



Japan–World Bank Program
for Mainstreaming Disaster Risk
Management in Developing Countries
2015–16 Annual Report

This annual report covers activities of the Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries between April 2015 and March 2016. It was presented at the Third Program Steering Committee Meeting, held in Tokyo, Japan on February 26, 2016.

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executive summary

This report highlights results achieved by the Japan-World Bank Program for Mainstreaming Disaster Risk Management (the Program) from April 2015 to March 2016. It provides an overview of activities supported by the World Bank DRM Hub, Tokyo (Hub) through its two interdependent work streams: (i) the Country Program and (ii) the Knowledge Program.¹

Located strategically in Tokyo, the Hub has furthered its role as a focal point in Japan and Asia for DRM at the World Bank. In 2015-16, the Hub has played a central role helping foster cooperation and coordination between the World Bank's strategy and operations and Japanese government counterparts, including the Japan International Cooperation Agency (JICA), Japan's Ministry of Finance (MoF), and the Ministry of Land, Infrastructure, Transport, and Tourism (MLIT). Additionally, the Hub has deepened its partnership with the Tokyo Development Learning Center (TDLC) through joint public and training events, and is developing activities with the Tokyo office of the Global Infrastructure Facility (GIF).

Since launching in 2014, the Hub has rapidly scaled up technical assistance (TA) and knowledge activities:

- 11 new country projects and nine knowledge projects began this year, finding new links between developing country demand and Japanese knowledge, particularly in resilient infrastructure;
- The Hub now has a total portfolio near \$45 million;
- The Hub is now supporting 32 countries through 31 TA and knowledge projects engaging seven World Bank Global Practices (GP).²
- In line with its goal of helping countries invest in resilience, the Hub has strengthened new and existing World Bank projects with targeted TA and knowledge.
- Hub grants are informing and influencing an active World Bank Group investment portfolio of 37 projects worth US\$8.4 billion.

¹ Detailed reviews of the alignment of Hub activities with the Sendai Framework, individual Country and Knowledge Program profiles, financial information, and knowledge products and visibility are included in the Annexes of this Annual Report and Program Profiles Report.

² Engaged GPs: Agriculture; Energy and Extractives; Finance and Markets; Social Protection and Labor (GSPDR); Social, Urban, Rural, and Resilience (GSURR); Transport and ICT (GTIDR); and, Water (GWADR), as well as the World Bank's Climate Change Group.

- Staffed with DRM professionals, the Hub has convened nearly 1,300 experts and practitioners from Japan and around the world through over 40 events.
- The Hub's engagements have included hosting events at the Third UN World Conference for Disaster Risk Reduction (WCDRR) in Sendai, Japan and at the 21st Conference of Parties (COP21) in Paris, France.
- More than 145 Japanese expert contributors from the public and private sectors, as well as academia and research institutes, have participated in Hub events or have been deployed to help developing countries address needs on-the-ground.

In its first two years of operations, the Hub has learned a number of important lessons. For example, the Hub is looking at ways to deepen and sustain initial partnerships developed with Japanese centers for excellence and developing countries.

Box 1: The Japan-World Bank Program: A Mission in Action

In October 2012, building on the recommendations of the Sendai Report, Japan's Minister of Finance and World Bank Group President Dr. Jim Yong Kim issued the Sendai Statement, emphasizing, "the importance of vulnerable developing countries for building resilience to disasters, including the usage of Japanese know-how and expertise, and extending knowledge and partnerships to support disaster risk management policies and programs."

In response to this call to action, in 2014, Japan's Ministry of Finance and the World Bank launched a US\$ 100 million program to improve the management of disaster risks in developing countries. The Program is managed by the Global Facility for Disaster Reduction and Recovery (GFDRR) under the oversight of a Steering Committee comprising representatives from the MoF, JICA, and the World Bank. Day-to-day operations are conducted by the Hub under the guidance of the World Bank's Special Representative, Japan. Funding is disbursed in annual installments over five years, of which \$50 million has been received to date.

context for hub activities in 2015-16

During 2015-16, the Hub's operations and engagements were shaped by supporting major international policy frameworks and helping countries manage a number of key issues, as described below:

International Policy Frameworks: This past year, the international community demonstrated deepened commitment to disaster and climate resilience, adopting the Sendai Framework for Disaster Risk Reduction 2015-2030 in March 2015 and the Sustainable Development Goals (SDGs) in September 2015. During 2015-16, the Hub provided TA aligned with at least seven of the 17 SDGs, supporting goals such as “eliminating poverty” (#1) and “reduced inequality” (#10) through its project *Disaster-Linked Social Assistance Delivery Support System Development in Nepal*, and “zero hunger” (#2) through the project, *Multi-hazard Early Warning System Including Drought in Egypt*. The Hub's technical assistance supports all of the Sendai Framework's four Priorities for Action, and Annex 1 provides a cross-portfolio review of this.

Tackling Climate Risks: Hydro-meteorological (hydromet) hazards, such as storms, floods, droughts, and heat and cold waves, cause the largest proportion of losses globally from adverse natural events, triggering almost 80 percent of disasters and over 50 percent of disaster-related deaths from 1980 to 2011. Climate change threatens to exacerbate these losses even further. As of February 2016, the Hub has a portfolio of nearly US\$24 million in TA projects to help vulnerable countries manage weather- and climate change-related challenges. The Hub supports countries to create an enabling environment for early warning systems through integrated data management and other investments, and is collecting and sharing lessons learned from Japan's experience, building a solid business case for service-oriented hydromet services.

Quality Infrastructure: Countries that ensure the quality of their infrastructure through both deliberate design and appropriate use and maintenance consistently demonstrate greater resilience to the shocks and stresses that disaster and climate risk pose. As of February 2016, the Hub has a portfolio of approximately US\$15 million in grant awards bolstering quality infrastructure.

