Asia and Pacific** (Cambodia, Fiji, Indonesia, Lao PDR, Marshall Islands, Micronesia, Myanmar, Philippines, Samoa, Tonga, Tuvalu, Vanuatu, Vietnam); **8 in Europe and Central Asia** (Albania, Armenia, Bosnia and Herzegovina, Kyrgyz Republic, Serbia, Tajikistan, Turkey, Uzbekistan); **13 in Latin America and Caribbean** (Brazil, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru); **6 in Middle East and North Africa** (Egypt, Jordan, Lebanon, Morocco, Palestine, Tunisia); and **7 in South Asia Region** (Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka).

2.2 COMPONENT 1 - COUNTRY PROGRAM

2.2.1 PORTFOLIO OVERVIEW

Program-funded activities continue to help increase the World Bank's capacity to support developing countries in mainstreaming DRM in national development planning and investment programs.

The Hub scaled up its activities in FY19 to meet country and sector demand for resilient infrastructure, continue to support developing countries to mainstream DRM in national development planning and investment programs, and initiated direct demand for DRFI. The Hub also focused on responding to growing demand for DRM support across multiple sectors.

In comparison to FY18, the **portfolio size increased by 16 percent in FY19**, with approval of 19 new grants amounting to \$12.44 million across all three of the Program's priority areas. The renewed Program builds upon what worked in Phase I to mainstream risk considerations into World Bank operations, and in governments' actions and policies. Of the funding commitments in FY19, which include the grants approved and projects in the pipeline, **69 percent contribute to building Resilient Infrastructure; 25 percent to Risk Identification, Risk Reduction, and Preparedness; 6 percent to Disaster Risk Finance and Insurance**. (Figure 1)

Figure 1: FY19 Funding Commitments by Priority Area (calculated by US\$ amount)

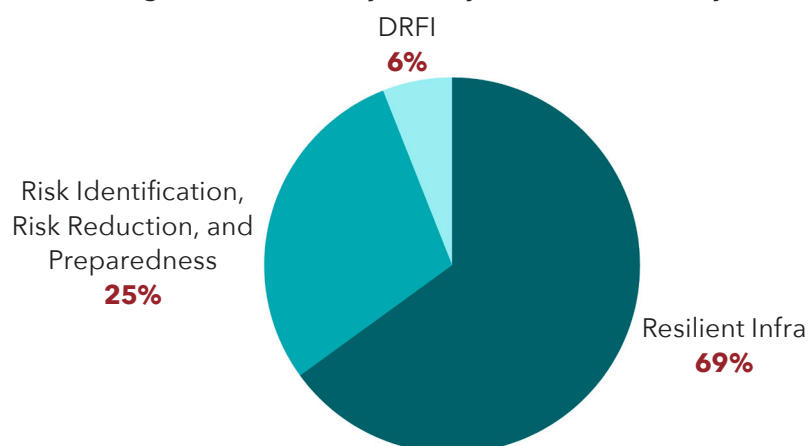


Table 2 below, indicates the new grants under the Country Program that were approved in FY19. A total of \$3.56 million remained unallocated to grants and will be carried over to FY20 activities.

Table 2. List of projects approved in FY19 (as of September 2019)

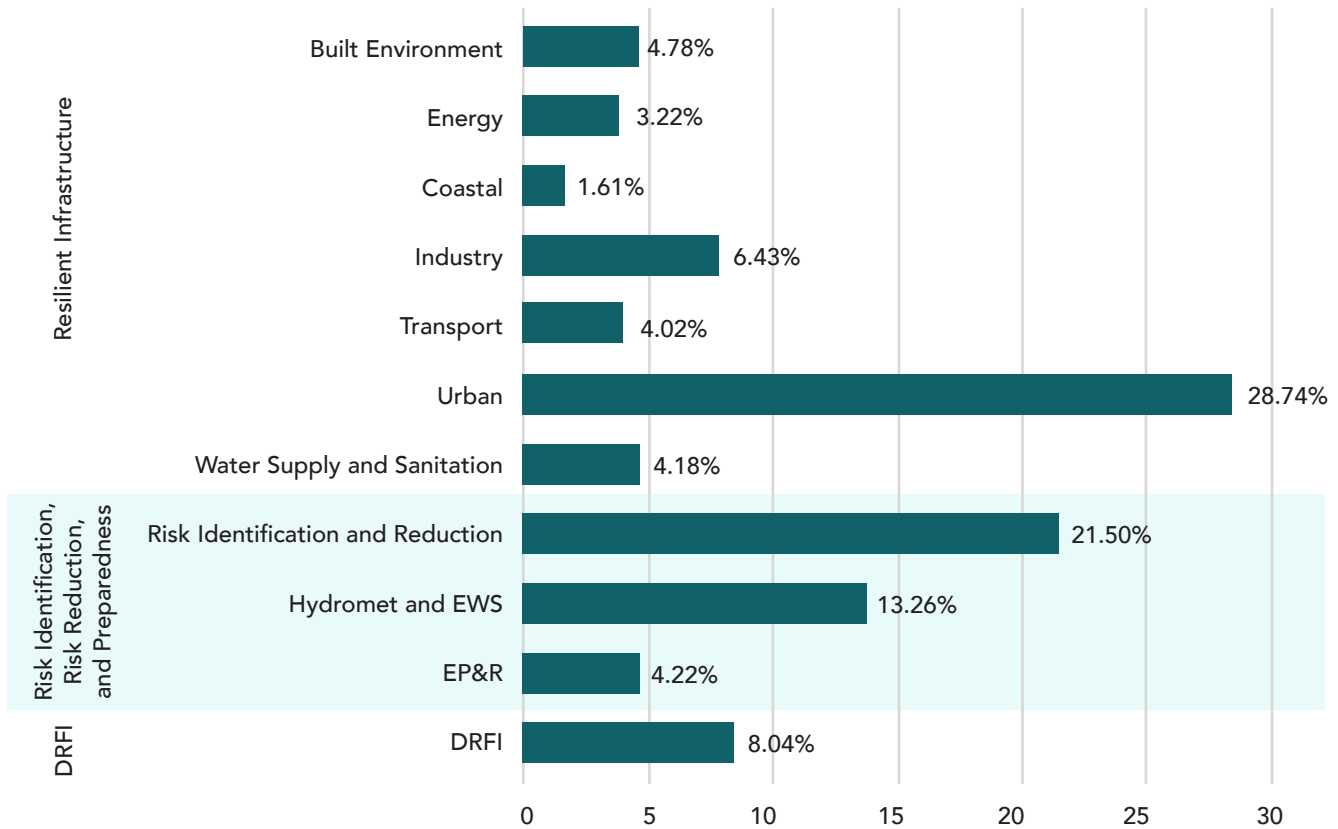
#	Projects	Country	Value: in USD\$ million
Resilient Infrastructure			
1	Yangon Safe Affordable Expansion Initiative	Myanmar	0.7
2	Supporting Coastal Resilience in Vietnam	Vietnam	0.6
3	Pacific Regional Program for Enhancing Energy Resilience to Natural Hazards and Extreme Weather	Pacific	0.4
4	Supporting Tashkent's Urban Resilience Strategy and the Development of an Investment Plan	Uzbekistan	0.5
5	Mainstreaming Disaster Risk Management in Local Economic Resilience Infrastructure	El Salvador	0.5
6	Green and Resilient Industries to Enhance Competitiveness in Bangladesh	Bangladesh	0.8
7	Building Community Inclusive Flood Management in Sri Lanka	Sri Lanka	0.6
8	Building Regulations for Resilience Program Phase II	Jamaica, Morocco	0.32
9	Promoting Urban Resilience SAR Cities	Bangladesh, India, Nepal, and Pakistan	1.2
10	Strengthening the capacities of dam operators and practitioners through technical guidance and augmented reality application	India, Laos, Philippines, Sri Lanka,	0.52
11	Reducing climate and natural disaster vulnerabilities of transport systems in Small Island Developing States	Global (Cape Verde, Saint Lucia, Solomon Islands, Vanuatu)	1.0
Total amount			7.14

Risk Identification, Risk Reduction, and Preparedness			
12	Support to the Earthquake-Resilient Greater Metro Manila Program	Philippines	1.1
13	Strengthening Weather and Climate Services in Caucasus	Albania	0.5
14	Scaling up Disaster Risk Management in the Kyrgyz Republic	Kyrgyz Republic	0.25
15	Scaling up Disaster Resilience in Tajikistan	Tajikistan	1.0
16	Supporting the Implementation of Hydromet, Early Warning Services, and Community Resilience	Afghanistan	0.45
17	Strengthening Data and Information Management	Bhutan	0.25
Total amount			4.3
Disaster Risk Financing and Insurance			
18	Development and Implementation of Policy Framework for Financial Risk Management against Disasters	Global	1.0
Total amount			1.0
Total of all program priority areas			12.44

2.2.2 SECTORAL ALLOCATION

As committed in the renewed Program, the Hub broadened sectoral engagements across the World Bank, by engaging with new sectors. The engagements with new sectors were all under the priority area of resilient infrastructure, which included, transport, water, and energy sectors (Figure 2). Under Priority Area 1, 29 percent of funding allocation contributes to the urban sector, 3 percent to the energy sector, 6 percent to industry, 5 percent to built environment, 4 percent to transport, 4 percent to water supply and sanitation, and 2 percent to coastal resilience. Under Priority Area 2, 22 percent contributes to Risk Identification and Reduction activities, 13 percent to Hydromet and EWS, and 4 percent to EP&R. 8 percent of the total grant amount is approved under the Priority Area 3 of DRFI activities.

