

ANNUAL

REPORT

Tokyo Development Learning Center

Fiscal Year 2021

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1818 H Street NW
Washington DC 20433
www.worldbank.org

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Book and information design by Voilà: chezVoilà.com

ANNUAL REPORT

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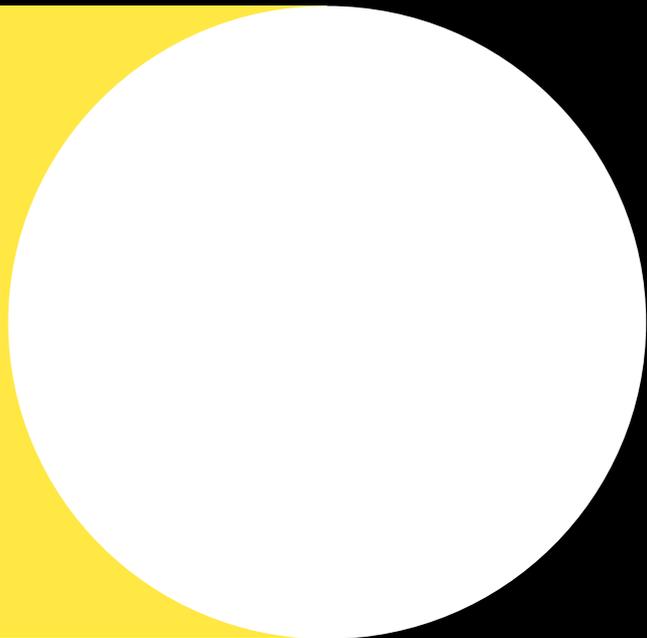
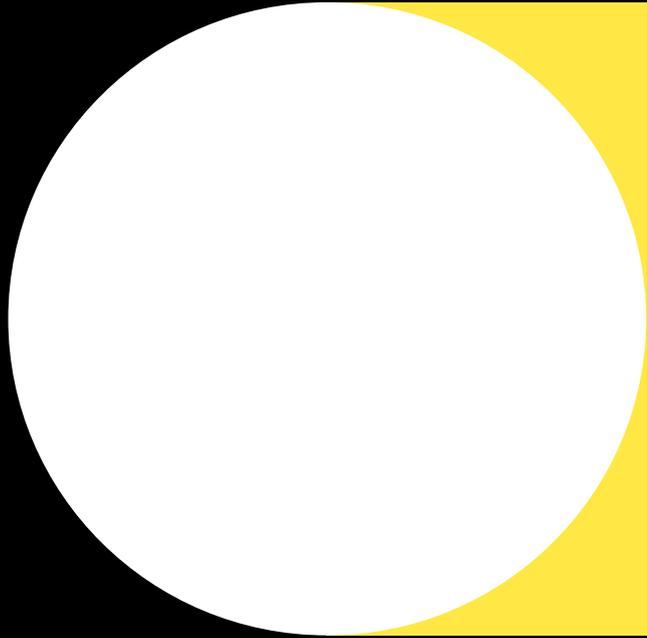


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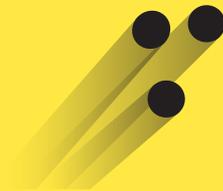
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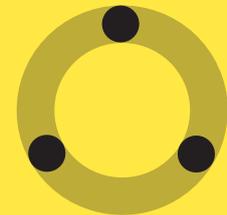
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ABBREVIATIONS

AI	Artificial Intelligence
ASCC	Asia Smart City Conference
CoE	Community of Experts
CPP	City Partnership Program
DRM Hub	Disaster Risk Management Hub
DTs	Disruptive Technologies
ECRJP	External and Corporate Relations Japan
GP	Global Practice
GPURL	Global Practice for Urban, Disaster Risk Management, Resilience and Land
IPF	Investment Project Financing
JICA	Japan International Cooperation Agency
KSB	Knowledge Silo Breaker
LDSP	Local Development Support Project
LED	Local economic Development
MADS	Ministry of Environment and Sustainable Development (Colombia)
MLIT	Ministry of Land, Infrastructure, Transport and Tourism (Japan)
MoE	Ministry of Environment (Japan)

MoU	Memorandum of Understanding
MoMRAH	Ministry of Municipalities, Rural Affairs and Housing (Saudi Arabia)
MVCT	Ministry of Housing, Cities and Territories (Colombia)
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
QII	Quality Infrastructure Investment
SCEWC	Smart City Expo World Congress
SDG	Sustainable Development Goal
SPP	Special Planning Platform
STC	Short-Term Consultant
STT	Short-Term Temporary
SWM	Solid Waste Management
TDD	Technical Deep Dive
TDLC	Tokyo Development Learning Center
TOD	Transit-Oriented Development
TTL	Task Team Leader
WHO	World Health Organization

MESSAGE FROM THE GLOBAL DIRECTOR

THE COVID-19 PANDEMIC continued to pose restrictions, disrupt economies, and impede growth in FY21. The Tokyo Development Learning Center (TDLC) began to adapt to the evolving pandemic in FY20 and sustained the program with strengthened strategies in FY21. TDLC rapidly deployed virtual platforms for its various components during the last fiscal year and successfully addressed the growing demands of its clients, which were more critical than ever given the ongoing health and economic crises. Seeking to advance the World Bank's priorities in responding to the pandemic, TDLC adopted healthy cities as a frontier topic for research and knowledge sharing in FY21. Overall, TDLC continued to perform as a global urban development knowledge hub over this past year.

Managed by the Global Practice for Urban, Disaster Risk Management, Resilience and Land (GPURL), TDLC is becoming an increasingly important institution within the World Bank, influencing clients, the Bank staff, and partner organizations with its insights, research, and practical solutions to meet current and post-COVID-19 development challenges.

TDLC concluded FY21 with laudable milestone growth despite the challenging circumstances. TDLC's signature program, the Technical Deep Dive (TDD), informed a portfolio of US\$7.54 billion in World Bank lending operations across 30 countries worldwide, represented by 127 client government officials from 49 cities. In addition, 2,700 participants were exposed to Japanese technical knowledge and expertise through 20 knowledge exchange events organized by or presented at TDLC. A total of US\$1,095 million in World Bank investments was leveraged by TDLC's operational support activities in FY21.

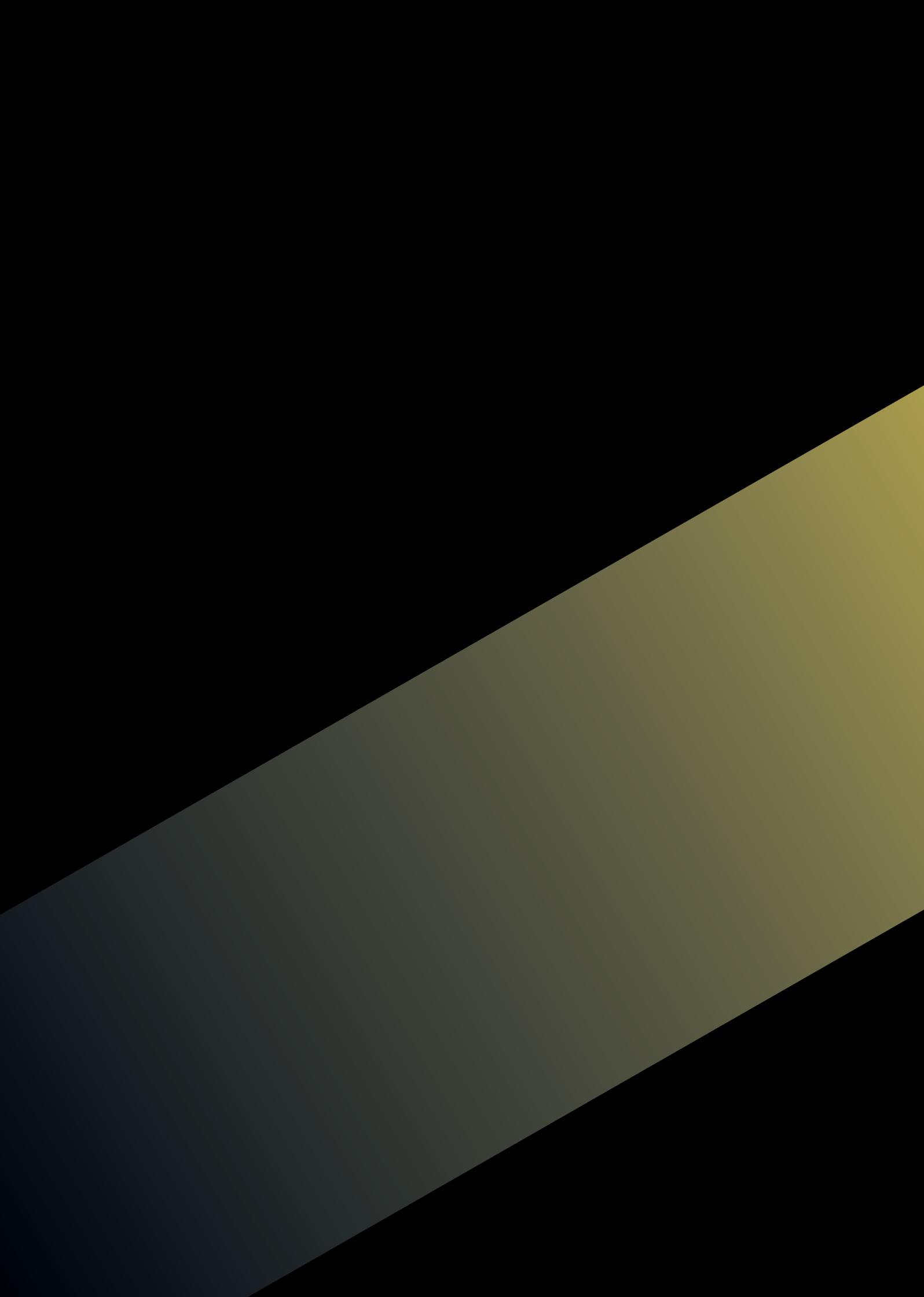
As part of the strategic partnership between the World Bank and Japan, TDLC effectively leverages Japanese and global knowledge and expertise to help countries solve development problems. TDLC's strength is in its collaborations and networks, which have continued to develop since the program's inception in 2004. TDLC's City Partnership Program (CPP)—which works with Fukuoka, Kitakyushu, Kobe, Kyoto, Toyama, and Yokohama has been instrumental in the knowledge growth of the program, as have two new networks, the Community of Experts (CoE) and the TDD alumni network. Insights curated through these networks support a live knowledge ecosystem that actively consumes and co-creates knowledge solutions, further informing World Bank operations and developing countries globally. In FY21, TDLC published Japanese case studies showcasing Japan's quality infrastructure investment (QII) principles, documented the Toyama development story, and advanced the creative city agenda through the Kyoto case study publication.

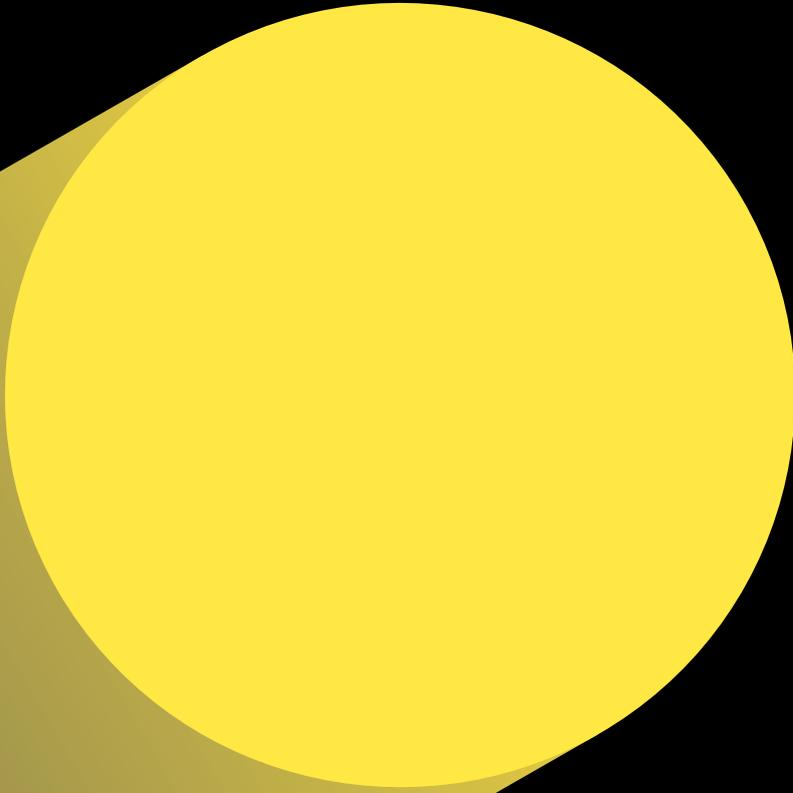
TDLC began to adapt to the evolving pandemic in FY20 and sustained the program with strengthened strategies in FY21.

Bolstered by a solid work plan and dedication to its mission, TDLC looks forward in the new fiscal year to scaling new heights and strengthening its ecosystem through collaborations, knowledge exchanges, and continued support to our client countries.



Sameh Wahba,
Global Director, Urban, Disaster Risk Management,
Resilience and Land Global Practice





TDLC
PROGRAM
HIGHLIGHT

TDLC PROGRAM

HIGHLIGHTS

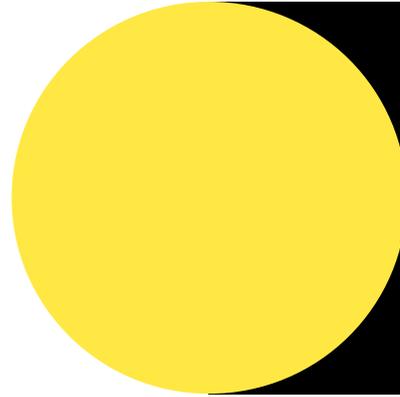
TDLC managed COVID-19 disruption and rapidly adapted to the new reality

COVID-19 posed an unprecedented challenge to the TDLC Program. With the outbreak of the pandemic and resulting travel restrictions, all TDLC's face-to-face activities in Japan were stopped in late February 2020 and have not yet resumed. Before the pandemic, the majority of TDLC program activities, and particularly its flagship Technical Deep Dive (TDD) events, were delivered face to face. As COVID-19 expanded across the world, affecting World Bank Headquarters and its country offices and client countries, TDLC activities needed to adapt to a virtual delivery mode. TDLC employed the first quarter of FY21 in rapidly developing methodologies and deploying virtual platforms for its various components and associated activities to deliver results and share knowledge with clients in a systematic way. This was not an easy process, as many of these platforms and methodologies were untested, and there was no established model or reference that could be easily replicated. TDLC also wanted to ensure that the virtual modality did not come at the expense of the TDD core principles, which emphasize action-oriented learning and operationalization. Despite the challenges, TDLC was able to develop a diverse set of virtual methodologies and platforms to continue delivering its program and its flagship TDD event (see below) effectively. Thanks to this effort, in FY21 the TDLC team successfully delivered the planned activities according to the work plan, albeit in virtual format—despite the ongoing pandemic and travel restrictions.

TDLC redesigned its flagship Technical Deep Dive Program, creating an effective virtual TDD model

The TDD has been the flagship program of TDLC. Designed as an agile peer-learning and experiential knowledge-acceleration program with an in-depth operational focus, the typical TDD relies extensively on face-to-face methodologies (e.g., dynamic workshops and peer-learning exchanges, field visits, facilitated interactions with experts and city practitioners) and involves convening the World Bank teams and client country officials for a week to Tokyo. With travel and local mobility restrictions imposed due to COVID-19, the TDD model was no longer feasible and needed to be redesigned to adapt to virtual delivery methods. The virtual TDD design had to keep the essence of TDD's key features (peer-learning, experiential learning, operational orientation), had to be engaging and dynamic despite the virtual means of delivery, and had to be schedule-friendly to the wider set of world regions. The TDLC team responded to this challenge and redesigned the TDD in a virtual form, delivering three TDDs¹ and an Operational TDD in FY21. Cognizant of the technical and logistical challenges and the possible fatigue from virtual learning, TDLC overcame these issues by designing a virtual TDD model that maintained a high level of engagement and interaction, and that increased the operational orientation with a streamlined implementation action plan for TDD content absorption and integration in participating World Bank projects.

¹ A pending TDD on Mega Cities to be organized in June 2021.



TDLC strengthened its operational orientation and streamlined Quality Infrastructure Investment (QII) principles in its activities

In FY21, TDLC strengthened its operational orientation, enhancing its alignment with World Bank operations in all its activities and deploying knowledge from TDDs to projects on the ground. First, the virtual TDD redesign strengthened the connectivity with operational implementation by introducing a deeper focus on action planning. By leveraging flexible virtual workspaces and a streamlined action plan tool, virtual TDDs provide participating operations with a clear action-oriented result for project implementation. Second, TDLC pivoted its operational support activities to virtual methods, leveraging the technology platforms and lessons learned from the virtual TDD model to effectively deploy practical knowledge and facilitate its absorption for implementation. Third, TDLC combined both the virtual TDD model and virtual operational support experience to help World Bank teams and counterparts address the challenges posed by travel restrictions. TDLC designed an Operational TDD modality and deployed it effectively with the World Bank team in Saudi Arabia. Through all these activities, TDLC has mainstreamed G20 QII principles and incorporated direct links with the QII Partnership to strengthen QII operationalization from projects participating in TDLC activities.

TDLC continues advancing Frontier Topics and supporting World Bank priorities

TDLC is a key knowledge hub of the World Bank, known for curating distilled insights and knowledge on cutting-edge and frontier topics, while continuing to add value to conventional urban topics. TDLC realizes that with changing times and an unknown future, exploring new avenues of research and developing new knowledge on untouched topics could inform clients better and put them ahead of the development curve. In FY21, TDLC focused on *Healthy Cities for All* as a key topic for research and shared findings with clients at the TDD organized on the same topic. At a time when countries are suffering from the

negative impacts of COVID-19, learning from other countries' experiences and solutions was very beneficial to clients. On a related topic, in FY21 TDLC also aimed to develop research on *Zero-Carbon Cities*, which will meet the demands of many client countries, particularly as we begin to recover from COVID-19 and have opportunities to build back better and greener. Frontier topics from the previous fiscal year continue to support this upcoming demand for information related to recovery; for example, *Creative Cities* continued to be a priority, and the topic informed operational support activities in FY21.

TDLC is expanding its network of experts and practitioners to address new knowledge demand and program needs

TDLC has always focused on broadening its network of experts to curate knowledge based on wider experiences and expertise. This year, when all activities were transitioned to virtual mode, the need for a broader network was further emphasized. Moreover, the new COVID-19 reality has increased the demand for new knowledge and ideas from multiple sources, including academia, private and public sectors, and peer practitioners. To address all these needs, TDLC is nurturing a Community of Experts (CoE) that comprises urban practitioners and other key experts across various industry verticals and academic disciplines within Japan and worldwide. The CoE creates a live knowledge ecosystem that actively consumes and co-creates knowledge solutions. Experts from this network helped strengthen the knowledge content for various TDLC activities, including TDDs, knowledge events, and operational support. TDLC also brought together experts to provide technical assistance to the TDDs under one platform on LinkedIn to share knowledge and experiences and support the TDLC Program. The expansion of these networks ensures continued and sustained collaboration with World Bank technical teams and clients.

EXECUTIVE SUMMARY

Founded in 2004, the Tokyo Development Learning Center (TDLc) is a pivotal program within the World Bank Group. Born out of the strong partnership between Japan and the World Bank, TDLc serves as a leading knowledge hub that offers urban development solutions and shares global best practices to maximize their development impact. Development impact of TDLc is accelerated through four core activities that comprise TDLc's program: (1) Technical Deep Dives (TDDs) and events, (2) operational support, (3) research and publications, and (4) the City Partnership Program (CPP) and Community of Experts (CoE) (the latter a new initiative added in FY21). These activities are synergized with innovations, technology, and demand-driven development solutions from Japan, and respond to emerging countries' urban development needs in an efficient and timely manner.

In FY21, TDLc adapted to COVID-19 and delivered its main programs despite the impediments to operations posed by COVID-19. This annual report provides a review of TDLc's work program over the past fiscal year (FY21) and summarizes both ongoing and new initiatives undertaken by TDLc as part of its effort to fulfill the mission of the Japan–World Bank partnership. The report also highlights all the partnerships, support systems, administrative and conference management activities, and media coverage that bolstered TDLc's program in FY21.

TDLc focused on healthy cities as the frontier topic, a timely topic as cities across the globe continue to grapple with the ongoing pandemic and consider ways to build back better and healthier in the post-pandemic era.

Focus on demand-driven content areas, frontier topics, and cross-cutting themes

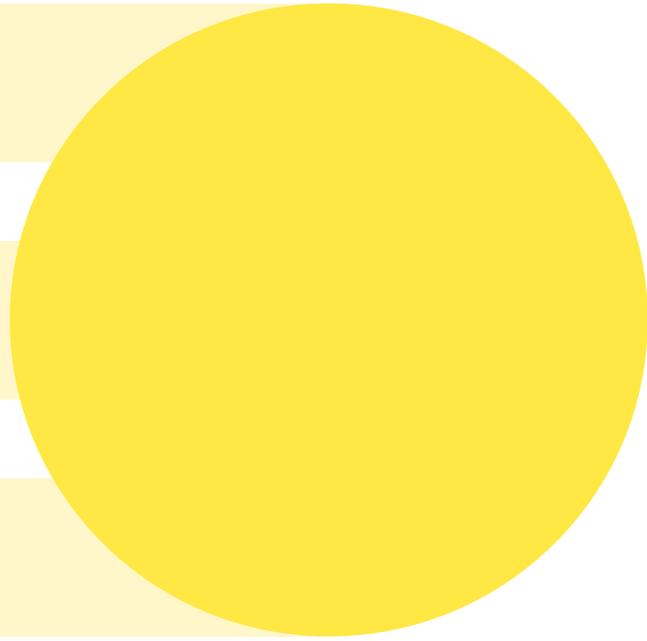
TDLc focuses on key thematic areas, including urban development and infrastructure, transport, social, technology and innovation, city competitiveness, land, environment, and disaster risk management (DRM); but together with the World Bank Urban, Disaster Risk Management, Resilience and Land Global Practice (GPURL), it also undertakes research and develops knowledge on frontier topics that foster innovation. In FY21, TDLc focused on healthy cities as the frontier topic, a timely topic as cities across the globe continue to grapple with the ongoing pandemic and consider ways to build back better and healthier in the post-pandemic era. TDLc has two main cross-cutting themes—overarching topics that are integrated in all program activities, which support efficiency in World Bank operations: quality infrastructure investment (QII) and disruptive technologies (DTs). In addition, TDLc's programming remains closely aligned with the World Bank priorities embodied in the World Bank Group's Green, Resilient and Inclusive Development (GRID) approach and the 2025 Targets to Step Up Climate Action. On this front, TDLc launched the Zero-Carbon Cities Knowledge Series to share good and emerging practices and solutions for attaining zero-carbon emissions and green growth in cities.

Rapid pivot to virtual modality under COVID-19

Facing the unprecedented challenge of COVID-19, TDLc redesigned its entire program in FY21 for virtual delivery. TDLc's face-to-face activities and operational support were rendered impossible due to the COVID-19-related travel constraints. As a result, TDLc shifted to an all-virtual delivery model. TDLc designed a unique virtual model for its flagship program, the TDD, that maintained the same principles of action-oriented learning and operationalization, and that allowed a level of engagement and interaction similar to the face-to-face model, by leveraging technology solutions such as Hopin. Similarly, for other events and operational support activities, virtual models were designed and implemented in a way that did not sacrifice TDLc's core principles and objectives. To address the heightened demand for new knowledge and ideas from multiple sources, including academia, private and public sectors, and peer practitioners, TDLc is nurturing a Community of Experts that consists of urban practitioners and other key experts across various industry verticals and academic disciplines within Japan and worldwide. In addition, TDLc has created a TDD alumni network—a community of over 1,600 participants, speakers, and organizing team members engaged through more than 32 TDDs. And finally, in response to a need revealed by COVID-19, TDLc is exploiting more diversified mediums for knowledge sharing. Specifically, FY21 saw an uptick in research activities supported by audiovisual content to bring Japanese expertise and lessons to clients in a more digestible manner and provide them with an experience of virtual site visits across Japan.

Design of the virtual TDD model

TDLc's flagship activity, the Technical Deep Dive, harnesses the power of the TDLc ecosystem to provide World Bank clients and Task Team Leaders (TTLs) with week-long programs of knowledge exchange, expert presentations, workshops, site visits, peer exchanges, and action planning. TDDs are an effective tool for synthesizing, packaging, and delivering key global and Japanese best-practice knowledge to World Bank teams and clients working on operations on the ground. In response to COVID-19 restrictions, TDLc quickly moved from face-to-face TDDs to a virtual model, continuing the engagement with clients in supporting their knowledge needs. In FY21, TDLc successfully organized four virtual TDDs, convening 127 client representatives and 75 TTLs from 49 cities in 30 countries and representing US\$7.54 billion in World Bank operations. These TDDs kept the objectives, content, and format the same as for a typical in-person TDD. In addition to TDDs, TDLc organized or participated as technical expert in 20 other knowledge events, sharing Japanese know-how and experiences in the urban development sector. These events reached an audience of more than 2,700 people from the public and private sectors, academia, and development organizations.



Continued commitment to operationalization through operational support

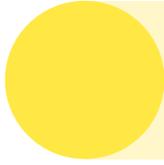
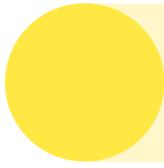
TDLc's *operational support* component aims to provide direct and in-depth impact to World Bank lending and advisory operations. The operational support leverages the knowledge curated from TDDs and TDLc's research activities based on Japanese and global best practices to inform World Bank operations. Under the travel restrictions posed by COVID-19, which affected the TDLc team as well as experts and client countries, technical support was extended through virtual platforms engaging more practitioners and officers from the client side. This year, TDLc worked intensively with four World Bank projects through operational support activities, leveraging investments amounting to US\$1,095 million in projects (US\$1,094 million in lending projects and US\$1 million in nonlending projects). Lending investments informed by TDLc through operational support programs were mostly in the solid waste sector, where Japanese experience and expertise is exemplary. TDLc was successful in building a promising pipeline of operational projects to be supported next year.

Continued engagement with city partners

Under the *City Partnership Program* component, the TDLc team continued to engage with our Japanese city partners virtually, drawing best practices, knowledge, and expertise from the partner cities and practitioners to develop learning materials, undertake research initiatives, and document insights and analysis on subject matter. CPP cities include Fukuoka, Kitakyushu, Kobe, Kyoto, Toyama, and Yokohama. In FY21, TDLc also collaborated with Tokyo and Yamato for knowledge exchange, and experts from these eight cities (six CPP cities and Tokyo and Yamato) shared knowledge and experiences with 30 client countries.

Packaging knowledge into research and publications

One of the pivotal components through which TDLc supports its ecosystem of knowledge is *research and publications*. In FY21, the TDLc team developed seven case studies and methodologies based on Japanese city experiences and expertise, six studies contributing to research and insights for global publications of the World Bank, and 20 audiovisual products to bring virtual reality to clients. Among the myriad research partners are Japanese and global partners as well as relevant Global Solution Groups, Knowledge Silo Breakers (KSBs), and other World Bank Global Practices. This research supported global World Bank publications in topics such as aging cities, creative cities, and healthy cities, and it shed light on good and emerging practices coming from Japan in areas such as green urban development, quality infrastructure investment, and transport-oriented development, among others.



Strengthened partnerships with internal and external stakeholders

TDLC’s success is bolstered by the ecosystem of partners it has built both inside and outside the World Bank. This ecosystem comprises internal World Bank audiences and urban development expert communities and practitioners, including the Japanese public and private sectors and academia. Key external partners include the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan International Cooperation Agency (JICA), Ministry of Environment (MoE), Institute for Global Environmental Strategies (IGES), and National Graduate Institute for Policy Research (GRIPS). Internal World Bank partners include the International Finance Corporation (IFC) and Global Practices, World Bank global programs such as the DRM Hub and QII Trust Fund, and the knowledge network of Knowledge Silo Breakers in the Urban, Disaster Risk Management, Resilience and Land Global Practice.

Technical support was extended through virtual platforms engaging more practitioners and officers from the client side.

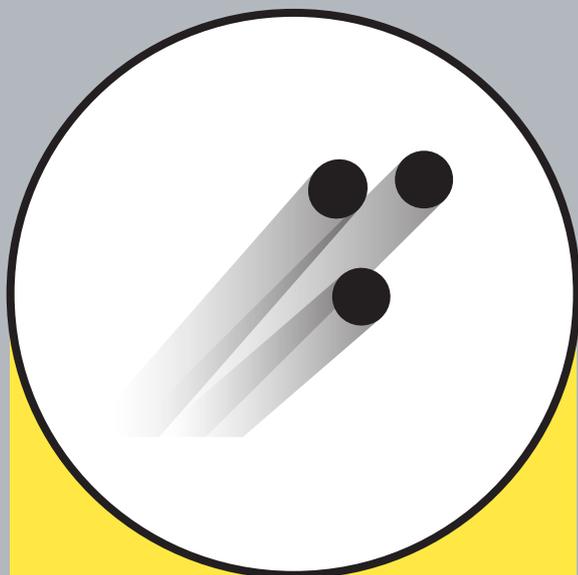
Technology and systems that support a new operation model under COVID-19

With its state-of-the-art studio and conference rooms equipped with advanced technology and connectivity infrastructure for virtual delivery of programs, TDLC serves as a hub to disseminate World Bank knowledge and learning to external partners. In keeping with Japanese disaster management standards, TDLC has adopted emergency and evacuation plans for offices, studio, and events. In FY21, TDLC put in place a COVID-19 Prevention Plan, taking steps to prepare the office and ensure the health and safety of staff and families. Also, in this fiscal year, TDLC has enforced strict compliance with the processing of stakeholders’ personal data in order to comply with the World Bank Data Privacy Office requirements.

In FY21, TDLC continued to strengthen its program and build new partnerships. As the program aims to continue increasing its outreach and impact, TDLC seeks a stronger alignment of activities with the World Bank’s operations, while also better targeting its existing programs and services.

FY21

SNAPSHOT



TECHNICAL DEEP DIVES

demand-driven virtual

4 Technical Deep Dives

30 Country Delegations representing

US\$7.54 billion

in World Bank operations.

127 Client Government Officials from 49 cities in

30 Countries

75 World Bank Task Team Leaders

Largest participant representation was

Africa

followed by Middle East and North Africa and East Asia Pacific



OPERATIONAL SUPPORT

4 World Bank Projects

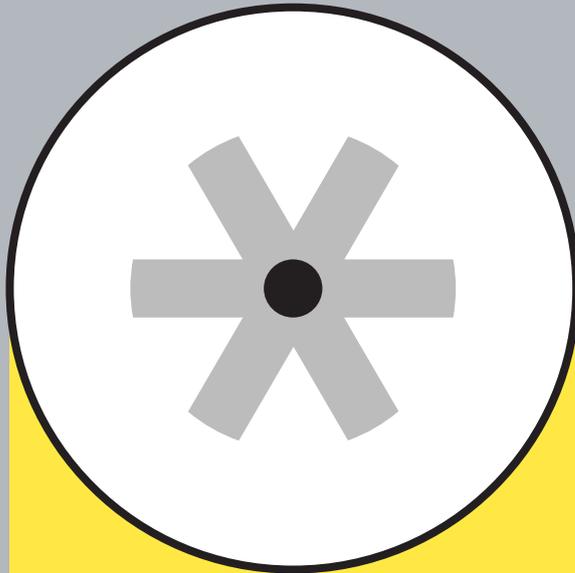
assisted through operational support

US\$1,095 million

in investments leveraged for operational support (US\$1,094 million in World Bank lending portfolio; US\$1 million in World Bank non-lending portfolio)

3 Pipeline Development Activities

from Liberia, Tanzania, and West Bank and Gaza



RESEARCH & PUBLICATIONS

7 **Case Studies**
and methodologies
based on Japanese city
experiences and expertise

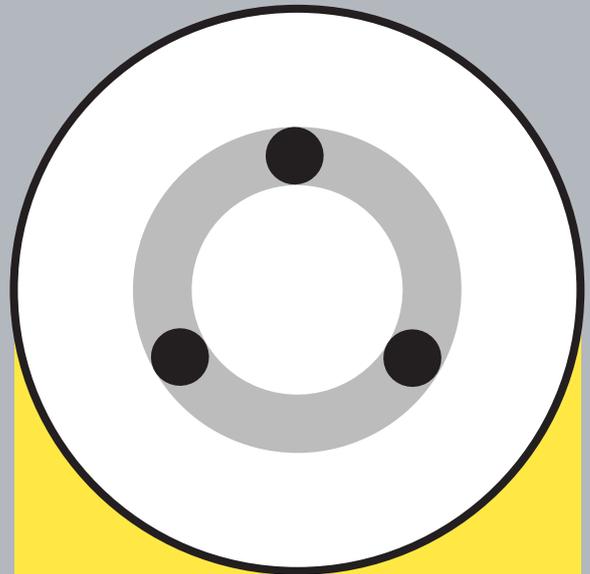
2 **Cross-cutting
Themes**
Quality Infrastructure
Investment (QII) and
Disruptive Technologies

5 **Studies**
contributing to
research and insights
for global publications
of the World Bank

20 **Audiovisual
Products**
to better facilitate virtual
knowledge diffusion

New Frontier Topic Launched
with City Partnership Program (CPP)
cities Kobe and Fukuoka:

Healthy Cities



CITY PARTNERSHIP PROGRAM

6 **Partner Cities**
Fukuoka, Kitakyushu, Kobe,
Kyoto, Toyama, and Yokohama

2 **non-CPP Cities**
Tokyo (Tokyo Metropolitan
Government, TMG) and Yamato

20 **Knowledge
Exchange Events**
sharing Japanese know-how
and technical expertise in the
urban development sector

2,700+
Participants
from the public sector,
private sector, academia,
and development organizations

1. ABOUT TDLC

TDLC is a knowledge hub of the World Bank with a mission to maximize development impact by offering urban development solutions and sharing Japanese and global best practices.