Urbanization: More than 50 percent of the world's population is concentrated in urban areas, which is expected to grow to 66 percent by 2050, with 90 percent of this growth expected in Africa and Asia. While urbanization offers economic opportunities, it can also concentrate risk on people and assets if not done in a risk-informed manner. To take on the challenges of resilient urban development, the Hub's active portfolio of over US\$10 million on TA projects is helping countries strengthen urban resilience.

Fragility and Humanitarian Response: During 2015-16, political instability and a growing number of refugees and migrants impacted the global security situation, as well as some TA projects supported by the Hub. Aligning with GFDRR's work and position on humanitarian response and DRM, the Hub contributes to reducing fragility risks by building resilience and the adaptive capacity of countries and communities to external shocks that may trigger migration and long-term displacement. As of February 2016, the Hub has an active portfolio of TA grants totaling approximately US\$11 million to build disaster resilience in fragile and post-conflict states, including Myanmar and Nepal.

report on 2015–2016 activities

The Hub works through two interdependent work streams: (i) the **Country Program** and (ii) the **Knowledge Program**. Through the Country Program, the Hub provides grants to assist with preparing and implementing operations financed through the World Bank, as well as other multilateral development banks, bilateral donors, and other stakeholders. Through the Knowledge Program, the Hub implements activities to link Japanese knowledge, expertise, and technology with the World Bank’s developing country partners, particularly those supported through the Country Program.

Aligned with standard GFDRR resource prioritization practice, three criteria guide resource allocation across all activities.³ Supported activities must demonstrate that they:

- 1. Address the Drivers of Disaster Risk:** The Hub designs and supports activities that take on the key development challenges, such as inadequately designed and constructed infrastructure, that threaten to increase disaster risk;
- 2. Enable Partners:** The Hub develops and deepens collaboration that enhances the transfer of knowledge from Japanese centers of excellence to players on the ground and promotes operational and strategic coordination among partners; and
- 3. Catalyze Large-Scale Investment:** The Hub seeks to influence, inform, and leverage large-scale resilience investments supported by development partners, particularly the World Bank, as well as the public and private sectors.

The following two sections highlight the progress and achievements of activities conducted through the Country Program and Knowledge Program and explain how the Hub is meeting the above three criteria to achieve impact at scale.

³ See *Managing Disaster Risks for a Resilient Future: A Work Plan for the Global Facility for Disaster Reduction and Recovery, 2016-2018* www.gfdr.org/gfdr-work-plan-2016-2018

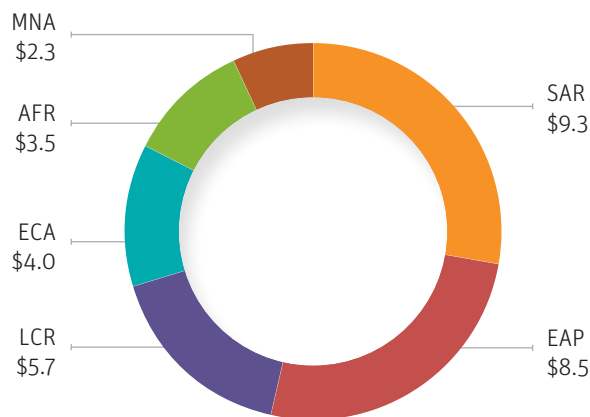
Country Program

During 2015-16, the Hub developed and launched eleven new projects, helping to expand its geographic reach to 32 countries across the World Bank's six operational regions. A profile of each project is included in the 2015-2016 Program Profiles Report Document.

The total active Country Program project portfolio is US\$33.255 million. The current unallocated balance for the program is US\$5.845 million (as of January 31, 2016), which will be allocated to pipeline projects by the end of the reporting period (March 31, 2016).

Figure 1 shows the distribution of approved project allocations by region. The distribution follows the Work Program 2015, and reflects the continued global reach of the program, with approximately a 50 percent share of resources in the EAP and SAR regions. Against the indicative allocations presented in the work plan for the year, the key variance was in SAR, which experienced major earthquakes in Nepal during the year requiring additional support. Additionally, funding to MNA has slowed due to difficulties in the external operating environment.

Figure 1: Cumulative funding distribution by region (in US\$ million)



Addressing Drivers of Disaster Risk

Aligned with the resource prioritization criteria described above, the Hub channels the majority of its project funding to high risk, high vulnerability countries. Table 1 shows the risk ranking of countries participating in the program. Over half of grant resources target countries found in the top 60 most vulnerable countries in the world, taking into account not only their exposure to hazards, but also their capacity to respond and cope. While some countries feature lower on INFORM's global risk ranking, the Hub also weighs opportunities for partnership and large-scale investment in its engagements.

Key to the Hub's effort is a focus on avoiding risks created through poorly planned and executed infrastructure projects.

In South Asia, the program has made innovative steps to bridge the gap between resilience thinking and action in number of infrastructure projects. One example is improving infrastructure resilience through the Hub's grant, *Promotion of Resilient Infrastructure in South Asia*. The grant has supported concrete solutions to improve the resilience of critical infrastructure in the region, such as roads

in Bhutan, irrigation in Afghanistan, waterworks in Bangladesh, and hydro-power dams in India and Nepal, while the Hub's Knowledge Program has catalyzed knowledge exchange between peers and provided technical inputs from Japanese experience. The project has also delivered a Business Continuity Framework for the public water utility in Chittagong, Bangladesh, and an assessment to measure resilience of storm-water drainage investments in Dhaka, Bangladesh, as part of large-scale water and sanitation projects financed by the World Bank.

The Hub is also helping fragile and conflict-affected countries effectively manage risks and hazards that effect their most vulnerable citizens. In Nepal, a grant to support effective targeting and planning of housing reconstruction is helping to ensure approximately 55,000 households receive assistance required to rebuild after the 2015 earthquakes. In Afghanistan, a grant is supporting a revitalized role for the World Bank in informing major infrastructure programs funded through the Afghanistan reconstruction trust fund, notably to support the country's road and water management infrastructure. The grant has already provided strategic support to the newly-established National Reconstruction Authority, and two main technical counterpart ministries, the Ministry of Federal Affairs and Local Development and Ministry of Urban Development. This project is helping ensure greater domestic capacity to reach vulnerable communities often out of reach for assistance from the international community.