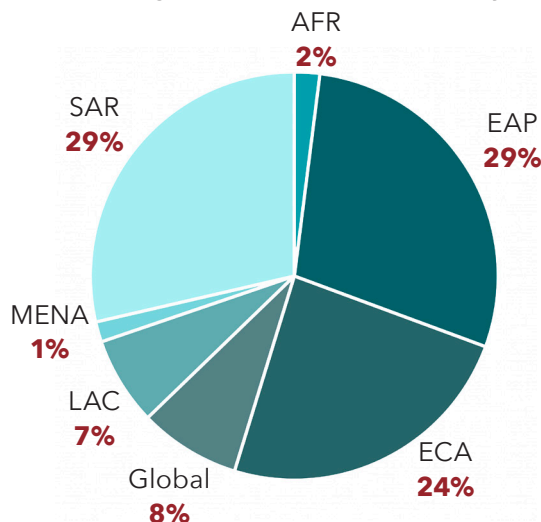
Figure 2: FY19 Sector-wise Funding Distribution (calculated by US\$ amount)



2.2.3 REGIONAL DISTRIBUTION OF FINANCING

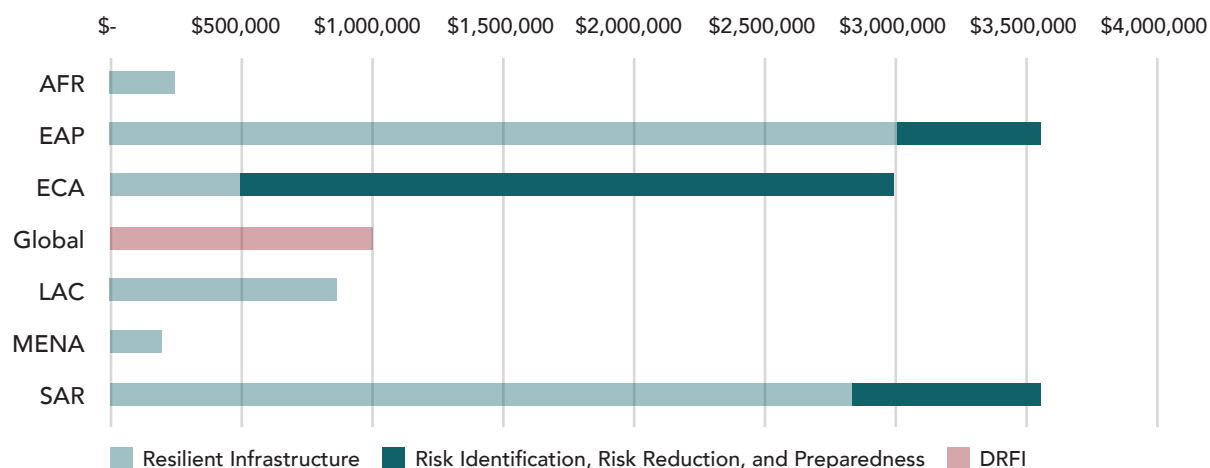
Across World Bank regions, the order of financial distribution in FY19 was East Asia and Pacific (29 percent) South Asia Region (29 percent), Europe and Central Asia (24 percent), Latin America and the Caribbean (7 percent), Sub-Saharan Africa (2 percent), and Middle East and North Africa (1 percent), as shown below in Figure 3. Similar to previous years, more than 50 percent of the allocation consists of contribution to the EAP and SAR regions.

Figure 3: FY19 Region-wise Funding Distribution (calculated by US\$ amount)



All grants approved in FY19 for MENA, LAC, and Sub-Saharan Africa Regions contributed to Resilient Infrastructure. **85 percent and 80 percent** of FY19 grants in **EAP and SAR, respectively, contributed to Resilient Infrastructure**, and their remaining balance to Risk Identification, Risk Reduction, and Preparedness. Conversely, **83 percent of the grants in ECA were focused on Risk Identification, Risk Reduction, and Preparedness, and balance 17 percent to Resilient Infrastructure**. One global project was approved under Priority area of DRFI (Figure 4).

Figure 4: FY19 Commitments to the Program’s Priority Areas by Region



2.3 COMPONENT 2 - TOKYO DISASTER RISK MANAGEMENT HUB

2.3.1 ROLE OF THE HUB

To achieve the Program’s two objectives, the Hub has been continuing efforts to address key development challenges, such as inadequately designed and constructed infrastructure, that threatens to increase disaster risks, and deepen collaborations to enhance the integration of Japanese and global expertise into World Bank operations. Since the renewal of the Program in December 2018, the Hub has been aiming to increase direct contribution towards project preparation and to connect Japanese expertise in DRM with developing countries and World Bank teams. Specifically, these activities will focus on providing direct support to grant activities that support disaster resilient investment designs and implementation as a vehicle to accelerate mainstreaming of DRM in developing countries, such as feasibility studies and assessments, and strategy and framework development, and supporting the implementation of World Bank operations.

2.3.2 JAPANESE EXPERTS ENGAGEMENT

In FY19, the Hub promoted partnerships and collaboration through various expert engagement opportunities, bringing together representatives from governments, development partners, academia, the private sector, and civil society to find good practices and solutions to reduce climate and disaster risk. A list of expert exchanges including deployments and events which the Hub facilitated or contributed to can be found in Annex 3. Snapshot of Japanese expert engagement in FY19 is in Figure 5.

² For global grants which have already identified countries where activities will be implemented in, the total amount of funding was divided into region according to the beneficiary countries. For example, activities under the Building Regulations for Resilience Program Phase II will be implemented in Morocco, Bhutan, and Jamaica, therefore 33 percent of the total allocation was counted toward each of the regions of MENA, SAR, and LAC. Global grants which have not yet identified specific countries for activities have been listed as “global”.

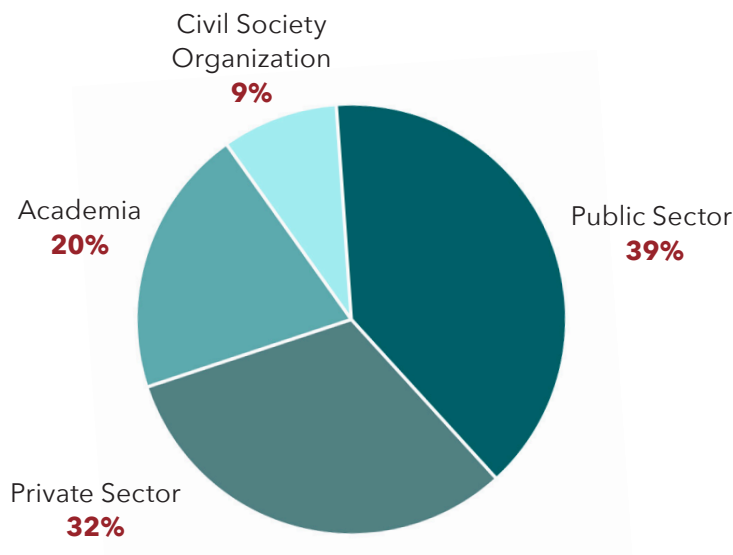
³ The definitions are indicated in the document “Proposed Definitions and Targets of Key Indicators”, submitted to MoF during the 6th Steering Committee in March 2019.

Figure 5: Snapshot of Number of Japanese Experts Engaged in FY19



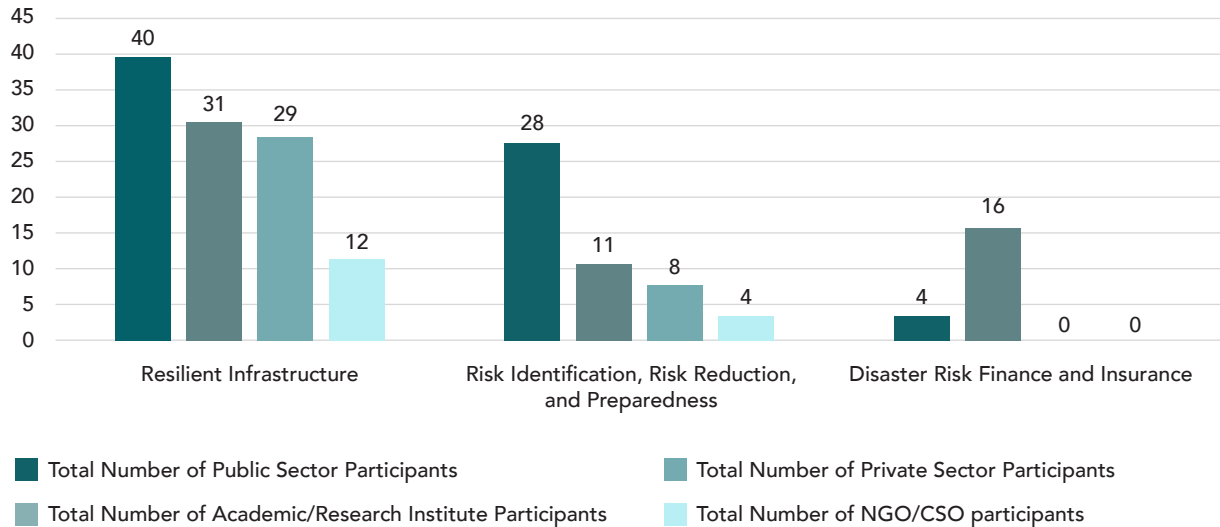
In FY19, the Hub facilitated **33 Japanese expert engagement opportunities**, which contributed to the wide dissemination of Japan’s knowledge on DRM. As highlighted in Figure 6 (a), of all experts mobilized, **39 percent were from the public sector**, notably JICA and MLIT, **58 percent from the private sector**, **20 percent from academia and research institutions**, and **9 percent from civil society**. The Hub continues to function as a key knowledge hub in the international DRM community.

Figure 6 (a): Percentage of Experts mobilized in FY19 by Type (calculated by number of experts)



As shown in Figure 6 (b) below, **112 experts were mobilized for activities under Resilient Infrastructure, 51 experts for activities under Risk Identification, Risk Reduction, and Preparedness, and 20 experts for activities under Disaster Risk Finance and Insurance (DRFI).** Additionally, the expert exchange activities, including public seminars, workshops, and conferences, attracted **over 5,401 attendees throughout the reporting period**, doubling the number from FY18.