THE TOKYO DEVELOPMENT LEARNING CENTER (TDLC) is a key program within the World Bank Group launched in June 2004 under a partnership between Japan and the World Bank. TDLC is managed by the World Bank Global Practice for Urban, Disaster Risk Management, Resilience and Land (GPURL) and overseen by a steering committee, which is a collaboration of the Japanese Ministry of Finance and the World Bank. Positioned as a global disseminator of development solutions, TDLC serves as a one-stop hub to identify Japanese and global best practices, generate new insights, and share actionable solutions through four core activities: Technical Deep Dives (TDDs), operational support, research and publications, and the City Partnership Program (CPP). All TDLC programs are synergistically integrated to identify and unpack innovations and demand-driven development solutions from Japan and beyond, thereby responding to urban development needs of developing countries in a timely manner.

1.1 TDLC PROGRAM OVERVIEW

The TDLC program consists of four main activities (figure 1), which are synergistically integrated to generate new insights and demand-driven solutions that address urban development challenges in the field.

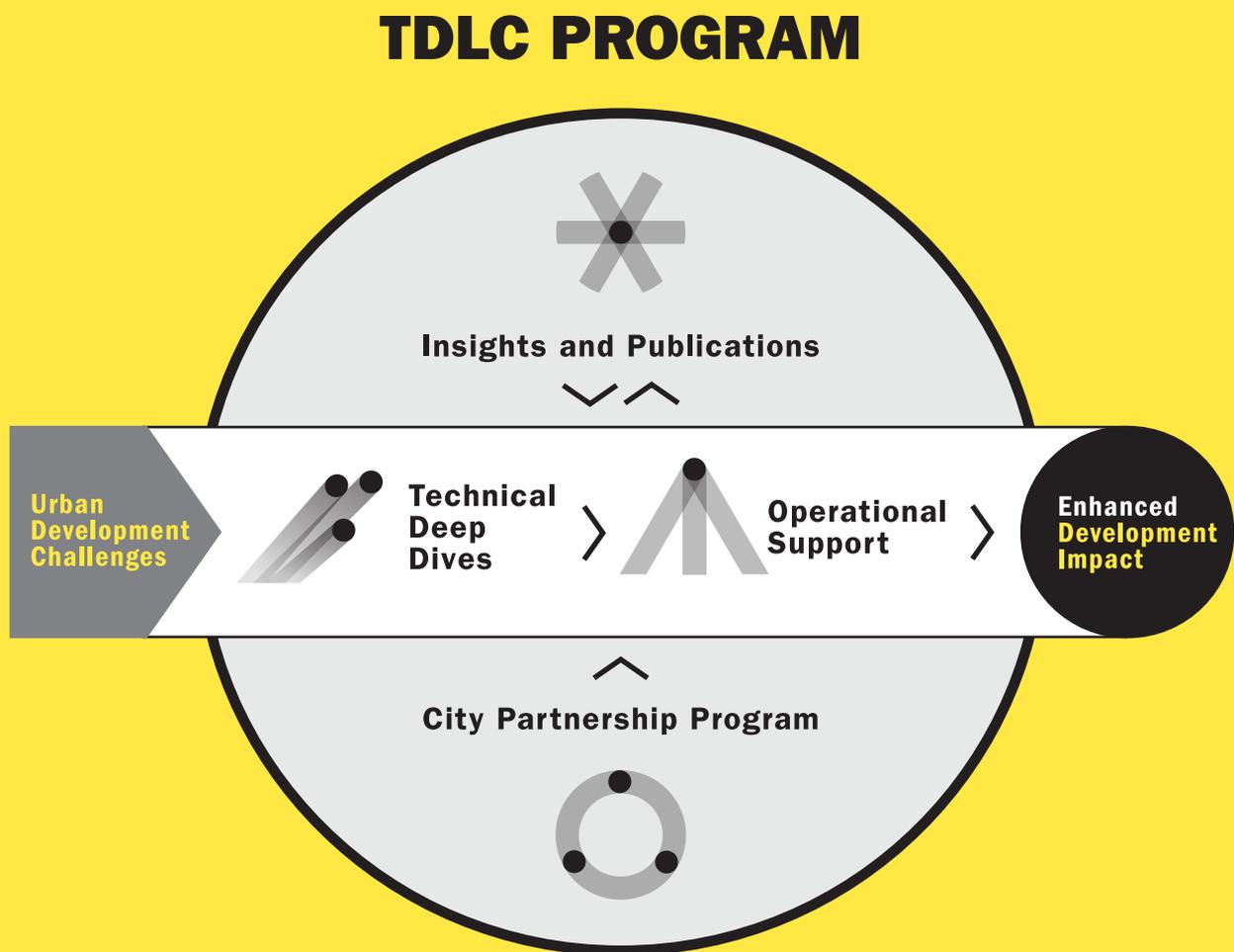


FIGURE 1

TDLC components are synergistically integrated to tackle urban development challenges and result in enhanced development impact

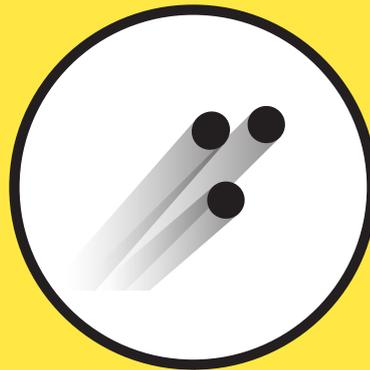
Source: World Bank TDLC

1.2 TDLC ACTIVITIES

TECHNICAL DEEP DIVE

The Technical Deep Dive (TDD) is TDLC’s signature one-week knowledge acceleration program that synthesizes, packages, and delivers key Japanese and global best practices aimed at generating actionable solutions that can be leveraged in World Bank projects in developing countries. Besides TDDs, TDLC also organizes or co-organizes other international and local events in collaboration with Japanese and global stakeholders.

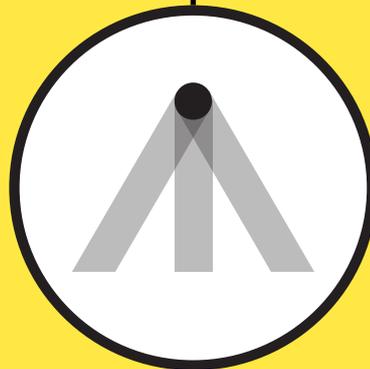
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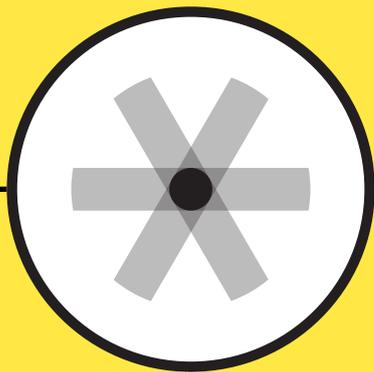


OPERATIONAL SUPPORT

TDLC’s operational support activities utilize the knowledge and expertise of Japanese city authorities and urban development experts to provide customized advisories, technical and analytical support, and capacity-building assistance that inform ongoing and pipeline World Bank–financed projects in developing countries. Operational support activities are most commonly offered as follow-up support for Technical Deep Dive (TDD) participants.

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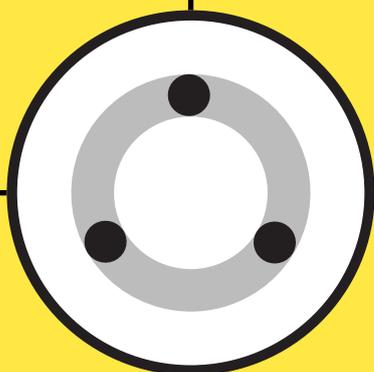




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RESEARCH AND PUBLICATIONS

TDLc conducts various research activities on urban and frontier topics to distill knowledge that guides and supports its core activities, such as TDDs and operational support. TDLc’s research also informs World Bank projects in developing countries directly or contributes to the Bank’s global studies and research initiatives. TDLc’s publications touch on a wide range of topics; these are broadly categorized under three themes: Urban Policy and Governance, Infrastructure and Services, and Frontier Topics & Technology.



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CITY PARTNERSHIP PROGRAM AND COMMUNITY OF EXPERTS (CoE)

The City Partnership Program (CPP) hinges on TDLc’s long-standing relationship with key Japanese cities and is a critical component that supports all TDLc core activities. TDLc currently collaborates with six Japanese cities—Fukuoka, Kitakyushu, Kobe, Kyoto, Toyama, and Yokohama—to leverage the basis of their global leadership in the development sector and their knowledge of and expertise in relevant urban development topics. TDLc is also expanding its collaboration with other major Japanese cities, including Tokyo and Yamato. TDLc is expanding its network of excellence and collaboration by developing a Community of Experts (CoE) comprising urban practitioners and other key experts across various industry verticals and academic disciplines from partner cities and others in Japan and worldwide.

1.3 TDLc KEY TOPICS

TDLc focuses on an array of key urban development topics that best support the Bank’s operations in developing countries. Supported by Global Leads, Practice Managers, and Program Leaders from GPURL and other Global Practices, TDLc chooses the focus of each year’s program based on developing countries’ demands and internal World Bank priorities for maximizing urban development impact.

Current key topics with sample subtopics include the following:

<p>URBAN DEVELOPMENT</p>	<p>URBAN TRANSPORT</p>	<p>URBAN UTILITIES AND PUBLIC SERVICES</p>
<p>City planning, infrastructure and services, urban management and governance, municipal finance, housing, and placemaking</p>	<p>Transit-oriented development (TOD), urban mobility planning, universally accessible public transport systems</p>	<p>Solid waste management, water supply management, and street lighting</p>
<p>TECHNOLOGY AND INNOVATION</p>	<p>SOCIAL DEVELOPMENT</p>	<p>DISASTER RISK MANAGEMENT</p>
<p>Smart cities, including artificial intelligence, robotics, and the use of big data</p>	<p>Universal accessibility, aging population, inclusion, citizen engagement</p>	<p>Resilient urban infrastructure, emergency preparedness and response, urban flooding</p>
<p>CITY COMPETITIVENESS</p>	<p>LAND</p>	<p>ENVIRONMENT</p>
<p>Creative and competitive cities, start-up ecosystems, value chains, local economic development</p>	<p>Geospatial technology and other innovations in land development and management, land management tools such as land pooling, territorial and regional development</p>	<p>Blue economy (marine plastic and ocean litter), circular economy, climate change, green infrastructure</p>

1.4 TDLC FRONTIER TOPICS AND CROSS-CUTTING THEMES

TDLC FRONTIER TOPICS

To foster innovation and push the urban development agenda forward, TDLC explores and develops at least one new frontier topic every year. Frontier topics are chosen based on various factors, including new and evolving demand from client countries and task teams at the Bank, the potential development impact, and availability of research and case studies. Priority is given to new topics that have higher client demand and that leverage Japanese knowledge and competitive advantage. Figure 2 shows how TDLC catalyzes frontier topics to support World Bank operations.

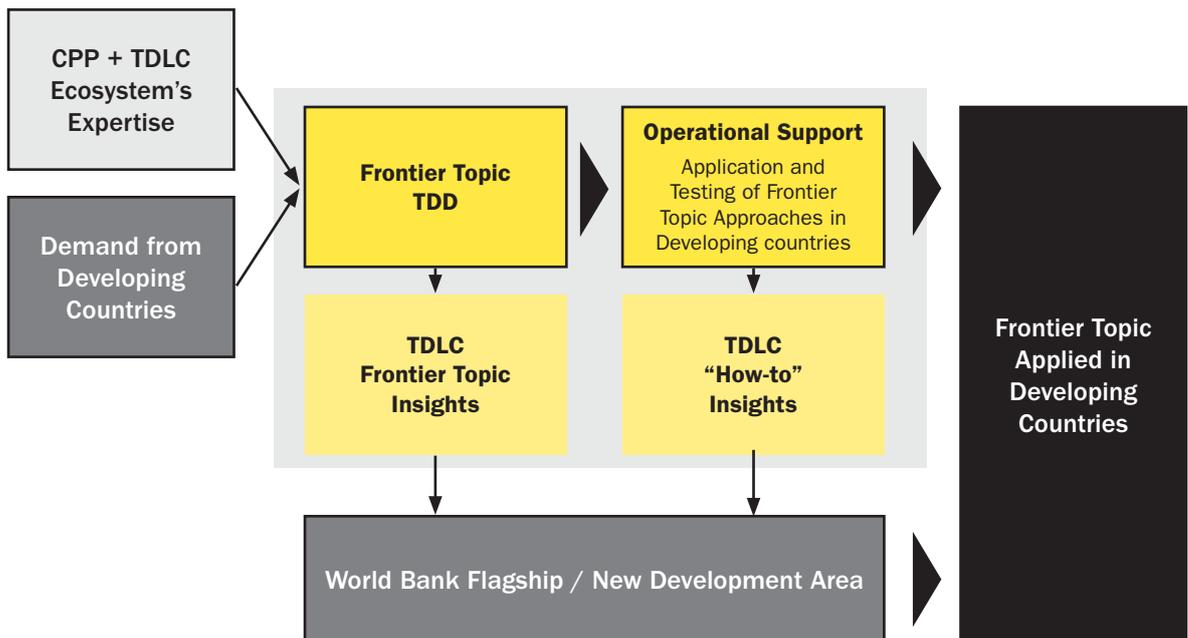


FIGURE 2
Development and Application of Frontier Topics

Source: World Bank TDLC

In FY20, *creative cities* was the frontier topic. A TDD was organized on this topic in January 2020; experts and practitioners gathered to explore methodologies and solutions for developing creative communities in cities and accelerating the creative economy. This was followed by a research publication that highlighted the evolution and impacts of a creative city using the case of Kyoto City. For the current fiscal year, in response to demand due to the COVID-19 pandemic, TDLC organized a TDD on the theme of *healthy cities* in April 2021. Through its research on CPP cities, including Kobe and Fukuoka, TDLC is also contributing to a technical report on healthy cities led by the World Bank's global team. For next fiscal year (FY22), groundwork has begun on *zero-carbon initiative for cities* as a potential frontier topic, and the TDLC team is researching case examples and solutions from Japan and globally in association with other task teams of the World Bank.



Healthy Cities TDD

Maitreyi Das, Practice Manager and lead of technical team moderating panel of World Bank experts, Nancy Lozano, Xueman Wang and Soraya Goga.

HEALTHY CITIES: FRONTIER TOPIC OF FY21

In FY21, TDLC focused on healthy cities as a key topic for research, organizing a TDD on this subject and sharing findings with clients. This is a timely subject, given that cities across the globe are continuing to grapple with the pandemic and need to consider ways to build back better and healthier in the post-pandemic era.

The concept of healthy cities is not a new one; in recent years it has been applied in the context of livable, green, and sustainable cities. But COVID-19 creates a new context for looking at cities through a public health lens and revisiting or re-envisioning city planning and designing; this effort will continue to be relevant in the post-COVID phase. Building healthy cities is a process that hinges on support from multiple sectors and partnerships. For countries worldwide to respond to the developmental impacts of COVID-19 and build healthy cities, they need to learn from experts and other countries' experiences. TDLC aims to provide the necessary platform to its clients.

Given Japan's health statistics—its average life expectancy, for example, is the highest in the world at 84.21 years (2018)—Japan has important lessons to teach about health and healthy cities. Hence, in the context of healthy cities' development and management, TDLC quickly researched and analyzed Japanese cities' preparation for and responses to COVID-19. The elements studied for this research included urban planning and infrastructure, public services, economic development, and holistic strategies. The cases focused on strategies developed for new urban models after the COVID-19 outbreak, on adaptations of pre-COVID strategies, and on strategies unchanged by COVID-19.

Japans average life expectancy is the highest in the world at 84.21 years (2018).

CASE OF KOBE CITY, JAPAN

Under the national health promotion program, Health Japan 21 (first implemented in 2013 and now in its second term), Kobe has sought to position itself as thriving, healthy city, and this aim has continued in the COVID-19 era. To promote the health of residents, the City of Kobe has been incorporating some unique nature-based initiatives in its urban development. Key approaches to health adopted by the city include the following:

Promoting walkability: The city is strengthening its urban center by increasing walkability and concentrating its business and commercial functions to make the city more accessible and livable as a whole.

Promoting coexistence of humans and nature: Kobe promotes a lifestyle built around *satoyama* and an agricultural orientation through support for migration and start-ups. *Satoyama* is a Japanese term for a traditional Japanese rural landscape found between the cities and the deep mountains; it denotes a model of harmonious existence between humans and nature, within a landscape that includes a mosaic of woodland, grassland, paddy field, farmland, irrigation ponds and canals, and human settlements, all of which have been maintained in an integrated manner.

Offering a healthy urban ecosystem to attract new talent and promote competitiveness and economic development: Kobe City has created three types of spaces on top of beautiful Mount Rokko—a “space of immersion”, with office space in harmony with nature; a “space of implementation”, with cutting-edge technology; and a “space of collaboration”, with connections that foster creativity. The goal is to attract creative talent and workers to this comfortable natural setting, utilizing and repurposing some of the vacant houses in the mountains and boosting ecological, environmental, and economic development.

CASE OF FUKUOKA CITY, JAPAN

The City of Fukuoka has progressively developed strategies and taken strong action to make itself a sustainable city where people can truly appreciate longevity. The health care and welfare policy of Fukuoka is implemented based on the Fukuoka City Health and Well-Being Comprehensive Plan (2016-2020), which aims to enhance all citizens' quality of life. Fukuoka's focus on health is also guided by the Health Japan 21 Fukuoka Plan Phase 2 (2013-2020), details of which are incorporated in the Comprehensive Plan. A third health-related plan, the Fukuoka City Advanced Healthy City Strategy (2017), outlines three objectives for the city: (1) mobilize citizens for themselves, (2) work with the private and academic sectors as well as medical and care service providers, and (3) develop a solution for a super-aged society in Fukuoka that can scale from megacity level to national, Asian, and global levels.

Another initiative, Fukuoka 100, aims to roll out 100 actions by 2025 to transform the city so that the aging population can enjoy healthy living in urban communities. This goal is achieved through an “All Fukuoka” approach, which brings together industry, academia, and public and private sectors to work on urban planning and which incorporates not only health care, medical care, and nursing care, but also housing, community development, and working styles, in planning and development.



Victor Mulas and Haruka Miki-Imoto
presenting opening notes for Healthy Cities for All TDD

HEALTHY CITIES: LESSONS LEARNED

The Technical Deep Dive on Healthy Cities for All (April 2021) reiterated the importance of health-focused urban planning and management, and the need to make cities more resilient against current and future pandemics. Some key lessons derived from the TDD are highlighted below:

Health should be a priority focus and part of cities' vision for achieving desirable outcomes.

Historically, health crises have triggered transformation in cities, sparking social, economic, and environmental changes. Today, when cities are grappling with the COVID-19 pandemic, health becomes an even more important issue. Making health a priority focus, and adopting strategies and plans to address the current (and any likely future) pandemic, are the first steps toward healthy cities. Cities should have a clear vision of their health priorities and the strategies they need to adopt to achieve those priorities and make cities healthy, livable, inclusive, and competitive.

An integrated policy approach and effective institutional arrangements are key to realizing a healthy city agenda.

Healthy cities require an integrated approach across different sectors, such as urban planning, transport, waste management, and environment; coordination between different stakeholders is therefore critical to realizing the agenda. A focus on health should

be well integrated into the existing and future policies of different sectors. Health is not a stand-alone sector but an amalgamation of different aspects of urban development, all of which should be reflected in policies and action plans.

Cities need to factor in health-focused interventions for built environment and public facilities as well as human behaviors.

While it is critical for city governments to build infrastructure, public facilities, amenities, and services that promote citizens' health, it is also important to induce behavioral changes in people that encourage healthy lifestyles. For instance, when city authorities develop parks, community centers, and health care centers, they could also implement incentive-based promotion strategies for using these facilities. This approach could make health a priority among diverse groups, including people of different ages, genders, and income levels, people with disabilities, etc.

These findings will also contribute to the Bank's flagship global report "Global Analytics on Healthy Cities". In FY22, TDLc aims to operationalize the knowledge on this crucial topic by supporting projects that include one or more components designed to make cities healthier. The initial effort on operationalizing key solutions will be based on extensive dialogue with TDD delegates and the action plans mapping out the healthy city agenda in their cities.

CROSS-CUTTING THEMES

Besides the frontier topics, TDLC develops overarching themes that cut across all the activities of the TDLC programs. These cross-cutting themes are the priorities of the Japanese government and the World Bank that are applicable to different sectors and areas of work that TDLC engages in. In FY20, quality infrastructure investment (QII; see box 1) continued as a cross-cutting theme, and disruptive technologies (DTs) was added as a new cross-cutting theme. These two topics were cross-cutting themes in FY21 and the current phase of the program as well.

Quality infrastructure investment: TDLC endeavors to mainstream and operationalize G20 QII principles as a cross-cutting theme across all its program activities.

Technical Deep Dive: As part of TDD technical sessions and site visits, TDLC offers firsthand experience of high-quality infrastructure’s important role in achieving balanced growth and development in client countries. In FY21, TDDs included information on how Japanese urban development integrates QII in its planning and operation. The delegates learned how solid waste management, transit-oriented development, and urban spaces integrate G20 QII principles.

Operational Support: During TDDs, the World Bank task teams and clients prepare action plans based on the key lessons that emerge, including operationalizing of QII in World Bank–financed projects. Action plans are presented to the TDLC team and other experts, and support is sought on implementing the plans, including QII principles. In FY21, operational support for Ethiopia and Colombia on solid waste management incorporated the technical know-how of G20 QII principles.

Other modalities: TDLC also disseminates practical, “how-to” knowledge on G20 QII principles through other modalities and approaches. In FY21, country-focused rapid operational assistance was provided to Saudi Arabia on urban upgrading. Virtual discussions were held to disseminate Japan’s knowledge of and experience with the upgrading of informal settlements in urban areas, including how G20 QII principles are operationalized. TDLC also documented the experiences of Toyama and Fukuoka in implementing G20 QII principles and disseminated this knowledge through public events.

Disruptive technologies: In order to support the overall World Bank mandate on effective use of disruptive technology for development, TDLC incorporates DTs as a cross-cutting theme in its activities and supports Global Practices in implementing these technologies within TDLC-covered topics. In FY21, knowledge of DTs was applied to operational support projects in Barranquilla and Colombia as a whole. TDLC team members are also contributing to a book chapter on smart cities, part of a World Bank publication led by Ede Ijjasz-Vasquez, Former Regional Director of Sustainable Practice Group, and Abhas Jha, Practice Manager of Climate Change and Disaster Risk Management of South Asia Region. The chapter shares rich global experiences on planning and implementing DTs in various projects. TDLC is also supporting the Open Learning Campus of the Bank in conducting technical courses online by providing technical expertise for virtual learning exchange delivery, curating course content, and selecting speakers.

BOX 1 G20 QII PRINCIPLES

The six G20 principles for QII include:

1. Maximizing the positive impact of infrastructure to achieve sustainable growth and development;
2. Raising economic efficiency in view of life-cycle costs;
3. Integrating environmental considerations in infrastructure investments;
4. Building resilience against natural disasters and other risks;
5. Integrating social considerations in infrastructure investment;
6. Strengthening infrastructure governance.

1.5 NEW INITIATIVES OF TDLc IN FY21

VIRTUAL TDDs

Although the COVID-19 pandemic prevented people from traveling and gathering in person, the importance of and need for knowledge sharing on urban development topics did not change. In response to COVID-19 restrictions, TDLc quickly moved from face-to-face TDDs to a virtual model, continuing to engage with clients and support their knowledge needs. In FY21, TDLc successfully organized four virtual TDDs with aim of keeping the objectives, content, and format the same as in a typical TDD. The virtual TDDs were planned to include a 2.5- to 3-hour session each day over the course of five days. TDLc designed the virtual TDD based on thorough research on other online platforms and considering the experiences of other institutions implementing such virtual interaction.

OPERATIONAL TDD

In FY21, a few countries that had participated in earlier TDDs asked TDLc for technical support on specific urban topics, while being fully cognizant of the travel restrictions and other impediments posed by COVID-19. The clients wanted to continue engagement with multiple city stakeholders and technical experts, and they hoped to leverage TDLc's knowledge, experience, and ability to convene experts from Japan and globally. Building on the operating model and online tools of TDDs implemented virtually in FY21, TDLc and the Bank's urban teams, working across time zones, developed a curated methodology and delivery module for in-country capacity-building programs that addressed the specific challenges at issue. The virtual Operational TDDs were developed to engage counterparts in an interactive manner, allowing them to absorb the knowledge in an action-oriented way. TDLc's high-quality tools and delivery mechanism for virtual modality resulted in successful engagement and knowledge dissemination. In FY21, Saudi Arabia requested TDLc's support, specifically seeking technical knowledge on upgrading informal settlements. In response, TDLc organized a three-day virtual workshop on March 2-4. The workshop followed the proven in-country Operational Technical Deep Dive format, which was originally implemented in March 2020 as part of the operational support activities in Kenya to provide a country-specific knowledge exchange (Kenya Urban Development Support workshop).

COMMUNITY OF EXPERTS (CoE)

To enhance proprietary knowledge and develop frontier urban intelligence, TDLc is nurturing a Community of Experts that consists of urban practitioners and other key experts across various industry verticals and academic disciplines within Japan and worldwide. The core principle behind the

CoE is to strengthen TDLc's position as a platform for knowledge creation and exchange. In the process of bringing together knowledge and experiences from many different avenues, CoE seeks to create a live knowledge ecosystem that actively consumes and co-creates knowledge solutions. Acting on the idea that values are created through collaborations, TDLc through CoE is shaping an ecosystem where knowledge is consumed, disseminated, and repackaged to inspire new perceptions, catalyze new breakthroughs, and explore the known unknowns. In pursuing this goal, the CoE will foster a sustained interactive community and further attract experts who subscribe to the CoE principle of open collaboration and co-creation.

TDD ALUMNI

TDLc has generated a community of over 1,600 participants engaged through more than 32 TDDs. To leverage this network of knowledge and expertise globally among client countries and speakers, this year TDLc created the TDD alumni network through virtual groups and other platforms such as LinkedIn. In these times of travel restrictions, online sharing of knowledge has become paramount to continuing engagement with World Bank counterparts and to providing them with the support needed. Leveraging the audiovisual content produced by the TDDs, and TDLc research and content generation more broadly, TDLc will actively engage the alumni network and allow TDD participants to continue engaging with TDLc knowledge activities even after their TDD is completed.

ZERO CARBON CITIES KNOWLEDGE SERIES

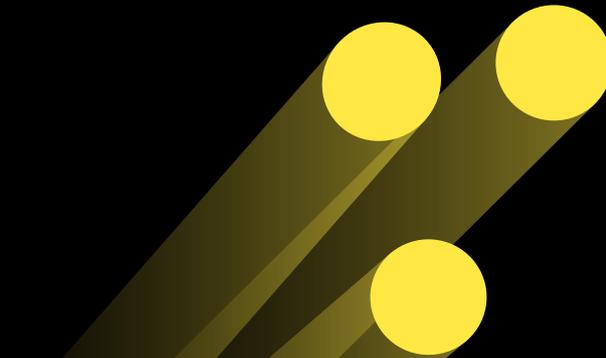
In line with the World Bank's Green, Resilient and Inclusive Development (GRID) approach and 2025 Targets to Step Up Climate Action, TDLc launched the Zero Carbon Cities Knowledge Series to share good and emerging practices and solutions for attaining zero-carbon emissions and green growth in cities. This knowledge series is organized jointly by the Urban, Disaster Risk Management, Resilience and Land Global Practice and the Environment, Natural Resources, and Blue Economy Global Practice. The objective is to raise awareness among practitioners, policy makers, and industries of cutting-edge solutions and good practices to achieve low carbon emissions and green growth in cities. The series also aims at catalyzing the development of World Bank engagements and city policy programs with the same goals.

Details of all the new initiatives of TDLc in FY21 and how they integrate with the program are presented in the subsequent chapters of this report.

TDLC quickly moved from face-to-face TDDs to a virtual model.

In the process of bringing together knowledge and experiences from many different avenues, CoE seeks to create a live knowledge ecosystem that actively consumes and co-creates knowledge solutions.

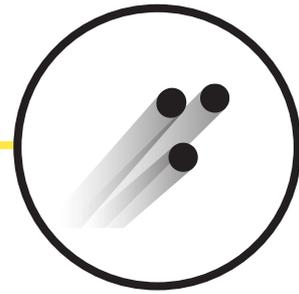
TDLC launched the Zero Carbon Cities Knowledge Series to share good and emerging practices and solutions for attaining zero-carbon emissions and green growth in cities.

Three yellow circles are arranged in a triangular pattern, with two at the top and one centered below them. Each circle has a soft, dark shadow cast to its left and slightly downwards, creating a 3D effect.

TECHNICAL
DEEP DIVES
& EVENTS

2.1

TECHNICAL DEEP DIVE



Video production of “My City” for TDDs.

OVERVIEW

THE TECHNICAL DEEP DIVE (TDD) is TDLC’s flagship one-week cohort-based knowledge acceleration program that brings together groups of World Bank clients and Task Team Leaders (TTLs) who are primarily responsible for implementation of the Bank projects in emerging countries. The TDD is uniquely positioned as an effective tool to synthesize, package, and deliver key global and Japanese best-practice knowledge to World Bank teams and clients working on operations on the ground (box 2). Until the COVID-19 pandemic led to travel restrictions that impeded face-to-face events, TDLC had successfully implemented 32 TDDs over five years, convening TTLs and client countries for week-long face-to-face knowledge exchange programs in Japan to address urban development challenges. In response to COVID-19 restrictions, TDLC quickly moved from face-to-face TDDs to a virtual model, continuing to engage with clients in support of their knowledge needs.

The TDD program is comprehensive in its sectoral coverage, emphasizing areas of urban development and resilience where Japan has strong comparative advantage, and offers broad regional coverage as well. TDDs also closely link to two other Japanese-supported programs, the Disaster Risk Management (DRM) Hub and Quality Infrastructure Investment (QII) Partnership, to ensure consistency and to maximize impact and synergies, particularly in commonly addressed topics. Thus, TDD serves as a platform to provide leads on actionable and high-quality projects for the DRM Hub and QII Partnership support, among other related programs. In FY21, the TDLC team ensured that all the characteristics of the in-person TDD program were retained in the virtual model as well.

BOX 2 WHY TDD?

BENEFITS OF TDD FOR DELEGATIONS

The Technical Deep Dives, TDLC's flagship program, offer a dynamic knowledge solution that caters to the operational needs of World Bank projects.

- Cutting-edge policy thinking and technical knowledge are delivered through engaging learning sessions.
- Peer learning and engagement offer the opportunity to learn from the experiences of global peers.
- Curated Japanese and global cases illustrate good and emerging practices in urban development and urban service delivery by municipalities, ministries, private sector, and academia, allowing clients to explore innovative solutions to their development challenges.
- Access to follow-up operational support through TDLC's operational support component assists clients in the successful application of knowledge gained through the TDD.

TDD'S UNIQUE CHARACTERISTICS

The TDDs have historically been delivered in person, bringing together participants from across the globe. The TDDs are unique and differ from other knowledge-sharing programs in the following ways:

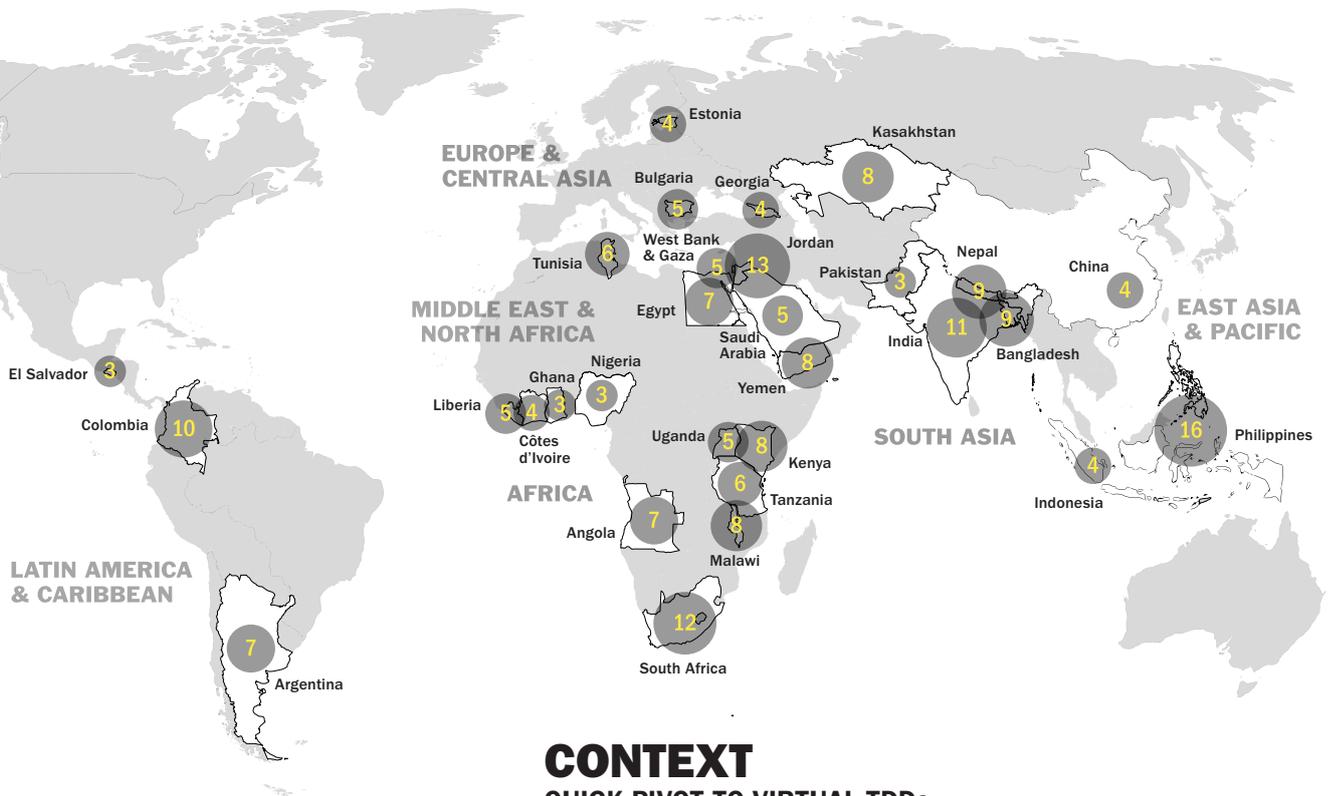
- **DEMAND DRIVEN**
TDD topics are selected based on demand and implementation needs from emerging countries.
- **DIRECTLY CONNECTED TO OPERATIONS**
Participants are identified and selected to maximize development impact in connection with an existing Bank operation in the design or implementation phase.
- **ACTION ORIENTED**
The programs are action oriented, with a focus on problem solving, resulting in an implementation-ready action plan that responds to a development challenge.
- **FOLLOW-UP SUPPORT**
TDDs are coupled with follow-up operational support, which includes various instruments of engagement such as technical assistance, expert consultations, and dispatch of Japanese experts to client nations.
- **PEER-LEARNING AND ENGAGEMENT**
Cohort-based groupings provide unique peer-to-peer learning and help develop strong Communities of Practice among participants and practitioners.
- **DIVERSE KNOWLEDGE SOLUTIONS**
TDDs apply a diverse range of learning instruments, including site visits, peer exchange, one-on-one expert sessions, and e-learning to ensure maximum knowledge absorption and customization of knowledge needs.
- **GLOBAL COMMUNITY**
The program connects participants with TDLC's network of experts and practitioners and provides linkages with existing or new Communities of Practice to develop case studies and best-practice lessons.