Enabling Operational Partnerships

The Hub's activities engage a spectrum of government counterparts across national and sub-national DRM activities. Table 1, above, provides an overview of sector engagement by country. Implementing partners, typically government ministries, also reflect the full range of actors in DRM, from finance and planning to national statistics offices.

Efforts by the Hub to connect Japanese knowledge and expertise with these actors has gained momentum during the year. In particular, there has been demand for experience in modernizing national meteorological and hydrological services for improved early warning and planning across climate-dependent sectors like energy and aviation. Through strategic engagement on hydro-meteorological services in Japan, key technical experts throughout the Japanese government are helping share lessons learned from the country's experience at building a solid business case for quality services, and adapt them to a developing world context. The growing portfolio of projects in this field has furthered triggered strong collaboration with JICA, particularly in Southeast Asia and the Pacific.

Working with the Tokyo Metropolitan Government's Bureau of Waterworks, the Hub facilitated a knowledge exchange session among Bangladesh's Chittagong Water Supply and Sewerage Authority (CWASA), which prepared a business continuity plan (BCP) through the *Promotion of Resilient Infrastructure in South Asia* project, and the Philippines' Manila Water Company. Drawing on Tokyo's experience, the session focused on the concrete steps, such as prioritizing core business functions, utilities can take to ensure that contingency planning adds operational value. The Hub is now planning to develop a comprehensive knowledge note on BCP for water utilities for wider use, building on the lessons learned from this BCP application by CWASA and the task team.

Floods and integrated water resource management is another area Japanese expertise is adding value to Hub projects. In India, groups of dam maintenance authorities have benefited from exchange visits from Japanese experts, resulting in maintenance manuals to safeguard infrastructure against seismic risk. The Hub is now planning to leverage this experience into a relevant manual for global use.

The Japan Water Agency have provided technical inputs, and hosted knowledge exchange events for water officials from India. In Ghana, a project is benefiting from a hydrological model for the Black Volta River developed by a research group from Kobe University and Kyoto University.

Catalyzing Large-Scale Investment

The Hub's support helps prepare developing 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 Hub's grants are linked to an active investment portfolio of 37 World Bank Group projects worth US\$8.4 billion.

For example, the Government of the Philippines recently secured a second Catastrophe Deferred Drawdown Option (CAT-DDO) for US\$500 million, allowing it to access immediate financing in the case of a qualifying natural disaster. A grant from the Hub is directly supporting the government to achieve its policy commitments under this loan, providing best practice solutions. In Peru, support to the Ministry of Education to conduct a nationwide seismic risk assessment of schools has led to a US\$24 million government investment in a multi-year program to retrofit 373 of the country's most vulnerable schools, benefitting 278,000 students. Using the analysis developed through the grant, the government will retrofit a total of more than 12,000 schools. The Hub is supporting preparing of similar analyses in the El Salvador, Philippines, and Turkey, which are also expected to drive major investments in school safety.

The Hub coordinates closely with JICA, one of the largest bilateral supporters of DRM in development (see Box 2). The Hub has facilitated frequent exchange between JICA and World Bank teams in formulating technical assistance projects, providing an important entry point for ongoing operational collaboration.

Box 2: Collaboration with JICA

A number of examples demonstrate the deepening partnership between JICA and the World Bank, enabled by the Hub.

Bangladesh: In December 2015, the Hub supported a joint launch of JICA and World Bank parallel investments in urban resilience in Dhaka, Bangladesh. This event helped communicate to government partners and the public at large how the World Bank and JICA cooperate in a challenging and important field of reducing risk in a megacity.

Caribbean Countries: At the invitation of JICA, the World Bank participated in a study tour for Caribbean countries in Japan. This offered opportunity for both institutions to discuss strategic priorities for investments with governments from the islands, and review plans for scaling-up projects.

Central Asia: In October 2015, the Hub and World Bank’s Europe and Central Asia team hosted a regional forum for seismic resilience in Almaty, Kazakhstan. JICA seismic risk experts presented alongside World Bank teams to discuss priorities for seismic risk reduction in the region with ministries of planning, finance, and public works.

EAP: In January 2016, the Hub facilitated a knowledge exchange among Japan Meteorological Agency (JMA) experts, headquarters and field staff from JICA, and the World Bank on the effects and outlook for the EAP region from the El Niño climate cycle.

India: In April 2015, JICA and the Hub coordinated Japanese participation in an international symposium on, “Tackling the Challenges of Slope Stabilization and Landslide Prevention” in Uttarakhand, India. About 65 participants from Colombia, Japan, India, Norway, and Switzerland gathered to discuss available slope stabilization technology.

Nepal: Building on strong partnership across South Asia, JICA, and World Bank DRM teams have worked jointly to support the Government of Nepal in designing and financing its housing recovery program after the devastating 2015 earthquakes. This strong collaboration has included ongoing discussions between the teams in Kathmandu, as well as the Hub and JICA in Tokyo, and the World Bank’s DRM team based in Washington, D.C.

The Philippines: In the Philippines, where the Hub supports long-term technical assistance to the government, close dialogue among the World Bank, JICA, and government agencies—including the Department of Finance and the Ministry of Housing and Public Works—have united diverse constituents considering investments in risk reduction and risk financing.

Knowledge Program

Under its Knowledge Program, the Hub connects developing countries with the knowledge, expertise, and technology solutions needed to build resilience to disaster and climate risk. The Hub supports knowledge management, analytical work, capacity building, preparing and documenting solution products, and outreach and engagement in support of this goal.