Figure 6 (b): Number of Experts mobilized in FY19 by Program’s Priority Areas



Under the renewed Program, the 2018-2019 Work Plan aimed to increase connection of Japanese expertise to Program activities and World Bank operations, including contribution to project preparation, project implementation, and enabling project development. The exchange activities are categorized under the following modes of engagement and expert contribution is shown in Figure 7:

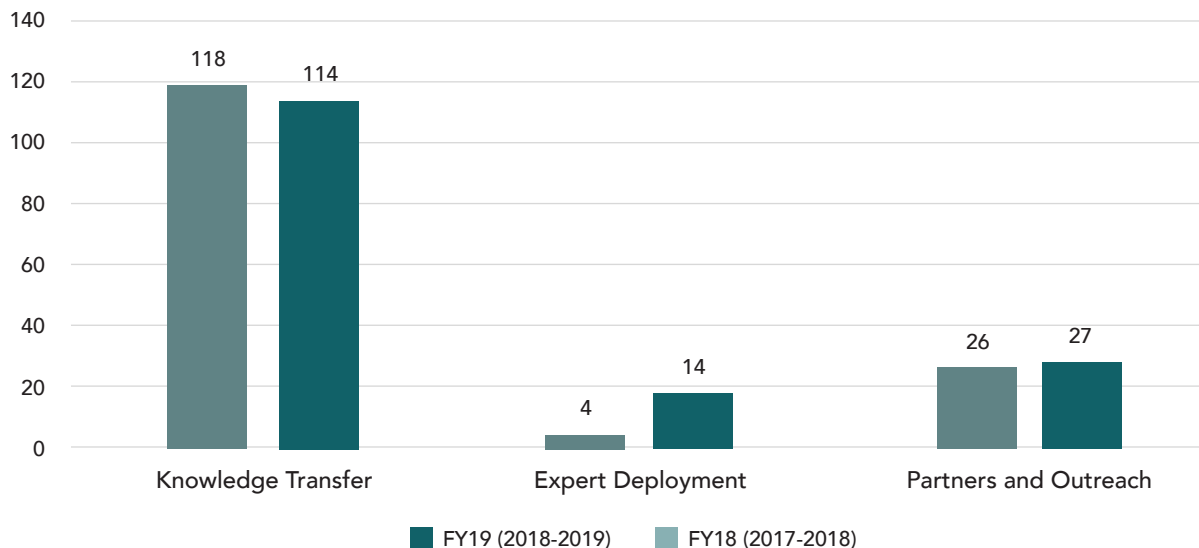
Knowledge transfer: includes the number of Japanese experts who contributed as resource persons to trainings, and speakers at knowledge exchange events such as TDD/TKX/workshops, public seminar, conferences, and committee meetings.

Expert deployment: includes the number of Japanese experts who were deployed as speakers/resource persons from Japan to support TA grants or World Bank operations, and other in-country workshops, projects, and conferences.

Partners and outreach: includes the number of experts at the exchange events that supported the Hub in building partnerships with external partners.

Project preparation: counts the number of Japanese experts who contributed as resource persons to project preparation of TA grants and World Bank operations. Given that this is a new mode of engagement from FY19, it is still work-in-progress as of August 2019. The actual numbers will be reported in the Annual Report of FY20.

Figure 7: Number of Experts Contributing to Program per Mode of Engagement



From FY18 to FY19, there has been a slight **decrease in the number of experts contributing to the “Knowledge transfer” category, due to the shift away from knowledge exchange events**, such as Technical Deep Dives (TDDs) and Technical Knowledge Exchanges (TKXs). This includes **11 experts that contributed to trainings and study visits** organized for client country representatives in Japan.

In FY19, **14 experts were deployed** to multiple countries, which is more than double the target of FY19 Work Plan and **more than three times that of FY18** (please refer to Annex 3 for details of deployments). The increased connection of Japanese and global expertise is a direct result of the shift of the Program focus to support Country Program activities and World Bank operations.

In FY19, **29 experts were mobilized to support the Hub in building external partnerships through knowledge and outreach**; including a DRM expert as citizen of Aoba Ward, Yokohama City; Mizuho Information and Research Institute, Inc.; The University of Tokyo; and Toyo University.

2.3.3 KNOWLEDGE AND OUTREACH

The Hub developed new strategies to increase visibility of the Program through several platforms including web, public events, and publications.

Throughout the reporting period, **11 new events stories; 12 new feature stories; 4 new blog entries; 8 new videos; and 1 press release were published to the Hub website**. In FY19, a new strategy to promote these publications via World Bank Tokyo Office twitter and Facebook accounts were implemented, to increase the visibility of the website. In addition, **3 interviews with Japanese experts and 7 interviews with client country government representatives** were developed for the Integrated Urban Flood Risk Management TDD to strengthen dissemination of the content of the training program and clients’ needs in urban floods. The total number of **views of all 10 videos reached 983**. In addition, 3 tweets were disseminated during the TDD to promote its activities and contribution of Japanese experts.

In FY19, a total of **27 new publications** were completed under the Country Program (and ongoing projects under the Knowledge Program from Phase I) and the Hub (please refer to **Annex 4** for the list of publications and details of each publication). Between July 1, 2017 and May 31, 2019, there has been **1,018**

downloads of case studies; 860 downloads of solution briefs and project briefs; and 220 downloads of project documents; from the Hub's English website. To date, **visitors to the DRM Hub website up to June 2019 surpassed 268,000 since the Program's launch, with over 62,800 visiting the site in the last 12 months.**

The Hub developed new versions of the Program brochure in Japanese and English to reflect the changes of priorities under the renewed program. The designs of the brochure represent the three program priority areas.

The Hub also participated in the **Global Festa** in Odaiba on September 29-30, 2018 to disseminate information on the Program's activities and objectives at the largest festival in Tokyo focusing on international cooperation in Japan. A group of students visiting from Tokyo Jogakkan Junior High School requested a visit to the Tokyo DRM Hub office to learn of the World Bank, the Japan-Program, and the Hub's work in February 2019. Their findings were presented at their school in the same month, which was attended by two Hub staff.

2.3.4 PARTNERSHIPS

The Hub has continued to be effective in connecting Japanese DRM expertise and solutions to developing countries by mobilizing Japanese DRM experts from the public sector, private sector, civil society organizations, and academia to beneficiary countries.

Through Hub's activities, developing countries have accessed Japanese expertise and best practices, including from the Cabinet Office; Ministry of Land, Infrastructure, Transport and Tourism (MLIT); Japan International Cooperation Agency (JICA); the International Centre for Water Hazard and Risk Management (ICHARM); Japan Water Agency (JWA); Public Works Research Institute (PWRI); National Research Institute for Earth Science and Disaster Resilience (NIED); Osaka Prefecture; Kobe City; Yokohama City; Hamamatsu City; Tokyo Metropolitan Government; Japan Bosai Platform; Japan Broadcasting Corporation (NHK); Japan National Assembly of Disabled People's International (DPI); People for Rainwater; Nippon Koei; Taisei Corporation; the University of Tokyo, Tokyo University of Agriculture; among many others.

The Hub has been **developing a database, "Center of Excellence"**, compiling details of all of the experts who have contributed to the Program's activities. This database is being created as a platform for World Bank staff to easily identify relevant Japanese experts and connect them to their operations and international events.

In FY19 the Hub worked in **close partnership with the Tokyo Development Learning Center (TDLC)** in organizing the Integrated Urban Flood Risk Management Technical Deep Dive (TDD), which was held during April 22-26, 2019. The communications and visibility of the TDD were also conducted in collaboration, utilizing TDLC, Hub, and GFDRR's platforms to disseminate the content of the TDD. TDLC invited the Hub to participate, make presentation, and share knowledge at the events organized by TDLC, such as the 7th Asia Smart City Conference in November 2018 and the 12th Asian-Pacific City Summit, Sustainable Cities and Communities Summit Fukuoka in August 2018. TDLC and the Hub collaborated for other external events, including Quality Infrastructure Investment in September 2018 through joint participation, technical support, and knowledge sharing.

The Japan International Cooperation Agency (JICA) has been one of the key partners in furthering the objectives of the Program. The examples in the box demonstrate the deepening partnership between JICA and the World Bank, enabled by the Hub.

BOX 1: EXAMPLES OF WORLD BANK COLLABORATIONS WITH JICA

Consultation during TA approval process and grant support:

The development of TA grant proposals goes through a systematized and thorough consultation process with the in-country JICA offices and Japan Embassies for the task teams to incorporate feedback on areas of synergies and collaboration received from these Japanese stakeholders. In FY19, all 17 proposals submitted to MoF under the Country Program completed this process. In addition, World Bank's task teams closely work with in-country JICA offices during the implementation of grant activities, for example inviting them for Japanese stakeholder representation and consulting them for collaboration opportunities.

Publications:

Under the ongoing projects of the Knowledge Program of Phase I, the Hub, in partnership with other World Bank task teams, has been developing several knowledge products. JICA has been providing valuable inputs and critical contributions towards the development of such products. Examples of publications include - "The Power of Partnership: Public and Private Engagement (PPE) in Hydromet Services"; "Emergency Preparedness and Response (EP&R) Case Study of Japan"; and "Integrated Urban Flood Risk Management Knowledge Notes".

Knowledge Exchange:

Gender and Diversity in Disaster Risk Reduction Training: The Hub was invited by JICA to participate and speak at the public event titled "Not Leaving Anyone Behind: Overcoming Challenges during Evacuation" and contribute to the formulation of action plans during their training course.

20th Public Seminar on "Japan-World Bank Program for Mainstreaming DRM in Developing Countries: Partnership between Japan and the World Bank in mainstreaming DRM": The Director General of the Global Environment Department represented JICA to speak on the importance of the partnership between JICA and the World Bank in mainstreaming DRM.

21st Public Seminar on "Public-Private-Academic Engagement in Hydromet Services": A JICA representative shared valuable inputs to the in-depth panel discussion on opportunities and challenges related to public-private engagements in the hydromet sector.

2.3.5 PROJECT HIGHLIGHTS IN FY19

The activities highlighted below showcase the Hub's proactive work to increase direct contribution to informing World Bank operations and connecting expertise in DRM with developing countries and World Bank projects.

Informing ongoing World Bank Operations

- **Support for developing methodologies for enhancing Resilience in World Bank power operations**

One knowledge grant of \$500,000 was approved under the Tokyo DRM Hub to provide on-demand support for piloting resilient design in World Bank's power generation, transmission and distribution network projects focused on three selected investment operations in countries that are particularly vulnerable to climate change. The proposed activities and country engagements will help to achieve the overarching objectives of addressing the need to build resilience in a select set of World Bank projects, and to use these projects as an opportunity to develop and consolidate the analytical approaches, necessary data and capacity building efforts needed by the utilities and regulatory agencies in this area. This grant will expand the knowledge capacity in resilient power systems and provide analytical support to the energy sector, also providing the foundational support required to scale Resilient Energy activities under the Program priority area of Resilient Infrastructure.

- **Just-in-Time (JIT) support to Government of Sindh, Pakistan on sediment monitoring and analysis of the lower Indus river**

In partnership with the Irrigation Department of the Government of Sindh (GoS), the Public Works Research Institute (PWRI) Japan, World Bank Water Global Practice and the Tokyo DRM Hub organized a 14-day workshop and training program held at Tsukuba, Sapporo and Tokyo on sediment monitoring and analysis of the lower Indus River.

The objective of the workshop and training was to develop a baseline survey methodology and a monitoring plan as well as better understand sediment transportation models in the lower Indus River. On the last day of the program, the Tokyo DRM Hub facilitated the wrap-up session where GoS experts shared various takeaways and key lessons that they envision to apply in their work to strengthen resilient water resource management, particularly on the methodology of sedimentation monitoring, analysis, and evidence-based river and barrage management and planning.