COVID-19 has necessitated that TDDs be transformed into a virtual program. The virtual TDD still shares the same core principles and values of the face-to-face TDD, but adds a new set of unique characteristics:

- **COMPREHENSIVE VIRTUAL PLATFORM WITH EMBEDDED ENGAGEMENT TOOLS**
The virtual TDD is hosted on a comprehensive virtual event platform that includes a stage area, tools for networking with global peers, and an expo area comprising "virtual booths" where participants can continue to engage with the content throughout the course of the week.
- **VIRTUAL CONTENT AND EXPERIENTIAL VIDEOS**
TDLC has curated and produced video and multimedia content to support the experiential learning process in a virtual context. Virtual site visits, virtual walking tours, and videos allow the participants to learn about Japanese and international cases from the user's perspective.
- **FLAVOR OF JAPAN**
TDLC produces "social videos" to present during the coffee breaks to provide the participants with a flavor of Japanese culture. These social videos include a casual walking tour of neighborhoods in Tokyo or a cooking video of our favorite Japanese recipes, and their intention is to provide a connection with TDLC's home base (Tokyo) and a unique virtual experience for participants.

In FY21, TDLc successfully organized four virtual TDDs, convening 127 client representatives from 49 cities in 30 countries, as well as 75 TTLs representing US\$7.54 billion in World Bank operations; the objectives, content, and format were the same as in a typical TDD. TDLc expanded this model of online and remote working to other programs, such as the Operational TDD for client engagements, operational support, and other events.

FIGURE 3
TDD Participants by Region and Country



CONTEXT

QUICK PIVOT TO VIRTUAL TDDs

The travel restrictions brought by the COVID-19 pandemic rendered the face-to-face TDD model impossible, and TDLc was faced with an unprecedented challenge: to rapidly deploy an alternative knowledge dissemination solution that responded to the rapidly growing knowledge needs of the World Bank task teams and clients. As international travel came to a halt, so did World Bank project missions, severely limiting client engagement for World Bank task teams.

Under these circumstances, TDLc made a quick pivot to develop a new model in which clients could engage virtually to address new and existing urban challenges and seek solutions in the context of COVID-19. In the face of technical and logistical challenges as well as a rising sense of “Zoom fatigue”, TDLc aimed to design a virtual TDD model that maintained a high level of engagement and interaction.

KEY COMPONENTS OF THE VIRTUAL TDD

The resulting virtual TDD structure was a condensed version of the face-to-face TDD model comprising one 2.5- to 3-hour session per day over the course of five days. The condensed sessions allowed for participation from a global audience, ranging from the Americas joining in early morning to Asia joining in late evening, and covering all other regions in between¹.

The virtual TDD operates according to the same values and principles as the face-to-face TDD in that it remains a cohort-based, action-oriented program. Some key features of the virtual TDD are as follows:

- **PEER LEARNING**

Peer learning and exchange continues to be a key driver of success of the virtual TDD model. On the first day of the TDD, participants engage in a virtual peer exchange exercise (Shift and Share) in which each delegation presents the current challenges and initiatives for their country. The peer exchange modality allows for participants to draw parallels and learn from the experiences and lessons of their global peers.
- **ACTION-ORIENTED METHODOLOGY**

The knowledge gained through the course of the TDD culminates in the preparation of the action plan on the last day, when each country team presents actionable next steps toward addressing their current challenges and bottlenecks. This ensures a direct link between the learnings from TDD and operationalization of solutions on ground. The participants have access to World Bank and international and Japanese experts, who provide guidance and advice to the country delegations as they formulate their next steps.
- **VIRTUAL CONTENT AND EXPERIENTIAL VIDEOS**

One of the hardest principles to replicate from the face-to-face TDD is the experiential learning. TDLC has curated and produced video and multimedia content to support this experiential learning process. Virtual site visits and videos allow the participants to learn about Japanese and international cases from the user's perspective by introducing Japanese sites via virtual walking tours.
- **DIVERSIFIED AVENUES TO OPERATIONALIZATION**

TDLC introduces TDD participants to other support tools and World Bank trust fund programs financed by the Government of Japan that could offer technical or financial assistance to their projects, including TDLC operational support, the QII Partnership, and the Japan-World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries.
- **CURATED CONTENT & DISCUSSION**

The knowledge content is the core of the TDD. From Day 2 to Day 4, Japanese and international good practices are presented through presentations, virtual site visits, and group discussions. Each day is organized around a particular theme and showcases both Japanese and global cases that align with the theme. There is a Japanese case presented on each day that draws on knowledge from our City Partnership Program (CPP) cities and other Japanese stakeholders. At the end of each day, country teams and their TTL(s) hold discussions about what they have learned, which will serve as inputs for their action plan presentations.
- **ENGAGEMENT TOOLS ON VIRTUAL PLATFORM**

The virtual TDD is hosted on Hopin, a comprehensive virtual event platform that includes tools for networking with global peers, as well as an expo area comprising virtual booths where participants can navigate through supplementary information and knowledge. This platform allows participants to continue to engage with the content throughout the course of the week.
- **FLAVOR OF JAPAN**

TDLC produces “social videos” to present during the coffee breaks to provide the participants with a flavor of Japanese culture. These social videos include a casual walking tour of neighborhoods in Tokyo or a cooking video of our favorite Japanese recipes, and their intention is to provide a connection with TDLC's home base (Tokyo) and a unique virtual experience.

The details for each virtual TDD can be found in the section entitled “Technical Deep Dive Digest” later in this chapter.

¹ The only area of the world where the schedule is not friendly is the Pacific Islands. Unfortunately, there is no schedule that can accommodate all regions of the world simultaneously, and TDLC had to choose the one that could accommodate a larger majority of regions. In order to provide access to knowledge generated by the TDLC program, TDLC records the virtual sessions, which are available on demand for clients and World Bank staff located in any region, including the Pacific Islands. TDLC's other knowledge series and events, such as the Zero Carbon Cities knowledge series, are conducted with a schedule friendly to different regions, covering Europe, Africa, and the Pacific, including the Pacific Islands.

IMPACT OF VIRTUAL TDDs IN FY21

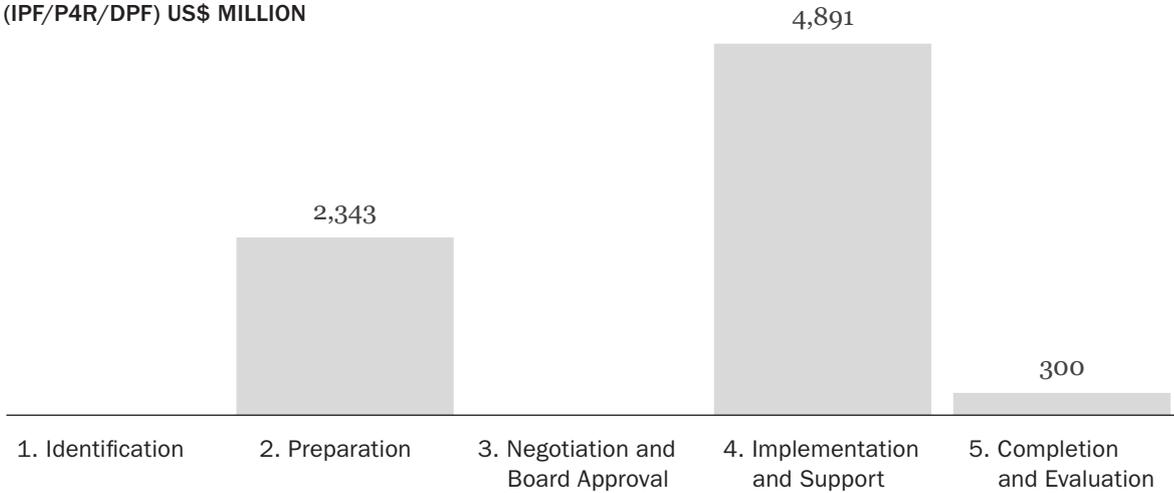
TDDs aim to inform and support clients in connection with project investments at every stage of the World Bank’s project cycle—identification, assessment and appraisal, Board approval, implementation and support, and completion and evaluation. In FY21, TDDs informed projects mainly at the implementation and support stage, followed by the assessment and appraisal stage (see figure 4).

FIGURE 4

Project Cycle Stages of Investments Leveraged by TDDs

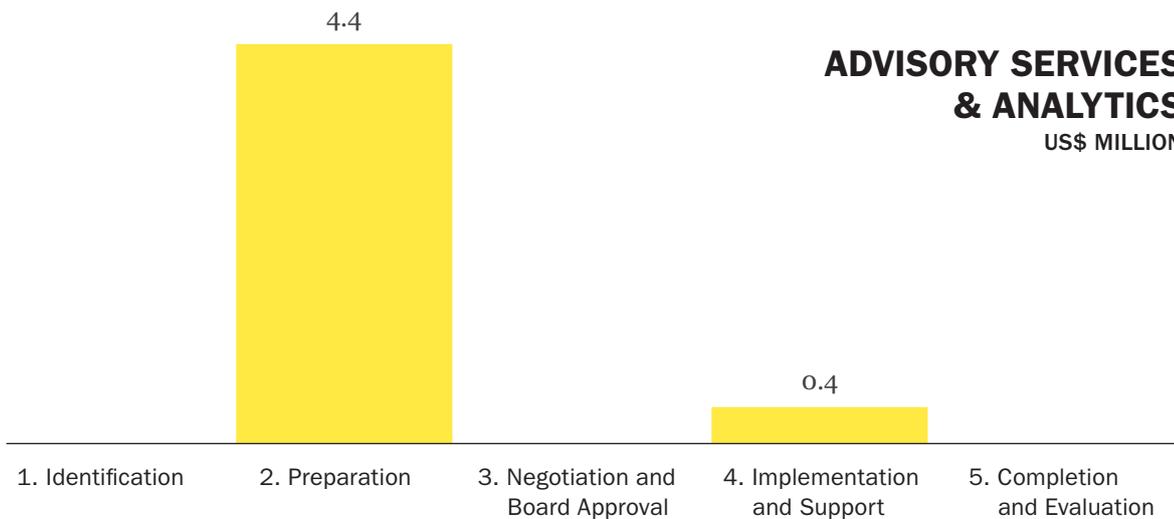
LENDING

(IPF/P4R/DPF) US\$ MILLION



ADVISORY SERVICES & ANALYTICS

US\$ MILLION

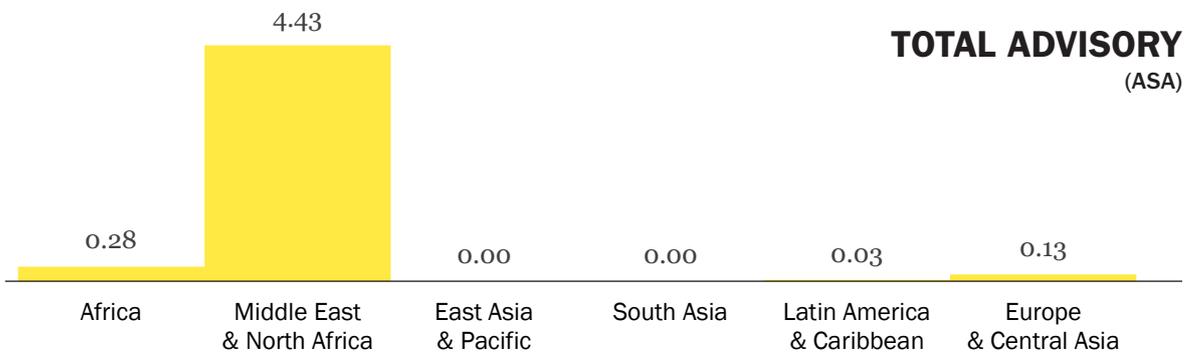
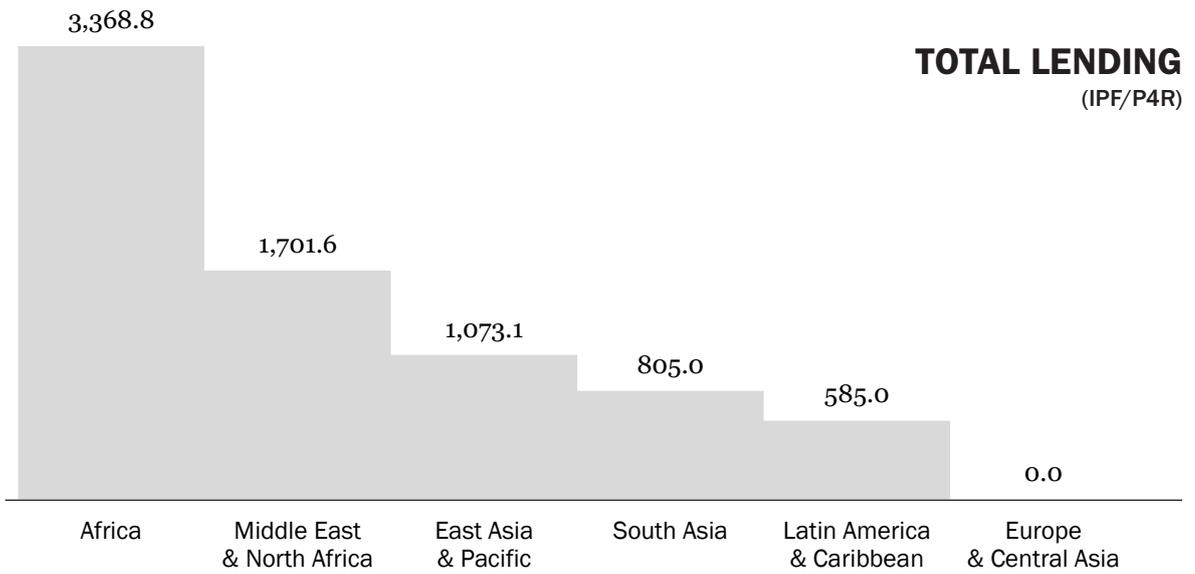


Note: IPF = Investment Project Financing; P4R = Program-for-Results; DPF = Development Policy Financing.

Source: World Bank TDLc

FIGURE 5

Regional Distribution of World Bank Investments Leveraged by TDDs in FY21, by Portfolio Type (US\$ million)



Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing; IPF = Investment Project Financing; P4R = Program-for-Results.

Source: World Bank TDLC

The post-TDD survey results have served as a critical source of input to help TDLc continuously improve the virtual TDD model. The post-TDD survey was conducted online and included a series of key parameters such as participant satisfaction, effectiveness of the content in accelerating the client's project, peer engagement, and user friendliness of the online platform. The survey was coupled with several follow-up interviews with participants to assess some of the key strengths and weaknesses of the virtual modality and collect information on scope for improvements (refer to Box 3 for more details).

SEVERAL KEY INSIGHTS AND HIGHLIGHTS EMERGED FROM THE SURVEY RESULTS

- **OPERATIONALIZATION OF KNOWLEDGE**
The virtual modality of TDD did not deter from action-oriented programming but continued to be an effective tool for operationalizing TDD knowledge as the case with face-to-face TDDs. The virtual TDD employs a guiding tool in the form of an action plan to link the participants' projects to the curated knowledge provided through the TDD and convert them into actionable steps and practical actions for implementation. These actions then can be taken directly by the participants to advance their World Bank investment lending projects or other policy programs in their home countries.
- **DIRECT CONNECTION WITH KEY WORLD BANK PROGRAMS FOR STRATEGIC SUPPORT**
The virtual TDD directly connects participants' projects to several World Bank support tools and programs that can help participants realize their next steps. TDLc operational support, as well as support through the QII Partnership and the Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries, were introduced in each of the TDDs, thereby reaching 97 clients and 62 World Bank Task Team Leaders in FY21 (as of May 31, 2021).
- **INCREASED INCLUSIVITY OF TDDs**
While the virtual modality does have some limitations relative to the face-to-face model, the unique characteristics of the virtual TDD opened the path for a more inclusive TDD. Barriers to participation such as visa/travel restrictions were removed in the virtual TDD. The online modality also paved the way for a diversified participant profile, including women or junior officials who may not have had the chance to participate in the face-to-face TDD due to family circumstances, etc.
- **DIVERSIFIED MEDIUMS TO SHARE KNOWLEDGE**
The condensed nature of the virtual TDD necessitated a more targeted approach to the themes and topics to be covered. In light of these circumstances and to combat a growing sense of “Zoom fatigue”, TDLc aimed to diversify avenues of knowledge sharing, such as by securing more time for free discussion, creating a LinkedIn page for participants to continue engaging post-TDD, and creating a content library of knowledge products or other resources related to the TDD topics.

BOX 3**ITERATIVE PROCESS FOR THE DEVELOPMENT OF THE VIRTUAL TDD MODEL**

The development of the virtual TDD has been an iterative process, one testing multiple modalities and formulas to move us closer to our desired outcome of delivering a dynamic and engaging virtual TDD. TDLC drew on the knowledge of both internal and external stakeholders to devise a knowledge exchange model that met the needs of the new normal under COVID-19.

- **INTERNAL WORKING GROUPS FOR INNOVATION**

In the early stages of developing the virtual TDD model, the TDLC team split into three internal working groups to explore frontier solutions for (1) learning design and methodologies, (2) gamification and engagement techniques, and (3) technology and tools for online engagement. Solutions and key lessons were extracted from each working group to form the base structure of the virtual TDD model.

- **MARKET SURVEY**

TDLC conducted interviews with over 15 institutions both within and outside of the Bank, placing particular emphasis on institutions from different industries such as start-up accelerators and educational platforms, to get hints on how institutions are responding to COVID-19 and pivoting their business models toward online engagement.

- **EXPLORING FRONTIER TECHNOLOGY AND TOOLS**

TDLC explored the latest technologies and tools for online engagement, such as event management platforms, learning management systems, 3D modeling tools, and online community engagement tools. TDLC opened trial accounts with at least seven different online platforms for thorough testing before settling on Hopin as the platform to host our virtual events.

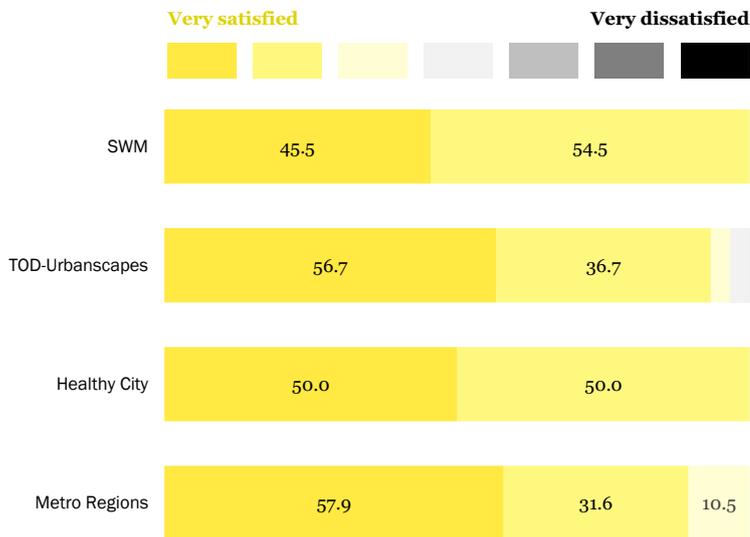
The pilot version of the virtual TDD was developed based on an extensive analysis of the knowledge gathered, combined with feedback from our key stakeholders, including the Bank's knowledge management experts, technical leads, and TTLs. However, the development of the virtual TDD continues to be an evolving process. For example, the pilot virtual TDD was conducted on Zoom, but subsequent iterations of the TDD have been hosted on Hopin to increase participant engagement and interaction. The Shift & Share (peer learning and engagement) session also underwent various changes to achieve the optimal model for peer engagement. The virtual TDD model will continue to evolve to respond to the rapidly changing knowledge needs of our stakeholders and clients.

PROGRAM SATISFACTION

The overall program satisfaction stayed consistently high across all four TDDs. The survey results indicated on average 96 percent of participants were “very satisfied” or “satisfied” with the overall quality of the virtual TDDs (figure 6).

FIGURE 6
Participants' Overall Satisfaction across four FY21 Virtual TDD Programs

PROGRAM SATISFACTION

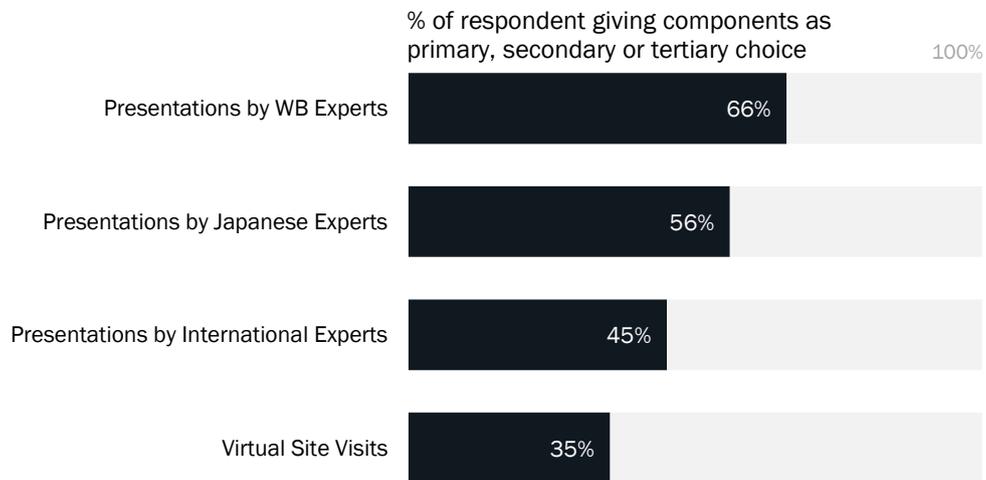


Source: World Bank TDLc

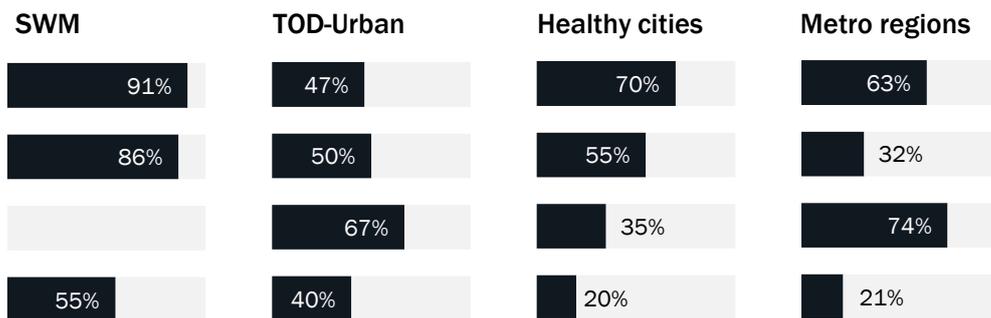
FIGURE 7
Key Components
Contributing to Participants'
Satisfaction with TDDs

Thematic content continues to be the highlight of the TDDs. Thematic presentations by World Bank, Japanese and international experts were among the top components contributing to TDD satisfaction (figure 7).

KEY COMPONENTS CONTRIBUTING TO PROGRAM SATISFACTION WITH TDDs



Breakdown of survey results by specific event



Source: World Bank TDLC

NETWORKING

TDLc also asked participants to evaluate their impressions of networking opportunities during a virtual TDD program. The survey results from the first and second TDD indicated that only 26% of the participants found the networking opportunities to be either “sufficient” or “very sufficient”. Taking this feedback into account, TDLc modified the interaction session structure in a way that allowed more interaction among client participants, but also providing greater opportunities for clients to verbally communicate their questions or comments to the technical team.

As shown in Figure 8-A, peer engagement and networking in the virtual space was one of the major challenges faced in the design and delivery of the virtual TDD. In order to provide an interactive and dynamic experience for the participants, new features were added to the virtual TDD. For instance, the Shift and Share session was updated to divide country delegations into separate groups, with each group containing at least three delegations to facilitate peer interaction in smaller groups. “Ask Me Anything” sessions were added to provide opportunities for country delegations to interact directly with TDD speakers and reflect on the day’s content.

Social Hour was held on the last day of the TDD to celebrate a week of learning and to let participants get to know each other in celebration. While Japan and international best practices provided valuable insights for participants’ projects, survey results indicated that cases from other developing countries were also valuable, as they helped participants understand how global peers were tackling similar issues. Considering this feedback, TDLc collaborated with World Bank task teams to co-develop cases that feature initiatives and solutions in other developing countries. For example, a case of wet-market planning in Dhaka was shared during the Healthy Cities for All TDD.

Figure 8-B gauges the engagement level for the Healthy Cities TDD and the Metro Regions TDD, in which the TDLc introduced the new interactive features mentioned above. The result indicated that nearly 70 percent of the participants found the TDD to be “engaging” or “very engaging” and that the majority appreciated the peer learning and opportunities to interact better. The Peer engagement modalities have been tweaked with each TDD to achieve an optimal solution for online interaction among peers.

TDLc will continue to improve its design and implementation of state-of-the-art knowledge-sharing programs (either a virtual or hybrid format) to help client countries address their urgent development challenges efficiently and effectively.

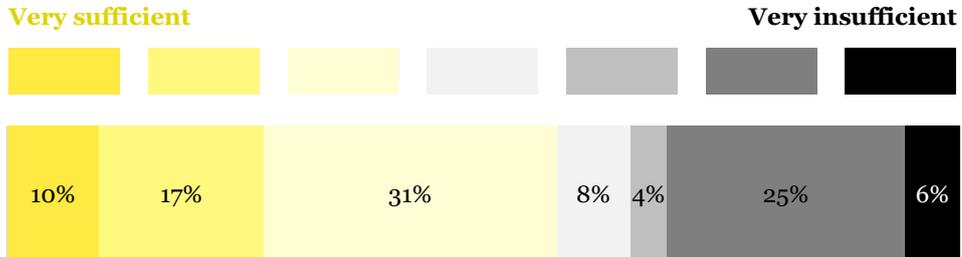
“The sessions were concise and entirely relevant to the current tendencies in transport planning, policy making, and placemaking, with post-pandemic reality in mind. The presentations and talks with other peers working in the same field were of great help to find ideas, approaches, and perspectives to tackle our challenges.”

Client, Technical Deep Dive on Vitalizing Urban Neighborhoods and Space through Transit Oriented Development

“The event boosted my confidence working in the sector by seeing or interacting with the experts on a global scale. The Japanese experience brought hope and energy to me. My appreciation for the informal sector was increased by learning more about utilizing its potential.”

Client, Solid Waste Management TDD

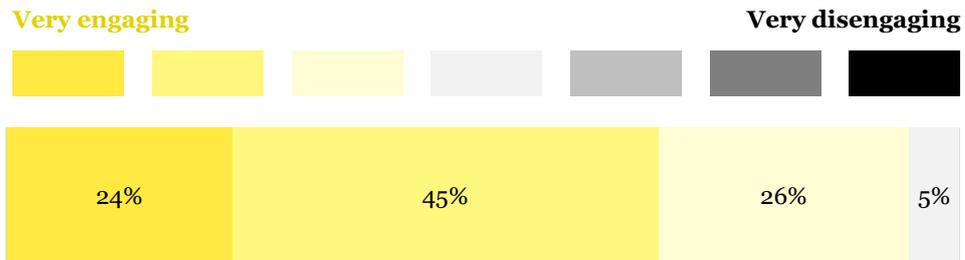
NETWORKING OPPORTUNITIES



Source: World Bank TDLC

FIGURE 8-A
Survey Results from SWM TDD
and TOD-URBANSCAPES TDD

INTERACTION AND NETWORKING WITH PEERS



Source: World Bank TDLC

FIGURE 8-B
Survey Results from
Healthy Cities for All TDD
and Metro Regions TDD



Haruka Miki-Imoto
 (Operations Officer, World Bank, TDLc) introduces TDLc
 Operational Support Program during Healthy Cities TDD

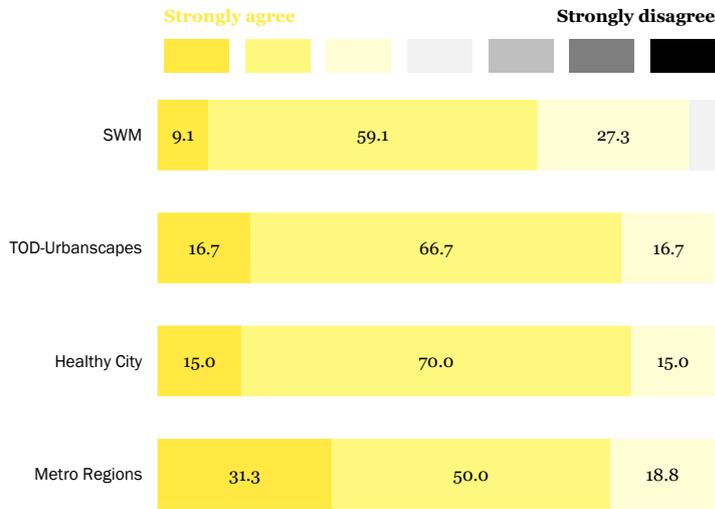
KEY TOPICS AND OPERATIONALIZATION OF CROSS-CUTTING THEMES

Topics for TDDs are identified through demand surveys and prioritized based on Japanese knowledge and comparative advantage in the subject, comprehensive sectoral coverage, and regional and global focus. Thematic topics are chosen through direct engagement with World Bank Global Leads and Practice Managers. Once topics are identified, programs are developed in direct collaboration with World Bank Technical Leads and thematic Communities of Practice (to focus on specific client objectives and development challenges). In FY21, TDLc organized a TDD on the new frontier topic, healthy cities, with the potential to generate a new line of operations for the World Bank based on global and Japanese best practices and expertise. In addition to addressing

the thematic topics and new frontier topics, in FY21 TDLc sought to operationalize QII across all activities, including TDDs.

Operationalizing Quality Infrastructure Investment: QII continued to be an important cross-cutting theme in FY21, and TDLc has endeavored to operationalize QII principles in TDDs and operational support projects. In FY 21, TDLc held a session on QII principles and two Japan trust fund programs (the Quality Infrastructure Investment Partnership and the Japan–World Bank Program for Mainstreaming Disaster Risk Management in Developing Countries) in all TDDs to discuss how these trust funds can be leveraged as additional support tools for World Bank projects.

PARTICIPANTS UNDERSTANDING OF QII PRINCIPLES



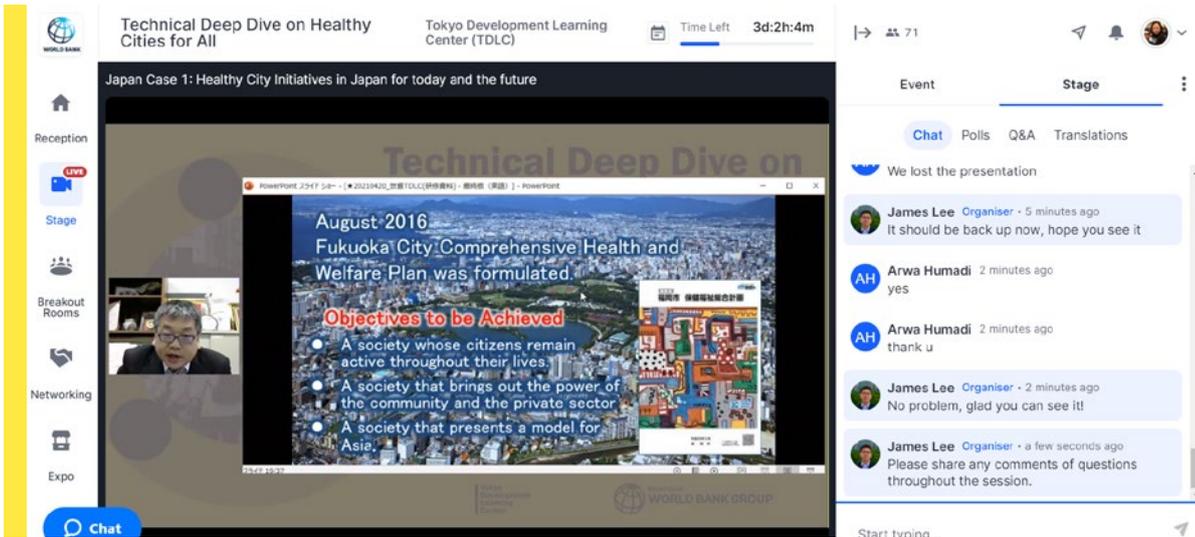
Source: World Bank TDLC

FIGURE 9
Participants Reporting Increased Understanding of QII Principles

UNDERSTANDING OF QUALITY OF INFRASTRUCTURE INVESTMENT (QII) PRINCIPLES

Across the delivery of three TDDs, survey results showed that participants' understanding of QII principles was much improved; this was mainly due to their exposure to the practice of QII as presented in the Japanese case studies.

Across the four TDDs, on average 76% of the participants indicated that their understanding of QII principles has improved as a result of the TDD. TDLC's efforts in designing and implementing virtual TDDs have further strengthened and advanced the knowledge exchange component of TDLC. This has in turn allowed TDLC to further evolve as a sophisticated platform for knowledge exchange and to demonstrate our comparative advantage in disseminating Japanese and international urban development practices and strengthening networks among and within country teams (clients and TTLs).