Addressing Drivers of Disaster Risk

The Hub's Knowledge Program is designed around four strategic themes that help address critical drivers of disaster and climate risk for vulnerable countries. World Bank DRM professionals have identified these areas as priorities, and requested increased availability of knowledge products and support to design and implement relevant development projects. The themes are:

- (i) **Resilient Infrastructure:** To keep pace with global population growth, it is estimated nearly US\$5 trillion per year is required for infrastructure investment for the next 20 years.⁴ Supporting risk-informed and risk-reducing design, construction, operation, and maintenance of infrastructure, such as roads and schools, enhances the overall quality and resilience to the shocks and stresses disasters and climate risk pose (see Box 3).
- (ii) **Resilient Cities:** Rapid urbanization – 90 percent of which is expected to occur in Asia and Africa over the next 30 years – can concentrate risk on people and their economic activities if not done in a risk-informed manner. Advancing a series of innovative approaches, policies, and targeted investments and strategies can help cities prepare for, and adapt to, changing conditions, as well as withstand and recover rapidly from disruptions related to natural disasters and climate change.
- (iii) **Science and Technology for Resilience:** Faced with a host of challenges, developing countries have lower funding and technical capacity available to develop the science and technology solutions needed for disaster and climate resilience. Capturing how vulnerable countries can apply innovative practices using science and technology helps them take on DRM challenges, particularly in data collection and management. Countries also gain greater knowledge and competence in areas such as better weather and climate information and assessments of seismic risk.
- (iv) **Inclusive Resilience:** Natural disasters can push people, particularly those in vulnerable groups such as women, the elderly, and people with disabilities, into chronic poverty and undermine development gains. Promoting an inclusive and integrated vision of DRM, including bolstering social protection programs as a safety net, helps ensure societies engage and provide protection to all.

Enabling Knowledge Partnerships

The Hub partners with Japanese centers of excellence, as well as teams from various technical sectors and regions that work directly in developing countries, to design and implement its projects. It also engages in capacity building and outreach to share Japanese and global knowledge and experiences across sectors to strengthen the capacity of developing countries in mainstreaming DRM.

⁴ <http://reports.weforum.org/green-investing-2013/required-infrastructure-needs/#read>

Box 3: Quality Infrastructure through Resilience

Enabling quality infrastructure through resilience in developing countries is a driver of the Hub's work, particularly related to capturing lessons learned and supporting good practice.

The Government of Japan has proven a leader in this area, launching the “Partnership for Quality Infrastructure” in May 2015⁵, an initiative that places disaster resilience at the core of a broader framework for quality infrastructure investment. The Hub's activities are squarely in line with this framework, supporting technical assistance and knowledge activities in this area.

The World Bank and the Government of Japan jointly promote “Resilient Infrastructure” as one of the four key elements of the quality infrastructure concept. In keeping with this approach, the Hub is funding activities across several key sectors, notably transport, buildings, energy, and water, that are helping to inform approaches to disaster resilient infrastructure in practice.

- Through the Hub's work on Building Regulation for Resilience, World Bank task teams, development partners, and developing countries officials are gaining a better understanding of Japan's experience improving building code compliance through policy, enforcement, and financial mechanisms. The Hub is also supporting revamping the building code in the Philippines with technical support from Japanese experts.
- Safer schools programs in Peru and El Salvador are improving schools' structural resilience by connecting governments with financial support, as well as technical inputs from a seismic research center built by JICA. The Hub is also sharing lessons from Japan's effective school retrofitting program.
- Through knowledge notes, focused knowledge exchange sessions, manuals, and toolkits, the Hub is capturing Japan's integrated management solutions for Roads and Landslides, and floods, showing how relevant quality infrastructure practices can be for countries facing similar challenges.

The Hub also helps share the views of thought-leaders on these issues. In January 2016, the World Bank, in partnership with the Government of Japan, hosted the “International Conference on Sustainable Development through Quality Infrastructure Investment,” the culmination of a number of events aligned with the Government of Japan's “Partnership for Quality Infrastructure.” At the conference, the Hub organized an interactive panel on “Enhancing Resilience through Quality Infrastructure and Operations,” including experts from the World Bank, Japan's Urban Renaissance (UR) Agency, New York's Regional Plan Association, and Japanese broadcaster NHK, who agreed on the need for multi-disciplinary, comprehensive, and inclusive approaches to designing and operating quality infrastructure.

Additionally, aligned with recent analytical work showing the *Triple Dividend of Resilience*⁶, the Hub supports countries by combining ambitious but appropriate physical investments with proper operational practices to enhance resilience to shocks and stresses, maximize the full life-cycle value of investments, and drive far-reaching development gains.

⁵ http://www.mofa.go.jp/policy/oda/page18_000076.html

⁶ https://www.gfdr.org/sites/default/files/publication/unlocking_triple_dividend_resilience.pdf

Table 1: List of Knowledge Projects under Implementation

Strategic Theme	Knowledge Project	Expected Outputs	World Bank Global Practices	Japanese Partners
Resilient Infrastructure	Mainstreaming DRM in the Transport Sector	Toolkits, Operational Guidance	GSURR, GTIDR	MLIT, International Sabo Association
	Integrating Japan's Experience into the Global Program for Safer Schools	Operational Guidance Roadmap, Risk Identification Platform	GSURR	MEXT, MLIT
Resilient Cities	Learning from and Operationalizing the Japanese Experience in Comprehensive Flood Management for Reducing Urban Flood Risk	Knowledge Notes, Knowledge Exchange	GSURR, GWADR, GCCDR	MLIT, JICA
	Japanese Experience in Building Regulation for Resilience	Knowledge Notes, Online Platform for Knowledge Exchange, Capacity Building Program	GSURR, GCCDR	MLIT, JICA
Science and Technology for Resilience	Modernized Hydromet Services	Knowledge Notes, Operational Guidance	GSURR, GCCDR	JMA, MLIT, JICA, Cabinet Office
	Seismic Risk Assessment	Operational Guidance	GSURR	MLIT
	Information and Communication Technology (ICT) for DRM	Toolkits, Knowledge Management and Notes	GTIDR, GSURR	MIC, JBP
Inclusive Resilience	Social Risk Management and Disaster Risk Management	Toolkits, Training and Knowledge Exchange	GSURR, GSPDR	Cabinet Office, MHLW, Japan National Council of Social Welfare
	Empowering Elderly, Women, and People with Disabilities for Resilience	Operational Toolkit, Impact Evaluation	GSURR	University of Tokyo, NGO