This collaboration has directly contributed to the implementation of the Investment Project Financing (IPF) Sindh Barrage Improvement Program implemented through financial support from the World Bank. All parties expressed their strong interest and commitment to further this partnership and future collaboration are in discussion. (Please also refer to Annex 3)

- **Informing Implementation of the project "Piloting and Scaling up Building Climate Resilient Bridges in Poor Rural Areas" in Vietnam**

As part of World Bank's efforts to support the Government of Vietnam build climate resilient bridges, the Transport Global Practice Group and the Tokyo DRM Hub organized a week-long knowledge exposure visit from November 19 to 25, 2018, to learn from Japanese experience on improving the disaster and climate change resiliency of infrastructure and the construction of Ultra High-Performance Concrete (UHPC) bridges. The Tokyo DRM Hub facilitated the knowledge exchange between experts from United Nations Centre for Regional Development (UNCRD), Taisei Corporation, and the University of Tokyo, whose expertise directly informed the implementation of projects under the World Bank lending operation of Local Road Asset

Management Program (LRAMP) (P155086) to improve the road accessibility and bridge connectivity for the rural communities of the participating provinces in Vietnam.

Deployment of the same experts from Taisei Corporation and the University of Tokyo to assess the progress of the construction of pilot UHPC-bridges under LRAMP and share their expertise on management of UHPC infrastructure are planned to take place in early December 2019.

- **Integrated Urban Flood Risk Management Technical Deep Dive (TDD)**

The Integrated Urban Flood Risk Management Technical Deep Dive (TDD), which was held during April 22-26. Approximately 38 participants from Albania, Angola, India, Jordan, Lao PDR, Myanmar, Panama, Paraguay, Turkey, and Vietnam attended the training program which engaged 37 Japanese experts to share their expertise. The government representatives were chosen because they have been leading flood-mitigating projects financed by the World Bank.

Through this TDD, a new type of participatory learning method was introduced as the ministudio, where participants worked on actual designs of green solutions to increase the water-storing capacity of given sites, such as parking lots, residential areas, roads, etc. The ministudio implemented during the TDD led to a collaboration opportunity with the World Bank's Indonesia team, where the Hub member and Japanese expert were invited to replicate the design workshop in the City of Bogor. The government officials learned first-hand the challenges and opportunities for integrating nature-based and green solutions to enhance urban flood resilience.

In addition, the delegation from Paraguay expressed interest in inviting a Japanese expert to assess the drainage system of the City of Asuncion, where the citizens experience large scale floods almost every year. Discussions for implementation are ongoing.

Setting up a mechanism to further integrate Japanese expert engagement into the preparation and implementation of World Bank infrastructure investment operations

- **GFDRR Just-in-Time Window for Resilient Infrastructure**

To strengthen the Program's contribution to Resilient Infrastructure, the Tokyo DRM Hub has been working on the development of the GFDRR Just-In-Time (JIT) Window grant to provide short-term grants of up to \$700,000 for the integration of DRM into the preparation and implementation of World Bank infrastructure investment operations in low-income or middle-income countries. In contrast to the standard technical assistance grants (Country Program) provided under the same Program, JIT resources are expected to address short-term needs and to be implemented within a maximum of 12 months after award. The JIT window addresses the client government's lack of financial and technical resources by providing responsive funding resources and mobilizing Japanese and global expertise to enable change processes and investments in resilient infrastructure. The grant proposal of the JIT window grant has been approved by GFDRR in July 2019 and will be in full operation from FY20.



SECTION 3

RESULTS MONITORING

3.1 OVERALL RESULTS

3.1.1 RESULTS AGAINST WORK PLAN

During this reporting period, the Hub made good progress and succeeded in achieving the targets set out for FY19. Summary of the outputs delivered in FY19 is shown in Table 3 below.

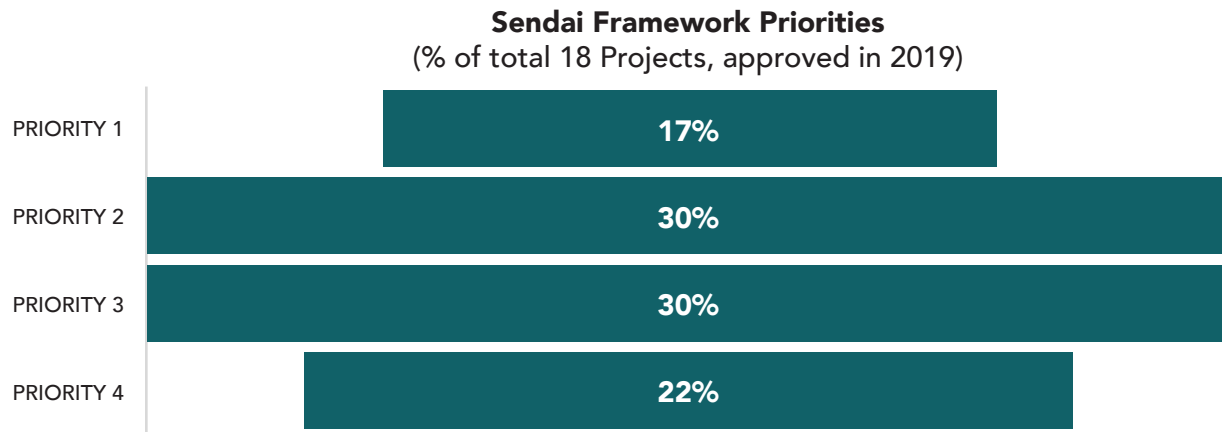
Table 3: Summary of outputs delivered in FY19 (Country Program and Tokyo DRM Hub)

Objectives	Output Indicators	Target Work Plan (2018-19 / FY19)	Actuals (2018-19/FY19)
Increase mainstreaming of DRM in World Bank Strategies and Operations	World Bank Investment Leveraged (US\$)	US\$ 1 billion	US\$ 2.9 billion
	World Bank Investment Leveraged (US\$) in non-DRM sectors	US\$ 300 million	US\$ 705 million
Increase Connection of Japanese and Global Expertise to WB Investments	Total number of World Bank operations utilizing Program-commissioned knowledge products.	10	27
	Total number of Japanese experts deployed to support Japan Program TA grants or WB investment programs	6	14
Prioritization of investments across the priority areas	Resilient Infrastructure	65%	65%
	Risk Identification, Risk Reduction and Preparedness	23%	23%
	Disaster Risk Finance and Insurance	6%	6%
	Tokyo DRM Hub Activities	6%	6%

3.1.2 RESULTS AGAINST SENDAI FRAMEWORK PRIORITIES

The FY19 portfolio contributed to all four Sendai Framework priorities - Priority 1: Understanding disaster risk; Priority 2: Strengthening disaster risk governance to manage disaster risk; Priority 3: Investing in disaster risk reduction for resilience; and Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation, and reconstruction. At 30% each, priority 2 and 3, got the highest contribution of grants, as shown in Figure 8 below.

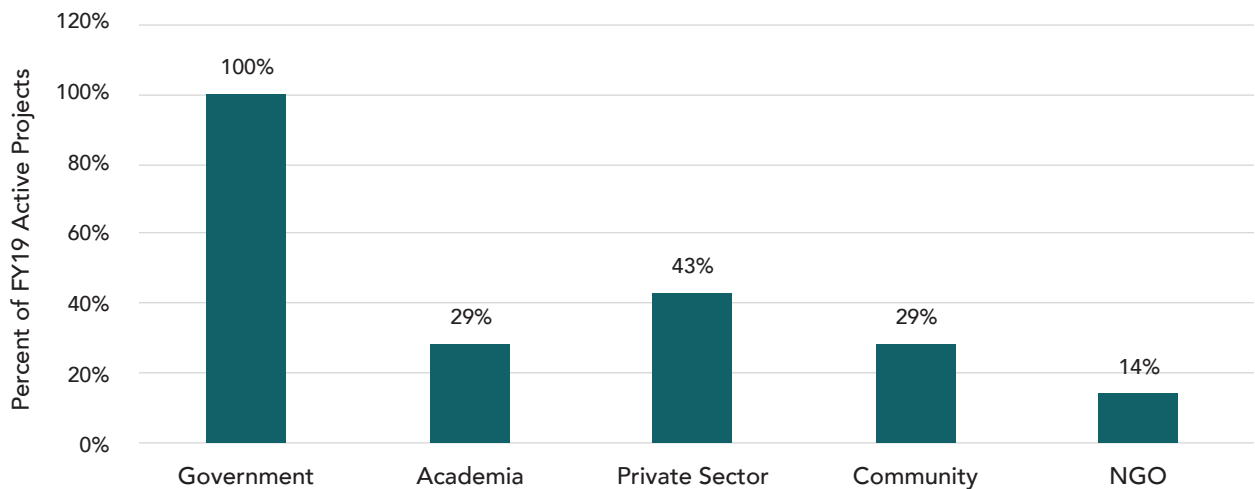
Figure 8: Percentage of grants contributing to each Sendai Priority



3.2 BENEFICIARIES

The beneficiaries for each grant are defined as people in communities, cities, countries, regions, and/or households that benefit or receive support from the Program’s active projects. In all the active projects in FY19, **client-country governments were the main beneficiary. Out of that, 43 percent of the projects benefited private sector, followed by academia and community at 29 percent each, and remaining 14% benefitted NGO.** Figure 9 below gives statistics for all beneficiary types.

Figure 9: Number of Active Projects in FY19 by Beneficiary Type





SECTION 4

RESULTS IN RESILIENCE

ROADS TO RESILIENCE:

STRENGTHENING CLIMATE RESILIENCE OF TRANSPORT LINES IN INDIA

Informing project of more than \$2.1 billion by sharing Japanese experiences in addressing disaster risks throughout the life-cycle of rail infrastructure assets.

COUNTRY: INDIA

India is no stranger to dealing with large and reoccurring disasters, especially floods—the most common natural disaster in the country. The country has been investing in disaster management and has worked tirelessly to reduce risk and build resilience. Through initiatives under Resilient Infrastructure, the Climate and Disaster Resilient Rails Development grant, supported by the Japan-World Bank Program, provided significant inputs to increase the resilience of Indian rails.

A key area of this support to increase climate and disaster resilience of the Indian railways, includes the technical assistance to inform the US \$2.1 billion World Bank financed “Eastern Dedicated Freight Corridor (EDFC) project”. The grant is producing guidelines to incorporate disaster risk considerations into urban rail projects and helping a study on weather hazards and existing levels of resilience. The study provides recommendations for appropriate systems for early warning and measures for strengthening operational emergency preparedness and weather hazard resilience.