Mr. Koichi Kasai (Fukuoka City) makes a presentation on Fukuoka 100 initiatives during Healthy Cities TDD. Virtual booths on Hopin providing supplemental knowledge and increasing virtual interaction.

SYNERGETIC IMPACT

TDD AND OPERATIONAL SUPPORT

The TDD methodology and structure is designed to incorporate global and Japanese best practices in a concise learning package for dissemination to client country delegations. As an output of the TDDs, participants draw on key TDD takeaways to prepare action plans for their ongoing or pipeline World Bank projects and then seek TDLC’s knowledge support to operationalize those plans. TDDs thus become a gateway allowing emerging economies and World Bank operations alike to benefit from TDLC’s Japanese and global experience and expertise, especially on cross-cutting themes such as QII.

TDD AND CPP

TDDs are closely tied to the City Partnership Program; the goal is to maximize development impact by linking Japanese cities’ knowledge and expertise to emerging countries in connection with World Bank projects. The CPP cities are critical sources of knowledge for identifying and documenting cases and deriving solutions from Japanese experience. Best practices derived from the CPP are packaged and delivered at the TDDs through presentations and speeches by city officials and other experts.

TDLC also works closely with advisors from various Japanese national government entities, including the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), the Japan International Cooperation Agency (JICA), the Ministry of Foreign Affairs, and the Cabinet Office, as well as local governments. TDLC works with these entities to identify the Japanese experts best suited to deliver tailored content to the TDD participants.

TDD AND TECHNOLOGY

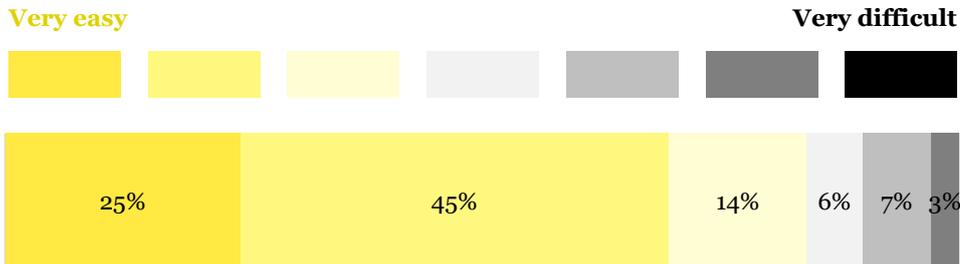
TDLC has made significant efforts in identifying and fine-tuning technologies to organize state-of-the-art knowledge-sharing programs, especially after the outbreak of the COVID-19 pandemic, when TDLC changed the modality of the TDD programs from face-to-face to virtual. Selecting a proper set of technologies was critical to organizing an engaging week-long virtual program, as people were facing “Zoom fatigue”—that is, exhaustion following a day of online meetings or events. Some participants also face internet connectivity challenges on a daily basis, which makes it difficult for them to load high-volume applications or websites. Thus, it was crucial for TDLC to design and organize a virtual event using simple but engaging online platforms and tools.

Considering all these issues, TDLC chose Hopin for the TDDs. Hopin has the capacity to recreate an online event with a main stage for broadcasting, breakout rooms for group discussions, and an expo area for our clients and partners to set up a virtual booth highlighting client city challenges and for our city partners in Japan to showcase development solutions.



Mr. Koichi Deguchi (Kobe City) and **Mitsu Yamazaki** (World Bank Consultant) discuss Satoyama initiatives in Kobe City during Healthy Cities TDD.

EASINESS OF USING HOPIN



Source: World Bank TDLC

FIGURE 10
Easiness of Using Hopin

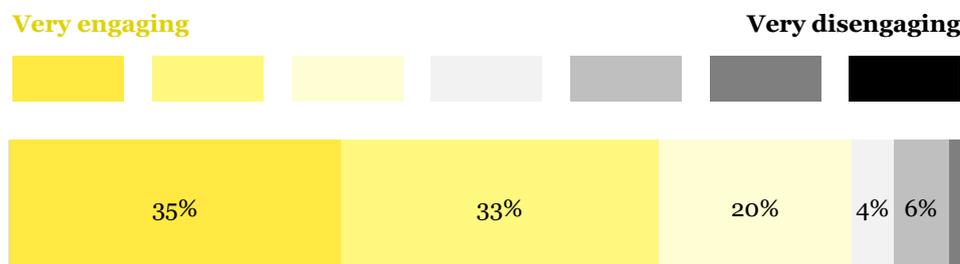
Many participants report finding the platform useful and engaging (figure 10). They also think that the platform allowed them easy access to different resources such as videos and knowledge products) (figure 11).

In FY21, the platform was used for four events: Saudi Urban Upgrading Workshop (March 2-4, 2021), Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development TDD (March 15-19, 2021), Healthy Cities for All TDD (April 19-23, 2021), and Metro Regions to Build Back Better TDD (June 14-18, 2021). The platform was updated and further customized since its first use by TDLC in March 2021.

“I felt really comfortable with the Hopin platform. I think the different sections (stage, lounge, library booth) were very convenient and made the overall organization easy going.”

Client, Technical Deep Dive on Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development

EASE OF ACCESSING TDD RESOURCES (PPTs, videos, and other knowledge products)



Source: World Bank TDLC

FIGURE 11
Ease of Accessing TDD Resources

OPERATIONAL TDD

RENDITIONS OF THE VIRTUAL TDD OPERATIONAL TDD

The evolving nature of the virtual TDD paved the way for different iterations of the TDD to be adopted to meet the targeted needs of World Bank task teams and clients. TDLc was approached by the World Bank task team working in Saudi Arabia to provide technical assistance on the Urban Informal Settlement Upgrading Project. The team was also seeking assistance in identifying possible solutions for effective knowledge dissemination, given that travel restrictions posed by COVID-19 had dampened project momentum and impeded smooth communication with their clients across multiple municipalities.

TDLc responded by quickly adapting its virtual TDD solution to provide an effective tool for client engagement and knowledge dissemination. TDLc worked with the technical team to co-design and implement a curated knowledge implementation rapid program (three days) that could facilitate rapid absorption and implementation of the new Urban Informal Settlement Upgrading Tool prepared by the team. The toolkit was prepared by the World Bank team together with the ministry counterpart, and it needed to be disseminated and implemented in the country's municipalities. International examples were drawn from TDLc's Japanese and global knowledge repository and expertise in this subject based on previous TDDs conducted in this topic over the years.

One of the challenges faced upon completion of the toolkit was how to roll it out to the cities across the kingdom, given the travel constraints under COVID-19. Realizing that virtual world fatigue had set in for many people one year into the pandemic, the Bank team knew that any online workshop had to be very interactive and share inspiring stories, so the participants could engage

with this critically important topic. This challenge was addressed by adopting a flexible virtual model that embedded multiple peer learning and exchange modalities. The thematic content deepened participants' knowledge on urban upgrading best practices both internationally and in Japan; and the peer engagement sessions presented a unique opportunity for different municipalities to interact while also kick-starting a discussion on how to move the urban upgrading agenda forward.

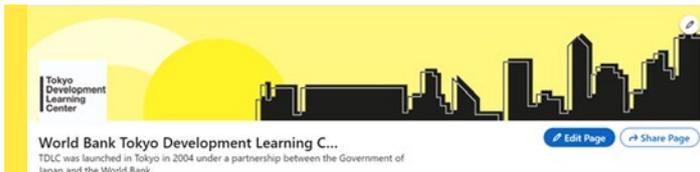
While the virtual TDD model does have some limitations relative to the face-to-face model, one of its advantages is the embedded flexibility that allows for a quick turnaround to create different renditions of the TDD. TDLc was able to rapidly design an Operational TDD model that shared the same principles of action-oriented learning but catered to the specific knowledge needs of the clients from Saudi Arabia. As a result, 64 officers from 17 municipalities and the national ministry attended the workshop. Besides the high number of participants, the workshop also witnessed a sustained level of engagement, commitment, and openness from both local and national government officials.

Within the context of COVID-19-related travel and social restrictions, this model of support opens a new opportunity for rapid operationalization of practical knowledge produced through World Bank projects. TDLc will continue adapting this support and associated tools to ensure that knowledge from World Bank projects can be operationalized and project implementation can go forward.

For more information, please refer to the TDD Digests.

TDD ALUMNI NETWORK

Since FY17, TDLC has organized more than 32 TDDs and has created an alumni community of over 1,600 TDD participants, speakers, and organizing team members from over 90 countries and territories. To facilitate dialogue among TDD participants and alums, TDLC has created a LinkedIn page. The LinkedIn page aims to disseminate follow-up content (e.g., videos and knowledge products) related to the TDD program and help participants stay connected with global experts and with peers who have gone through the TDD journey and addressed similar urban development challenges. TDLC aims to build on this network and expand it further for greater connectivity and outreach. While TDDs and other events offer important one-time knowledge-sharing opportunities, a larger impact depends on building platforms for sustained and continuous knowledge exchange and expert guidance, such as the one TDLC aims to create through this network. Since the global pandemic has restricted travel, this network is even more important, as the knowledge needs and focus on frontier and other urban topics is growing faster than before.



TDLC LinkedIn Group

AT A GLANCE

CPP CITIES REPRESENTED

KITAKYUSHU CITY
FUKUOKA CITY

OTHER KEY PARTNERS AND COLLABORATORS

Solid Waste Management
Knowledge Silo Breaker

CLIENTS AND TTLS

46

COUNTRY REPRESENTATION

11

Colombia	Liberia
El Salvador	Pakistan
Estonia	Philippines
Georgia	South Africa
Ghana	West Bank and Gaza
India	

SPEAKERS/RESSOURCE

8 0 15
JAP INTL WB

EXPERTS DISPATCHED

KEY JAPANESE EXPERTS/ INSTITUTIONS REPRESENTED

MR. YUJI AOYAGI
Director of Environment Bureau,
City of Kitakyushu

MR. YASUO FURUSAWA
Director Specialized in
Sustainable Materials
Management, Tokyo
Metropolitan Government

MR. SHIKO HAYASHI
Program Director,
Institute for Global
Environmental Strategies (IGES)

KEY INTERNATIONAL EXPERTS/ INSTITUTIONS REPRESENTED

N/A

TECHNICAL DEEP DIVE ON

SSO

WASTE

TDD DIGEST

OLLID

MANAGEMENT

OVERVIEW

SOLID WASTE MANAGEMENT (SWM) is a major issue for cities across the world. According to a recent World Bank report, *What a Waste 2.0*, waste is forecasted to increase by 70 percent by 2050. Waste generation is positively correlated with urbanization, which is rapidly increasing along with density; this trend in turn will generate new challenges, with the health, safety, resilience, and productivity of cities at stake.

Waste is a global problem but has traditionally been seen as a local activity, managed at the municipal level. One positive trend is that an increasing number of national governments are making national commitments to reduce pollution, increase recycling, and shift toward a circular economy. However, local governments are still struggling.

The TDD on solid waste management was intended to foster technical knowledge exchange among SWM practitioners through peer-to-peer discussions and knowledge dissemination by industry experts. While the TDD covered issues and challenges of the entire SWM value chain, emphasis was placed on the problem of medical waste arising out of the COVID-19 pandemic.

Due to the travel restrictions and quarantine measures in place as a result of COVID-19, this TDD was delivered fully online and brought together practitioners and technical experts from 11 countries and territories (Colombia, El Salvador, Estonia, Georgia, Ghana, India, Liberia, Pakistan, Philippines, South Africa, and West Bank and Gaza) to learn about key issues in SWM laws and policies, institutional structure, regulatory and financial mechanisms, citizen and private sector engagement, and SWM technologies in both Japan and abroad.

In addition to expert presentations, group discussions, and action planning presentations, the TDD offered participants a video tour of waste collection processes in the cities of Kitakyushu and Fukuoka.

DELIVERING THE FIRST VIRTUAL TDD

The SWM TDD was the first TDD that the TDLC team organized virtually (using Zoom). Some 76 participants, (including 33 clients and 13 TTLs from 11 countries and territories), 19 speakers, and 13 observers participated in this TDD. (This was comparable to the SWM TDD in FY20, which was attended by 42 clients and 23 TTLs from 13 countries, meaning that the first virtual TDD was attended by most of our target audience). To make sessions engaging for participants, TDLC secured time for Q&A and discussions and encouraged participants to post questions and comments in the chat window during presentations. These comments were compiled, translated, and relayed to respective speakers and Japanese cities to get prompt responses for participants. TDLC also collaborated with the City of Kitakyushu and produced a site visit video that showcased the journey of waste in Kitakyushu, including waste collection, waste separation, treatment in incineration plant (including waste-to-energy initiatives), and final disposal of incineration ash. Because of the engaging content of the TDD and technical expertise of the participating teams, nearly 90 percent of participants stayed connected throughout the program and actively posted questions and comments for speakers from Japan and abroad.

KEY HIGHLIGHTS

As with regular face-to-face TDDs, this virtual TDD started with a framing presentation and client challenge presentations. These were followed by the thematic presentations structured around (1) planning and financing SWM services, (2) waste processing and treatment, and (3) special topics, including informal sector and social enterprises, plastic pollution, and medical waste.

CLIENT CHALLENGES

Key challenges faced by the clients related to two aspects of SWM: institutional arrangements and financing. Clients pointed out that the fragmented legal framework and weak municipal government entities that govern different streams of waste affect the planning and implementation of collection, transfer, and disposal of solid waste. They also reported struggling to identify sources of funds and implement measures to collect SWM fees at the household level.

Some clients also shared their struggle with improper disposal practices, such as open dumping and river dumping, which create environmental pollution and exacerbate disaster risks. While they expressed their willingness to address these issues, they also expressed concerns about the cost of monitoring illegal dumping and the relations with the informal sector, which plays a key role in local solid waste management.

THEMATIC PRESENTATIONS

Institutional Arrangements and Financing

Developing a sound waste management system is key to protecting public health, providing environmental protection, and promoting sustainable resource management. It requires national and subnational governments to work together to ensure that minimum necessary treatment and disposal capacities exist and that national objectives reflect local needs and constraints. Conducting option analysis (e.g., centralized vs. decentralized system and composting vs. thermal treatment) is the first step to develop a strategic plan.

The costs associated with SWM are not limited to capital and operational costs. SWM also needs to account for remediation and other social and environmental costs. While cost recovery is key to addressing these challenges,

it is important to create the right incentives for the public, enhance citizens' awareness of SWM, and develop fee and monitoring structures. This holistic financial planning is crucial for municipal governments to execute sustainable solid waste management programs.

Waste Processing and Treatment

Recycling has been recognized as a good way for many cities and counties to reduce overall waste and promote a circular economy. Research shows that recycling contributes to lower greenhouse gas emissions, conserves natural resources, increases economic security, and offers social inclusion and job formalization opportunities. However, the effort to recycle will be useless if neither local industries nor consumers demand these recycled products due to price, quality, or lack of knowledge. Defining policy for integrated solid waste management, knowing the quantity and quality of local waste, and verifying the demand for recovered materials are all essential to define policy for a recovery and recycling system.

Medical Waste and Response to COVID-19

Due to the outbreak of COVID-19, many municipal governments are struggling to treat medical and infectious wastes. The Tokyo Metropolitan Government takes an approach to medical waste that fully utilizes the existing SWM infrastructure; this is the key to address current infectious waste related to COVID-19, as the total capacity of medical waste incinerators is limited. As infectious waste may generate health risks among people involved in waste collection and treatment, it is important to confirm legal responsibilities and technical standards among stakeholders and promote knowledge sharing on the treatment of infectious waste among doctors, health care workers, and waste management companies.

CASE STUDIES FROM JAPAN

This TDD introduced two case studies from TDLc’s partner cities, Kitakyushu and Fukuoka, to showcase how these cities have developed their own unique solutions to address the issue of waste management.

KITAKYUSHU

Mr. Yuji Aoyagi, Executive Director of the Kitakyushu Bureau of Environment, presented the history of cost recovery initiatives in Kitakyushu. According to Mr. Aoyagi, the city introduced a prepaid bag system for household waste to offset collection costs back in 1998. Initially, public reception of the new policy was poor; however, an extensive citizen outreach program in schools, public facilities, and waste collection stations—conducted on citizens’ terms—generated hundreds of local volunteers who monitored collection stations. Thanks to the active participation of its citizens in SWM, the city has been able to build on this success, gradually raising fees and introducing new categories of recyclables. Today, the city stands out as one of the brightest examples in the field of solid waste management, especially in recycling. Moreover, as fees have gone up, waste production has declined, and the city’s waste management system has become a source of civic pride.

FUKUOKA

Mr. Yoshiki Tabata, who is in charge of waste collection management in Fukuoka City, said that 98 percent of citizens in Fukuoka reported satisfaction with the city’s SWM approach in a recent municipal survey. This high level of satisfaction is due to the city’s nighttime collection initiative, which has several advantages over daytime collection: it circumvents (and does not contribute to) traffic; it means waste is not seen on streets, creating a more attractive city environment; and the presence of collectors on the streets at night contributes to public safety.

“In order to make the project sustainable, it is important to share appropriate responsibilities between the public and private sectors under the PPP [public-private partnership] scheme.”

Shiko Hayashi, Program Director,
Institute for Global Environmental Strategies

“This program has helped me to gain knowledge of strategic planning of SWM, waste separation and recycling, financial sustainability involving all stakeholders, and new technologies in SWM. The best practices followed in Japan will help in implementing SWM projects in my state.”

Client from India

ACTION PLANS

Based on the learnings from the TDD, on Day 5 participants presented concrete action plans for their projects and shared their next steps. Some important solutions that were presented included conducting fee framing analysis that considers environmental cost, assessing infrastructure, standardizing operating procedures, and forming regulations for nonmunicipal waste and plastics.

KEY TAKEAWAYS

Through the TDD, many speakers emphasized the importance of coordination between national and municipal governments, as well as the alignment between government and citizens, to introduce sustainable SWM initiatives in the field.

- As each city faces different environmental and financial challenges, city governments need to conduct option analysis and map out step-by-step policies and procedures to allocate time and resources for their SWM program.
- As shown by the cases of Kitakyushu and Fukuoka, public awareness is crucial for the success of SWM. Local authorities should reach out to citizens continuously, not only to explain the importance of waste separation and recycling but also to seek their feedback and share the achievements of SWM for the city.
- COVID-19 has led to increased medical waste and infectious waste, and it is important that waste producers, waste collectors, and disposal facility operators work in coordination to prevent infections and leverage the existing infrastructure to reduce wasted time.

FEEDBACK FROM PARTICIPANTS

Overall, participants highly appreciated the TDD on Solid Waste Management—TDLC's first virtual TDD— and considered it an effective knowledge-sharing program. Out of 22 survey participants, 45 percent were “very satisfied” with the program, and 55 percent were “satisfied”. They found the virtual TDD effective in showing the Japanese SWM experience, SWM practice in other countries, SWM strategies, and measures for financial sustainability (including cost recovery). The TDLC team was generally successful in delivering the TDD program virtually and helping World Bank project teams accelerate their projects in the field.

AT A GLANCE

CPP CITIES REPRESENTED

FUKUOKA CITY

OTHER KEY PARTNERS AND COLLABORATORS

Urbanscapes KSB
and TOD CoP

CLIENTS AND TTLS

64

COUNTRY REPRESENTATION

12

Argentina	India
Bulgaria	Indonesia
China	Jordan
Colombia	Saudi Arabia
Côte d'Ivoire	Tanzania
Egypt	Uganda

SPEAKERS/RESSOURCE EXPERTS DISPATCHED

8 6 17
JAP INTL WB

KEY JAPANESE EXPERTS/ INSTITUTIONS REPRESENTED

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MR. HISASHI SHIBATA

Professor, Fukuoka University

MR. NORIAKI NAKAYAMA

Senior Manager of the
Business Promotion Group,
Tokyu-Line Area Development
Headquarters, Tokyu Corporation

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MR. GIL PENALOSA

Founder and Chair,
Board, 8 80 Cities

M. KALPANA VISWANATH

CEO, Safetipin

MR. SCOTT PAGE

Principal, Design & Planning,
Interface Studio

TECHNICAL DEEP DIVE ON

VITALIZING URBAN NEIGHBORHOODS AND SPACE THROUGH

TRANSIT- DEVELOPMENT

TDD DIGEST

— **ORIENTED**

LOPIMENT

OVERVIEW

TRANSIT SYSTEMS AND PUBLIC SPACES are essential elements of cities. They shape where people live and work, determine their access to services, cultural amenities, and green spaces, and have a profound impact on the quality of life for city dwellers.

More than half the world's population lives in cities—and the number is only projected to increase. Moreover, COVID-19 has transformed the way people inhabit—and think about—cities. As cities work toward a sustainable recovery from the pandemic, there is an opportunity to rethink approaches to transit systems and public space to create more people-centered, environmentally conscious urban communities.

To that end, the World Bank has made urban mobility and sustainable transport key pillars of its development projects. To explore such strategies and potential solutions, TDLc held a virtual TDD titled “Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development” from March 15 to 19, 2021.

This virtual TDD was a collaboration between the Urban and Transport Global Practices (GPs) of the World Bank, and brought together 117 practitioners and technical experts from 12 countries: Argentina, Bulgaria, China, Colombia, Côte d'Ivoire, Egypt, India, Indonesia, Jordan, Saudi Arabia, Tanzania, and Uganda. Participants included 36 clients, 27 TTLs, 31 speakers, and 23 observers, who convened to learn about key issues in transit-oriented development (TOD) and public realm improvements, and to discuss where cities were heading post-COVID from a transport and public space standpoint. The numbers of participants were comparable to the numbers for the face-to-face TDD on TOD Urbanscapes in FY19, when 73 participants, including 26 clients and 20 TTLs from 13 countries, convened in Tokyo. Thus despite being virtual, this TDD was successful in achieving the same outreach to the target audience.

CONTINUOUSLY EVOLVING VIRTUAL TDD MODEL

This TDD marked the first major change in the virtual TDD model, as TDLc introduced a new virtual event platform called Hopin. This all-in-one online event management platform includes a virtual stage, breakout rooms, a virtual networking tool, and an expo space, all of which stimulate engagement and interaction in the virtual space. Based on the feedback from the first virtual TDD, this TDD was extended from 2.5 hours to 3 hours per day and doubled the time for peer-learning sessions. Virtual booths were made available and provided supplementary information that participants could access outside of the core TDD hours.

KEY HIGHLIGHTS

The virtual TDD followed the same structure as a face-to-face TDD, starting with a framing presentation and continuing with presentations on client challenges. The content of the TDD was anchored by three key themes: (1) TOD, (2) public realm improvements at different scales, and (3) response to COVID-19 and future initiatives.

CLIENT CHALLENGES

During the peer exchange exercise, many clients identified the lack of land use planning surrounding train stations, which led to traffic congestion and haphazard land development, as a critical urban challenge. Clients also said that lack of coordination among stakeholders and fragmentation of different governmental agencies and individual operators were problems that prevented cities from having comprehensive area planning and effective development regulations.

THEMATIC PRESENTATIONS

Transit-oriented development

Common barriers to implementing TOD initiatives include metropolitan fragmentation, silo behavior, financial restrictions, and retrofitting challenges. Needless to say, TOD brings many benefits: increased ridership of public transportation enhances the local land value, generates new public revenue, contributes to job creation, and promotes livability in the city.

The World Bank has recently issued the second edition of its TOD toolkit. The toolkit introduces the five-step TOD framework (assess, enable, plan + design, finance, and implement) and illustrates how to implement TOD in diverse city contexts. Participants were shown how to leverage this toolkit to analyze their projects and engage in better communication with local stakeholders.

Public realm improvements at different scales

Targeting public realm improvements for the development of people-centered communities is crucial for developing a livable city. TOD plays a critical role in this dynamic, as development projects will be less impactful if they do not make transit an integral part of the larger city design. TDD participants were exposed to techniques to evaluate the performance of the public realm, and identify where placemaking improvements could lead to big impacts, especially in connection with safety,

accessibility, intensity and diversity of use, and conflicts with other surrounding uses (such as cars, private property). For example, participants learned about Safetipin, an app that collects quantitative and qualitative spatial information on public places and services. The data are used by governments and community stakeholders to make more informed decisions on livability and public safety.

Public realm improvements are most impactful when achieved through a participatory process and meaningful stakeholder engagement. Building relationships, learning from stakeholder input, and using that input as qualitative and quantitative data to drive ideas lead to a sustainable city design. These efforts will allow cities to implement projects smoothly, nurture the ownership of local stakeholders, and strengthen the social fabric of the community.

Response to COVID-19

Cities have been especially hard hit by the COVID-19 pandemic. At the same time, the pandemic is associated with some positive trends worth highlighting: more city dwellers are taking to cycling and walking, paving the way for more walkable cities. Greenhouse gas and carbon emissions are reducing, and air quality has improved. There has also been a renewed interest in open public spaces such as parks, which have proved a boon for socially distanced interactions. TDD participants engaged in a forward-looking conversation about the potential opportunities that COVID-19 brings, and about tapping into the hidden wealth of publicly owned assets to help activate a neighborhood. The TDD introduced mechanisms for sustainably financing such public realm improvements under financial resources strained by COVID-19, such as utilizing demand for higher densities from commercial developers, entering public-private partnerships (PPPs), and granting concession agreements.

CASE STUDIES FROM JAPAN

JAPAN'S TOD: A SYNERGISTIC APPROACH TO TRANSIT AND URBAN DEVELOPMENT

Japan has long championed a particular approach toward TOD, led largely by the private sector. Private companies build regional rail lines that bring commuters into the city; they also develop mixed-use areas around the train stations, including residential, office, and commercial complexes. As a result, large investments required to build up rail services are quickly offset by revenue from housing and other projects.

During this TDD, participants engaged in a virtual site visit of Solaria Plaza in Fukuoka, a terminal station that houses the city's bus terminal, a department store, restaurants, and leisure facilities directly connected to the city's subway system. This example showcased how to package commercial and transport needs into a single facility; by doing so, the city upgraded the value of the Tenjin area as a whole and attracted people from around Kyushu.

COMMUNITY-DRIVEN URBAN SPACE REGENERATION

The restoration of a public park can have a ripple effect on the surrounding area, both economically and spatially. Dr. Hisashi Shibata (Professor, Fukuoka University) presented the case of Kego Park, an urban park in Fukuoka that used to be a closed space plagued by poor visibility, graffiti, drug dealing, vandalism, and sexual crimes. Thus, when the decision was made to restore the park, the city collaborated with the local area management association, the police, academia, and citizens to take a data-driven approach. They reviewed all blind spots and concerns related to the park and improved visibility both inside and outside the park. They also decided to install the central pathway, which

connects to nearby commercial facilities, making the park more attractive and convenient for visitors and commuters. Due to these efforts, the rate of crime has significantly decreased, and the land price in surrounding areas has increased.

THE FUTURE OF URBAN TRANSPORT/POST-COVID CITIES: INSIGHTS FROM JAPAN

In Japan, bicycles have long been a common method of neighborhood transport and last-mile connectivity. As more city dwellers take to cycling under COVID-19, cities must be prepared to have ample support facilities (such as bicycle parking) near transport nodes. Since the land surrounding transit nodes is often prioritized for commercial uses, Japan has adopted a method of leveraging dead space (such as portions of sidewalks and land beneath the rail tracks) to maximize bicycle parking. A robust bike-sharing system has also been a recent driver of change, as more bikers are opting to use shared bikes as their main commuting method.

ACTION PLANS

The technical content absorbed during the TDD culminated in the creation of actionable next steps by the TDD participants. These steps considered the importance of (1) integrating transit nodes with surrounding areas based on concepts of universal access and green space, and (2) strengthening the dialogue between officials from national and municipal governments on the technical aspects of such development. Other solutions involved identifying a city's hidden wealth, such as underused land and parking rights, to unlock the full potential of city revenues.

KEY TAKEAWAYS

The TDD was successful in bringing together counterparts from urban development and transport to discuss holistic approaches to city planning that leverage urban transport and public space for the creation of more livable cities. A critical consideration in post-COVID-19 cities is to leverage the assets cities already have, and to make targeted public realm improvements that do not further strain the city's fiscal resources. To meet these challenges, it is crucial to take a comprehensive approach that prioritizes meaningful stakeholder engagement and maximizes the potential upsides of TOD and urban planning. While we have yet to see how COVID-19 will redefine the linkages between transport and city planning, there are certainly opportunities that can be leveraged to make cities more livable, walkable, and resilient.

AT A GLANCE

CPP CITIES REPRESENTED

KOBE CITY
FUKUOKA CITY
YAMATO CITY (NON-CPP)

OTHER KEY PARTNERS AND COLLABORATORS

Agriculture GP,
Environment GP,
Health GP, Water GP

CLIENTS AND TTLS

49

COUNTRY REPRESENTATION

7

Angola	Nigeria
Bangladesh	Tunisia
Jordan	Yemen
Malawi	

SPEAKERS/RESSOURCE

7 3 25
JAP INTL WB

EXPERTS DISPATCHED

KEY JAPANESE EXPERTS/ INSTITUTIONS REPRESENTED

MS. KEIKO NAMAMURA
Professor, Department of Global
Health Entrepreneurship, Tokyo
Medical and Dental University

MR. SATORU OHKI
Mayor, Yamato City

MR. KOJI DEGUCHI
Director for International
Business Relations, International
Department, Kobe City

KEY INTERNATIONAL EXPERTS/ INSTITUTIONS REPRESENTED

DR. ANA DIEZ ROUX
Dean and Distinguished
Professor, Epidemiology,
Drexel University

MR. JONATHAN BOWER
Country Economist,
International Growth Center

MR. JOHN TAYLOR
Chief Technical Advisor,
FAO Bangladesh

TECHNICAL DEEP DIVE ON

HEA CITY

TDD DIGEST

HEALTHY FOR ALL

OVERVIEW

CITIES have long been shaped by health emergencies. In the 19th and 20th centuries, outbreaks of cholera and influenza led to infrastructure advancements, including the establishment of sewage systems and public health care systems. The COVID-19 pandemic has proven to be another such emergency, one that has caused cities around the world to reflect critically on what it means to be “healthy”.

Many cities have already begun to experiment with and enact innovative solutions that tackle the immediate health risks of COVID-19. There is also an imperative to look toward the future, and to think about how to build back cities that are healthier, greener, more inclusive, and more resilient.

More than ever, this is the moment for cities to learn from each other. To that end, TDLc hosted a virtual TDD on Healthy Cities on April 19-23, 2021.

This frontier topic TDD convened experts and represented clients from five different World Bank GPs—Urban, Agriculture, Water, Health, and Environment—and brought together 105 practitioners and technical experts from seven countries: Angola, Bangladesh, Jordan, Malawi, Nigeria, Tunisia, and Yemen. Participants included 28 clients, 21 TTLs, 34 speakers, and 22 observers, who convened to engage in a cross-sectoral dialogue about health in our cities.

DELIVERING THE TDD IN VIRTUAL MODE

Like the previous TDD, the Healthy Cities TDD was hosted on Hopin to encourage virtual interaction and engagement. Based on lessons learned from the previous TDD, TDLc updated the peer learning model to allow for more time and discussion. More clarity was provided about the TDD methodology, under which clients first identify their challenges and situate their project in the global context, and then use the knowledge gained throughout the week to map out actionable next steps to address these challenges.

KEY HIGHLIGHTS

The TDD centered around three core themes: (1) how a cross-sectoral urban health initiative can transform a city; (2) how health facilities and food markets can lead to healthier communities; and (3) how integrating urban life with nature promotes healthier cities.

CLIENT CHALLENGES

With increasing migration to major cities from the countryside, urban areas are often unable to cope with the growing infrastructure needs. For example, cities may be unable to provide affordable housing, thereby pushing the new urban poor to live in informal settlements. A significant number of urban dwellers now live in poor-quality housing that is susceptible to natural disasters, hygiene issues, air and water pollution, and poor infrastructure, all of which pose a risk to health.

THEMATIC PRESENTATIONS

Urban Health Initiatives and City Transformation

Cities, characterized by high population density, diversity, and concentrated economic activity, can have significant impacts on health. Urban residents might have better access to health care than their rural counterparts, but they might also be more exposed to pollutants and other health hazards.

Designing healthy cities means going beyond public health and looking at the economy, transportation, environment, housing policies, and waste management— as all these factors contribute to the overall health of the city and its people. For example, this focus could translate into increasing access to green space, which can lead to improved health outcomes, or managing the informal food economy to ensure access to safe and healthy food.

Health Facilities and Food Markets for Healthier Communities

Healthy diets are linked to productivity, so access to safe and healthy foods as a source of livelihoods is critical for healthy cities. In Dhaka, 85 percent of households purchase most of their fresh fruit and vegetables in traditional kitchen markets, and these markets continue to provide an essential service during COVID-19. However, such kitchen markets face issues with sanitation and food safety. The interconnectedness of animal health and welfare, food safety, food loss and waste, food security, nutrition, and public health is inescapable. The Dhaka case suggests how to keep communities safe and healthy through the rebranding of kitchen markets as fresh markets.

Integrating Urban Life with Nature

Air pollution can hinder urban competitiveness and can influence a city's economic potential, negatively impacting health, natural amenities, and industrial productivity. Environmental regulations can help internalize pollution costs, but their implementation can be challenging in developing countries, as they are costly and not attractive to policy makers. To introduce environmental regulations effectively, cities need to collect data on pollution, work closely with local stakeholders and the national government, and design economic incentives and agreements with private industry.

The global temperature is increasing, and cities are heating up at a rate that is twice the global average. As many cities are expected to experience significant temperature increases in the next few decades, heat mortality may become a big issue. Urban heat islands lead to air pollution, infrastructure deterioration, and higher energy demand, all of which aggravate overall economic costs. Cities should leverage nature-based solutions to address urban heat islands and adopt ecological spatial planning.

CASE STUDIES FROM JAPAN

HEALTHY CITY INITIATIVES IN JAPAN: FUKUOKA AND YAMATO CITY

Japan faces many demographic challenges, such as an aging population and a declining birth rate. To address these challenges, many Japanese cities have health-promoting policies that are implemented through welfare and medical care services involving various cross-cutting administrative fields, such as environment, industry, education, and city planning. TDD participants learned about “Fukuoka 100”, a model for creating a healthy society that promotes longevity through 100 actions. The local government, the private sector, and academia work together on urban planning, taking a wider perspective that covers not only physical health such as medical care and nursing care, but also actions to promote a healthy work ethic and community development.