GSURR: Social, Urban, Rural, and Resilience Global Practice

GSPDR: Social Protection and Labor Global Practice

GWADR: Water Global Practice

GTIDR: Transport and ICT Global Practice

GCCDR: Climate Change Cross-Cutting Solution Area

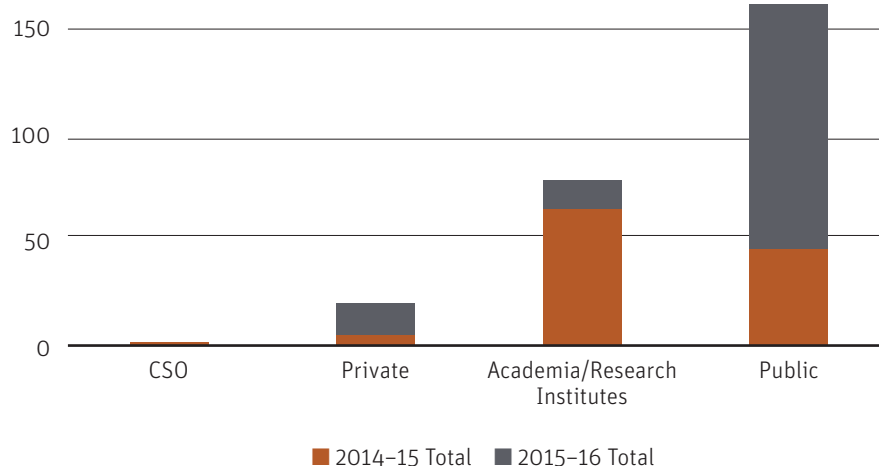
Networking with Japanese Centers of Excellence

The Hub has established strategic partnerships that help capture relevant and effective knowledge, expertise, and technologies to meet the demands of developing countries. Technical experts from the public and private sector in Japan provide guidance on the supply of solutions and best case studies.

The Hub has established numerous close collaborations and partnerships in Japan, including with the Cabinet Office; the Geospatial Information Authority of Japan; International Centre for Water Hazard (ICHARM); International Sabo Association of Japan; Japan Water Agency; JICA; JMA; Ministry of Education, Culture, Science, Sports and Technology (MEXT); Ministry of Health, Labour and Welfare (MHLW); the Ministry of Internal Affairs and Communication (MIC); and MLIT (see Box 4).

It also actively engages with academia, research institutes, and the private sector through platforms like the Japan Bosai Platform (JBP).

Figure 2: Japanese Expert Engagements by Organization Type



Connecting Across the World Bank Group

The Hub works across the World Bank Group to mainstream DRM and connects to key practices and business lines with Japanese and global experts. In September 2015, for example, the Hub organized a multi-sector public seminar in Tokyo on challenges in mainstreaming DRM into development, with a focus on infrastructure. World Bank experts shared how Hub support has helped with overcoming challenges, including increasing the climate resilience of infrastructure in Sri Lanka and integrating disaster and strengthening disaster recovery and risk reduction capacity in Pacific Island Countries (PIC) power utilities, providing case studies for other DRM actors who may be facing similar issues.

Communities of Practice (CoP) are the primary mechanism to connect World Bank staff across the GPs and solution areas for knowledge-sharing around a common area of expertise (see figure 3). They have provided a key entry point for Hub engagement, working with TDLC and other partners. For example, in January 2016, the Hub worked closely with the Safer Schools CoP to organize a technical roundtable with participation from JICA and MLIT experts that reviewed the Japanese national school retrofitting program and lessons for developing countries.

Box 4: Working with MLIT

Since the program's establishment in 2014, MLIT has been a central partner in its success, providing critical technical advice and strategic guidance. MLIT's key contributions include:

- Identifying technical areas and best case studies in which Japan excels in DRM;
- Systematically connecting the Hub with MLIT's technical experts in these areas; and
- Providing guidance on Hub's strategy and outreach.

These contributions have proven highly effective, enhancing the quality of the Hub's activities in *Roads, Landslides, and DRM, Hydromet, Flood Management, Building Regulation for Resilience, Seismic Risk Assessment, and Safer Schools*.

During the 2015-16 period, MLIT participated in six high-level events with the Hub. For example, MLIT's participation in the Central Asia Earthquake Risk Reduction Forum in Almaty, Kazakhstan in October helped several Central Asian countries begin formulating investment strategies to enhance their seismic resilience. MLIT's guidance and validation of findings this past year has also helped the Hub capture and share Japan's experience modernizing its hydromet services.

Figure 3: Working with CoPs



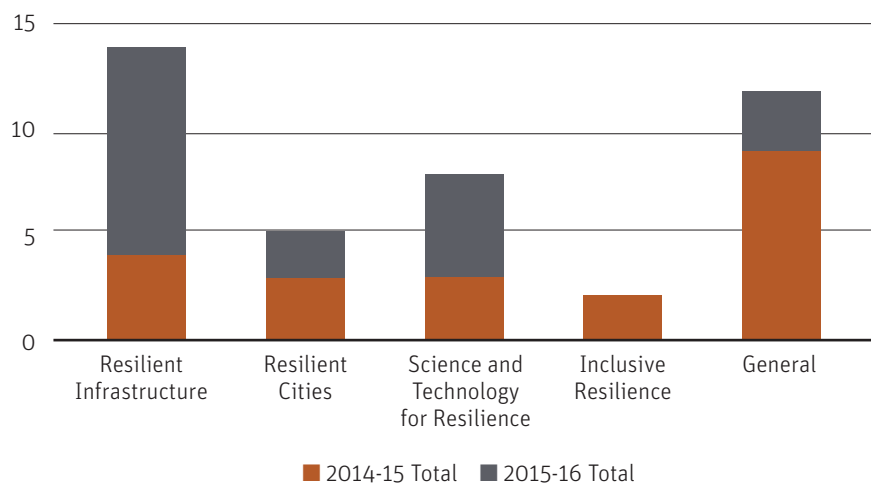
Catalyzing Large-Scale Investment

By developing knowledge products that draw on best practice, are integrated for operational needs, and demonstrate the value of resilient development, the Hub seeks to inform and catalyze investment in resilience in developing countries.