India’s rail network is one of the most extensive in the world, transporting as many as eight billion passengers annually, and 1.1 billion tons of freight (2016).

In addition, Mr. Makoto Shimamura, Director General of the National Research Institute for Earth Science and Disaster Resilience, was deployed to India to provide insight on how Japanese railways are addressing disaster risks throughout the life-cycle of infrastructure assets, including improvements to inspection procedures, asset protection, repair, and replacement processes, and the establishment of countermeasures at the operational and regulatory level. He also assessed the resilience of existing Indian rail infrastructure and practices to temperature variation, floods and fog, reviewed international best practice, and made strategic recommendations for strengthening early warning systems and operational emergency preparedness and weather hazard resilience across the 1193 km of the EDFC are from Ludhiana through Khurja (near Delhi) to Mughal Sarai.



- ◀ Freight-only corridors will make it cheaper, faster, and more reliable to move goods between the industrial heartland in the north and ports on the eastern and western coasts.

Source: World Bank



India's Dedicated Freight Corridor (DFC) program is building dedicated freight-only railway lines along highly congested transport corridors.

Source: World Bank

The recommendations of the Strengthening Climate Resilience of EDFC report were presented as a key input during Resilience of Ports, Railways & Freight Corridors session of the 2nd International Workshop on Resilient Infrastructure on 19 March 2019 in New Delhi, India, and is now playing a foundational role in guiding Government of India's investment decision to increase disaster and climate resilience under the EDFC.

This engagement could be scaled across the entire 1,193 km Eastern Dedicated Freight Corridor and into other Dedicated Freight Corridor sections across India and is generating considerable interest within the rails sector.

INCREASING DISASTER PREPAREDNESS IN THE KYRGYZ REPUBLIC: REMEMBERING THE PAST CAN HELP MITIGATE DISASTER RISKS IN THE FUTURE

Japan's 60 years of experience in conducting nation-wide simulation drills supports initiatives in Kyrgyz Republic to increase the nation's preparedness and raise awareness among citizens on disaster risks.

COUNTRY: KYRGYZ

On October 5th, 2008, a 6.6 magnitude earthquake hit Nura village in the Kyrgyz Republic's Osh province. At least 75 lives were lost, and more than 140 people were injured, with extensive damages to homes and critical infrastructure like hospitals and schools.

Strengthening the country's resilience to climate and disaster risks is one of the highest priorities of the Kyrgyz government. The "Strengthening DRM in the Kyrgyz Republic" project, supported by the Japan-World Bank Program, has been instrumental in moving this agenda forward.

The Kyrgyz Republic is classified as the most seismically dangerous territory in Central Asia where 3,000 to 5,000 earthquakes are registered annually. The annual average population affected by earthquakes in the Kyrgyz Republic is about 200,000 and the annual average affected GDP is about US\$200 million⁴.



▲ Simulation Exercise of Rescue Activities
During Road Accident

Source: World Bank

Exactly 10 years after the Nura earthquake, on October 5, 2018, the Kyrgyz Republic commemorated National Disaster Risk Reduction (DRR) Day to raise awareness among citizens on disaster risks and ensure the country stands ready to anticipate the next one. Throughout the country, simulation drills were conducted in the weeks before the event to familiarize the public with various emergency response mechanisms. Around 5,000 people representing fire and health services, school teachers and students, as well as emergency services, participated in simulation drills in Batken, Osh, Jalal-Abad, Talas, Chuy, Issyk-Kul regions, and the cities of Bishkek and Osh.

⁴ World Bank, GFDRR, Europe and Central Asia: Country Risk Profiles for Floods and Earthquakes, 2016

The anniversary was also marked by a high-level conference in Bishkek on “New Approaches in Disaster Risk Reduction,” which allowed the World Bank to introduce an up-to-date continuity plan on Information and Communication Technology in Japan to maintain critical functions during emergencies.

The Japan-World Bank Program supported the experts visit by Kyrgyz government officials, where the officials gained first-hand experience in how to integrate disaster risk management considerations into long-term planning, and to identify methods to involve the general public in this process. They also participated in Japan’s National Disaster Preparedness Day on September 1, 2016, which lessons they applied to institute new reforms and simulation exercises in the Kyrgyz Republic. Recognized as one of the leading cultures of disaster prevention in the world, Japan has been working to exchange knowledge and learning with developing countries to help reduce impacts from natural hazards around the globe.

“The nation-wide simulation drills help improve knowledge, skills and preparedness of the people in case of a natural disaster. At the same time, the drills enable us to streamline coordination among key government institutions and agencies.”

**-Nurbolot Mirzahmedov,
Minister of Emergency Situations of
the Kyrgyz Republic.**

“Introduction of the National Disaster Risk Reduction Day and emergency drills throughout the Kyrgyz Republic is an important achievement from our joint efforts and successful application of the learning exchange between the Kyrgyz Republic and Japan. The dedicated work of the Kyrgyz government in disaster risk management made this success possible. We remain committed to sharing the best international practices and lessons learned in disaster resilience to support governments.”

**Ko Takeuchi,
Senior DRM Specialist, World Bank**



Demonstration of Rescue Items to School Children ▲
During National DRM Day in Bishkek

Source: World Bank

CONTINGENCY PLANNING FOR PACIFIC COUNTRIES: THE UNDERSTANDING RISK FINANCE PACIFIC CONFERENCE

Japanese experts present experiences of contingency planning of public assets at the Understanding Risk Finance Pacific Conference.

COUNTRIES: PACIFIC ISLANDS

The Understanding Risk Finance Pacific Conference (Urf) held in Vanuatu in October 2018 was the first ever regional event on disaster risk finance in the Pacific. The conference convened over 200 participants from more than 35 countries and delegations from 13 Pacific Island Countries were in attendance, including 7 Ministers of Finance.

During the conference, a side event on Contingency Planning in the Pacific explored international and regional lessons learned from contingency planning to PICs that participate in the PCRAFI insurance program: Republic of Marshall Islands, Samoa, Tonga, and Vanuatu. Based on the existing drafts of the contingency plans prepared by each member country and the lessons learned from international and regional experts, World Bank teams facilitated the finalization of these plans. The development of efficient and effective contingency plans is essential to ensure member countries' access to PCRAFI's financial pool for the use for disaster-recovery efforts.

A DRM Specialist from Tokyo DRM Hub participated in this event to contribute technical expertise to the finalization of contingency plans for PCRAFI member countries. In addition, an expert from the Japan International Cooperation Organization (JICA) presented Japanese cases of contingency planning focusing on pre-arranged emergency contracts between governments and private sector to achieve quick recovery of roads and traffic facilities after disasters. He also emphasized the importance of the collaboration work between the national, prefectural, and local governments in order to effectively work on the restoration of effected areas by large-scale natural disasters.

⁵ EM-DAT, 2010

Since 1950 disasters have affected 9.2 million people in the Pacific region, caused 9,811 reported deaths and cost the Pacific Island Countries around USD3.2 billion (in nominal terms) in associated damage costs⁵.

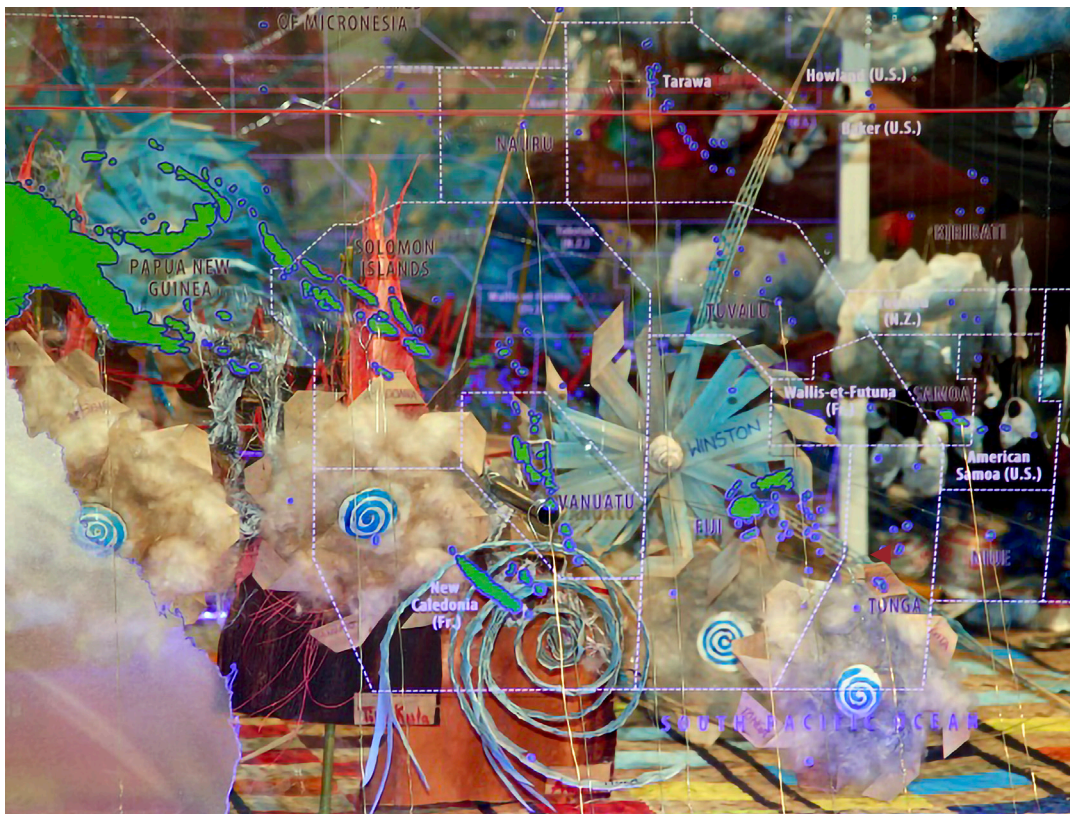
Contingency planning aims to assist the member countries in the prompt and effective usage of PCRAFI insurance proceeds for the most needed in the aftermath of disasters.

The Japanese expert used these experiences to convey the message to participating countries that the small island states of the Pacific have a great opportunity to construct a rich regional partnership and cooperation framework through their contingency plans, to collectively tackle their challenges of limited human and financial resources at the country level.

Through the workshop, participating countries enhanced their understanding on the guidelines of PCRAFI contingency planning and made progress towards finalizing their own contingency plans.



Pablo Suarez explaining "Risk & Time: A Data Sculpture on Nature, Disasters, & Finance."
 – Photo Credit Nausicaa Favart Amouroux, Fondation Suzanne Bastien, Vanuatu.