Another Japanese example is from Yamato in Kanagawa Prefecture. The city adopted a comprehensive healthy city policy that is a cross-cutting agenda across all sectors of local government. Through the presentation by a representative of the city, participants learned about Yamato’s tangible initiatives (e.g., a state-of-the-art multipurpose cultural facility that includes a health library, community health classes, and health equipment) and intangible initiatives (e.g., citizen-driven “healthy city university” activities). Both types of initiatives contribute to its healthy city development.

SATOYAMA: CASE OF KOBE CITY

Kobe’s vision for a healthy lifestyle includes satoyama, a Japanese term for areas of mountains or forests in the vicinity of populated areas. Kobe is positioned close to both mountains and sea (each is reachable from the urban area within 30 minutes). The concept of satoyama has been gaining traction, as it allows citizens to enjoy the benefits of a quiet, rural life without going too far from the urban center.

Kobe is also working to repurpose existing, underutilized assets in the Rokko Mountains as centers for co-working and teleworking. COVID-19 has changed the way many people live and work and has brought about a renewed appreciation for green and blue spaces—natural resources that can be leveraged for the health of citizens.

ACTION PLANS

Based on the extensive dialogue on the many considerations of healthy cities, each delegation presented its action plan and mapped out next steps toward the healthy city agenda in their respective cities. Key solutions discussed were scaling up actions to promote walkability and cycling by creating fitness paths and bike lanes, strengthening efforts toward rehabilitation and depollution through partnerships with the private sector, making concrete plans for multi-stakeholder coordination to enhance urban resilience against natural disasters and pandemics, and retrofitting public facilities for recreation and cultural activities.

KEY TAKEAWAYS

Significant social and health inequalities characterize many cities, and governments need to factor equity into urban development and health plans and consider the needs of a diverse population.

The development of a healthy city will require a cross-sectoral approach, with a common understanding across all stakeholders that a healthy city is also one that is productive and livable. The TDD was successful in convening diverse stakeholders from the Urban, Agriculture, Environment, Health, and Water GPs to kick-start a dialogue on how the World Bank can continue to support the promotion of healthy city development.

FEEDBACK FROM PARTICIPANTS

Survey results indicated a high level of satisfaction with the TDD program. Out of 20 survey respondents, 50 percent were “very satisfied” and 50 percent were “satisfied” with the TDD program. This TDD also saw an uptick in satisfaction with engagement and networking. As our cities continue to debate how to build back better after COVID-19, the TDD provided a unique platform for peer exchange and knowledge sharing on global and Japanese best practices for the development of healthy cities.

KEY LESSONS LEARNED

The TDD reiterated the criticality of health-focused urban planning and management, and to make cities more resilient against current and future pandemics. Some key lessons derived from the TDD are highlighted below:

Health should be a priority focus and part of cities' vision for achieving desirable outcomes.

Historically, health crises have triggered transformation in cities, sparking social, economic, and environmental changes. Today, when cities are grappling with the COVID-19 pandemic, health becomes an even more important issue. Making health a priority focus, and adopting strategies and plans to address the current (and any likely future) pandemic, are the first steps toward healthy cities. Cities should have a clear vision of their health priorities and the strategies they need to adopt to achieve those priorities and make cities healthy, livable, inclusive, and competitive.

An integrated policy approach and effective institutional arrangements are key to realizing a healthy city agenda.

Healthy cities require an integrated approach across different sectors, such as urban planning, transport, waste management, and environment; coordination between different stakeholders is therefore critical to realizing the agenda. A focus on health should be well integrated into the existing and future policies of different sectors. Health is not a stand-alone sector but an amalgamation of different aspects of urban development, all of which should be reflected in policies and action plans.

Cities need to factor in health-focused interventions for built environment and public facilities as well as human behaviors.

While it is critical for city governments to build infrastructure, public facilities, amenities, and services that promote citizens' health, it is also important to induce behavioral changes in people that encourage healthy lifestyles. For instance, when city authorities develop parks, community centers, and health care centers, they could also implement incentive-based promotion strategies for using these facilities. This approach could make health a priority among diverse groups, including people of different ages, genders, and income levels, people with disabilities, etc.

AT A GLANCE

CPP CITIES REPRESENTED

TOKYO (NON-CPP)

OTHER KEY PARTNERS AND COLLABORATORS

Sustainable City
Infrastructure and Services
Global Solutions Group,
Climate-Smart Cities
Community of Practice

CLIENTS AND TTLS

43

COUNTRY REPRESENTATION

5

Kazakhstan	Philippines
Kenya	South Africa
Nepal	

SPEAKERS/RESOURCE EXPERTS DISPATCHED

6	5	18
JAP	INTL	WB

KEY JAPANESE EXPERTS/ INSTITUTIONS REPRESENTED

DR. YASUSHI AOYAMA

Emeritus Professor,
Meiji University

MR. MASAFUMI OHTA

Senior researcher,
Tokyu Research Institute

DR. TOSHIHIDE ARIMURA

Professor, School of Political
Science and Economics,
Waseda University

KEY INTERNATIONAL EXPERTS/ INSTITUTIONS REPRESENTED

DR. ENID SLACK

Director of the Institute
on Municipal Finance and
Governance, University of Toronto

TECHNICAL DEEP DIVE ON

MAN

METRO

TO BUILD BACK BETTER

TDD DIGEST

MANAGING

REGIONS

OVERVIEW

MANAGING the increasing density of cities is a challenge to sustainable urban planning, yet cities also serve as epicenters of creativity, entrepreneurship, and economic growth for many countries. This duality of cities is well captured in the fact that cities around the world generate over 60 percent of carbon emissions while occupying only 2 percent of the global landmass. Since the 1980s, the world has also seen the emergence of megacities or mega-metropolitan regions, clusters of densely populated areas that spread across multiple local administrative jurisdictions and that are inhabited by over 10 million people. Highly populated urban areas linked by transportation networks have been engines of productivity, but the level of urban services and resources demanded by residents has posed great coordination and development challenges for local governments.

The TDD on Managing Metro Regions to Build Back Better allowed participants to develop a deeper understanding of good practices in metro region planning and coordination as well as neighborhood-based integrated development, which aim to make cities greener and more inclusive in a post-COVID recovery period. While the pandemic may have temporarily slowed the global trend of accelerated urbanization, an increasing number of people will continue to move into cities in the long run. The TDD therefore covered the fundamentals of managing metro growth and expansion, but it also included urban modeling tools for policy makers seeking to take impacts of climate change and future pandemics into account in planning and financing of future city designs.

Because of travel restrictions and quarantine measures, this TDD was delivered fully online. Participants and technical experts from five countries (Kazakhstan, Kenya, Nepal, Philippines, and South Africa) met virtually to learn about Japanese and international experiences in coordinating, planning, and managing metro regions.

INTRODUCING GREATER FEATURES TO THE VIRTUAL TDD

The Managing Metro Regions TDD was delivered on Hopin, but new features were added to improve virtual engagement and user experience. TDLc arranged and offered English-to-Russian simultaneous interpretation for the entirety of the TDD to allow non-English-speaking participants to connect with content at a deeper level of engagement. Simultaneous interpretation was also seamlessly integrated and used during the “Ask Me Anything” session and action plan presentations. TDLc also made greater use of the booth function in Hopin to showcase additional World Bank resources available to the TDD participants, such as the City Climate Finance GAP Fund, the QII Trust Fund, and the Global Facility for Disaster Reduction and Recovery (GFDRR). The use of the booth for these resources also helped to make more time for thematic content during the TDD.

KEY HIGHLIGHTS

The content of the TDD was split into four thematic pillars: (1) metro-level planning and institutions; (2) integrated neighborhood-level planning; (3) post-COVID recovery priorities to build back better and greener; and (4) capital investment planning for green and resilient metro regions.

CLIENT CHALLENGES

The COVID-19 pandemic has been particularly difficult for metro regions; local municipalities face financial constraints due to shrinking tax revenues and decimated local economies. Clients reported a rise in urban inequality and a greater number of households that have been pushed below the poverty line.

At the same time, many participants pointed out that traditional challenges remain, including unplanned urban expansion, strained urban infrastructure, and the rise of informal settlements—all of which increase the vulnerability of dense communities. The need to cross-coordinate among the different levels of government and the need to prioritize the metropolitan agenda continued to constrain the capacity of urban services. According to some participants, the pandemic created an opportunity for the state government to better coordinate and communicate with city governments, in response not only to COVID-19-related issues but also to preexisting urban challenges. The key steps in achieving the shared vision of metro regions involved better alignment with local stakeholders to secure necessary financing.

THEMATIC PRESENTATIONS

Urban Modeling Tools for Neighborhood-Level Planning

Urbanization is central to local economic development, but the lack of consistent data and analysis at the city and neighborhood level makes it difficult to understand and manage growing populations with limited urban resources. Spatial modeling tools can take data inputs relating to population, income, transit, land use, and housing to produce helpful indicators for local planning and decision-making, such as ideal jobs-to-population ratio, transit accessibility metrics, and walkability metrics. Nonspatial modeling tools can take data inputs on consumption of utilities (i.e., water, electricity, gas), waste generation, and transport density to produce detailed snapshots of emissions generated by buildings or transportation modes in a given time at a specific location. These analytical outputs can inform local decision-makers on the urban performance of various neighborhoods (i.e., economic productivity, produced emissions,

or disaster risk), but also on the needs of the communities (i.e., access to jobs, number of water and sewage connections, etc). With regularly updated analytics on the status of neighborhoods, cities can be designed to be greener, more walkable, healthier, and more inclusive.

Post-COVID Recovery Priorities: Building Back Better and Greener

The pandemic has brought about significant changes to metro regions and accelerated the time scale of climate talks. An unprecedented number of people flocked out of cities due to quarantine measures and the shift to home-based work, but the recovery from COVID-19 offers a unique opportunity to break from the past and redirect the future of cities. Cities around the world experienced quickly shrinking budgets as the pandemic wreaked havoc on local economies. Investing in high-skilled jobs in renewable energy, green technology, clean construction, and recycling can help catalyze urban economic growth while improving the livability of cities. Investments in greener and sustainable infrastructure will require coordination between national and city-level governments to ensure that the recovery priorities are strategically aligned across government agencies for successful implementation.

Capital Investment Planning for Green and Resilient Metro Regions

The execution and financing of green and resilient cities continue to puzzle local governments. The urgency of building back so as to promote equal and inclusive delivery of critical services (i.e., health, housing, and education) can be overshadowed by the immediate demand to address rising unemployment, closed businesses, and other economic woes. It is more important than ever for governments to keep sight of long-term development goals and to allocate capital to recovery projects that increase the double bottom line of economic and environmental returns. It is strategically important for governments to tap into private financing as they deepen the transition to green and resilient cities. Broader participation from the private sector can help align interests among stakeholders that are critical for financing long-term projects.

CASE STUDIES FROM JAPAN

2021 TOKYO MASTER PLAN FOR CITY PLANNING

Professor Yasushi Aoyama of Meiji University (former Vice Governor of Tokyo Metropolitan Government) described the experience of neighborhood-level planning in Tokyo. In response to demographic challenges of depopulation and aging, Tokyo’s Master Plan promotes a compact city design, which connects people to the centers of social and commercial activities. Improved railway networks will allow urban residents to access natural environments that help improve city livability. In line with the Tokyo Metropolitan Government’s goal of addressing climate change, the city aims to become zero-carbon by 2040 by shifting to renewable energy and modernizing urban infrastructure for the energy transition. The key to the Master Plan is utilizing data on topography, meteorology, transportation, energy consumption, and other metrics to improve public services.



Futako Tamagawa, Tokyo

FUTAKO TAMAGAWA, TOKYO

Futako Tamagawa, a district located in the Setagaya Ward of Tokyo, serves as a model town of urban regeneration. Using a former amusement park site, local leaders transformed the area and enhanced livability by integrating office buildings, residential areas, shopping centers, and a city park near Futako Tamagawa station. The town provides easy access to the center of Tokyo while boasting high-quality schools and a peri-urban environment attractive to families rearing children. Many of the buildings in the region have implemented green rooftop gardens, energy management systems, and disaster-resilient zoning. The Futako Tamagawa Rise initiative offers livability that reflects successful planning and town management activities by the Futako Tamagawa Rise Council, Setagaya Ward, Tokyo Metropolitan Government, and private companies (e.g., Tokyu Corporation).

ACTION PLANS

Drawing on what they had learned throughout the week, TDD participants presented their action plans. Despite ongoing COVID-19 challenges, many of the action plans focused on long-term goals, including the development of integrated transportation strategies, greater financial support for renewable energy production, development of national-level legislation for metropolitan region management, development of effective governance systems, and strengthening of urban data system management.

KEY TAKEAWAYS

In managing metro regions to be greener, more resilient, and more sustainable, three key themes merit further reflection:

- Increasing state and local capacity to better coordinate metro region management. In the short term, governments will continue to face immense pressure for economic recovery, but their efforts must be aligned with neighborhood-level needs so that the recovery is inclusive and produces the greatest benefits.
- Prioritizing investments linked to climate change and resilience criteria. Prioritizing investments into core infrastructure and climate-related criteria can help produce a credible pipeline of projects that can be jointly financed with public and private participation.
- Adopting bottom-up approaches to metro regional governance to ensure local buy-in. It is important to create enabling environments that encourage participatory planning and development of metro regions. Securing local buy-in is essential in coordinating service delivery at the neighborhood level.

TECHNICAL DEEP DIVE ON URBAN UPGRADING IN

SAN

TDD DIGEST

UJDI

ARABIA

OVERVIEW

SAUDI ARABIA is a highly urbanized country, with 83 percent of its population, or 26.9 million people, living in cities¹. It is expected that by 2050, 90 percent of the total population (over 40 million people) will live in urban areas.

Urbanization has brought remarkable improvements to the quality of life and economic development, but a well-documented issue facing Saudi cities is housing affordability and accessibility. Low-income and lower-middle-income Saudi households and migrants often seek housing through informal markets, and this has driven the conversion and informal subdivision of agricultural land on the edge of cities.

The Ministry of Municipalities, Rural Affairs and Housing (MoMRAH) is concerned with the rapid growth of unplanned settlements and has sought guidance from the World Bank on how to provide tenure security and incorporate informal settlements into urban planning strategies of Saudi cities.

In response, the Bank has helped MoMRAH prepare a national toolkit document to guide municipalities in regularizing and upgrading informal settlements through a participatory planning process and work with local communities. The document offers comprehensive guidance on the whole process of regularization and can be adapted by each municipality to suit local circumstances and the community's requirements.

One of the challenges that the World Bank team and MoMRAH faced on completion of the toolkit was how to roll it out to the cities across the kingdom, given the COVID-19-related travel constraints. Realizing that virtual world fatigue had set in for many people one year into the pandemic, the Bank team knew that any online workshop had to be very exciting and share inspiring stories, so the participants could engage with this critically important topic.

REMODELING THE VIRTUAL TDD TO MEET COUNTRY-SPECIFIC NEEDS

Responding to these challenges and leveraging the virtual TDD format, platforms, and engagement tools, TDLc made a quick pivot to reformat the virtual TDD into a country-specific engagement that operated on the same principles of action-oriented learning, but focused on country-specific challenges and context.

The objective of this three-day workshop was to share experiences and inspiration from other countries on effective informal settlement upgrading, help the participants identify gaps and address common challenges, and stimulate dialogue among MoMRAH, municipalities, and the World Bank team. To achieve this aim, the training program introduced the Toolkit, held thematic sessions with presentations by international and World Bank urban development experts, and offered peer-to-peer knowledge sharing and action planning activities.

¹ World Bank, "Population Estimates and Projections", updated July 2017.

KEY HIGHLIGHTS

This operational TDD centered on three core themes, or challenges faced by the various municipalities of Saudi Arabia: (1) identifying informal communities; (2) carrying out community-based urban upgrading; and (3) devising private sector solutions. The theme of each day was dynamically illustrated with an assortment of presentations on both international and Japanese best practices.

THEMATIC PRESENTATIONS

Identifying Informal Communities

The first core theme addressed the approaches for identifying and characterizing informal communities, including mapping, household surveys, community methods, and technology. It also addressed the benefits of proper identification of informal communities.

Two international cases (the Philippines and Indonesia) were presented to illustrate the challenges of, and solutions deployed in, identifying informal communities. In the Philippines, rapid population growth made quantifying and mapping informal settlements impossible, resulting in a lack of accurate data on slums and urban growth. But qualitative typology analysis of slums in the area enabled governments to better understand urban growth trends and better plan for the future, in part through creation of multiple scenarios for investment decisions on land policies.

Community-Based Urban Upgrading

Mechanisms to promote increased collaboration between the government and the community were a key interest and objective of the workshop. Both international and Japanese cases were presented to illustrate how communities can be key problem solvers and drivers of change. A dual approach combining state-driven policies with community-driven initiatives ensures that all stakeholders are invested in developing solutions to urban upgrading.

Participants learned that Japan and other developed countries face challenges in urban upgrading and social inclusion, and that community building has been a key solution to these challenges. Ms. Magokoro Yoshihira from YUI (a social enterprise) shared the experience of Sanya, a neighborhood in Tokyo, where community engagement starts with a small initiative such as street cleaning or food distribution. Increased trust leads to a sense of empowerment and ownership, which is critical to ensure that the community does not lapse into a culture of dependence on subsidies.

Private Sector Solutions

One of the key interests of the participants was how to engage the private sector in the urban upgrading process. The Japanese case presented by Pacific Consultants Co. Ltd. showed how the private sector works together with the public sector to hold monthly steering committee meetings, where

they communicate about and coordinate their roles and responsibilities, thereby minimizing the impact of unplanned development. The case showed participants that the private sector could have a role beyond financial investment, including technical operation and organizational management of the urban upgrading process.

PEER ENGAGEMENT AND ACTION PLANS

As in all TDDs, opportunities for peer sharing and action planning were a core part of the workshop agenda. Participants drew on the knowledge gained throughout the course of the workshop to devise actionable next steps for addressing urban upgrading in their respective municipalities. This workshop presented a unique opportunity for different municipalities in Saudi Arabia to come together and think together about ways to take the urban upgrading agenda forward.

IMPACT AND RESULTS

- THE WORKSHOP WAS ATTENDED BY 64 OFFICERS FROM 17 MUNICIPALITIES AND MOMRAH.** Besides the high number of participants, the workshop also witnessed a sustained level of engagement, commitment, and openness from both local and national government officials.
- THE WORKSHOP WAS ABLE TO SHARE INSPIRING FIRST-HAND EXPERIENCES** from developed countries such as Japan and Singapore, as well as developing economies including the Philippines, India, Indonesia, and Vietnam.
- THE ENTIRETY OF THE WORKSHOP WAS DELIVERED IN ARABIC AND ENGLISH.** Simultaneous interpretation was provided throughout the three-day event, removing language barriers and facilitating smooth communication between the World Bank team and the participants.
- THE WORKSHOP WAS SUCCESSFUL IN ADDRESSING A CORE CHALLENGE, IN WHICH LIMITED TRAVEL MADE IT DIFFICULT FOR THE CONTENT (TOOLKIT) TO BE ABSORBED AND OPERATIONALIZED.** The workshop provided a unique opportunity for officials from both national and municipal governments to convene and co-create the next steps towards urban upgrading in Saudi Arabia.

TDLC HOSTED/CO-HOSTED EVENTS AND SPEAKER ENGAGEMENTS

In FY21, TDLC organized and participated in over 20 knowledge-exchange events attracting over 2,700 participants from the public sector, private sector, academia, and other development organizations. All these events were organized and participated in virtually.

While some events aimed to share the World Bank–TDLC approach to urban development and knowledge exchange with Japanese stakeholders, others focused on bringing Japanese experience with and knowledge about development topics to a wider global audience. Key topics included smart city development, low-carbon cities, and QII principles.

TDLC also launched a new knowledge-sharing series on low-carbon city development in collaboration with the World Bank Urban, Disaster Risk Management, Resilience & Land Global Practice (GPURL) and the Environment, Natural Resources & Blue Economy Global Practice. During these events, Japanese experts shared experiences with neighborhood-level collaboration and alignment with government regulations as strategies for achieving scale in low- or zero-carbon buildings. This event opened a new window for TDLC and Japanese experts to reach a wider audience around the globe, and to introduce this audience to Japanese decarbonization initiatives and the QII principles embedded in them.

Table 1 summarizes TDLC's FY21 events and outreach activities. For more detail, see annex IV.

TABLE 1

TDLC'S FY21 EVENTS AND OUTREACH ACTIVITIES

NO.	EVENT	TDLC'S ROLE	DATE	ORGANIZERS	PARTICIPANTS
1	Guest lecture on World Bank and TDLC activities at Miyazaki University	Speaker	Aug. 28, 2020	Miyazaki University	17
2	Sharing Japanese QII practices at VEB.RF (Russian National Development Corporation) and World Bank Joint Session	Speaker	Nov. 9, 2020	Russian National Development Corporation (VEB.RF), World Bank	50
3	SDGs Design International Awards 2020	Speaker	Nov. 10, 2020	Faculty of Design SDGs Design Unit, Center for Designed Futures, Kyushu University	100
4	Social Innovation Week Shibuya 2020	Speaker	Nov. 11, 2020	Social Innovation Week Shibuya Planning Committee	350
5	[TDLC online event] Smart City Live 2020 Side event: Reinventing Cities with Technology after COVID-19: Unpacking ideas from Japan	Organizer	Nov. 17-18, 2020	Smart City Expo World Congress, TDLC	335
6	World Congress in information Technology 2020 (WCIT 2020)	Speaker	Nov. 19, 2020	Smart Cities Council, World Information Technology and Services Alliances	400
7	Eco Pro Online 2020	Speaker	Nov. 25, 2020	Nikkei Inc., Sustainable Management Promotion Organization (SuMPO)	Unknown
8	Vision for 2021: Startup Ecosystem Night	Speaker	Nov. 26, 2020	CIC Tokyo	60

NO.	EVENT	TDLC'S ROLE	DATE	ORGANIZERS	PARTICIPANTS
9	Guest lectures on creative city development at Sacred Heart University	Speaker	Dec. 8, 2020; Dec. 15, 2020	Sacred Heart University	10
10	Asia Smart City Conference Pre-event	Speaker	Dec. 14, 2020	City of Yokohama	200
11	[International Conference] 9 th Asia Smart City Conference	Co-organizer	Jan. 18-22, 2021	City of Yokohama	300
12	[International Conference] Third Special Planning Platform (SPP) Online Meeting	Speaker	Feb. 3, 2021	Ministry of Land, Infrastructure, Transport and Tourism (MILT), UN-Habitat	200
13	Open Forum for the SciRex Center, National Graduate Institute for Policy Studies (GRIPS): Changing Science and Technology Innovation Policy Ecosystem and Human Resource Development	Speaker	Feb. 5, 2021	National Graduate Institute for Policy Studies (GRIPS) SciREX Center	Unknown
14	9 th ASCC Follow-up Event	Speaker	Feb. 18, 2021	City of Yokohama	200
15	[TDLC online event] QII Principles in Action— Learning from Fukuoka and Toyama	Organizer	Mar. 2, 2021	TDLC	80
16	[TDLC online event] Trajectory of Compact City Development in Japan: Lessons learned from Toyama	Organizer	Mar. 26, 2021	TDLC, City of Toyama	70
17	The Success of Open Innovation in Global Companies: Lecture on successful “process” case studies	Speaker	Apr. 26, 2021	CIC Tokyo	30
18	[TDLC online event] Low-Carbon Cities Series #1: Energy-Efficient Buildings	Organizer	Apr. 28, 2021	TDLC	70
19	Session 4 of Virtual Knowledge Exchange Series on Smart Cities	Speaker	May 4, 2021	Global Smart City Partnership Program (GSCP), World Bank	265
20	Smart City Institute Webinar Series	Speaker	May 25, 2021	Smart City Institute	50



OPERATIONAL
SUPPORT

2.2 OPERATIONAL SUPPORT



Site visit to a local recycling facility in Dhaka, Bangladesh.

OVERVIEW

T **DLC** supports and facilitates the delivery of tailored knowledge, capacity-building, and advisory services to developing countries, in connection with World Bank operational projects. Its support to client countries helps advance TDLC’s knowledge ecosystem, which also includes Japan’s bottom-up urban development expertise. Operational support is typically offered following Technical Deep Dives to meet country delegations’ demands and requests.

The World Bank leverages TDLC’s operational linkages both at the upstream stage, using TDDs and operational support to help identify new support opportunities for client countries, and at the project implementation stage, to inform decision-making and support project activities. This year, TDLC support helped to inform five operational projects; please see annex IV for details.

TDLC connects Japanese and global knowledge, experiences, and expertise to emerging countries facing urban development challenges. TDLC’s Operational Support is provided on demand through the following operating model.

OPERATING MODEL

Operational support is typically a short-duration engagement (lasting one to six months) that provides support for specific urban components within World Bank projects requiring international knowledge. Through this model, the TDLC team engages closely with the task teams to provide technical assistance and often undertakes missions in the field. The list of activities includes the following:

- **Technical advisory:** Offer technical and policy advisory and analytical review of project documents and baseline materials; support strategy creation to foster more sustainable, competitive, resilient, and inclusive urban development
- **Project preparation:** Offer support at the planning and design stage of the urban development components in operational projects
- **Implementation and supervision:** Help improve in-field implementation of urban projects and coordinate project supervision by deploying Japanese experts and methodologies
- **Capacity building:** Help enhance capacity of clients and task teams working on projects
- **Ad hoc rapid support to World Bank projects:** For a list of rapid support projects, please see annex IV.

OPERATIONAL SUPPORT THROUGH VIRTUAL MODALITY

In FY21, operational support was provided remotely due to travel restrictions imposed by the COVID-19 pandemic. Operational support activities typically include traveling for missions in the field, but due to the unforeseen circumstances, the Japanese and global experts working with TDLC provided technical support remotely to task teams.

In providing remote technical support, operational support was able to effectively engage with clients by applying the tools and lessons learned from delivering virtual TDDs. TDLC worked more closely with local task teams to understand the country-specific urban challenges and was able to have more frequent meetings with clients. TDLC also actively used real-time interpretation to communicate directly with clients about the needs surrounding their projects. In this way, virtual technical assistance overcame the challenges of not being able to visit the project sites, and also capitalized on the opportunity to have more communication with officials involved in technical advisory and trainings, especially those who could not join from more remote regions. Contrary to expectations that demand for virtual technical assistance would be limited, TDLC saw strong demand for operational support throughout FY21. There was a particularly strong demand regarding solid waste management, given Japan and TDLC's strong expertise in this sector.



Workers at Kitakyusho Plastic Recycling Center.

TOTAL INVESTMENTS LEVERAGED FY21

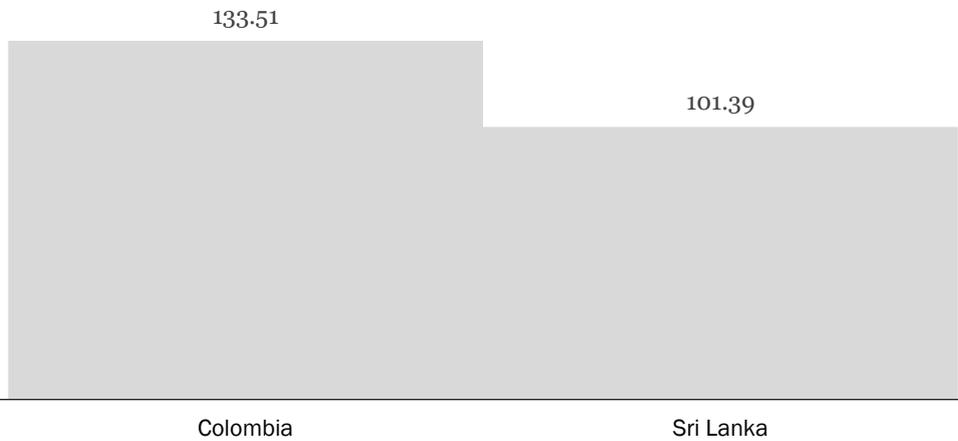


OPERATIONAL SUPPORT IMPACT IN FY21

During FY21, TDLc informed World Bank operations amounting to US\$1,094 million in committed lending and US\$1 million in nonlending projects (figure 12). Operational support interventions have been deployed globally for various Bank projects by TDLc under the leadership of Regional Practice Managers and TTLs. Impact stories of select TDLc operational support projects are provided in annex VI. In FY21, TDLc’s operational support to client countries in connection with Bank lending projects was heavily focused on SWM-related projects.

FIGURE 12
Investments Leveraged by TDLc Operational Support in FY21, by Portfolio Type (million US\$)
Source: World Bank TDLc

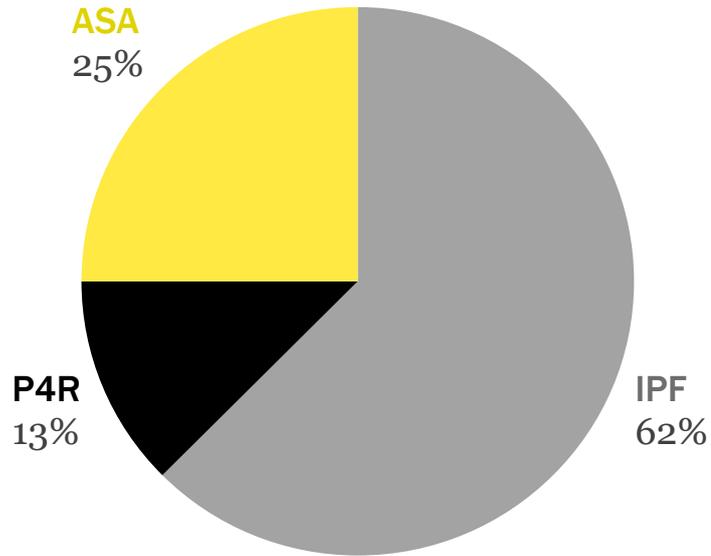
LENDING PORTFOLIO (IPF, P4R) FY21



NON-LENDING PORTFOLIO (ASA) FY21



Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing; IPF = Investment Project Financing; P4R = Program-for-Results.



Note: ASA = Advisory Services and Analytics; IPF = Investment Project Financing; P4R = Program-for-Results.

TDLc received four operational support requests following the SWM TDD in 2020 and TOD Urbanscapes TDD in 2021. This included three IPF projects from Liberia, Tanzania, the West Bank and Gaza, and one global ASA on Mobilizing Finance for Urban Infrastructure. The requests from Liberia and the West Bank and Gaza related to Additional Financing projects associated with parent Investment Project Financing (IPF) projects in the SWM sector. The details of the pipeline requests are still to be determined, and technical assistance support will be provided in the beginning of the next fiscal year.

FIGURE 13

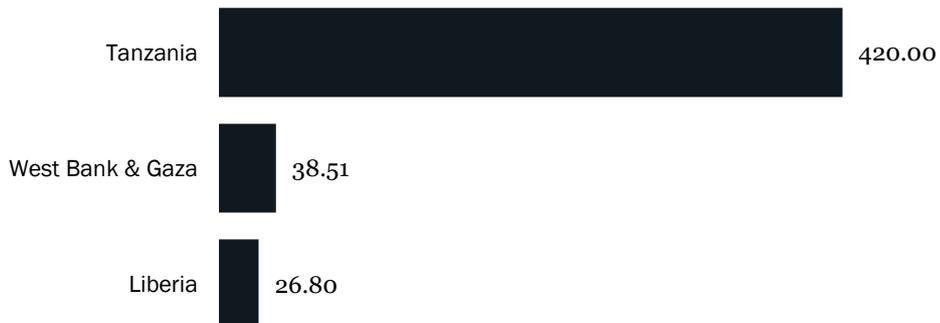
Distribution of Operational Support Engagements, by Project Type

Source: World Bank TDLc

FIGURE 14

Pipeline Lending Portfolio for Investment Project Financing in FY21 (million US\$)

Source: World Bank TDLc



OPERATIONAL SUPPORT ACTIVELY LEVERAGING THE CPP

In FY21, activities under the operational support component continued to actively leverage TDLc’s City Partnership Program to inform projects in client countries. With the increasing demands of clients and task teams for knowledge on traditional and frontier topics of urban development (such as affordable housing, transit-oriented development, SWM, and creative cities), the operational support team closely collaborates with the city partners to learn from their rich experiences. In FY21, operational support tapped into the strengths of CPP partner cities to share knowledge and expertise, as follows:

- **The City of Kitakyushu’s** experiences with **SWM** supported a US\$997 million portfolio of IPF and Advisory Services and Analytics (ASA) projects with committed funding, including support in Kenya.
- **The City of Fukuoka’s** experiences with an **advanced landfill methodology** have impacted project design and implementation of US\$9.3 million in IPF projects with committed funding, including support in Ethiopia and Colombia.
- **The City of Kyoto’s** experiences with **cultural heritage preservation and urban regeneration** have influenced US\$101 million in IPF projects with committed funding.

OPERATIONALIZATION OF QUALITY INFRASTRUCTURE INVESTMENT

Under the operational support component, TDLc endeavors to support the practical implementation and operationalization of G20 QII principles. It does so not just through top-down approaches and guidelines, but also through a bottom-up approach to projects on urban development and service delivery, local economic development, and municipal financing. Box 4 highlights instances in which TDLc supported operationalization of G20 QII principles for active development challenges in client countries in connection with World Bank projects in FY21.

BOX 4 OPERATIONALIZING QII

G20 QII PRINCIPLE 1 (Maximizing the positive impact of infrastructure): Plan Pacifico–Water Supply and Basic Sanitation Infrastructure and Service Delivery Project

In carrying out the Water Supply and Basic Sanitation Infrastructure and Service Delivery Project (an IPF project), Colombia’s Ministry of Housing and Ministry of the Environment requested TDLc’s assistance in modernizing economic instruments governing the waste sector; the goal was to target the country’s low rates of recycling and separation at the source. Among the economic instruments proposed for consideration, TDLc provided detailed technical guidelines on piloting a deposit refund return policy that has been successful in incentivizing recycling of specifically targeted waste products. The analytical guidebook produced by TDLc leveraged Japanese knowledge of QII Principle 1, which promotes the positive impact of infrastructure. This activity is based on the view that more modern and comprehensive solid waste management practice and legislation are crucial for promoting sustainable development and achieving the Sustainable Development Goals.