The Hub closely consults with the Japanese government and development professionals for guidance on developing and implementing knowledge investments that can help mainstream DRM in strategic sectoral investments. Additionally, final knowledge products, such as toolkits, manuals, or handbooks, are field tested by sector teams in their respective projects and countries.

In order to connect these professionals with Japanese knowledge and experience, the Hub organized 20 exchange events in 2015-16, including public seminars, technical roundtables, and international conferences. The events focused on the Hub's four strategic themes to ensure that knowledge captured is relevant for developing country counterparts and World Bank operations (see Figure 4).

Figure 4: Knowledge Exchange Events by Strategic Themes



Box 5: Engaging Japan's Private Sector to Strengthen Resilience

The private sector plays an integral role in helping developing countries build resilience through providing technologies and innovative services. To facilitate effective partnerships between the public and private sector, the Hub has engaged a total of 85 Japanese companies including ICT solution providers, equipment manufacturers, civil contractors, architects, insurance providers, infrastructure asset owners or operators, and consulting firms. These companies have provided consultancy, as well as participated in public seminars, conferences, technical roundtables, and open discussion.

To help document and share Japan's lessons on DRM and resilience, the Hub procured six Japanese consulting firms to develop a knowledge product for *Roads and Landslides*, *Modernized Hydromet Services*, *Safer Schools*, *Seismic Risk Assessment*, and *Smart DRM*. The consulting firms provided important contributions to capture and exchange the relevant Japanese knowledge and expertise with developing countries and the World Bank staff through the Hub's technical workshops and public events.

The Hub also helps Japanese private sector and developing countries to accelerate transferring knowledge and technologies. For example, the Hub facilitated discussion between a Japanese ICT firm and Nicaragua's Institute for Telecommunications and Mail (TELCOR), leading TELCOR to invite the firm to submit an Expression of Interest on building an early warning cell broadcasting system in the country.

Additionally, the Hub regularly engages the JBP to exchange views and information on the needs of developing countries and available Japanese private sector technologies and innovations. As part of this exchange, the Hub has shared country risk profiles developed by GFDRR to help JBP better understand climate-related vulnerability and risks of developing countries.

To help strengthen the DRM capacity of vulnerable countries, the Hub develops trainings, targeted exchange programs, study tours, and public seminars. In 2015-16, over 700 participants from Japan and globally, including 135 from developing countries, partook in these events. A series of public seminars has also raised awareness within the Japanese public on World Bank activities to mainstream DRM.

Box 6: Visibility of the Hub

The Hub serves as a knowledge center to connect the wealth of Japanese experience, knowledge, and expertise in DRM with developing countries and development professionals through the Country Program and Knowledge Program. In 2015-16, it engaged DRM communities and other stakeholders through over 20 events. It also contributed to flagship publications, including *Building Regulation for Resilience*. The Hub has enhanced its visibility, as well as its activities and its partners through communication tools and outreach.

In 2015-16, the Hub's activities were featured on over 50 outlets in Japan and internationally, such as Japan's NHK, Prevention Web, and Bangladesh's Financial Express, as well JICA and the World Bank's internal and external websites. For example, Nikkei—the world's largest financial newspaper with a daily circulation exceeding three million—published an op-ed by World Bank Group President Jim Yong Kim, highlighting the important role he sees the Hub plays in linking developing countries with the lessons learned in Japan on DRM.

Additionally, there has been a significant increase in traffic to the Hub's webpages, with the number of visitors doubling from last year (10,177 from February 2014-January 2015, to 23,396 from February 2015-January 2016; see Figure 6). The Hub launched its English-language webpage in September 2015, which has attracted strong traffic.

Annex 1: Alignment of Hub Activities with the Sendai Framework

	Priority 1. Understanding disaster risk	Priority 2. Strengthening disaster risk governance to manage disaster risk	Priority 3. Investing in disaster risk reduction for resilience	Priority 4. Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction
Afghanistan	✓	✓	✓	✓
Armenia	✓	✓	✓	✓
Bangladesh	✓	✓	✓	✓
Bhutan	✓	✓		✓
Brazil	✓	✓	✓	
Cambodia			✓	
Colombia	✓	✓	✓	✓
Costa Rica	✓		✓	
DRC	✓			✓
Egypt	✓	✓	✓	✓
El Salvador	✓		✓	
Fiji	✓		✓	
Ghana	✓			✓
Guatemala	✓		✓	
Honduras	✓	✓	✓	✓
India	✓	✓	✓	✓
Jordan	✓	✓	✓	✓
Lao PDR			✓	
Lebanon	✓	✓	✓	✓
Marshall Islands			✓	✓
Micronesia			✓	
Myanmar			✓	
Nepal				✓
Nicaragua	✓	✓	✓	✓
Panama	✓		✓	
Peru			✓	
Philippines	✓	✓	✓	✓
Samoa			✓	✓
Tonga	✓	✓	✓	✓
Turkey	✓	✓	✓	
Uzbekistan			✓	
Vanuatu			✓	✓

Annex 2: Knowledge Products and Communications Highlights

The Hub serves as a knowledge center to connect and share Japanese experience and expertise in DRM with developing countries and development professionals. In 2015-16, the Hub engaged DRM communities and other stakeholders through over 20 events and supporting two major publications.

During the 2015-16 period, the Hub continued to increase the visibility of the Program and its activities through innovative communication tools and outreach. Highlights include:

March 2015

- **Featured Video—Learning from Japan: How to Prepare for Natural Disasters**

Speaking at WCDRR, World Bank President Kim highlighted the strong leadership shown by the Government of Japan in DRM. He expressed the expectation that Japan continue sharing relevant experience, knowledge, and expertise for DRM in developing countries.