"Risk & Time: A Data Sculpture on Nature, Disasters, & Finance." – Photo Credit The World Bank

ANNEX 1. LEVERAGED WORLD BANK INVESTMENTS IN FY19

After five years of implementation, the Hub has achieved great success in terms of influencing World Bank DRM investments. The Hub's support helps prepare client countries to access larger investments in DRM from the World Bank and other development partners, while providing key entry points to enhanced resilience options in existing investments. The list of projects is shown below, in table 4.

Table 4: List of leveraged World Bank projects in FY19

Country	Lead GP	TA Grant Name	Investments Leveraged	Funding Source (\$M)	
				\$	WB
Priority Area 1: Resilient Infrastructure					
Cabo Verde	Transport	Enhancing Climate and Disaster Resilience in Transport sector in Small Island Developing States (Cape Verde, Saint Lucia, Solomon Islands, Vanuatu)	Cabo Verde – Transport Sector Reform Project	46	IDA
Cabo Verde	Transport		First Additional Financing to the Cabo Verde Transport Sector Reform Project	27	IDA
Micronesia, Federated States of	Energy and Extractives	Pacific Regional Program for Enhancing Energy Resilience to Natural Hazards and Extreme Weather	Sustainable Energy Development and Access Project	30	IDA
	Energy and Extractives	Piloting Resilient Design in WB's projects in Power Systems (Global)	Sustainable Energy Development and Access Project	30	IDA
Solomon Islands	Transport	Enhancing Climate and Disaster Resilience in Transport sector in Small Island Developing States (Cape Verde, Saint Lucia, Solomon Islands, Vanuatu)	Solomon Islands Roads and Aviation Project	51	IDA
Vanuatu	Transport		Vanuatu Climate Resilient Transport Project	62	IDA
Vietnam	Environment, Natural Resources & the Blue Economy	Increasing Resilience of Vietnam's Coastal Areas	Forest Sector Modernization and Coastal Resilience Enhancement Project	150	IDA
	Environment, Natural Resources & the Blue Economy		Mekong Delta Integrated Climate Resilience and Sustainable Livelihoods Project	310	IDA
Priority Area 2: Risk Identification, Risk Reduction, and Preparedness					
Bangladesh	GPURL	Informing governments to better target investment in urban resilience programs in SAR.	Bangladesh Urban Resilience Project	173	IDA
India	GPURL		Tamil Nadu Housing and Habitat Development	245	IBRD
India	GPURL		Kerala Urban Service Delivery Project	300	IBRD
Nepal	GPURL		Earthquake Housing Reconstruction Project	200	IDA
Nepal	GPURL		Nepal Development Policy Credit with CAT DDO	50	IDA

El Salvador	GPURL	Mainstreaming Disaster Risk Management in Local Economic Resilience Infrastructure in El Salvador	El Salvador Local Economic Resilience Project	200	IBRD
Jamaica	GPURL	Building Regulation for Resilience Program – promoting effective building regulatory frameworks through DRM and urban lending operations (Morocco, Jamaica, Bhutan)	Jamaica Disaster Vulnerability Reduction Project	30	IDA
Kyrgyz Republic	GPURL	Scaling up Disaster Risk Management Through Capacity Improvement in Risk Identification, Financial Protection, and EP&R in the Kyrgyz Republic	Enhancing Resilience in Kyrgyzstan Project	20	IDA
Morocco	GPURL	Building Regulation for Resilience Program – promoting effective building regulatory frameworks through DRM and urban lending operations (Morocco, Jamaica, Bhutan)	Integrated Disaster Risk Management and Resilience Program	200	IBRD
	GPURL		Municipal Performance Program	300	IBRD
	GPURL		Casablanca Municipal Support Program	200	IBRD
Myanmar	GPURL	Yangon Safe Affordable Expansion Initiative – Informing City Planning with Risk Information (Yangon SAFE)	Myanmar Southeast Asia Disaster Risk Management Project	116	IDA
St. Vincent and the Grenadines	GPURL	Enhancing Climate and Disaster Resilience in Transport sector in Small Island Developing States (Cape Verde, Saint Lucia, Solomon Islands, Vanuatu)	Regional Disaster Vulnerability Reduction Project	36	IDA
Tajikistan	GPURL	Scaling up Disaster Resilience Through Infrastructure O&M and Improving Emergency Response Capacity in Tajikistan	Strengthening Critical Infrastructure against Natural Hazards	50	IDA
Vanuatu	GPURL	Enhancing Climate and Disaster Resilience in Transport sector in Small Island Developing States (Cape Verde, Saint Lucia, Solomon Islands, Vanuatu)	Vanuatu Infrastructure Reconstruction and Improvement Project	50	IDA
Total				2.876 BILLION	

ANNEX 2. FINANCIAL STATEMENT

(US Dollars)

	For the fiscal year ended June 30th, 2019	For the fiscal year ended June 30th, 2018	For the fiscal year ended June 30th, 2017
Opening Balance:	51,023,381	70,046,568	64,661,086
Receipts:			
Donor Contributions	20,000,000	0	20,000,000
Net Investment and other incomes	1,414,114	972,401	678,056
Total Receipts	21,414,114	972,401	20,678,056
Disbursements:			
Project Disbursements	18,126,254	18,792,269	14,362,446
World Bank Administration Fee	0	250,000	250,000
Program Management and Administration Expenses	1,411,705	953,319	680,128
Refund to donors	0	0	0
Trustee Allocation	0	0	0
Total Disbursements	19,537,959	19,995,588	15,292,574
Excess of (disbursements over receipts) / receipts over disbursements	1,876,155	-19,023,187	5,385,482
Ending Balance	52,899,536	51,023,381	70,046,568
Less: Undisbursed Commitments	37,921,661	26,580,895	32,817,243
Fund Available for New Grants	14,977,875	24,442,486	37,229,325

ANNEX 3. JAPANESE EXPERT ENGAGEMENTS SUPPORTED BY HUB

3.1 DEPLOYMENT OF JAPANESE EXPERTS SUPPORTED BY THE TOKYO DRM HUB

CULTURAL HERITAGE

The Japan Program is supporting the TA “Resilient Cultural Heritage and Tourism Program”. Though this TA, a workshop on Resilient Cultural Heritage and Sustainable Tourism Development was organized on August 13-17, 2018, by the State Committee for Tourism Development (SCTD) to support the Government of Uzbekistan (GOU) in building capacity and developing guidelines for increasing resilience by integrating disaster risk management (DRM) in the conservation of cultural heritage sites, and the development of sustainable tourism. One private expert consultant, an MLIT licensed First Class Architect & Building Engineer, was deployed to Bukhara, Uzbekistan, to introduce the topic “Making Site Management Plans Work” and led a working group focused on finding and analyzing obstacles and solutions for making site management work in Uzbekistan. She also presented effective implementation of management plans, improvement of legislation, and coordination among different agencies at national, local, and site level. Through this TA, outcomes of the workshop informed the preparation on a \$100 million World Bank-financed Uzbekistan Medium-size Integrated Urban Development Project (MSCIUDP), which was approved in December 2018.

GREEN INFRASTRUCTURE

The Japan Program is supporting the TA “Investing in Urban Resilience and Emergency Preparedness in Indonesia” to strengthen the capacity of the Government of Indonesia to manage urban flood risks in targeted cities. Cities in Indonesia, often faced with limited financial resources, are considering the mixed use of green infrastructure (GI) and grey infrastructure as a solution to mitigating flood risks. Two experts from the Development Bank of Japan (DBJ) contributed to the workshop “Towards Innovative Urban Flood Risk Management in Indonesia” held in Bogor on August 27-28 to share unique mechanisms of financing green infrastructure in Japan, such as issuance of green bonds and public-private partnership (PPP) initiatives to showcase how the engagement of various stakeholders can lessen financial burden on local governments and prompt risk mitigating measures to be integrated into private sector developments. These lessons learned are being incorporated into municipal flood risk mitigation plans.

Story:

<http://www.worldbank.org/en/events/2018/08/27/green-infrastructure-financing-experts-from-development-bank-of-japan-present-at-the-workshop-drmhubtokyo>

INFORMATION COMMUNICATION TECHNOLOGY (ICT)- BUSINESS CONTINUITY PLANNING (BCP)

The TA “Strengthening Disaster Risk Management in Kyrgyz Republic” facilitated the knowledge exchange visit by Kyrgyz government officials to Japan, where they gained first-hand experience in how to integrate DRM considerations into long-term planning. As one of the results, the government established National Day of Disaster Risk Reduction (DRR) for the first time for the country. On October 5, 2018, their first National Day of DRR was held and as part of its program, a conference on “New approaches in the field of DRR” was held. Two experts from Newton Consulting Ltd. shared Japanese experiences in strengthening disaster resilience through business continuity planning (BCP) and information communication technology (ICT). As the government is in the process of strengthening national plans of DRM, they especially focused on explaining the policy context and historical development of ICT-BCP in Japan and elaborating on the process required for effective and sustainable implementation of ICT-BCP. The conference provided an opportunity to highlight the importance of disaster preparedness and risk reduction for decision-makers and other stakeholders

Story:

<https://www.worldbank.org/en/events/2018/10/05/japanese-experts-contributions-to-the-conference-in-bishkek-kyrgyz-republic-on-their-first-national-day-of-disaster-risk-reduction-drmhubtokyo>

CONTINGENCY PLANNING

To finalize the contingency planning for the PCRAFI insurance policies, a workshop on Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) Contingency Planning was held in Port Vila, Vanuatu, during the first ever regional event on disaster risk finance in the Pacific called 2018 Understanding Risk Finance Pacific Forum held on October 16. A JICA expert presented at the Workshop Japanese cases of contingency planning and importance of collaboration work between the national, prefectural, and local governments for possible application for the small island states of the Pacific to construct a rich regional partnership and cooperation framework through their contingency plans.

LAO PDR POST DISASTER NEEDS ANALYSIS (PDNA)

The World Bank supports client governments that have experienced natural disasters by providing expertise to conduct the PDNA, which describes the human losses, damage to physical assets, losses sustained across several economic activities, and impact of the disasters. Lao PDR suffered three disaster events including Tropical Storm Son-Tinh on July 18-19, 2018 followed by flash flooding on July 23-24, 2018 and Tropical Storm Bebinca on August 17-18, 2018, and in October 2018 the DRM Hub supported the deployment of one expert from Tokyo Electric Power Company (TEPCO) to Lao PDR for the assessment of impact to the energy sector after these disasters. He provided inputs to the PDNA report which provided the baseline data against which recovery and reconstruction plans can be designed and progress can be monitored.