QII PRINCIPLE 6 (Strengthening infrastructure governance): Mainstreaming Sustainable and Competitive Infrastructure for Low Carbon Development Programmatic Approach

TDLc supported the project team in Colombia in assessing and identifying gaps surrounding digital infrastructure in the waste sector. TDLc demonstrated QII Principle 6 in action by sharing lessons learned from Japan’s experience in collecting, reporting, and utilizing waste-related data across municipalities. TDLc also shared the Japanese experience in fostering strong cooperation between the central government and local government to support the timely and accurate reporting of data.



Street view of Higashiyama district of East Kyoto lined with traditional wooden homes and local craft shops.

IMPACT STORIES

SRI LANKA

REVIVING TOURISM AND ACHIEVING LOCAL ECONOMIC DEVELOPMENT THROUGH CREATIVE CITY

ECONOMIC ACTIVITY in Sri Lanka is concentrated almost exclusively in Colombo and its adjoining districts. Local development in the Northern, Eastern, and North-Central Provinces was hampered to varying degrees by Sri Lanka's civil war, which ended in 2009; but the country continues to face various challenges, including terrorist attacks in April 2019, and most recently the COVID-19 pandemic. The tourism industry is a strategically significant sector for Sri Lanka and is the country's third-largest export earner. Between 2009 and 2018, the number of annual tourist arrivals in Sri Lanka multiplied more than five times. To tap the untapped potential of the tourism industry, Sri Lanka aims to increase revenue from tourism, support local communities, and increase tourism on a sustainable platform, an issue now as it recovers from the COVID-19 crisis.



“Tunnel of Light”,
Ma Yangsong/MAD Architects, Echigo-Tsumari Art Triennale
Photo by Osamu Nakamura

TDLc'S ENGAGEMENT WITH LOCAL DEVELOPMENT SUPPORT PROJECT IN SRI LANKA

The World Bank Local Development Support Project (LDSP) signed an Infrastructure Project Financing agreement with the Government of Sri Lanka in March 2019. The Project Development Objective was to strengthen local government authorities in the Northern, Eastern, Uva, and North-Central Provinces so they could deliver services to communities in a responsive and accountable manner and support economic infrastructure. This objective is even more relevant in a pandemic context, as the demand for action-oriented design and implementation of economic response and recovery measures rises.

In January 2020, TDLc hosted the Technical Deep Dive on Creative Cities in partnership with UNESCO and the City of Kyoto. The TDD focused on the need and the framework for developing creative cities, and the impact that the creative industries can have on cities' urban regeneration, local economic revitalization, and social inclusion. After attending the Creative Cities TDD, the Sri Lanka delegation expressed interest in applying a creative cities approach to their country and requested operational support from TDLc. The World Bank's support for this endeavor also came within its LDSP with Sri Lanka, and TDLc formed a team to support the effort in developing the local economic development plan for Sri Lanka, together with the task team. This effort marks the first attempt to operationalize the creative cities concept in a World Bank client country, and this pilot project also offers an opportunity to build a knowledge base around potential replication in other client countries.

JAPAN'S UNIQUE EXPERIENCE IN REVITALIZING LOCAL ECONOMY THROUGH CREATIVE CITY AGENDA AND ART FESTIVALS

To facilitate this engagement, TDLc identified a Japanese expert on creative cities initiatives, in particular an art festival methodology that has proven successful in revitalizing part of Japan over the past 20 years. This methodology uses art for revitalizing existing spaces through adaptive reuse of local assets; the goal is to bring out an area's unique and diverse nature, people, culture, history, and food. TDLc's support helped share this Japanese knowledge and experience in a digested form with the client, created criteria for assessing and selecting the location for the art festival, and advised on implementation for the Sri Lanka government.

This unique art festival methodology was developed first through the Echigo-Tsumari Art Triennale and was staged in a remote region with heavy snowfall in 2000, under the direction of a renowned art director, Fram Kitagawa. At the time, Japanese cities were facing multiple challenges, including declining and aging populations, loss of vitality, disappearance of old traditions, and young people moving away to the city. This pioneer regional art festival in Japan showed that even the most remote region can attract audiences by offering what seem ordinary to the residents—natural landscapes and everyday culture—but filtering these things through the lens of art. The festival is the basis for an effective methodology of art-led urban revitalization, job creation, and economic development.

Kitagawa has organized a number of other regional art festivals in Japan over the last 20 years, the most successful of them the Setouchi Triennale, which started in 2010 and took place on various small islands in the Seto Inland Sea. This festival had an explosive effect not only within Japan but all around the world, with a large number of visitors and significant economic impact. The 3rd Setouchi Triennale held in 2019 had 1.18 million visitors over the 107 days it lasted, 23 percent of them foreign.

Case studies surrounding Kitagawa's festivals provide important lessons for assessing the viability of potential anchor events in the arts and creative arena and for kick-starting the curation of creative cities in Sri Lanka. Kitagawa has made a major contribution to the development of the region through art; the festivals embody the concept of creative cities and have achieved various positive outcomes. This same methodology as adopted by Sri Lanka, with a focus on experience-based approaches, collaboration with the local community, and appreciation for the local cultural and natural resources, is applicable to many other developing countries.

Mr. Kitagawa is a widely renowned expert in high demand, and TDLC is honored to have his collaboration in this operational engagement. Including Mr. Kitagawa as a consultant on our engagement team adds value for the client. Leveraging art festivals as a tool for fostering local development is a novel approach for the World Bank to pursue. Working with Kitagawa to figure out how to customize his work to the Sri Lanka context adds novel value as well.

OUTCOMES AND NEXT STEPS

The project idea was initiated by TDLC's Creative Cities TDD, discussed between the World Bank task team, Fram Kitagawa's team, and the TDLC team, and proposed to the Sri Lanka government through the tourism department.

Some takeaways:

- The implementation of the art festival is being carefully discussed within the Sri Lanka government, as COVID-19 continues to affect international travel. However, this project offers Sri Lanka an opportunity to build back better and adjust its offerings to business trends that were already transforming global tourism markets before the COVID-19 crisis.
- Piloting an art festival, as a means of introducing creative cities initiatives, can make a significant contribution to LDSP objectives by providing the Sri Lanka government with new ways to identify and nurture cultural and creativity-based drivers for inclusive growth. Thus, strengthening ecosystems for creative industries can generate upward mobility opportunities locally, while developing a destination that targets high-value tourists and provides safe and enriching experiences, which is particularly important in the context of the global pandemic.

**“Art brings out
the power of the region,
and the region nurtures the art.”**

Fram Kitagawa

IMPACT STORIES

COLOMBIA

MODERNIZING COLOMBIA WASTE SECTOR THROUGH INCREASED RECYCLING AND WASTE TRACEABILITY

ENGAGEMENT AREAS AND TDLc SUPPORT

COLOMBIA had been on a favorable growth trajectory before the COVID-19 pandemic, when the economy contracted for the first time in over two decades. Its prior high economic growth and accelerated urbanization has led to significant waste production: Colombia is projected to generate 18.7 million tons of waste per year by 2023. While 96 percent of the total waste collected is disposed of in sanitary landfills, many of the landfills are approaching the end of their useful life, and low separation at the source is restricting recycling rates as well as economic opportunities associated with recycling. Therefore, alternative solutions are required to address the current and future waste challenges.

Colombia's Ministry of Housing, Cities and Territories (MVCT) and its Ministry of Environment and Sustainable Development (MADS) have engaged TDLc in connection with the country's solid waste management and circular economy. They are looking to modernize the economic instruments governing the waste sector and to update the digital frameworks to better monitor and evaluate waste-related analytics so as to track progress in achieving nationally determined contributions (NDCs) under the Paris Agreement.

In response to these demands, TDLc provided operational support to MVCT and MADS to introduce economic instruments targeting extended producer's responsibility and consumer incentives to increase recycling. TDLc also shared data policies and guidelines on coordinating data-sharing protocols across municipalities so that data can be aggregated at the central level to track waste management performance.



A polluted stream in the Barranquilla neighborhood of Colombia.

JAPAN'S EXPERIENCE IN MANAGING THE WASTE SECTOR

TDLc's engagement within Colombia's SWM system derived insights and lessons from Japan's own experience in this domain. Japan produces nearly 44 million tons of waste per year, but only 1 percent is landfilled thanks to a combination of economic instruments and strategies to optimize waste management. The majority of collected waste is recycled to be reintroduced into the supply chain or converted into energy via waste-to-energy facilities. Economic instruments such as advanced recycling fees or high landfill taxes have proven successful in promoting market incentives around recycling waste.

INFORMATION SHARING BETWEEN LOCAL AND CENTRAL GOVERNMENTS IN PRACTICE

Economic instruments can help shape the right incentives for producers and consumers, but robust monitoring and evaluation of waste management is necessary to make sure that the economic instruments in place are working effectively. In Colombia, waste management service providers, including local governments and private companies, are mandated by law to report waste analytics. But the data reported are often incomplete, and the accuracy of the reported metrics is difficult to verify.

Waste management in Japan is predicated on the close cooperation between the central and local governments. These bodies coordinate on waste management plans, data collection, and even the development of financing mechanisms. The Ministry of Environment conducts an annual survey on the country's SWM system, thereby creating a data set that can help to shape national policies on municipal waste management.

In order to ensure the accuracy of the data reported from municipalities, the Ministry of Environment compares the data submitted to that of local governments with similar characteristics (i.e. population size, socioeconomic backgrounds, etc.).

TARGETING LOW SEPARATION AT THE SOURCE

Following multiple discussions with MVCT and MADS, TDLc helped to identify the most feasible economic instruments for the ministries to explore in the context of updating the legislation on integrated management of solid waste in Colombia. Landfill taxes, advanced recycling fees, and deposit refund return systems were proposed for consideration. Among them, deposit refund return systems were explored in greater technical detail to specifically address low separation at the source.

ROLE OF DIGITIZATION IN SWM

As Colombia sees increasing waste generation, digital policies will be critical in effective monitoring and evaluation of waste-related analytics. Often the digitization of systems like those in the waste sector focuses more on implementation than any specific technical solution. Similarly, many information systems related to waste and environment are already in place in Colombia. However, many of these lack timely analytical outputs that provide traceability or visibility of the waste sector.

KEY TAKEAWAYS

- To implement a deposit refund return policy, the government is recommended to take a stepwise approach that begins with designing a framework with stakeholder engagement; the policy's focus should be discussed and agreed upon in meetings with relevant stakeholders. As the government considers revising the waste management legislation, piloting the policy can help to improve the design by integrating lessons learned on collection and recycling.
- Regarding digitization, a working group can be established at the national level to gain better understanding of existing IT systems and information-sharing protocols. The working group would review institutional arrangements and identify gaps in human resource-related technology and data awareness before designing institutional frameworks that promote interagency coordination.

“Landfills were a solution when they were implemented and continue to be a solution. However, companies recognize that they cannot remain the same. The world is changing, and technology is changing, which all present great opportunities toward circular economy.”

Martha Duran, Sectoral Director of Aqueduct, Cleaning and Waste Management, ANDESCO

IMPACT STORIES

ETHIOPIA

IMPROVING SOLID WASTE MANAGEMENT SYSTEM

POPULATION GROWTH, urbanization, and an increase in living standards are causing higher waste generation year on year in many countries, including Ethiopia. The country's population is growing rapidly; it rose from 63.5 million people in 2000 to more than 110 million in 2019, making it Africa's second largest country. By 2025, the population is projected to be more than 125 million. Addis Ababa is Ethiopia's capital and its largest city by population, and it accommodates up to 30 percent of the country's population in its urban surroundings.

Lack of capacity, inadequate service delivery standards, weak political commitment, and limited private sector participation are some of the challenges in waste management that the government faces. Poor municipal waste management is leading to negative environmental, health, economic, and social outcomes.



Local resident gathering recyclable waste at a landfill in Ethiopia.

TDLc'S ENGAGEMENT IN ADDRESSING SOLID WASTE MANAGEMENT SYSTEM GAPS IN ETHIOPIA

TDLc began working with Ethiopia in September 2019, when representatives from the country attended a Technical Deep Dive on solid waste management. The objective of the TDD was to share Japanese and global case examples and expert knowledge on improving SWM systems and on augmenting institutional capacity to implement and maintain these systems. Following the TDD, the Ethiopian government counterpart engaged TDLc to provide operational support in the form of gap assessments, trainings for city officials, and, ultimately, recommendations on solutions and priority actions to enhance SWM systems.

As part of the operational support, TDLc's team developed an SWM gap assessment report, which analyzed the SWM data (including waste quantum, composition, collection, transportation, and treatment) and identified gaps based on the analysis. Some of the key gaps identified were a lack of accurate data and policy gaps, infrastructural gaps in landfill management, sustainability gaps in waste-to-energy facility operations, a lack of awareness of reusing and recycling waste, and capacity and financial gaps at the government level. Drawing on lessons learned from Japan and other countries, TDLc proposed recommendations for improving service delivery and building stakeholders' capacity over a short- and medium-term time horizon. TDLc also advised on how to operationalize G20 QII principles (applicable to urban infrastructure and service delivery) for this project.

In October 2020, the World Bank task teams and TDLc organized a virtual training on SWM for more than 30 participants from six Ethiopian cities: Adama, Addis Ababa, Bahir Dar, Harar, Hawassa, and Semira-Logiya. Key objectives of the training program were to (1) identify the basic data needed for designing an efficient SWM system and determine how to collect such data; (2) identify the gaps across the SWM cycle; (3) learn lessons from existing SWM cases in developed countries (e.g., Japan) and developing countries (e.g., Kenya and Ethiopia); and (4) develop a simple plan prioritizing the measures needed to improve the SWM systems. The program helped participants identify gaps in their SWM cycle, including data gaps, based on the analysis of their SWM systems and learning from the case examples. The training also served as a platform for participants to engage in peer-to-peer knowledge exchange, learn from experts and practitioners, and interact with government representatives in order to discuss cost-effective and feasible solutions for SWM.

JAPAN'S EXPERIENCE IN LANDFILL MANAGEMENT

The TDLc's waste management expert proposed the Fukuoka Method, a semi-aerobic landfill technology developed in Japan, as a potential solution to improve waste management. In comparison to the conventional anaerobic landfill method, this technique improves the water quality of leachate, suppresses greenhouse gas emissions, reduces the amount of hydrogen sulfide and volatile organic compounds generated, and enables early stabilization of landfills. Case studies show how the method has been applied successfully in Japanese cities and in Ethiopia, Rwanda, and Kenya. While this method has been implemented only in select landfills in Ethiopia, it could potentially be replicated in other Ethiopian cities. Some of the challenges that should be addressed for success of this method include a committed city budget, management of on-site workers, and monitoring of contractor's performance.

OPERATIONALIZING QII PRINCIPLES

Japan's G20 QII principles will be operationalized through this project in many ways. Specifically, two important QII principles will be operationalized in the project: those focused on economic efficiency and infrastructure governance. With use of better technologies, upgraded construction standards and operations and maintenance, improved knowledge of green infrastructure, and sustainable long-term solutions, project efficiency will increase. The project will help participating cities improve their governance in the waste management sector, especially through enhanced coordination of the public and private sector and academia.

CONCLUSION

Based on the assessment of waste management in Ethiopian cities, the World Bank project team, including TDLC, have the following observations and proposed solutions:

Main observations:

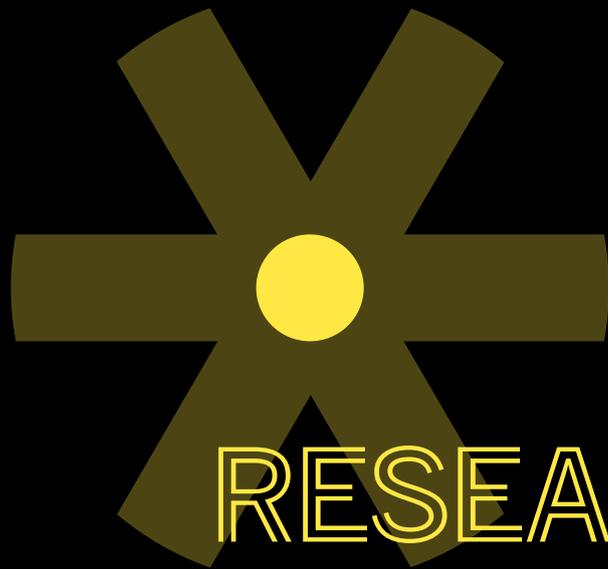
- There is a need for accurate and reliable SWM data for designing, implementing, and monitoring the SWM systems.
- In Ethiopia, unsanitary landfilling for disposal of waste is a common practice.
- Raising public awareness, especially regarding reusing and recycling, was judged important by all the cities and should be an important part of improving SWM systems.
- Training provided a platform for officials from municipal and national governments to interact and look at waste management holistically. Gaps, challenges, and solutions needed and planned were discussed for better waste management in the future.

KEY RECOMMENDATIONS:

- The Japanese Fukuoka Method, a semi-aerobic technique for improving dumpsites that is already in use in Addis Ababa and Bahir Dar, should be extended to other Ethiopian cities. However, the participants should focus on the practical application of the method and hurdles to be aware of, as learned during the training.
- Cities should focus on prioritizing the planned measures and rolling them out in a phased manner while keeping the overall goal in mind. Three aspects to be considered in prioritizing the measures are (1) areas of severe negative impacts, (2) key stakeholders, and (3) cost-effectiveness.

“The workshop [showed that] solutions to minimize waste going to landfill for our city include development of recyclable waste management plans, identifying appropriate technology, and enhancing recycling capacity.”

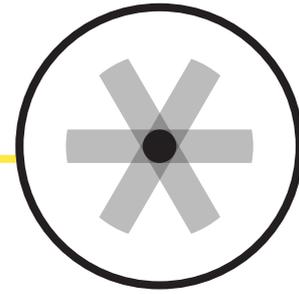
Participant at the Virtual Training Workshop from Adama, Ethiopia



RESEARCH &
PUBLICATIONS

2.3

RESEARCH & PUBLICATIONS



OVERVIEW

DRAWING ON THEMATIC EXPERTISE of the World Bank Global Practices and the practical solutions offered by Japanese and global experts, and in response to demand, TDLc drives its own research activities or collaboratively works on World Bank research initiatives to distill local/global experiences into new development insights. The objective of TDLc's research is to provide clients with experience, learning, and solutions from Japan and the world for application to their projects.

TDLc's insights are published in full-length reports—sometimes as part of a World Bank global study or flagship report—and in short notes, blogs, and now videos. In addition, TDLc also produces tailor-made reports and notes for World Bank clients during follow-up operational support activities. TDLc utilizes various platforms—publications, websites, social media, and videos—to distribute its insights as open knowledge accessible to all urban experts and practitioners globally.

TDLc produces insights via three complementary approaches:

1. TDLc leverages its strong partnerships with various Japanese and other stakeholders to document and distill practical knowledge and experience. This approach involves researching, documenting, and codifying tacit practical knowledge from CPP partners and other city practitioners and experts.
2. Through TDDs and operational support activities, TDLc continuously uses new knowledge and implements practical solutions in real settings, testing the operationalization of solutions and approaches in developing country contexts. Through an iterative implementation process, TDLc distills, codifies, and packages insightful “how-to” knowledge for the development context.
3. In close connection with the World Bank and based on demand from developing countries, TDLc actively catalyzes frontier topics to produce new insights. The frontier topics explore new approaches and ideas together with emerging areas of operationalization to tackle pressing development challenges. TDLc leverages operational support activities to test and iterate the relevance and effectiveness of these new frontier topics in real operational settings on the ground.

AUDIOVISUAL MEDIA AND PUBLICATIONS

NEW APPROACH OF TDLc IN FY21

In FY21, with lockdown in Japan for most of the year due to COVID-19, TDLc's research activities were limited to desktop reviews and online interaction with experts. Since client countries couldn't be invited to Japan, TDLc decided to bring the Japanese experience to the clients through videos on thematic topics of interest. These videos are prerecorded virtual site visits, expert interviews or sessions, virtual city tours guided by TDLc staff, and social videos presenting local experiences and culture of Japan. They are developed and published by TDLc team members for presentation at the TDDs and other workshops. In FY21, in the absence of face-to-face meetings and travel, videos were added as a new form of research and publication for developing and sharing knowledge.

RESEARCH AND PUBLICATIONS IN FY21

During FY21, 12 knowledge products and research activities and 20 audiovisual products were developed by TDLC in collaboration with Japanese and global partners as well as relevant World Bank Global Solution Groups, Knowledge Silo Breakers, and Global Practices. These products document Japanese development approaches in specific thematic areas with the goal of applying them to Bank operations in developing countries.

THE DEVELOPMENT

STORY OF TOYAMA

RESHAPING COMPACT AND LIVABLE CITIES

TDLC updated “The Development Story of Toyama”, initially developed in 2017, with new policy and data analysis. The revised publication looks at the impact of compact city project implementation on municipal finance and the local economy, based on a review of selected flagship infrastructure investments (light rail tram, Toyama station extension, and public space revitalization in the central business district). This report illustrates the compact city development in the city, along with a series of cross-sectoral case studies on disaster risk management, waste management, inclusive community engagement, and a comprehensive resilient city approach. The update offers city practitioners more extensive and in-depth lessons on compact city planning, implementation, and financing.

QII CASE STUDY: CITY OF TOYAMA COMPACT CITY DEVELOPMENT

To further the knowledge and understanding of QII as a cross-cutting theme, and to provide practical “how-to” knowledge for implementation in developing countries, TDLC conducted analytical work on case studies and lessons learned from implementation of QII principles in Japan. This case study uses the development of the city of Toyama as an example of operationalizing the G20 principles for QII in Japan’s urban infrastructure projects. It highlights how the city of Toyama is now a global role model for compact city development and reviews the city’s difficult journey toward becoming a compact city through the lens of two QII principles, economic efficiency and infrastructure governance. This case study sheds light on the importance of governance aspects such as alignment with national policy, organizational commitment, and collaboration with the private sector. Furthermore, it illustrates how good governance can lead to economic efficiency and amplify the benefits of compact cities. The lessons in this study aim to benefit policy makers and practitioners in developing countries.

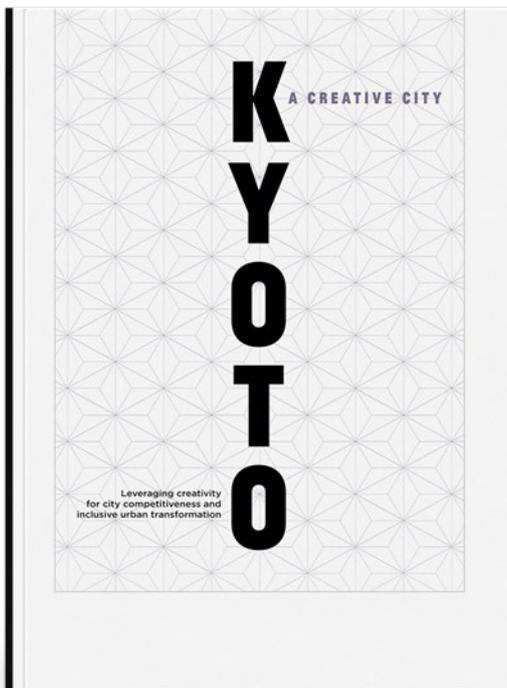
QII CASE STUDY: FUKUOKA CITY EFFICIENT WATER MANAGEMENT

TDLC developed another case study, this one on Fukuoka’s water management project, to demonstrate operationalization of the QII

principles of economic efficiency and infrastructure governance. This case study reviewed Fukuoka City’s efficient water management system and found that the key factor for the city’s success was adopting life-cycle costing as an underlying principle in project design and implementation. The city upgraded its water distribution pipe network with polyethylene sleeves for life extension and went to great lengths for leakage reduction. The city also underwent procurement reforms to improve the technical quality of public works. This case demonstrates a clear linkage between quality and overall results and is a practical illustration of the way that life-cycle considerations, when combined with strong infrastructure governance, can reduce the long-term costs of constructing and maintaining infrastructure. The lessons and solutions offered by this case study are replicable and can be easily tailored to the needs of developing countries, benefiting policy makers and practitioners alike.

YOKOHAMA URBAN DESIGN SKETCHBOOK TRANSLATING A COMMUNITY-LED VISION INTO PRACTICE

Following the TDD on Urban Regeneration, TDLC received some requests from World Bank TTLs on learning more about the Yokohama Urban Design Sketchbook approach, the method of translating community-led urban visions into actual urban design and public space to make a city more creative, welcoming, and open. Taking stock of the available visions and methodologies prepared by City of Yokohama Design Bureau, TDLC repackaged the methodology as a handy guidebook for urban practitioners in developing countries. Building on the implementation of the concepts in TDLC operational support activities in Panama City, Panama, in April 2019, and later in Barranquilla, Colombia, in February 2020, this guidebook was strengthened in FY21. The workshops provided a solid basis for making the guidebook applicable in other cities, especially where the World Bank is implementing urban projects. The Yokohama Urban Design Sketchbook codifies an approach to developing a community-led vision with citizens and offers a simple, practical “how-to” guide tailored to the needs of urban practitioners globally.



KYOTO A CREATIVE CITY

Following the TDD on Creative Cities, TDLc continued its contribution to the development of this frontier topic by documenting the case of Kyoto featured in the TDD. This report uses the case of Kyoto to demonstrate how city planners and the local private sector can collectively build creative communities and subsequently a creative city. It explores how to leverage creative cities to safeguard inclusive economic development and catalyze urban spaces that enhance economic, urban, and social development. Insights for this report were derived from a literature review and interviews with practitioners focusing on creative clusters and spatial transformation. Kyoto's experience in generating creative communities and neighborhoods—both through organic processes and prescriptive policies—highlights important lessons that can help shape urban development strategies and guide practitioners in building creative cities.

HEALTHY CITIES

TDLc undertook quick research and developed insights on the responses of global and Japanese cities to COVID-19 in the context of healthy cities development and management. This effort included 10 cases globally and five from Japan, where the response to COVID-19 was exemplary. The elements of the cities studied for this research included urban planning and infrastructure, public services, economic development, and holistic strategies. The cases focused on strategies developed after the COVID-19 outbreak, on adaptations of pre-COVID strategies, and on strategies unchanged by COVID-19. Based on this study, TDLc developed a case study of Kobe City and its various initiatives for keeping the city and its residents healthy. One of the initiatives is *satoyama*, a lifestyle that includes proximity to nature and that is reflected in efforts to keep 70 percent of Kobe City under forest cover and to ensure that nature is reachable within 30 minutes from any urban area. The study also looks at Kobe's 2017 Healthy Creative City Kobe initiative, which involves an integrated health care data system for individuals. This research is also informing the World Bank's flagship global report on healthy cities, and the case from Japan will be included as one of the case studies. The paper also contributed to and drew lessons from the Healthy Cities TDD held in April 2021.

JAPAN START-UP ECOSYSTEM ANALYSIS

TDLc has developed a report to analyze Japan's start-up ecosystem and provide insights for policy makers and practitioners looking to nurture, grow, and leverage start-ups in order to enhance city and country competitiveness. The report consists of four parts: (1) an overview of the state of the start-up ecosystem in Japan, with key analytics and indicators to illustrate current trajectories as Japan transitions to find new sources of competitiveness; (2) a deep dive into Tokyo's start-up ecosystem, including benchmark comparisons with other start-up hubs from different dimensions of the ecosystem; (3) highlights of the strengths and challenges of Japan's start-up ecosystem; and (4) a distillation of good practices and lessons that could be leveraged by emerging markets.



KAGAN HOTEL, Kyoto City

CONTRIBUTION TO RESEARCH AND KNOWLEDGE

TDLC endeavors to conduct research and develop insights on current and emerging topics and good practices from global cases that support its activities. While TDLC aims to produce as many publications as possible, there are still some research activities, notes, and distilled knowledge products that are not published by TDLC, though they are internally used by the World Bank teams and clients for their projects, knowledge activities, and publications. The following are some of the key research and knowledge products developed but not published by TDLC in FY21:

GLOBAL REVIEW ON AGE-READY CITIES

TDLC is contributing to the ongoing World Bank flagship study and report “Global Review of Age-Ready Cities”. This study is developing aging cities as a new area of engagement for the Bank, first explored at the FY19 TDD on the topic. The study aims to provide a conceptual framework to enhance cities’ aging readiness from a built environment perspective and to identify engagements for proactively transforming the built environment in response to a changing demographic profile. The framework is based on practical and tested approaches worldwide and is organized under three pillars: (1) Adaptive: Aging in Place; (2) Productive: Spatial Accessibility; and (3) Inclusive: Social Connectivity. Further, each pillar is studied through several lenses: policy and regulatory framework, institutional and capacity building, service delivery, and use of technology and innovations. TDLC’s role is drawing lessons from various country case studies, including Japanese case studies, and preparing a menu of interventions for applying these lessons to various client countries at different stages of aging and urbanization and different income levels.

POSITION PAPER ON CITIES, CULTURE, AND CREATIVITY

Building on the findings from the TDD on Creative Cities organized by TDLC in partnership with UNESCO and the City of Kyoto in January 2020, TDLC contributed to the World Bank’s position paper entitled “Cities, Culture and Creativity: Leveraging Culture and Creativity for Sustainable Urban Development and Inclusive Growth”. TDLC shared knowledge and experiences of Kyoto City, emphasizing the role and impact of creative spaces and communities as drivers and enablers of creativity in Kyoto.

As part of the position paper, a framework was developed that includes four pillars—creative assets, enablers, channels, and specific impact outcomes—that typically comprise a creative city environment. The Kyoto case study builds on this framework to consider the various elements under the pillars that shape Kyoto’s creative community and economy. The core impact areas of creative cities, among them Kyoto, contribute to local economic growth, urban transformation, and social inclusion.

GLOBAL ANALYTICS ON HEALTHY CITIES

With the outbreak of the COVID-19 pandemic, integrating the health sector into overall city development is essential. TDLC is contributing to the World Bank's flagship study and report "Global Analytics on Healthy Cities", which aims to develop a framework that facilitates the mainstreaming of health perspectives into urban planning and development processes. While TDLC is developing its own knowledge product on healthy cities, based on the case of Kobe City, it is contributing to this report through its findings. Initial findings from the Japanese case study and other cases documented in this report were discussed at the TDD on Healthy Cities in April 2021.

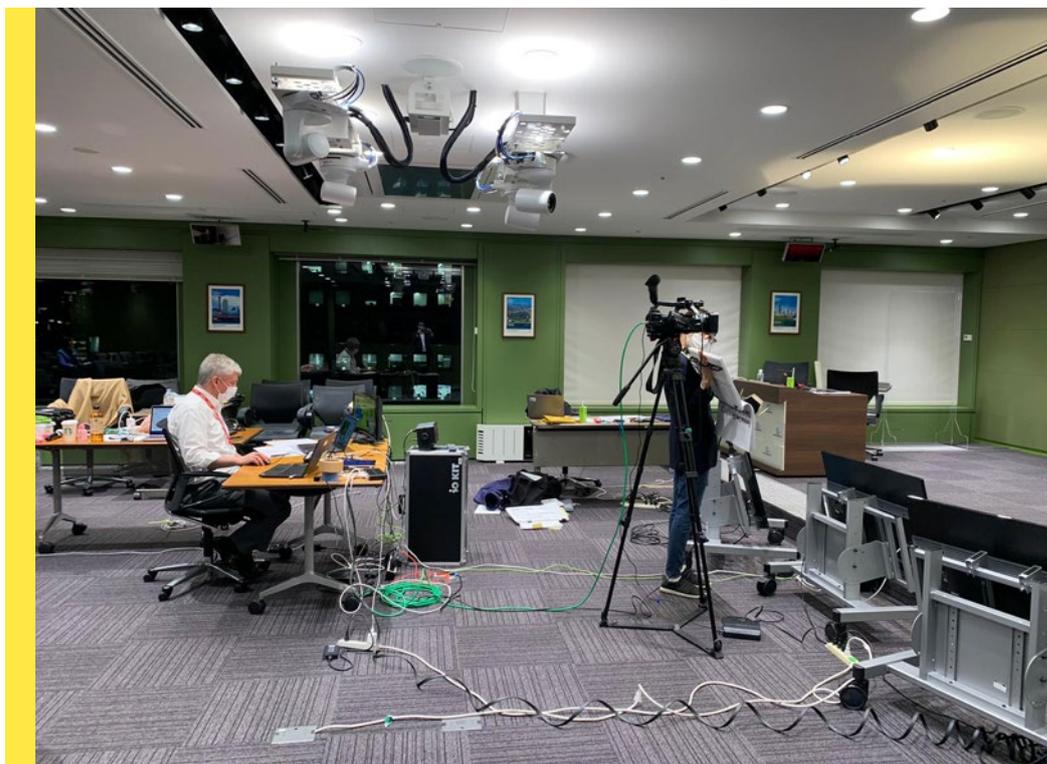
SMART CITIES CHAPTER CONTRIBUTION

TDLC team members were invited to contribute a section on smart cities to serve as an umbrella chapter for the upcoming World Bank publication "Disruptive Technologies for Sustainable Development". This publication will be a practitioner's guidebook for public officials, social entrepreneurs, technology providers, and the development community at large and will describe how institutions can adapt, absorb, and evolve with disruptive technologies to address development challenges. As disruptive technologies

are tools and not end-solutions, the book highlights World Bank projects that embrace technology in innovative ways to drive change and impact. TDLC team members also recorded sound bites based on the chapter contents, as each chapter of the book will be repurposed as an e-learning course through the World Bank's Open Learning Campus.

CASE STUDIES ON RAILWAY STATION REDEVELOPMENT IN JAPAN

TDLC supported the World Bank transport sector team in documenting the rich experience of railway station redevelopment projects in Japan. This material will be developed into a guidebook for developing countries, providing them with "how-to" knowledge on project design for railway station redevelopment. This analytical work documents lessons learned from redevelopment of six stations (Tokyo, Shibuya, Jiyugaoka, Tama Plaza, Osaka Umeda, and Sendai Nagamachi). The case studies document how railway operators and TOD practitioners have built institutional capacity, prioritized complex activities, and conducted preparatory planning, design, and consultations before procurement.



Preparing for expert presentation videos at TDLC studio.

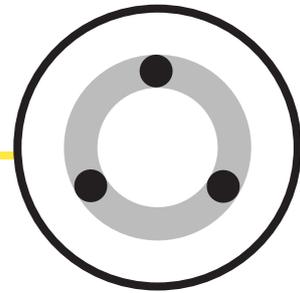
AUDIOVISUAL CONTENT

As TDLC pivoted to virtual delivery methodologies, it also updated the format of content delivery, specifically by adding more audiovisual products showing rapid knowledge, insights from practitioners in the field, and good practices derived from TDLC's overall activities, including TDDs and events. This year TDLC produced over 20 videos, each serving a different objective and purpose.