Link: <https://www.youtube.com/watch?v=bBaoLuu2FVo>

- **Program Brochure**

A new program brochure was distributed widely at the WCDRR in Sendai, Japan.

June 2015

- **World Bank and GFDRR Feature Story - 3 Steps to Making Schools Resilient to Natural Disasters**

Featured on the World Bank and GFDRR homepages, this story outlines three steps to make schools more resilient to natural disasters, highlighting a technical workshop the Hub co-organized with GFDRR's Global Program on Safer Schools.

World Bank President Kim also promoted this story from his personal twitter account.

Link: <http://www.worldbank.org/en/news/feature/2015/06/15/making-schools-resilient-to-natural-disasters>

Tweet: https://twitter.com/jimkim_wbg/status/666572156613079040

August 2015

- **Short Film—Disaster Resilience: Made In Japan**

This short film shares Japan's experience in mainstreaming DRM in road and river management for geological hazards, including landslides and floods.

Link: [http://www.kaltura.com/index.php/extwidget/preview/partner_id/1612911/uiconf_id/28487641/entry_id/O_73tkgnmp/embed/auto?&flashvars\[streamerType\]=auto](http://www.kaltura.com/index.php/extwidget/preview/partner_id/1612911/uiconf_id/28487641/entry_id/O_73tkgnmp/embed/auto?&flashvars[streamerType]=auto)

- **Short Film—Proud to Help: Japan's Social Protection Model for Disaster Victims**

This short film captures the disaster-linked safety net Japan's social protection mechanism provides for disaster victims in the Tohoku region following the 2011 Great East Japan Earthquake.

Link: [http://www.kaltura.com/index.php/extwidget/preview/partner_id/1612911/uiconf_id/28487641/entry_id/O_216it6j7/embed/auto?&flashvars\[streamerType\]=auto](http://www.kaltura.com/index.php/extwidget/preview/partner_id/1612911/uiconf_id/28487641/entry_id/O_216it6j7/embed/auto?&flashvars[streamerType]=auto)

October 2015

■ **World Bank and GFDRR Feature Story—Making Schools Safer to Disaster in Peru: Japan Delegation Visit**

This story, featured on the World Bank and GFDRR homepages, highlights the visit of a delegation from Japan to visit public schools in Lima, Peru to observe how TA, supported by the Hub, is helping make school infrastructure and the communities they serve more resilient to natural hazards.

Link: <http://www.worldbank.org/en/news/feature/2015/10/12/making-schools-safer-to-disaster-in-peru>

■ **Video, Press Release, Blog, and Forum Proceedings—Central Asia Earthquake Risk Reduction Forum**

In October 2015 the Hub supported the two-day Central Asia Earthquake Risk Reduction Forum in Almaty, Kazakhstan. The Governor of Hyogo Prefecture sent a message to the forum audience, promoting the importance of “preparing for the next one,” as well as sharing seven lessons learned from the Great Hanshin Awaji Earthquake in 1995.

Following the forum, the Hub summarized the proceedings, including lessons learned from countries such as Bangladesh, Japan, and Turkey, and released a related blog post, “Shaken, not stirred,” on the World Bank’s “Eurasian Perspectives” channel.

Link: <http://www.worldbank.org/en/events/2015/09/23/central-asia-earthquake-risk-reduction-forum>

Press release link: <http://www.worldbank.org/en/news/press-release/2015/10/27/central-asia-moving-towards-earthquake-risk-reduction>

Video link: forthcoming with Japanese subtitles

Blog link: <http://blogs.worldbank.org/europeandcentralasia/shaken-not-stirred>

Proceedings link: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2016/1/451453873709673/Central-Asia-Earthquake-Risk-Reduction-Forum-Proceedings-2015-eng.pdf>

November 2015

■ **World Bank and GFDRR Feature Story—Japan-World Bank Program Supporting Developing Countries’ Drive for Climate Resilience**

This story, featured on the World Bank’s homepage in coordination with COP21, describes how the Hub is contributing to climate change resilience.

Link: <http://www.worldbank.org/en/news/feature/2015/11/18/japan-world-bank-program-supporting-developing-countries-drive-for-climate-resilience>

Link: <https://www.gfdr.org/supporting-developing-countries%E2%80%99-drive-climate-resilience>

December 2015

■ **World Bank and GFDRR Feature Story: Laying the Building Blocks of Resilience in Afghanistan**

This story, featured on the World Bank and GFDRR homepages, shares the natural hazard risks in Afghanistan, and describes a Hub grant is helping the country shift toward resilience, in partnership with JICA.

Link: <http://www.worldbank.org/en/news/feature/2015/12/21/laying-the-building-blocks-of-resilience-in-afghanistan>

Link: <https://www.gfdr.org/laying-building-blocks-resilience-afghanistan>

January 2016

■ **Project Brochure: Disaster Risk Management in Armenia**

This project brochure outlines planned activities funded by the Hub and implemented by the World Bank to help the Government of Armenia to further advance disaster resilience.

Link to brochure: <http://pubdocs.worldbank.org/pubdocs/publicdoc/2016/1/569651452899980234/ARM-NDRMP-Brochure-eng.pdf>

Link to program overview: <http://www.worldbank.org/en/country/armenia/brief/disaster-risk-management-in-armenia>

Link to launch event page: <http://www.worldbank.org/en/events/2016/01/19/launch-of-armenia-national-disaster-risk-management-program>

■ **Animation: Disaster Risk Financing and Insurance**

This animation story tells how DRFI can help better protect families, communities, and governments from the economic impacts of natural disasters.

Link: <http://www.worldbank.org/en/news/video/2016/01/13/disaster-risk-financing-and-insurance>

February 2016

■ **Blog Post: Sustainable Cities**

In a post on the World Bank's Sustainable Cities blog, Ede Ijjasz-Vasquez, World Bank Senior Director, interviews colleagues from DRM Hub and TDLC how they can contribute to making cities more resilient and sustainable.