DISABILITY-INCLUSIVE DRM

In addition to exploring innovative financing mechanisms, the TA “Investing in Urban Resilience and Emergency Preparedness in Indonesia” also supported the deployment of an expert to the workshop “Toward Disability Inclusive and Accessible Urban Development and DRM” on October 18, 2020, in Bogor Indonesia, to contribute to capacity building of government officials on the methods to integrate inclusive measures into development plans. The Chair of the Japan National Assembly of Disabled Peoples’ International (DPI), who is a wheelchair user herself, shared experiences from past earthquakes in Japan regarding inaccessibility to shelters and how the organization worked with a network of people with disabilities (PWDs) to create emergency services for PWDs. Her lessons influenced the government and public perception of PWDs and encouraged them to recognize their roles in supporting the implementation of inclusive initiatives.

Story:

<https://www.worldbank.org/en/news/feature/2018/10/18/toward-disability-inclusive-and-accessible-urban-development-and-disaster-risk-management-in-indonesia-drmhubbokyo>

RESILIENT RAILS

The Eastern Dedicated Freight Corridor (EDFC) project financed by the World Bank, is currently supporting the government of India expand their rail transport capacity and develop their institutional capacity to build, maintain, and operate the entire DFC network. Through the TA “Climate and Disaster Resilient Rails Development” supported by the Japan Program, an expert from National Research Institute for Earth Science and Disaster Resilience (NIED) was deployed to contribute to a consultation workshop in New Delhi, which was held to discuss ideas for future weather hazard resilience measures that may be integrated in railway operations under the EDFC. The Japanese expert shared best practices on Japan’s key efforts to set rainfall regulations for guiding decision-making processes to manage rail services and reduce disaster risks during extreme weather events. His inputs were integrated as recommendations to the EDFC report, which is playing a fundamental role in guiding Gol investment decision to increase disaster and climate resilience under the EDFC.

As a follow up to this support, one expert from the National Regulatory Research Institute (NRRI), Japan, was invited by the Government of India to support the technical working session on Resilient Railways at the Second International Workshop on Disaster Resilient Infrastructure on 19-20 March 2019, New Delhi, India. During the event, the expert discussed how Japan is utilizing monitoring technologies to strengthen disaster resilience of railway network to flood, wind, and earthquake. He showed how these technologies were being integrated in projects across the Philippines and Vietnam and addressing similar challenges faced by the Government of India. These inputs have helped to define a path for how Japanese expertise and technologies can be leveraged to strengthen DRM of freight and metro projects across India.

Story:

<http://www.worldbank.org/en/news/feature/2018/11/28/strengthening-resilience-of-eastern-dedicated-freight-corridor-in-india-drmhubbokyo>

BUILDING REGULATIONS

The Building Regulations for Resilience (BRR) Program of the World Bank addresses one of the most critical global challenges to enhance resilience of the built environment, by using TAs to leverage good practices and methodologies in building regulation. The TA “Leveraging Japanese Experience for Building Regulation for Resilience” financed by the Japan Program, supported the deployment of an MLIT expert to the workshop “Second International Workshop on Disaster Resilient Infrastructure (IWDRI)” held in New Delhi in March, 2019, where he presented examples from Japan on how proactive support to builders and building owners ensured compliance with building regulations. The lessons learned contributed to three World Bank lending operations, (i) Andhra Pradesh Disaster Recovery Project; (ii) Uttarakhand Disaster Recovery Project; and (iii) Jhelum and Tawi Flood Recovery Project in the state of Jammu and Kashmir, by calling for investment in an enabling environment for the implementation of building codes, not just the development of them.

Story:

<https://www.worldbank.org/en/news/feature/2019/03/19/the-second-international-workshop-on-disaster-resilient-infrastructure-in-india>

CULTURAL HERITAGE

The TA “Resilient Cultural Heritage and Tourism Program”, supported by the Japan-Program, utilizes 3D modelling in various ways, including collection of data, documenting sites, assessing structures, and identifying potential vulnerabilities. During the GSURR (currently known as GPURL) Learning Week on March 20, 2019, an expert from Massachusetts Institute of Technology (MIT) was invited to the World Bank HQ in Washington, DC, to deliver the session on “Innovating to protect and promote Resilient Cultural Heritage: Applying 3D modelling and Disruptive Technologies”. The expert led a team of experts from the Design and Computation Group at MIT to present key work on 3D modelling for cultural heritage sites, and the application to reduce disaster risk and promote post-disaster reconstruction and recovery. The session included an interactive demo on MIT Lab artifacts, software, and working case study with participant teams. Twenty World Bank staff, leading or supporting lending projects in SAR (e.g., India, Pakistan, Nepal, Bangladesh, Sri Lanka), EAP (e.g., China, Philippines, Myanmar, Vietnam), LCR (e.g., Guatemala), AFR (e.g., Tanzania), and MNA (Iraq, S. Arabia), participated in the session and have requested additional information and support from the program, including potential expert deployment.

EXPERIENCE OF RIKUZENTAKATA AND GENDER AND DISABILITY-INCLUSIVE DRM

“Inclusion for Resilient Recovery” was the focus of the fourth World Reconstruction Conference 4 (WRC4) held in Geneva on May 13-14 in 2019. This conference brought together leaders, experts, policy makers, and practitioners from both developing and developed countries to identify ways for governments, international organizations, NGOs and civil society groups to encourage active participation of vulnerable groups in building resilience and inclusive recovery processes. To share best practices from Japan, the Special Representative of Mayor and Senior Executive Advisor City of Rikuzentakata and Chair of DPI were deployed to present their experiences. They presented the (i) risks and potential costs associated with social exclusion in recovery processes, the benefits that inclusive approaches can bring in creating more just and resilient societies, and recommendations for promoting an inclusive recovery approach; and (ii) the efforts of the local leaders with disabilities to establish the Kumamoto SOS Center, an initiative to provide specialized services to PWDs to respond to the needs which are diverse and specific.

Story:

<https://www.worldbank.org/en/news/feature/2019/05/13/sharing-best-practices-from-japan-japanese-experts-contribute-to-wrc4-inclusion-for-resilient-recovery-drmhubtokyo>

3.2 EVENTS BY THE DRM HUB OR WITH ITS INPUTS

EVENT	SUMMARY AND JAPANESE EXPERTS ENGAGED	LINK TO WEB STORY
JULY		
<p>Knowledge Exchange: “Water Policy, Business, and Research as part of the 30th Anniversary event of the Japan Society for Hydrology and Water Resources”</p>	<p>Information sharing on how the Hub supports the integration of Japanese and global experts to their TA grants and World Bank operational projects.</p> <p>Experts: Mizuho Information and Research Institute, Inc.; The University of Tokyo</p>	<p>http://www.worldbank.org/en/events/2018/07/22/discussion-with-young-japanese-researchers-and-professionals-on-the-future-of-water-policy-drmhubtokyo</p>
AUGUST		
<p>Conference: “The 12th Asian-Pacific City Summit, Sustainable Cities and Communities Summit Fukuoka”</p>	<p>The Hub was invited to moderate a session on disaster risk reduction, present its activities on emergency preparedness and response as well as urban resilience projects in EAP.</p>	
<p>First Working Group Meeting: “Development of Knowledge Notes: The Japanese Experience in Integrating Urban Flood Risk Management (IUFRM)”</p>	<p>The 1st working group was convened to discuss how Japanese flood risk management experiences can help developing countries strengthen resilience against urban floods, through the Knowledge notes on IUFRM.</p> <p>Experts: Japan Riverfront Research Center; JICA; People for Rainwater; Tokyo Metropolitan Research Institute for Environmental Protection; The University of Tokyo; Urban Renaissance Agency (UR); Yachiyo Engineering Co., LTD.</p>	<p>http://www.worldbank.org/en/events/2018/08/07/experts-discuss-how-japanese-flood-risk-management-experiences-can-help-developing-countries-strengthen-resilience-against-urban-floods-drmhubtokyo</p>
<p>Training and Workshop: “Dam Rehabilitation and Improvement Project—India: Study visit to Japan”</p>	<p>During a week-long study visit arranged by JWA, for members of government of India (Gol), a meeting with the Hub was held to discuss how Japanese experiences may be integrated in infrastructure works through technical support, collaboration, and sharing of best practices.</p> <p>Experts: JWA</p>	<p>http://www.worldbank.org/en/events/2018/08/31/drip-india-delegations-visit-drmhubtokyo</p>
SEPTEMBER		
<p>Knowledge Exchange: “Sharing Ideas from Japan for Resilient Industries with AIRBUS executives”</p>	<p>A group of AIRBUS executives visited the Hub to receive a briefing on preliminary findings of the joint work by the World Bank’s Finance Competitiveness and Innovation Global Practice and the Hub to develop a global framework for Resilient Industries based on lessons learned from experiences in Japan and elsewhere. Experts: Yachiyo Engineering Co., LTD.</p>	<p>http://www.worldbank.org/en/events/2018/09/10/sharing-ideas-from-japan-for-resilient-industries-with-airbus-executives-drmhubtokyo</p>