- VIRTUAL SITE VISIT VIDEOS:** These videos contributed to the experiential learning component of the TDDs. The virtual site visit videos allowed participants to explore relevant facilities and sites relating to the topic, and to visually interact with best practices in Japan.
- EXPERT PRESENTATION VIDEOS:** Using prerecorded technical content delivered as key content at the TDDs, these videos were often filmed in Japanese and then edited to include English narration or subtitles.
- EXPERT SHORT INTERVIEWS (post-TDD engagement videos):** In an effort to continue the conversation following the TDD, TDLC produced short (three–to four-minute) expert interview videos as a recap of the TDD content and to provide food for thought for the TDD alumni. These videos will also be shared on the TDLC website and SNS to further engage with TDLC stakeholders.
- VIRTUAL CITY TOURS AND SOCIAL VIDEOS:** These videos were aired during the coffee break of the TDD, and were meant to provide casual, easily digestible, but relevant content. The “My City” series videos give a first-person introduction to different neighborhoods in Japan in the form of a casual walking tour. In addition to the “My City” series, other social videos added Japanese flavor to the TDD by presenting Japanese cooking.



2.4 CITY PARTNERSHIP PROGRAM



OVERVIEW

A **S A CRITICAL PILLAR OF ITS ECOSYSTEM,** TDLC has developed a close partnership with a number of selected Japanese cities through the City Partnership Program. CPP cities are selected based on their global leadership in the development sector and their shareable knowledge and expertise on subjects relevant to TDLC. CPP is a critical, integral part of the TDLC program, one that supports the production and sharing of knowledge with practical know-how, insights, and operational expertise.

The CPP is currently formed by six Japanese cities. The first CPP cities—Kitakyushu, Kobe, Toyama, and Yokohama—were selected in July 2016 by a committee of development professionals. Fukuoka and Kyoto were added as CPP partners in 2018. To complement the CPP, TDLC has developed extended partnerships and collaboration with other Japanese cities, including Tokyo and Osaka, as well as with cities in other countries.

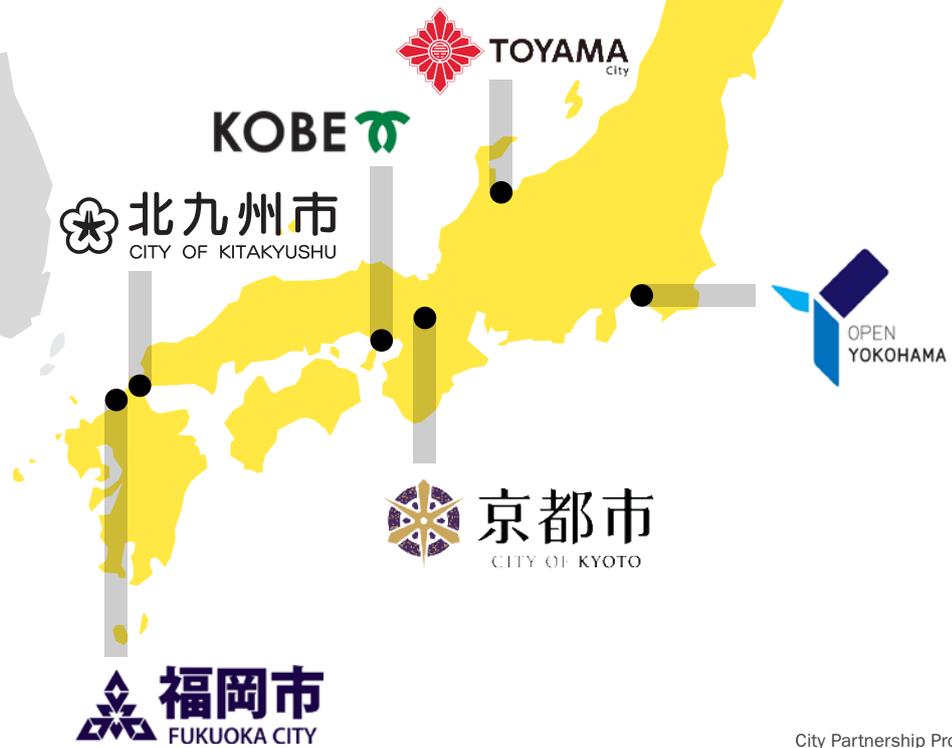


FIGURE 15

City Partnership Program Partners



Kitakyushu Industrial Zone.

Due to the COVID-19-related travel restrictions and quarantine measures in place, TDLC has engaged with CPP cities fully online this fiscal year. TDLC conducted virtual courtesy visits to six CPP cities at the beginning of FY21, asked CPP city officials to make presentations during TDDs (either by joining the live sessions or through prerecorded videos), and introduced several key spots through virtual site visits (e.g., virtual tours around Shinmoji Incineration plants in Kitakyushu and around Kego Park in Fukuoka). While the virtual format made it challenging to immerse participants in the atmosphere of Japanese cities, virtual presentations and site visits allowed participants to get a sense of Japanese urban development in an interactive way.

CPP IMPACT IN FY21

CPP supported all TDLC activities. Each of the TDDs partnered with one or more CPP cities to present practical knowledge, methodologies, and approaches to the TDD's topic, as well as field visits and sessions with technical experts and practitioners. Kitakyushu, Fukuoka, Kobe, and Tokyo were substantial partners and hosts of this year's three TDDs and shared their knowledge and expertise with 30 countries.

CPP cities were also a critical source of knowledge and expertise for this year's research and publications. Table 2 lists examples of CPP contributions.

TDLc codifies and distills the experiences of the CPP cities and other partner cities to provide technical support to client countries through TDDs and operational support activities. The materials

produced in conjunction with the CPP cities and other city partners are used as the basis for TDLc learning and knowledge-sharing activities, which take place both face to face and virtually and include site visits to maximize the learning experience. During FY21, experts from the six CPP and other partner cities were deployed through operational support in four client countries to share their knowledge and experiences.

TABLE 2

SAMPLE CPP CONTRIBUTIONS TO TDLc RESEARCH AND PUBLICATIONS

CITY PARTNER	RESEARCH AND PUBLICATIONS SUPPORTED
FUKUOKA	Quality infrastructure investment Japanese Case Studies, Fukuoka City: Efficient Water Management
KITAKYUSHU	Sharing Kitakyushu's Initiatives on Solid Waste Management with the World: Yuji Aoyagi, Executive Director of the City's Environment Department (Feature Story)
KOBE	Healthy Cities Case Studies
KYOTO	Kyoto Creative Cities Spaces
TOYAMA	Quality infrastructure investment Japanese Case Studies, City of Toyama: Compact City Development Development Story of Toyama: Reshaping Compact and Livable Cities
YOKOHAMA	Yokohama Urban Design Sketchbook: Translating Community-Led Vision into Implementation



Kitakyushu Plastic Recycling Center.

CPP Cities and Activities

FUKUOKA

Fukuoka has long served as a hub that connects people and businesses within the Asian region. The city boasts Japan’s best transportation system, which includes Fukuoka Airport, the Port of Hakata, and Hakata Station, and showcases many examples of transit-oriented development. The city’s share of youth is much higher than the country average, partly due to the concentration of universities in Fukuoka, and it functions as a vibrant center of politics, culture, fashion, and the economy for the Kyushu region. It has also implemented innovative policies, such as Fukuoka 100, a program that promotes good health and longevity to address the challenges of an aging society.

Today, Fukuoka enjoys a reputation as one of the fastest-growing start-up hubs in Japan, offering support initiatives such as Startup Café, a one-stop-shop for those starting up a business in the city. Furthermore, under its FUKUOKA Smart EAST project, the city is bringing together cutting-edge technology, innovative ideas, and sustainable practices to create a model smart city at a former university site in the Hakozaki area.

Since Fukuoka became a partner city of TDLc’s City Partnership Program in 2018, it has supported TDLc in the delivery of Technical Deep Dives and other events on topics such as transit-oriented development, public spaces, and urban management in cities with aging populations. Fukuoka’s track record as a competitive city, expertise in urban transportation development, experience as a center of exchange with Asia, and measures to attract young people have all drawn the attention of urban development professionals in developing countries.

AREAS OF ENGAGEMENT

1. Transit-oriented development
2. Innovations and start-up ecosystems
3. Competitive and smart cities

FY21 COLLABORATIVE ACTIVITIES WITH THE CITY OF FUKUOKA

- TDLc engaged key officials from Fukuoka City for sharing knowledge and experiences at the **Technical Deep Dive on Solid Waste Management** in October 2020.
- TDLc was invited to speak at the Fukuoka City session of the SDGs Design International Awards 2020 Final Presentation and Awards Ceremony, organized by Kyushu University, in November 2020.
- An officer from Fukuoka made a presentation on the city’s smart city initiatives at the **Smart City Live 2020** (virtual) conference jointly organized by the World Bank TDLc and Smart City Expo World Congress in November 2020.
- TDLc collaborated with the city in publishing “**Fukuoka City: Efficient Water Management**”, which illustrates how the adaptation of life-cycle costing and procurement reform—one of the principles of QII—can lead to economic efficiency and a resilient infrastructure network.
- TDLc disseminated the QII Case Study from Fukuoka at Quality Infrastructure Investment (**QII Principles in Action: Learning from Fukuoka and Toyama**), held virtually in March 2021.
- In partnership with Fukuoka City, TDLc delivered the **Vitalizing Cities through Transit-Oriented Development Technical Deep Dive** in March 2021.
- TDLc invited a speaker from Fukuoka City to share the city’s Healthy City Initiatives at the **Technical Deep Dive on Healthy Cities for All** in April 2021.





Eco-Town Center, Kitakyushu.

KITAKYUSHU

Kitakyushu City has received international recognition for its efforts to overcome environmental challenges while supporting economic growth. In 2011, the Organisation for Economic Co-operation and Development (OECD) selected Kitakyushu, a modern industrial city, as a “Green Growth City”—the first in Asia—to be assessed under its Green Growth Cities Program along with Paris, Chicago, and Stockholm. In line with its vision of realizing a circular economy, Kitakyushu actively collaborates with international initiatives such as the United Nations Environment Programme (UNEP); it has undertaken several supporting activities, including projects addressing the problem of marine plastic litter in Asian waters.

Kitakyushu, which became a partner city of the City Partnership Program in 2017, has been providing its expertise and knowledge—predominantly on solid waste management—through Technical Deep Dives and other knowledge events. It has helped provide new perspectives and approaches for urban development practitioners and government officials working on solid waste

management and environmental issues in client countries. In addition, as part of its operational support program, TDLC dispatches representatives and experts from Kitakyushu to client countries to assist with knowledge exchange and application efforts overseas.

AREAS OF ENGAGEMENT

1. Solid waste management
2. Circular economy
3. Environment and marine litter

FY21 COLLABORATIVE ACTIVITIES WITH KITAKYUSHU CITY

- TDLC partnered with Kitakyushu City in delivering the **Technical Deep Dive on Solid Waste Management** in October 2020.
- TDLC interviewed Mr. Yuji Aoyagi (Executive Director, City of Kitakyushu) and published a feature article on the TDLC website.



KOBE

Following the opening of its international seaport in 1868, Kobe developed rapidly, and the city has since played an important role in Japan as an economic and cultural gateway to the world. The growth in the city's economy was initially driven by the shipbuilding and steel industries, and later by manufacturing in fields such as rolling stock and large-scale power generation. In January 1995, Kobe was struck by the Great Hanshin-Awaji Earthquake, and many of the city's industrial plants suffered significant damage.

During the period of rebuilding following the disaster, Kobe launched a Biomedical Innovation Cluster project, aimed at developing a center that would excel in the research and development of advanced medical technologies. The project focused on attracting companies in the medical sector in order to revitalize the city's economy and create a new growth industry. Currently, Kobe boasts over 360 research facilities, venture businesses, hospitals, and clinics, and it is now one of the largest biomedical hubs in Japan.

The city is also pursuing the Hydrogen Smart City Kobe Initiative, which includes a pilot public-private collaboration aimed at establishing a liquefied hydrogen supply chain. Under the guidance of the Japanese government's GIGA School project, Kobe is also driving the creation of more advanced IT environments in the city's schools.



With this track record, Kobe became a partner city of TDLC's City Partnership Program in 2016. Through Technical Deep Dives and other TDLC events, it now shares its experience of reconstruction with practitioners and city government officials in developing countries. With increasing attention being paid to disaster preparedness and risk management in cities around the world, Kobe's insights are expected to provide important perspectives for urban planners in many other countries.

AREAS OF ENGAGEMENT

1. Disaster risk management
2. Creative and smart cities
3. Information and communication technologies (ICT) education

FY21 COLLABORATIVE ACTIVITIES WITH KOBE CITY

- An officer from Kobe City was invited by TDLC to share the city's experiences at the **Smart City Live 2020** (virtual) conference jointly organized by the World Bank TDLC and Smart City Expo World Congress in November 2020.
- Kobe was featured as a Japan case in the **Technical Deep Dive on Healthy Cities for All** in April 2021. The case study highlighted the concept of *satoyama* (a Japanese term applied to the border zone between natural and urban areas), Kobe's healthy city initiatives, and its use of concepts related to health to address societal challenges.



Kyoto's colorfully iconic *kukurizaru*, ball-shaped talisman holding the wishes of the visitors.

KYOTO

Kyoto has preserved Japanese traditions, culture, and history for more than 1,200 years. After becoming the nation's capital in 794, the city came to be revered as the source of Japanese culture. More recently the city has flourished as a tourist destination while managing to preserve its cultural heritage, or “Kyoto-ness”.

In recent years, Kyoto has welcomed start-up companies and promoted the development of creative industries. This unique approach to urban development—achieving economic growth while managing to preserve traditional culture—has attracted worldwide attention.

TDLC signed a memorandum of understanding with Kyoto in 2017, welcoming the city as a participant in our City Partnership Program. Since then, through Technical Deep Dives, operational support activities, and publications, we have leveraged Kyoto's creativity and expertise in the field of tourism to share the city's knowledge and experience with developing countries.

AREAS OF ENGAGEMENT

1. Cultural heritage
2. Urban regeneration
3. Sustainable tourism

FY21 COLLABORATIVE ACTIVITIES WITH KYOTO CITY

- TDLC partnered with Kyoto City in producing “**Kyoto: A Creative City Leveraging Creativity for City Competitiveness and Inclusive Urban Transformation**”, a knowledge product on the development of Kyoto's creative community and the city's role in leveraging its creative assets.
- TDLC leveraged cases from Kyoto to work on an operational support program, **Creative Cities Sri Lanka Flagship Pilot for Local Economic Development**.



TOYAMA



Located around 250 km northwest of Tokyo on the Sea of Japan coast, Toyama is home to many of Japan’s high-tech, banking, and pharmaceutical companies, and is a major producer of hydroelectric power. In 2012, Toyama was recognized by the OECD as one of five cities with advanced “Compact City” policies, along with Melbourne, Vancouver, Paris, and Portland. In 2014, it became the first Japanese city to be invited to join the Rockefeller 100 Resilient Cities initiative.

Its basic compact city development policy incorporates transport nodes to create an age-friendly urban environment. Toyama has also developed its own regional disaster prevention plans and adopted a range of hard and soft approaches to disaster risk management, especially in the area of flood control.

In 2016, Toyama became one of the first partners of TDLc’s City Partnership Program. Its sustainable urban development policies have attracted the attention of cities in developing countries where the World Bank provides financing. In collaboration with Toyama, TDLc held a Technical Deep Dive on compact cities and dispatched representatives from Toyama to other countries, including Chile, to conduct seminars on aging.



Mayor Mori shares anecdotes of compact city development in Toyama.

AREAS OF ENGAGEMENT

1. Compact cities
2. Aging and accessibility
3. Disaster risk management, including flood control

FY21 COLLABORATIVE ACTIVITIES WITH THE CITY OF TOYAMA

- TDLc collaborated with the city in publishing “**Development Story of Toyama: Reshaping Compact and Livable Cities**”, which features some recent developments such as the new North-South transit corridor of Toyama Station.
- TDLc collaborated with the city in publishing “**Toyama City: Compact City Development**”, which illustrates how effective governance can lead to economic efficiency and offers evidence of a compact city’s wider benefits; the QII case study from Toyama was also presented at **Quality Infrastructure Investment (QII) Principles in Action: Learning from Fukuoka and Toyama**, in March 2021.
- TDLc collaborated with the city in organizing Trajectory of Compact City Development and QII in Japan: Lessons Learned from Toyama, which was held virtually in March 2021. At this event, Mayor Masashi Mori and other key policy administrators of the city of Toyama described their difficult journey toward becoming a compact city and discussed how Japan’s compact city development approach could be applied to developing countries.

YOKOHAMA

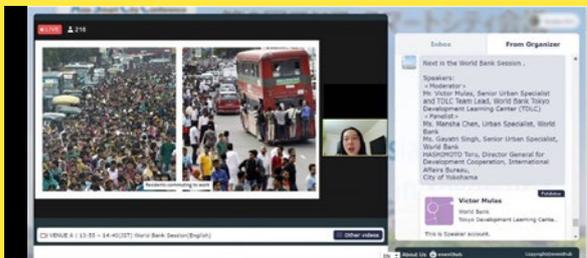


Yokohama's population increased sharply during the city's post-war period of rapid economic growth. The city faced urban challenges much like other cities in emerging economies today. To address these, Yokohama has implemented various development projects under a comprehensive and long-term urban plan that incentivizes citizens and businesses to participate in the projects. This approach has left its mark on the present-day city and has allowed Yokohama to become an environmentally friendly, livable city with a strong economic base.

Since the launch of TDLC's City Partnership Program in 2016, Yokohama has been sharing its knowledge and experience with cities in developing countries that are implementing projects financed by the World Bank. It has participated in Technical Deep Dives on urban design and resilience, waste reduction, and the integration of flood control and wastewater treatment. TDLC and Yokohama also co-organize the annual Asia Smart City Conference, one of the city's major international events; TDLC arranges for city officials and experts to support projects in other countries under the TDLC operational support program.

AREAS OF ENGAGEMENT

1. Comprehensive urban regeneration
2. Resilience and flood control measures
3. Competitive and smart cities



Mansha Chen (Urban Specialist, World Bank) makes a presentation at ASCC on the Dhaka North Neighborhood Upgrading Project.

FY21 COLLABORATIVE ACTIVITIES WITH YOKOHAMA CITY:

- Yokohama City participated in the **Smart City Live 2020** (virtual) conference jointly organized by the World Bank and Smart City Expo World Congress, in November 2020.
- TDLC partnered with Yokohama as a co-organizer of the **9th Asia Smart City Conference (ASCC)**, held virtually in January 2021. During the main ASCC event, TDLC led a panel discussion on sustainable urban development, which included presentations on the Dhaka North Neighborhood Upgrading Project (Bangladesh), National Urban Development Project (Indonesia), and Y-port initiative (City of Yokohama).
- TDLC contributed an article on TDLC–Yokohama City collaboration in international urban development to Yokohama City's Policy Research Journal (*Chosa-kiho*).
- TDLC collaborated with the city in publishing a key knowledge product, **“Yokohama Urban Design Sketchbook: Translating a Community-Led Vision into Practice”**.
- Yokohama City participated in the **Knowledge Sharing Series on Low Carbon Cities: Energy-Efficient Buildings** in April 2021.
- TDLC also provided technical input and guidance on multimedia equipment and infrastructure design to the Yokohama City Government in the construction of its newly commissioned Knowledge Hub Center.



Healthy City, Yamato

COLLABORATION WITH NON-CPP CITIES

In addition to CPP cities, TDLc also partners with other key cities in Japan to deliver curated knowledge to client countries at TDDs. Below are examples of TDLc’s engagements with other Japanese cities outside of the City Partnership Program.

TOKYO

TDLc has collaborated with the Tokyo Metropolitan Government in several knowledge exchange events, including TDDs and operational support projects. Having addressed many social challenges caused by urbanization, including coordination among wards, solid waste management, and urban transportation, the city has learned many lessons that could be shared with World Bank client countries.

AREAS OF ENGAGEMENT:

1. Solid waste management
2. Metropolitan governance
3. Urban transportation

FY21 COLLABORATIVE ACTIVITIES WITH TOKYO METROPOLITAN GOVERNMENT

- An officer from the Tokyo Metropolitan Government made a presentation on Tokyo’s approach to medical and infectious waste management at the TDD on Solid Waste Management, held in October 2020.

YAMATO

TDLc collaborated with the City of Yamato (Kanagawa Prefecture) in organizing the Healthy Cities for All TDD. Yamato has placed a healthy city agenda at the center of its policy, starting with the declaration of “Healthy City Yamato” in 2009, followed by a comprehensive healthy city plan focusing on three pillars: healthy people, healthy cities, and healthy society.

AREAS OF ENGAGEMENT

1. Healthy city development

FY21 COLLABORATIVE ACTIVITIES WITH THE CITY OF YAMATO

- A representative of Yamato City made a presentation on a health-focused community center in Yamato City during the Healthy Cities for All Technical Deep Dive, held in April 2021.

COMMUNITY OF EXPERTS

DEFINING THE COMMUNITY OF EXPERTS

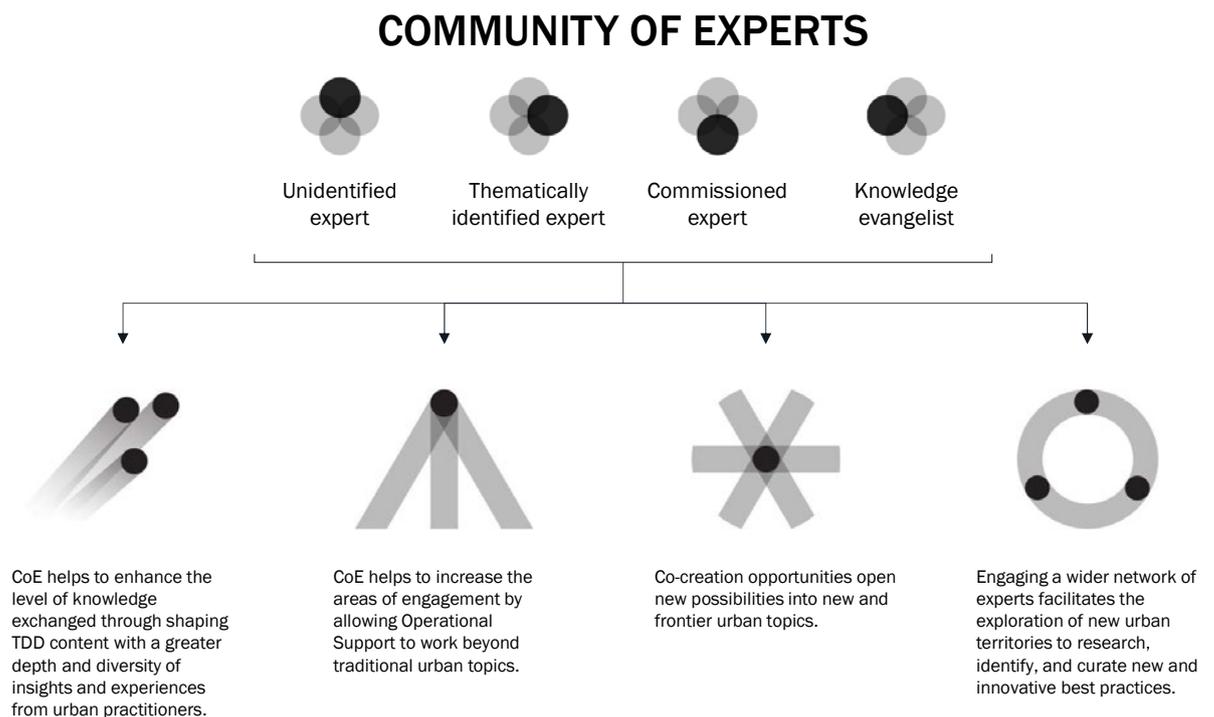
As cities undergo some of the biggest shifts seen in decades, TDLC is also evolving by strengthening its work and impact in both traditional and frontier urban topics that reflect post-pandemic realities. Navigating the uncertainty created by the pandemic will require cross-cutting and diverse expertise from practitioners who can strategically co-create solutions with TDLC that prepare for the future of cities. To enhance proprietary knowledge and develop frontier urban intelligence, TDLC is nurturing a Community of Experts (CoE) that consists of urban practitioners and other experts across various industry verticals and academic disciplines within Japan and worldwide.

ADVANCING TDLC'S KNOWLEDGE HUB TO THE NEXT LEVEL

The core principle behind CoE is to strengthen TDLC's position as a platform for knowledge creation and exchange. In the process of bringing together knowledge and experiences drawn from many different avenues, CoE aims to create a live knowledge ecosystem that actively consumes and co-creates knowledge solutions. Acting on the idea that values are created through collaborations, TDLC through CoE is shaping an ecosystem where knowledge is consumed, disseminated, and repackaged to inspire new perceptions, catalyze new breakthroughs, and explore the known unknowns. In pursuing this goal, the CoE will foster a sustained interactive community and further attract experts who subscribe to the CoE principle of open collaboration and co-creation (figure 16).

FIGURE 16
TDLC Knowledge Ecosystem with Community of Experts

Source: World Bank TDLC



CoE'S ROLE IN MAXIMIZING TDLc'S IMPACT

As a core feature in TDLc's new phase, the CoE not only involves working closely with key practitioners but also involves orchestrating an even closer interaction among various components of TDLc programs. With greater cross-support and connectivity within TDLc programs, various programmatic activities can make the best use of the collaborative opportunities and co-created knowledge emerging from the CoE (table 3). In turn, TDLc can strengthen its knowledge-sharing events, operational support, and research activities through the efforts of CoE by engaging an even wider range of experts with increased thematic relevance and connection with overall World Bank projects and operations across the globe.

TABLE 3

OBJECTIVES AND SHORT-TERM GOALS OF CoE (FY21)

OBJECTIVES

- Enhance the programmatic activities of all TDLc components
- Build a network of experts for continued support and engagement
- Actively curate knowledge in traditional and frontier urban topics

GOALS IN SHORT TERM

- Identify actionable areas of engagement for operational support
- Develop list of Japanese case studies that could be researched
- Seek advisory in shaping TDD content
- Increase potential and knowledge to contribute to research and publications

BUILDING THE FOUNDATION FOR CoE

Growing a knowledge ecosystem means continuously acquiring new knowledge by attracting urban practitioners. Attracting the right practitioners and frontier knowledge goes beyond identifying new areas of expertise to aligning the values of TDLC with prospective experts for a sustained collaboration. In this manner, signaling the values of TDLC was just as important as reaching out to a wider network of experts. In the first phase of CoE, the TDLC team organized public seminars to increase the visibility of proprietary knowledge and held public speaking events to share opportunities for collaboration with TDLC. These events anchored TDLC both as a growing knowledge hub where practitioners could present their ideas and work, and also as a place where new, highly diverse frontier content on a global scale could suggest new solutions. Events like Smart City Live, hosted with Barcelona and high-level Japanese officials, provided a glimpse of TDLC's institutional outreach, which could bring valuable opportunities for many urban practitioners. Moreover, launch of the Zero-Carbon Cities seminar series highlighted TDLC's capacity to bring together insights from the private and public sectors to derive the latest trends in the field and to push past the limitations on traditional ways of addressing development challenges.

In FY21, TDLC engaged many new Japanese experts to collaborate in building the CoE ecosystem and support TDLC's activities. These experts have knowledge of diverse urban development domains, including solid waste management and transit-oriented development, as well as cross-cutting domains like quality infrastructure investment (QII), and frontier topics, like healthy cities and creative cities. With this growing roster of expertise, CoE is more strategically positioned to meet diverse knowledge needs of TDDs, other knowledge-sharing events, operational support, and research. By integrating the CoE concept into the program, TDLC aims to have a longer-term engagement with experts rather than relying on one-off collaborations, thus maximizing continued and sustainable knowledge sharing in all its activities (Annex V¹).

In FY21, to maximize the impact of this new concept, TDLC took initial steps of integrating the CoE network with different components of the program:

Strengthening the connection between TDDs and knowledge exchange events

In the process of engaging new Japanese experts for collaboration, TDLC stepped up its networking outreach. This provided the opportunity to explore new avenues of frontier urban development and engage with practitioners working on nontraditional

urban topics. In FY21, TDLC organized and attended over 18 different knowledge-exchange events, which helped set the stage for shaping future TDD content that is more forward-looking, relevant, and impactful.

Strengthening the connection between TDDs and operational support components

As one of the goals of CoE is continued programmatic support, experts who are currently engaged in TDLC's operational support projects were introduced to the TDD participants during different thematic TDDs held last year. This facilitated better understanding of the operational support activities, especially through the examples of ongoing active World Bank projects. This also helped the clients participating in TDDs find practical solutions for their own projects and develop action plans with assistance from these experts. Finally, it allowed the experts to interact with clients and better understand their project needs to proactively prepare for future technical assistance support.

Strengthening the connection between TDDs and research/ publication

In FY21, TDLC is taking a more active role in connecting the preparation of TDDs with its parallel research efforts, especially on frontier topics. With this deeper preparation, TDLC aims to better curate the knowledge to be presented at the TDDs—e.g., the research conducted by TDLC for the global flagship report on healthy cities, focusing on a Japanese case study, supported the knowledge content and insights at the Healthy City TDD.

Strengthening the connection between CPP cities and research

This year, TDLC organized a series of events to showcase research produced in collaboration with urban practitioners. These research activities have benefited deeply from the experts' contribution, which mostly represent sectoral knowledge or expertise on Japanese cities. TDLC collaborates with CPP cities for developing such knowledge pieces and disseminates the knowledge curated through events and other platforms. The purpose of these publication launch events is not only to promote new research, but also to expand the CoE network by featuring TDLC's work with experts. For example, TDLC hosted events featuring the knowledge products developed in collaboration with CPP partners, such as the development story of Toyama, QII Japan case studies, and Kyoto Creative City case studies.

¹ The table excludes activities that are organized or invited CPP cities. The details on cooperation with CPPs are available in the CPP section.

Box 5: Member of CoE

MR. FRAM KITAGAWA
Area of Expertise: Creative Cities

Fram Kitagawa is one of the most renowned art directors in Japan, and his team at Art Front Gallery has received high praise for their involvement in activities related to community development. Kitagawa has served as the general director of several art festivals: the Echigo-Tsumari Art Triennale (since 2000); the Setouchi Triennale; the Boso Satoyama Art Festival; Ichihara Art x Mix; the Northern Alps Art Festival; and the Oku-Noto Triennale. With these activities, which embody the concept of creative cities and have achieved various positive outcomes, Kitagawa has made a major contribution to the development of the region through art.

TDLc’s engagement with him began when he was welcomed as the speaker at the **Creative Cities TDD** in January 2020, and it continued with the **Operational Support for Sri Lanka local economic development** this fiscal year. His approach to the region through art is believed to be applicable to World Bank client developing countries; a relevant pilot project will be staged to verify the creative city concept as a reality. TDLc seeks to continue the relationship with Fram Kitagawa to leverage his expertise and collaborate on the creative city agenda in the future as well.

Box 6: Member of CoE

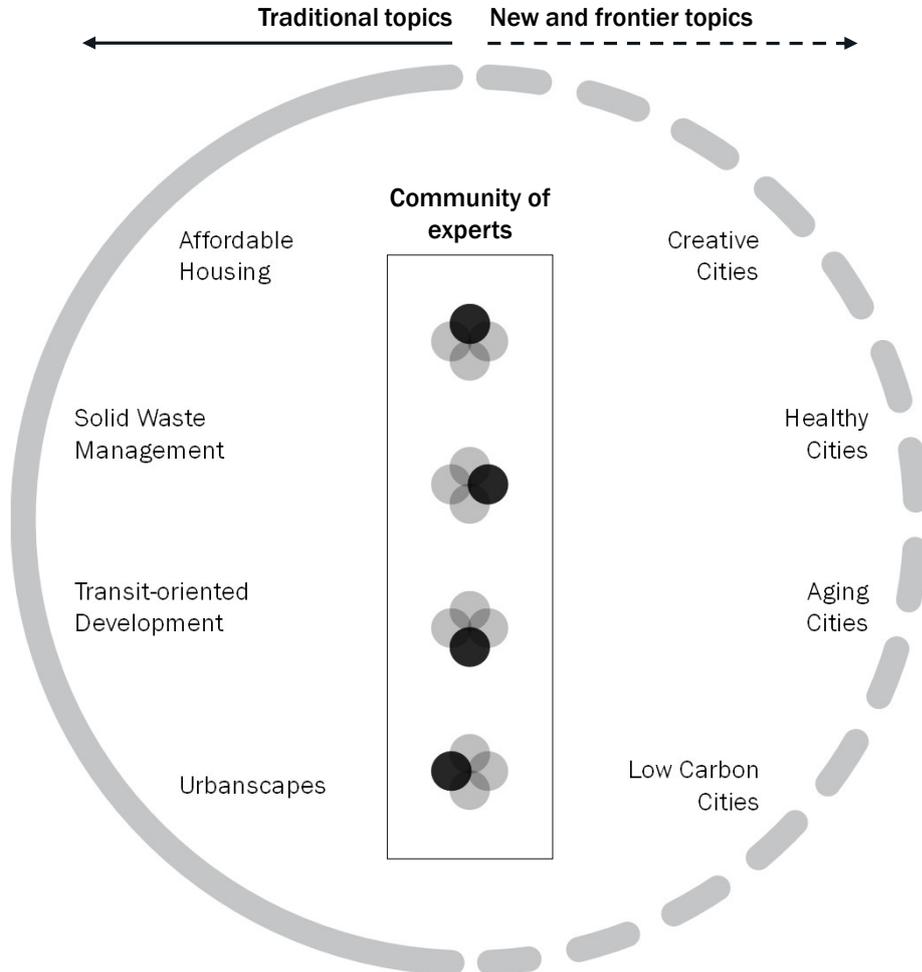
MRS. KEIKO NAKAMURA, MD, PhD
Area of Expertise: Healthy Cities

The TDLc team welcomed Keiko Nakamura, MD, PhD, as **a speaker for the Healthy Cities TDD as well as a senior advisor for the healthy city Japanese case study analysis**. Her guidance and advisory as an expert in this field, based on her experience and network in Japan, are crucial in ensuring the quality and relevance of TDLc’s research in the global context.