Link: forthcoming

March 2016

- **Report: Building Regulation for Resilience** (Japanese summary)

This report aims serves as resource to help policymakers, governments, donors, and the private sector with good practices in building regulation that underpin effective risk reduction. The report highlights the historical evolution of Japanese building regulations as one of the most robust frameworks globally, as well as international assistance through JICA.

Link: Translation work in progress

- **Knowledge Note: Japanese Experience in Modernization of Hydrological and Meteorological Services**

This knowledge note shares Japan's experience in modernizing hydromet services and effective early warning, with concrete recommendation for counties facing challenges in improving legal and institutional arrangements, capacity buildings, and modernizing monitoring equipment and facilities.

Link: forthcoming, under Printing

Annex 3: Financial Review

Budget Allocations and Commitments to Date¹ (in US\$ millions)

	Indicative Budget Allocation (Tranches 1-2) (A)	Commitment to Date (B)	Percentage Committed (B/A)
Country Program	39.0	33.3	85%
AFR–Sub-Saharan Africa	3.5	3.5	100%
EAP–East Asia and the Pacific	11.7	8.5	73%
ECA–Europe and Central Asia	5.9	4.0	68%
LCR–Latin America and the Caribbean	6.3	5.7	90%
MNA–Middle East and North Africa	3.8	2.3	61%
SAR–South Asia	7.8	9.3	119%
Knowledge Program	4.0	4.6	114%
Resilient Infrastructure	0.5	0.7	140%
Resilient Cities	0.5	0.6	120%
Science and Technology for Resilience	1.0	1.1	110%
Inclusive Resilience	0.5	0.7	130%
Hub Program Support	1.5	1.5	100%
Japan’s Membership Contribution to GFDRR	2.0	2.0	100%
Program Management and Administration²	4.5	4.5	100%
World Bank Fee³	0.5	0.5	100%
Total	50.0	44.8	90%

¹ Period from Program Commencement (February 2014) to Date (as of February 2016).

² Program Management and Administration funding supports Secretariat activities related to the management of this programmatic trust fund. Activities include: evaluating activity proposals and allocating funds to implementing units; work program planning, monitoring and evaluation; developing and implementing Program-specific management tools, procedures and systems; negotiating the replenishment / expansion of existing programs; program level resource related planning and budgeting; and donor relationship management activities.

³ The World Bank Fee supports enabling services provided by World Bank central units (e.g. Legal, Human Resources, and Trust Fund Accounting Services). These include: controls as transactions are processed, investing of funds, compliance checks and quality assurance, and accounting and financial reporting. The Fee also covers process-related activities undertaken by managing units and these activities include: issuing trust fund policies, including those addressing cost recovery and fees; clearance of trust fund and partnership proposals; preparation of legal agreements; advisory services; donor relations, including negotiating framework agreements; and trainings.

Annex 4: Acronyms

AFAD	Disaster and Emergency Management Presidency, Turkey
AFR	Sub-Saharan Africa region
BCP	Business Continuity Plan
CAT DDO	Catastrophe Deferred Drawdown Option
CoP	Communities of Practice
CoP21	2015 United Nations Climate Change Conference aka the 2015 Paris Climate Conference
CSS	Global Comprehensive School Safety Framework
CWASA	Chittagong Water Supply and Sewerage Authority
CY	Calendar Year
DFID	United Kingdom Department for International Development
DRFI	Disaster Risk Financing and Insurance
DRM	Disaster risk management
EAP	East Asia and Pacific region
ECA	Europe and Central Asia region
EOI	Expression of Interest
FEWS	Flood Early Warning System
GCCDR	World Bank Climate Change Cross-Cutting Solution Area
GDP	Gross domestic product
GFDRR	Global Facility for Disaster Reduction and Recovery
GIF	Global Infrastructure Fund
GP	World Bank Global Practice
GRIF	Global Resilience Investment Fund
GSPDR	World Bank Social Protection and Labor Global Practice
GSURR	World Bank Social, Urban, Rural, and Resilience Global Practice
GTIDR	World Bank Transport and ICT Global Practice
GWADR	World Bank Water Global Practice
ICR	Inclusive Community Resilience
ICT	Information and Communication Technology
JBP	Japan Bosai Platform
JICA	Japan International Cooperation Agency
JMA	Japan Meteorological Agency
Lao PDR	Lao People's Democratic Republic
LCR	Latin America and the Caribbean region
M&E	Monitoring & evaluation
MDTF	Multi-Donor Trust Fund
MNA	Middle East and North Africa region
MEXT	Ministry of Education, Culture, Science, Sports and Technology, Japan

MHEWS	Multi-hazard Early Warning System
MHLW	Ministry of Health, Labour and Welfare, Japan
MIC	Ministry of Internal Affairs and Communications, Japan
MILIT	Ministry of Land, Infrastructure, Transport and Tourism, Japan
MIS	Management information systems
MoF	Ministry of Finance, Japan
MoNE	Ministry of National Education, Turkey
NDMA	National Disaster Management Authority, India
NGO	Non-government organization
NMHS	National meteorological and hydrological services
OIZ	Organized Industrial Zone
PCRAFI	Pacific Catastrophe Risk Assessment and Financing Initiative
PDNA	Post-disaster needs assessment
PIC	Pacific Island Country
PPA	Pacific Power Association
PREP	Pacific Resilience Program
SAR	South Asia region
SDG	Sustainable Development Goals
SDMA	State Disaster Management Authority, India
TA	Technical assistance
TDLC	Tokyo Development Learning Center
TOR	Terms of Reference
TTL	Task Team Lead
UFCOP	Urban Flooding Community of Practice
UN	United Nations
UNDP	United Nations Development Programme
W4R	Women for Resilience
WCDRR	Third UN World Conference on Disaster Risk Reduction
WMO	World Meteorological Organization