OCTOBER		
Training and Workshop: “Support to Government of Sindh, (GoS) Pakistan on sediment monitoring and analysis of the lower Indus River”	<p>The Irrigation Department (ID) of the GoS, the Public Works Research Institute (PWRI) Japan, World Bank Water Global Practice and the Hub organized a 14-day workshop and training program held at Tsukuba, Sapporo and Tokyo on sediment monitoring and analysis of the lower Indus River. The objective of the workshop and training was to develop a baseline survey methodology and a monitoring plan as well as better understand sediment transportation models in the lower Indus River. This collaboration has directly contributed to the implementation of the Sindh Barrage Improvement Program implemented through financial support from the World Bank.</p> <p>Experts: Public Works Research Institute (PWRI)</p>	<p>https://www.worldbank.org/en/news/feature/2018/10/07/training-and-workshop-jit-support-to-gos-pakistan-on-sediment-monitoring-and-analysis-of-the-lower-indus-river-drmhubtokyo</p>
Training and Workshop: “Gender and Diversity in Disaster Risk Reduction”	<p>The Hub was invited by JICA Tohoku Center to participate in the public event “Not Leaving Anyone Behind: Overcoming Challenges during Evacuation” and contribute to the formulation of action plans where participating client countries presented how to integrate inclusive measures to their DRM plans.</p>	<p>http://www.worldbank.org/en/events/2018/10/24/tokyo-drm-hub-contributes-to-jica-training-course-on-gender-and-diversity-in-disaster-risk-reduction-drmhubtokyo</p>
Second Working Group Meeting: “Development of Knowledge Notes: The Japanese Experience in Integrating Urban Flood Risk Management (IUFRM)”	<p>The 2nd working group was convened to discuss which lessons learned should be conveyed through the identified case studies of Japanese best practices in IUFRM, through the Knowledge notes.</p> <p>Experts: Japan Riverfront Research Center; JICA; People for Rainwater; Tokyo Metropolitan Research Institute for Environmental Protection; The University of Tokyo; Urban Renaissance Agency (UR); Yachiyo Engineering Co., LTD.</p>	<p>http://www.worldbank.org/en/events/2018/10/26/second-working-group-meeting-experts-discuss-preparation-of-the-knowledge-notes-focusing-on-japanese-experience-in-integrated-urban-flood-risk-management</p>
NOVEMBER		
Conference: “Asian Conference on Disaster Reduction 2018”	<p>The Hub was invited to participate in this conference to share overall Program activities, especially in EAP region.</p>	
Knowledge exchange: “Ultra High Performance Concrete (UHPC) for Piloting and scaling up building climate resilient bridges in poor rural areas in Vietnam”	<p>As part of World Bank’s efforts to support the Government of Vietnam in building climate resilient bridges, the Transport Global Practice Group and the Hub, in partnership with the Government of Japan has organized a knowledge exposure visit to Japan, to learn from Japanese experience on improving the disaster and climate change resiliency of infrastructure and the construction of UHPC bridges.</p> <p>Experts: Taisei Corporation; The University of Tokyo; United Nations Centre for Regional Development</p>	<p>https://www.worldbank.org/en/news/feature/2018/11/19/informing-project-implementation-piloting-and-scaling-up-building-climate-resilient-bridges-in-poor-rural-areas-in-vietnam-drmhubtokyo</p>

JANUARY		
<p>Workshop: “Southeast Asia Disaster Risk Insurance Facility (SEADRIF) Technical Briefing for Japanese Insurance Industry”</p>	<p>The Ministry of Finance Japan and the World Bank co-organized a technical briefing for Japanese insurance industry on the Southeast Asia Disaster Risk Insurance Facility (SEADRIF). The objectives of the session were to share the scope and progress on SEADRIF, as well as to receive feedback from insurance experts.</p> <p>Experts: MoF, Japanese Insurance Industry representatives</p>	<p>https://www.worldbank.org/en/news/feature/2019/01/17/southeast-asia-disaster-risk-insurance-facility-seadrif-technical-briefing-for-japanese-insurance-industry-drmhubtokyo</p>
<p>Workshop: “Building Regulations for Resilience in Kenya”</p>	<p>The Government of Kenya hosted a workshop in Nairobi focusing on strengthening building regulation and land use reform, where the embassy of Japan (EoJ) in Kenya was invited to provide the opening remarks. The EoJ represented the Government of Japan as the TA under the Japan Program implemented the building regulatory capacity assessment (BRCA), which results were presented at this workshop.</p> <p>Experts: Embassy of Japan in Kenya</p>	<p>http://www.worldbank.org/en/news/feature/2019/01/24/building-regulations-for-resilience-in-kenya-drmhubtokyo</p>
MARCH		
<p>Public Seminar: “The Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries”</p>	<p>The Hub hosted this seminar to commemorate the renewal of the Japan Program. It also provided a strategic overview of how the partnership between the Government of Japan and the World Bank is expanding efforts to mainstream DRM in developing country strategies and investments.</p> <p>Experts: JWA; JICA; Nippon Civic Consulting Engineers Co., Ltd; Public Works Research Institution</p>	<p>https://www.worldbank.org/en/news/feature/2019/03/08/the-japan-wb-program-for-mainstreaming-disaster-risk-management-in-developing-countries-commemorates-its-renewal-drmhubtokyo</p>

APRIL

<p>Seminar: “Hydromet Projects at the World Bank: Opportunities for Collaboration”</p>	<p>The seminar convened Japanese, international, and World Bank experts to discuss the World Bank’s global hydromet engagements and explore opportunities for Japanese experts including the private sector, public sector, and academia to participate in different phases of current and future projects.</p>	<p>https://www.worldbank.org/en/news/feature/2019/04/03/drm-hubtokyo-seminar-on-hydromet-projects-at-the-world-bank-opportunities-for-collaboration</p>
<p>Knowledge Exchange: “Inter-American Development Bank Executive Directors visit to the World Bank Tokyo DRM Hub”</p>	<p>The Hub welcomed executives of the Inter-American Development Bank (IDB). This visit was organized as part of an Executive Directors’ Japan trip organized by the IDB’s Japanese Executive Office to learn from Japanese experiences in DRM and learn of the Program, in response to increasing demands in risk prevention due to recent natural disasters in the LAC Region.</p>	<p>http://www.worldbank.org/en/news/feature/2019/04/04/idb-executive-directors-visit-drmhubtokyo</p>
<p>Public seminar: “Public-Private-Academic Engagement in Hydromet Services”</p>	<p>The Hub organized its 21st public seminar with the objective to commemorate the launch of the GFDRR and DRM Hub’s new publication “The Power of Partnership: Public-Private Engagement in Hydromet Services.”</p> <p>Experts: JICA; Weathernews Inc. Global Center</p>	<p>http://www.worldbank.org/en/news/feature/2019/04/05/drm-hubtokyo-public-private-academic-engagement-in-hydromet-services</p>
<p>Knowledge Exchange: “Technical Deep Dive (TDD) on Integrated Urban Floods Risk Management”</p>	<p>The World Bank’s Urban Floods Community of Practice (UFCOP), Tokyo Development Learning Center (TDL), and DRM Hub jointly organized a 5-day TDD on IUFRM with the Government of Japan providing learning opportunity to World Bank client countries. Practitioners and decision makers from Albania, Angola, Jordan, Lao PDR, Myanmar, Panama, Paraguay, Turkey, and Vietnam joined to share their experiences, deepen their knowledge, and learn from each other, global and Japanese experts on how to inform the investments in IUFRM.</p> <p>Experts: City of Yokohama; DBJ; Hamamatsu City; JICA; Kobe City Government; MLIT; NHK Science and Culture Research Institute; Nippon Koei Co., Ltd; Osaka Prefectural Government; People for Rainwater; The University of Agriculture; The University of Tokyo; Tokyo Metropolitan Government;</p>	<p>https://www.worldbank.org/en/news/feature/2019/04/22/technical-deep-dive-on-integrated-urban-flood-risk-management-learning-from-experiences-of-japanese-cities-drmhubtokyo</p>

ANNEX 4. NEW PUBLICATIONS IN FY19

Focus Area	DRM Hub Program	Publication Title	Type of Product	Language
RESILIENT INFRASTRUCTURE	Country Program	Lifelines: The Resilient Infrastructure Opportunity	Report	English
	Resilient Infrastructure	The Urban Rail Development Handbook	Report	English
	Resilient Infrastructure PPPs: Contracts and Procurements	Resilient Infrastructure PPPs: Contracts and Procurements, The Case of India	Country Brief	English
	Roads, Landslides, and DRM	Second Technical Knowledge Exchange on Resilient Transport	Summary Report	English
	Seismic	Technical Deep Dive on Seismic Risk and Resilience	Summary Report	English
	Resilient Infrastructure	Incorporating Resilience in Infrastructure Prioritization: Application to Japan's Road Transport Sector	Report	English
	Building Regulation for Resilience	Managing Risks for a Safer Built Environment in Kenya: Building Regulatory Capacity Assessment	Project Document	English
	Building Regulation for Resilience	Jamaica Informal Building Sector Study	Project Document	English
	Country Program	Safety Prioritization of School Buildings for Seismic Retrofit using Performance-Based Risk Assessment in the Kyrgyz Republic	Project Document	English
DISASTER RISK IDENTIFICATION, RISK REDUCTION AND PREPAREDNESS	Resilient Cultural Heritage and Sustainable Tourism	Resilient Cultural Heritage and Tourism	Summary Report	English
	Resilient Cultural Heritage and Sustainable Tourism	Resilient Cultural Heritage and Sustainable Tourism Technical Deep Dive (TDD)	Summary Report	English
	Resilient Cultural Heritage and Sustainable Tourism	Bagan Disaster Risk Management Plan (DRMP)	Project Document	English
	Resilient Industries	Resilient Industries Strengthening Climate and Disaster Resilience of Industries through Business Continuity Planning	Project Brief	English
	Hydromet	Strengthening Hydromet and Early Warning Services in Afghanistan: A Road Map	Project Document	English
	Hydromet	Public-Private Engagement in Hydromet Services: A Comparative Analysis and Guidance Materials	Report	English
	Country Program	Hydrometeorological and Climate Services Modernisation Plan for Honduras	Country Note	English
	Country Program	Hydrometeorological and Climate Services Modernisation Plan for Nicaragua	Country Note	English
	Country Program	Risk assessment report Towards development of a lifeline utility business continuity plan for Tuzla industrialized zone at Istanbul	Country Note	English
	Country Program	Turkey Key Agricultural Product Risk Assessment (KAPRA) Report on the Financial Resilience of Key Agricultural Products to Climate Change	Project Document	English
	Country Program	Georgia – Support to Transition to Eurocode 8: Guidance and Worked Examples for NDP Studies	Country Note	English

Focus Area	DRM Hub Program	Publication Title	Type of Product	Language
DISASTER RISK FINANCING AND INSURANCE	Country Program	Disaster Risk Finance Country Note: Armenia	Country Note	English
	Country Program	Disaster Risk Finance Country Note: Kyrgyz Republic	Country Note	English
	Country Program	Boosting Financial Resilience to Disaster Shocks – Draft World Bank Technical Contribution to the 2019 G20 Finance Ministers’ and Central Bank Governors’ Process	Report	English
	Country Program	Catastrophe Insurance Programs for Public Assets - Operational Framework – Draft World Bank Technical Contribution to the APEC Finance Ministers’ Process in 2018	Report	English
	Strengthening Disaster Resilience in Tajikistan	Natural Hazard Assessment for the Reconstruction of Critical Transport and Flood Protection Infrastructure in Republic of Tajikistan	Project Document	English
	Strengthening the Integration of Disaster Risk Management and Climate Resilience in Trade, Competitiveness, and Roads in the Western Balkans Region	Diagnosing Vulnerability and Economic Resilience of transport Systems, Infrastructure and Operations in the Western Balkans (DIVERSION), Phase1 Report	Project Document	English
Tokyo DRM Hub	Brochure	The Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries Brochure	Brochure	English and Japanese