Keiko Nakamura is Professor and Head of the Department of Global Health Entrepreneurship, Tokyo Medical and Dental University. She serves as the Head of Secretariat of the Alliance for Healthy Cities and is Director of the World Health Organization Collaborating Centre for

Healthy Cities and Urban Policy Research. She is also a member of the Urban Health and Wellbeing Scientific Committee of the International Science Council. A public health scholar who has been involved with the global Healthy Cities movement since the 1990s, Professor Nakamura conducts research on health and environment in urban areas, with particular focus on determinants of health, healthy cities and urban policy, use of information technology for health promotion, trades in health services, and cooperation for health development. She has published extensively in peer-reviewed journals and has worked closely with various institutions and levels of government.

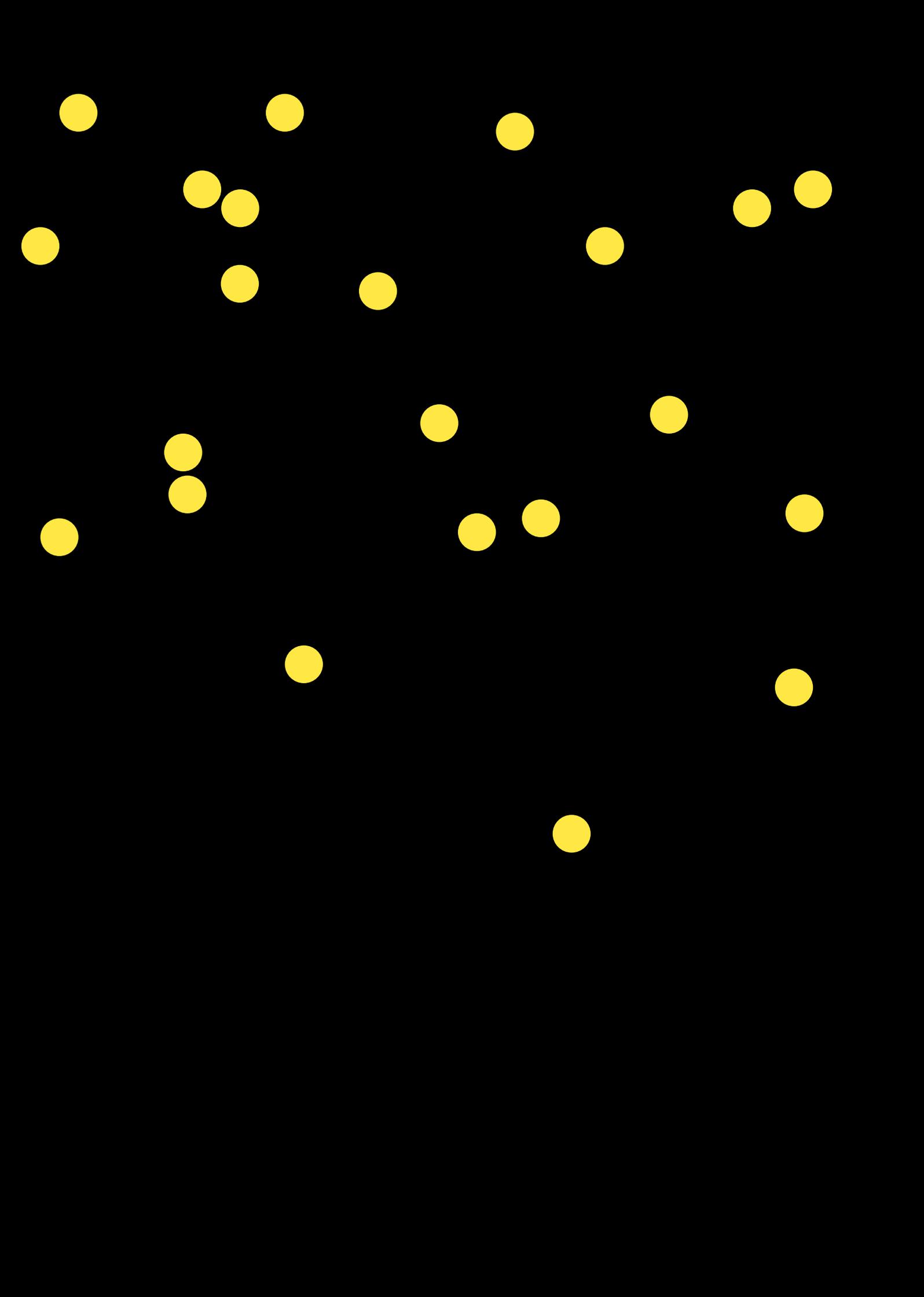
KNOWLEDGE EXCHANGE & GENERATION

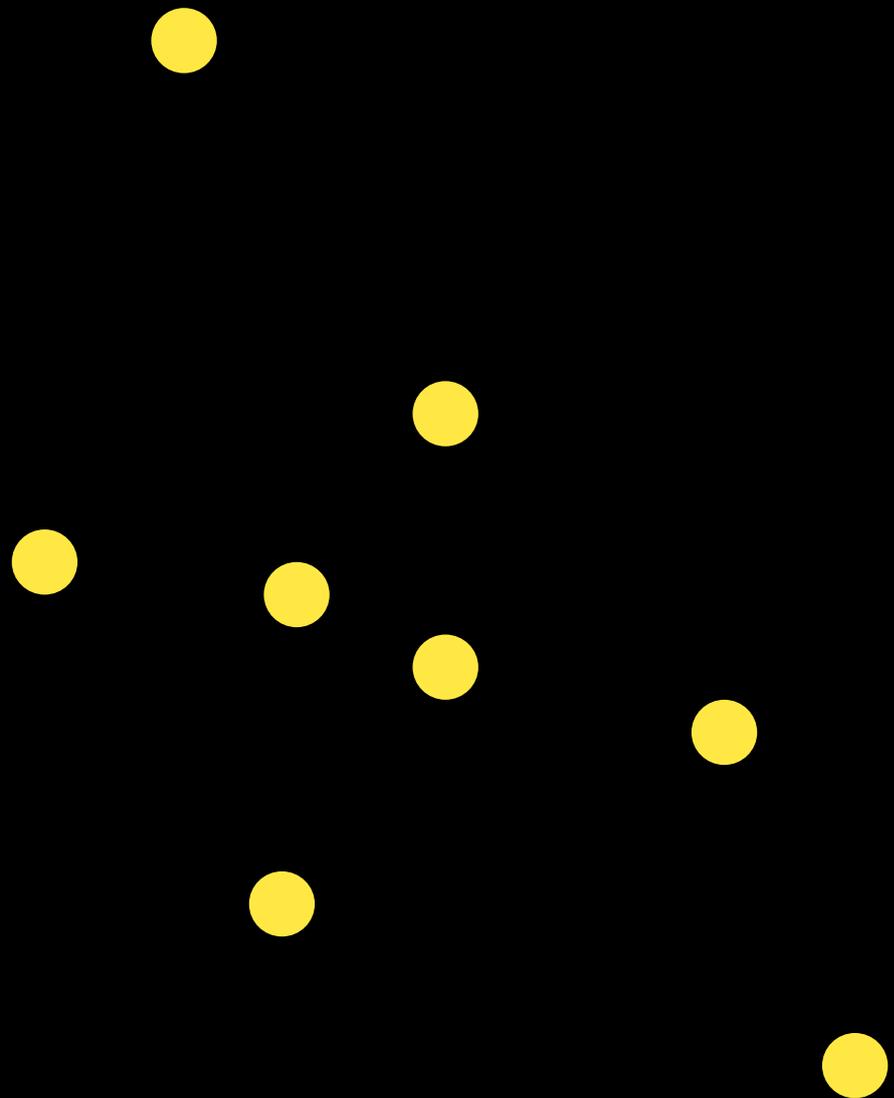


NURTURING THE CoE AS PART OF THE TDLC PROGRAM

Going forward, TDLC will continue to grow the CoE by attracting local and global practitioners. TDLC will organize more events in various formats (such as new urban model talks, knowledge-sharing series on frontier topics, and breakfast series), not only to promote topics of thematic importance, but also to create opportunities for collaboration with prospective counterparts in co-developing contents or inviting speakers. In this way, TDLC hopes to develop a dynamic knowledge ecosystem where experts, practitioners, officials, and other stakeholders can exchange and co-create knowledge in traditional, frontier, and cross-cutting urban development arenas (figure 17).

FIGURE 17
TDLC Knowledge Ecosystem
Source: World Bank TDLC





TECHNOLOGY & MANAGEMENT

3. VIRTUAL EVENT & TECHNOLOGY

3.1 OVERVIEW

EVALUATION CRITERIA of these virtual event platforms covered a wide range of technical aspects, but priority was given to ease of access by developing countries, hardware requirements for participants, ease of use by speakers and participants, knowledge dissemination functionality, engagement and retention rate, integration with the TDLc studio environment, and business continuity (ability to manage TDDs and public seminars from a home environment during the Japanese state of emergency under COVID-19).

After a thorough review of market-leading solutions, the Hopin virtual event platform was chosen as the main platform to host longer multiple-day virtual events and TDDs (Box 7). Zoom Webinar was selected as the primary platform to host shorter individual one-off public seminars that require simultaneous interpretation.

The Zoom platform went live with the Solid Waste Management Technical Deep Dive held in October 2020, while the Hopin virtual event platform went live with the three-day Workshop on Urban Upgrading in Saudi Arabia in March 2021.

Box 7

KEY FEATURES OF THE VIRTUAL EVENT PLATFORM FOR TECHNICAL DEEP DIVES

Since the start of the COVID-19 pandemic, online video conference solutions and virtual event platforms have been developing at a rapid pace and offer an engaging experience similar to conventional face-to-face events. The functionality of Hopin recreates a physical venue virtually that attendees anywhere in the world can access using a computer, tablet, or smart phone with a network connection. The virtual space for each TDD includes the following areas:

Reception

This area contains all the information relating to the event, such as the schedule, session descriptions, and speaker profiles.

Live stage

This is a key area where attendees view the broadcast of keynotes, thematic presentations, and panel discussions that include audio, video, and live simultaneous interpretation. Q&A sessions are held via the live chat function.

Session breakout rooms

This is the location for interactive sessions (such as Shift and Share), discussions among country delegations, and action plan presentations. Attendees can share their audio, video, and documents.

Networking

This unique function allows attendees to meet peers randomly on a one-on-one basis for a set time to introduce themselves and take part in an icebreaker session at the start of the TDD. Attendees can also message each other to organize meetings among themselves.

Expo booths

This feature allows speakers to display content and information related to the subject matter of the TDD, including prerecorded video presentations, PowerPoint slides, live video discussion, and SNS networks.



Mr. Ryosuke Toura and Victor Mulas,
Smart City Live, November 2020

3.2 VIRTUAL EVENT TECHNOLOGY SUPPORT

During FY21, all face-to-face public seminars were postponed due to the ongoing pandemic and State of Emergency in Tokyo, but despite this global situation, the technical team supported several online virtual events open to WBG clients and the public.

TDLC-hosted events included the following:

- Solid Waste Management TDD, October 19–23, 2020 (TDLC conference room)
- QII Principles in Action—Learning from Fukuoka and Toyama, March 2, 2021 (home-based work)
- Workshop on Urban Upgrading in Saudi Arabia, March 2–4, 2021 (home-based work)
- Trajectory of Compact City Development and QII in Japan: Lessons Learned from Toyama, March 26, 2021 (home-based work)
- TDD on Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development, March 15–19, 2021 (home-based work)
- TDD on Healthy Cities for All, April 19–23, 2021 (TDLC conference room)
- TDD on Metro Regions to Build Back Better, June 14–18, 2021 (home-based work)

External World Bank Group and partner events included the following:

- Smart City Live 2020 (supporting insert to the main event), November 17, 2020 (TDLC conference room)

- World Bank Group GPURL Forum, February 22–25, 2021 (home-based work)
- Two City Climate Finance Gap Fund Seminars – April 26 and April 27, 2021 (home-based work)
- GFDRR Consultative Group meeting, May 19, 2021 (home-based work)

As part of the CPP relationship, TDLC also provided technical input and guidance on multimedia equipment and infrastructure design to Yokohama City Government in the construction of its newly commissioned Knowledge Hub Center.

Multimedia integration between the TDLC studio environment and the Hopin or Zoom virtual platform includes the use of video, audio, and lighting as well as a LAN connection to create highly professional content with production values closer to live television than to a standard video conference or Zoom-type environment.

These production values are also mostly achievable from a home environment by combining Hopin with production switching software (StreamYard) and the Interpretify platform for remote simultaneous interpretation. Additional measures, such as strengthening relationships with multimedia equipment rental houses to provide production and network equipment for home use, help maintain a professional event and minimize the risk of technical glitches when presenting from Japan.

In general, there has been a shift to home-based work brought about by the pandemic, which has created “zoom fatigue” in people, including our clients and TTLs. Therefore, a key factor when selecting the online virtual event platform was the ability to maintain a high level of engagement and ensure a high retention rate through innovative technology.

The platform’s ability for greater interactions among participants can be seen in the variety of functions utilized within the platform, such as networking and expo booths. Event analytics show there were 111 network meetings and 83 booth visitors for the TOD Urbanscapes TDD; there were 67 network meetings and 65 booth visitors for the Healthy Cities for All TDD; there were 48 network meetings and 54 booth visitors for Metro Regions TDD. According to participant feedback, “It was easy to get in and explore, group work was made easier and background was automatically controlled.

Longer or casual engagement was also made possible, as the platform was open 24 hours a day for the duration of the program as opposed to other video communication platforms which are only live for the duration of the event. Hopin allows interactions among participants similar to those of face-to-face TDDs through interactions beyond the TDD hours. Such engagement was not possible with the other virtual meeting platforms, such as Zoom or WebEx. For the TOD Urbanscapes TDD, clients and TTLs spent an average of 23.2 hours using the platform compared to 14.2 hours of training; for the Healthy Cities TDD, there was an average of 18.3 hours of use compared to 15 hours of training; for the Metro Regions TDD, there was an average of 16.4 hours of use compared to 15 hours of training (see figure 18).



Virtual Event set up

Additionally, some participants stayed on the platform to further discuss action plans within their country breakout rooms; others explored the networking and expo areas, where participants can find content resources, the TDLc operational support booth, partner organizations’ booths, and the event photo booth.

“I felt really comfortable with the Hopin platform. I think the different sections (stage, lounge, library booth) were very convenient and made the overall organization easy going.”

“It was very easy. I liked the different rooms you could join. Definitely better than Zoom.”

“Hopin as a platform is easy to navigate and very intuitive. I find it particularly more friendly than Zoom.”

“We find Hopin so good when we compared with other platforms that we used. Live translation was very helpful.”

“More engaging and provides different mode of engagement.”

“Hopin platform is very robust and user friendly.”

Time spent on the platform (hrs)

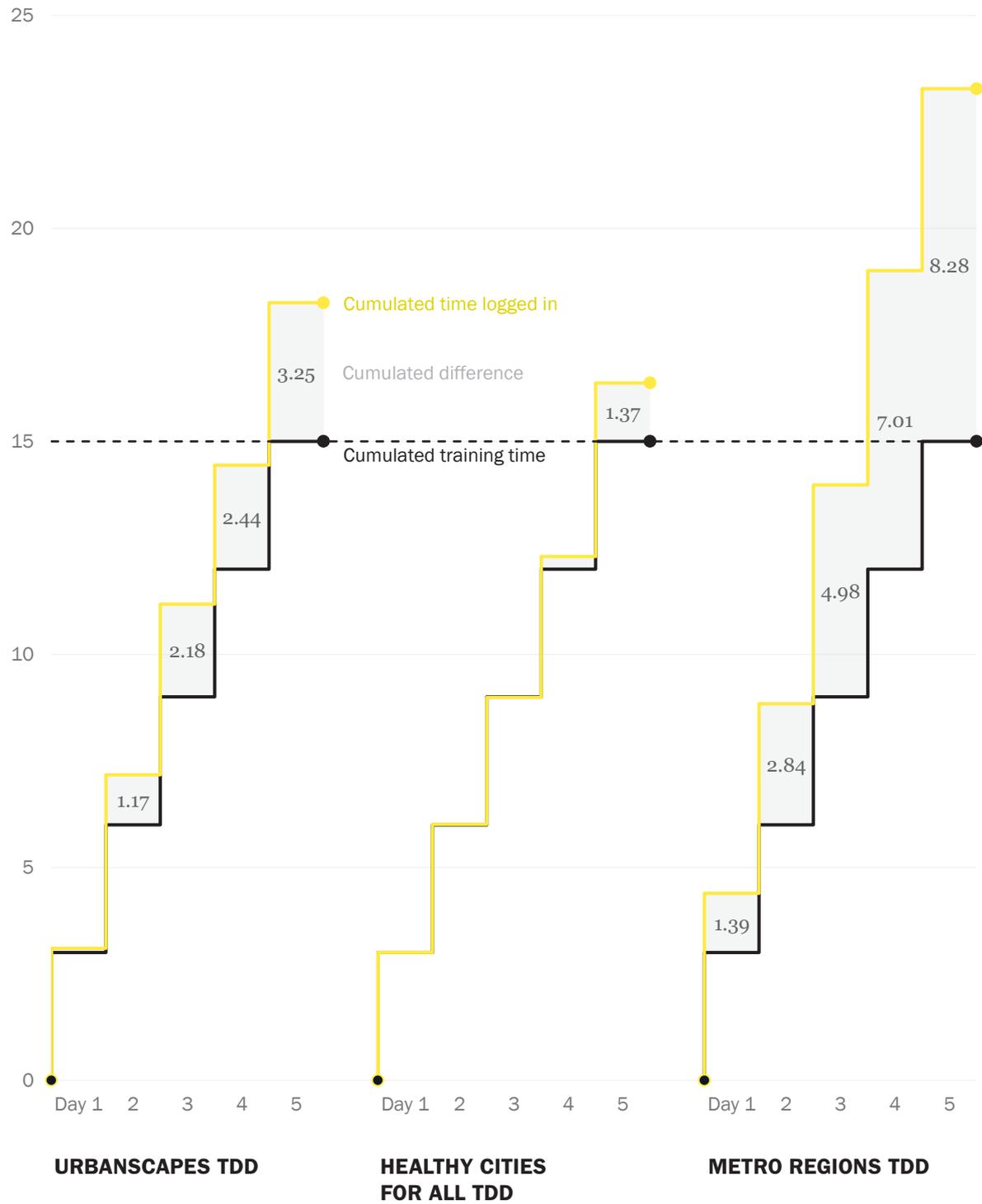


FIGURE 18

Time Participants Spent in Training vs. Logged in to Platform for TODs

Source: World Bank TDLC

4. PROGRAM MANAGEMENT & ADMINISTRATION

4.1 OVERVIEW

T DLC'S DAY-TO-DAY ACTIVITIES

are not limited to core activities but include many supporting tasks: making administrative arrangements, holding meetings, planning and executing work plans, and making budget and financial transactions and processing.

TDLC's operations and development of its activities follow a set of carefully curated and tested procedures to ensure high-quality delivery. In conducting events, TDLC performs various management and administrative tasks. The unprecedented nature of the COVID-19 crisis has led to unique challenges for commuting and the office environment. In order to ensure business continuity of the TDLC Program and safety of the staff during the pandemic, TDLC quickly adopted a new COVID-19 office safety management plan (described in section 4.3) in addition to preparing the studio for TDD dry runs (by arranging for multilingual language interpretation, codification of operational manuals for Japanese and external stakeholders, and implementation of event management technology). All these groundwork tasks prepare the foundation for the implementation of TDDs and other TDLC events.

TDLC is conscious of the high standards it is expected to meet in delivering its services, and it has developed a solid, well-functioning system that is revised and improved in every new activity delivered. TDLC conducts after-activity quality assessments for each of its TDDs and promptly reviews its other activities to ensure quality control and improvement of performance over time. TDLC's methodologies and implementation (particularly related to TDDs) meet the World Bank's very highest standards.

Besides day-to-day program management and administration, TDLC proactively engages in communication and outreach. TDLC's social media and outreach service—including the updated website in English and Japanese, along with Twitter and Facebook accounts—help TDLC reach and disseminate knowledge to a wide audience.

As part of its contribution to university outreach activities by the World Bank Japan office, TDLC hired two graduate students in FY21 to serve as a research intern and a translation intern. These students are expected to contribute to the desk research and do rough translations of TDLC's knowledge products. They will also participate in TDD programs and other knowledge-sharing events on urban development issues and good practices. TDLC plans to rotate student interns every year to continue providing practical work experience in the World Bank program.

4.2 EMERGENCY AND EVACUATION PLAN

TDLC has upgraded its internal protocols for natural disasters and emergency situations for the safety of its team and participants in TDLC events. These revised measures follow safety requirements as prescribed by the local authorities and include an evacuation plan, especially in case of an earthquake or a fire outbreak.

TDLC has also reviewed and revised its inventory of emergency items as part of disaster preparedness. Structurally, the control room, studios, and equipment server room are fully compliant with local construction, earthquake, and fire safety ordinances. They are regularly inspected and certified by the Tokyo Fire Department and the building management company.

4.3 COVID-19 AND PREVENTION PLAN

The World Health Organization (WHO) declared Coronavirus Disease-2019 (COVID-19) a Public Health Emergency of International Concern (PHEIC) on January 31, 2020. As the situation continues to escalate around the world, TDLC has taken steps to prepare the office and ensure the health and safety of staff and families.

In coordination with the Joint Bank Group/Fund Health & Safety Directorate and guidelines from the local authorities, TDLC designed and implemented the following protocol for COVID-19 prevention:

COMMUNICATIONS

- Following the direction of the local government and guidance of the World Bank Regional Vice President and Head of Office, TDLC has been given clear and detailed information regarding office reopening plans and the tiers set by the World Bank.
- WHO prevention guidelines are posted in the TDLC studio area and bathrooms to ensure proper social distancing and hygiene/cough etiquette.

OFFICE MANAGEMENT

- Periodical professional cleaning, disinfection, and antibacterial coating are carried out in all office areas.

- Proper air ventilation system maintenance is assured with building management. TDLC has also procured high-grade air filters to cover the area of the TDLC office.
- Acrylic partitions between desks and high standing partitions for on-site events in the TDLC studios have been procured.
- Automatic doors have been implemented in main entrances, using touchless technology.
- Office supplies (Wi-Fi portal during online events, headsets, laptops, work phones, etc.) are delivered to homes of staff, and mail is forwarded.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- PPE was procured for staff. Masks, hand soap, disposable gloves, trash bins, tissues, cleaning supplies, and laser thermometer are stockpiled.

STAFF WELLNESS

- Remote work was implemented from the early stages of the pandemic.
- Flexible work hours during quarantine were implemented for staff with children.
- Consideration is given to commuting during off-peak hours if using public transportation.
- Remote access to medical professional staff and psychologist is provided.
- Stress management sessions and tips for home-based work are provided to staff.

4.4 PRIVACY POLICY

In FY21 the Data Privacy Office (DPO), in charge of overseeing the processing of personal data by the World Bank, made it mandatory for all Bank staff, consultants, and contractors to comply. This provides staff with the knowledge they need to adhere to the privacy policy, and increases staff understanding of their responsibilities to manage and protect personal data as well as the risks associated with the mishandling of such data. TDLC has adjusted its data and privacy practices to the policy and has developed a data privacy policy and notice for data collection and processing in TDLC activities. This policy informs staff about the process through which data are collected, the purpose of the data's usage, and protective measures.

The third-party information TDLC may collect and handle for the purposes of events and other knowledge-sharing activities—and for the wider TDLC mission, including information published in the TDLC annual report, newsletter, blog, website, and social media channels—complies with the privacy policy of the Bank. The same policy is also applicable to stakeholders participating in TDLC activities through digital platforms such as WhatsApp, Signal, Twitter, Facebook, Instagram, LinkedIn, and Clubhouse.

4.5 CODE OF CONDUCTS FOR EVENTS

As a Knowledge Hub of the World Bank, TDLC interacts with stakeholders from all over the world. In one recent year before the pandemic (FY19), TDLC hosted week-long face-to-face events, convening 102 client representatives from 50 countries. The code of conduct for events has been drafted to ensure that every participant feels welcome in a respectful, inclusive, safe, and secure environment during the event.

The World Bank Group has adopted the core values of Impact, Integrity, Respect, Teamwork, and Innovation. The World Bank Group is thankful for the efforts of every participant to uphold such values and seeks to make the event as positively impactful as possible, enabling innovative thinking, as well as truthful, respectful, and helpful interactions.

4.6 COMMUNICATIONS

TDLc strengthened its communications team and activities to extend the reach of its knowledge-sharing activities to the Japanese and global communities of urban development practitioners.

In the challenging circumstances during COVID-19, communication and virtual information dissemination are more relevant than ever to the knowledge-sharing goals of TDLc. To respond to this emerging need, TDLc strengthened its external communications activities by focusing on bolstering the infrastructure and contents of owned media platforms, such as the website,

SNS, blogs, and print PR tools. TDLc also established its own branding guideline and aligned key messages across all communications channels. Our strengthened communications activities had a synergetic impact across core activities, and TDLc succeeded in expanding its reach to a wider audience and stakeholders in Japan and across the world.

KEY NUMBERS (as of April 30, 2021)

4,287

people have visited **TDLc'S WEBSITE**
(unique visitors for English and Japanese page)

1,110

people follow **TDLc ON TWITTER**
(108 percent increase from FY20)

1,653

people follow **TDLc ON FACEBOOK**
(106 percent increase from FY20)

272

people follow **TDLc'S PEATIX ACCOUNT**

KEY ACTIVITIES

TDLc WEBSITE AND SNS

TDLc updated its English website in February 2021, followed by the launch of a separate Japanese page in April to reach a wider audience. Under the World Bank's umbrella website, both the sites are designed to act as a central information hub of TDLc's activities and stories. The website contents are organized by information about TDLc, components and activities, publications, events, news, and stories, and they are cross-linked across contents to ensure easier user navigation. During this fiscal year, the TDLc website attracted 4,287 unique visitors. Website contents are also promoted via TDLc's Facebook page and Twitter account.

TDLc website

- **English**
www.worldbank.org/en/programs/tokyo-development-learning-center
- **Japanese**
www.worldbank.org/ja/programs/tokyo-development-learning-center

Six CPP cities collaborated with TDLc on this web renewal project to update their city-specific contribution on their child pages.

- **FUKUOKA**
www.worldbank.org/en/programs/tokyo-development-learning-center/program/cpp/fukuoka
- **KOBE**
www.worldbank.org/en/programs/tokyo-development-learning-center/program/cpp/kobe
- **KITAKYUSHU**
www.worldbank.org/en/programs/tokyo-development-learning-center/program/cpp/kitakyushu
- **KYOTO**
www.worldbank.org/en/programs/tokyo-development-learning-center/program/cpp/kyoto
- **TOYAMA**
www.worldbank.org/en/programs/tokyo-development-learning-center/program/cpp/toyama
- **YOKOHAMA**
www.worldbank.org/en/programs/tokyo-development-learning-center/program/cpp/yokohama

FEATURE STORIES AND VIDEOS

TDLC produces a number of feature stories, interview briefs, and videos to feature key insights, knowledge, and experiences shared by World Bank urban development specialists and Japanese and global experts at TDD and other events. This year, TDLC started producing a new video series on “Expert’s Insights”. These are short interview clips of World Bank and external experts who have participated in the TDD. The purpose of the video series is to continue sharing the knowledge among TDD alumni via SNS groups and to make crisp urban insights available for a wider audience via the TDLC website and SNS. During this fiscal, TDLC has produced four interview videos on two virtual TDD, Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development and Healthy Cities for All.

A sample of key feature stories produced is shown below.

- **HARNESSING SMART TECHNOLOGY**
for Sustainable Development in Developing Countries, January 18, 2021
- **ADDRESSING THE NEW URBAN CHALLENGES POSED BY COVID-19**
Unpacking Japanese Cities’ Practical Experience, November 17, 2020
- **SHARING KITAKYUSHU’S INITIATIVES ON SOLID**
Waste Management with the World
Yuji Aoyagi, Director of the City’s Environment Department, October 23, 2020
- **MANAGING SOLID WASTE DURING COVID-19,**
and in a Rapidly Urbanizing
World, October 19, 2020

TDLC PROGRAM BROCHURE

In August 2020, TDLC developed its first program brochure in English and Japanese. Published both in digital and print forms, TDLC brochures summarize key activities in an easy-to-understand format to engage new stakeholders who are interested in TDLC’s activities. Brochures are available via the TDLC website.

ENGLISH BROCHURE
JAPANESE BROCHURE

TRANSLATION OF SUSTAINABLE CITIES BLOG ARTICLES

In order to make the World Bank’s urban development experiences and knowledge accessible to wider Japanese audiences, TDLC started developing Japanese translations of the World Bank’s “Sustainable Cities” blog and disseminating posts through the World Bank’s multilingual blog site “Voices”. From June 2020 to March 2021, TDLC translated five blog posts into Japanese. The translated posts are also reposted on World Economic Forum’s Japanese website.

TDLC ONLINE EVENT VIA PEATIX

About Peatix: Peatix is a global community-building and event ticketing platform launched in Japan in 2011. Peatix is one of Japan’s major event management platforms and has provided management services for more than 150,000 events as part of 30,000 interest groups across 27 countries. Peatix operates globally through its physical presence in New York, Tokyo, Singapore, and Kuala Lumpur. For more information go to peatix.com.

TDLC leveraged the Japanese local event site Peatix to introduce Japanese practitioners and experts to its public online events. TDLC launched its Peatix account in March 2021 for its online events, which have been featuring its key knowledge on QII, Japanese case studies, and new insights on emerging topics (see “Event” sections on Peatix account for details) During FY21, TDLC organized two online events via Peatix, and TDLC’s Peatix account attracted 220 followers in just one month after the launch of the account.

TDLC’S PEATIX PAGE
tdlc.peatix.com

LIST OF PEATIX EVENTS ORGANIZED
(as of March 31, 2021)

- **QII Principles in Action**
Learning from Fukuoka and Toyama
March 2, 2021
- **Trajectory of Compact City Development and QII in Japan**
Lessons Learned from Toyama
March 26, 2021

MEDIA COVERAGE

Due to the restriction on face-to-face interaction with media under COVID-19, TDLC’s media engagement activities remained low. In an effort to extend our reach to media and urban development communities in the midst of the COVID-19-related travel restrictions, TDLC made an additional effort to make some key sessions of TDDs available to the public and shared this information widely via World Bank event pages and media invitations. TDLC also collaborated with CPP cities to reach out to local press clubs through cities’ own media networks to gain media coverage.

Please see Annex VI for the list of media coverages.

5. COLLABORATIONS

WITH INTERNAL AND EXTERNAL STAKEHOLDERS

5.1 INTERNAL WORLD BANK PARTNERS

TDLc continues to play a critical role in supporting other World Bank programs and activities, both in Japan and overseas, in an effort to enhance their knowledge dissemination and reach.

EXTERNAL AND CORPORATE RELATIONS JAPAN (ECRJP)

TDLc worked closely with ECRJP to introduce global urban development practices to a Japanese audience (especially in Japanese). TDLc translated some of the Urban, Disaster Risk Management, Resilience & Land Global Practice (GPURL) blog articles into Japanese and uploaded the content to “Voices”, a World Bank blog managed by ECRJP. TDLc also collaborated with ECRJP on an exhibition for the World Bank booth during the EcoPro Online 2020: Towards a Sustainable Society conference (hosted by Nikkei Inc. and Sustainable Management Promotion Organization) in November 2020.

QUALITY INFRASTRUCTURE INVESTMENT (QII) PARTNERSHIP AND TOKYO DISASTER RISK MANAGEMENT (DRM) HUB

TDLc’s Technical Deep Dives (TDDs) closely link to the other two Japanese-supported World Bank programs, the DRM Hub and QII Partnership, to ensure consistency and maximize impact and synergies, particularly in commonly addressed topics. TDDs serve as a platform to provide actionable and high-quality projects for DRM Hub and QII Partnership support. With funding support from the QII Trust Fund, in FY21 TDLc developed case studies on Japanese cities that implement QII principles in their operations. These studies should help in disseminating Japanese best practices to inform World Bank projects.

In FY21, TDLc also held a session on “Introduction to QII Trust Fund and DRM Hub” during each TDD and introduced the G20 QII principles, the QII Partnership, and the Japan–World Bank Program for Mainstreaming Disaster Risk Management; the aim was to help participants learn about these technical and financial options to assist in their projects. Speakers from the two trust funds explained concrete cases in developing countries that demonstrate the good application of the QII principles and DRM approaches.

SMART CITY GLOBAL PROGRAM

TDLc actively engages with the Global Smart City Program to advance its agenda on smart cities. In FY21 (November 2020), TDLc co-organized the Smart City Live 2020 Side Event: Reinventing Cities with Technology after COVID-19 & Unpacking Ideas from Japan to provide targeted solutions to its country clients. In collaboration with the Global Smart City Program, TDLc co-organized the 9th Asia Smart City Conference in Yokohama to disseminate knowledge on smart cities’ development and use of disruptive technologies (DTs). TDLc is also collaborating with the World Economic Forum’s Smart Cities Alliance.

KNOWLEDGE SILO BREAKERS (KSBS) AND GLOBAL PRACTICES

These important partners collaborate with TDLc on knowledge development for TDDs and other events. For example, TDLc collaborated with the Environment Global Practice and Solid Waste Management KSB in organizing the Solid Waste Management TDD, and it collaborated with the Transportation Global Practice, the Transit-Oriented Development Community of Practice (CoP), and the Urbanscapes KSB in organizing the TDD on Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development. The Technical Deep Dive on Healthy Cities for All brought together speakers, clients, and TTLs from five different Global Practices of the World Bank: Agriculture and Food Global Practice, Water Global Practice, Environment, Natural Resources, and Blue Economy Global Practice, Health, Nutrition and Population Global Practice, and the Global Practice for Urban, Disaster Risk Management, Resilience and Land. TDLc also collaborated with the Sustainable City Infrastructure and Services Global Solutions Group, the City Climate Finance Gap Fund, and Climate Smart Cities CoP in organizing the Metro Regions to Build Back Better TDD.

WORLD BANK SAUDI ARABIA

TDLc worked closely with the World Bank Saudi Arabia team to design and implement the first virtual in-country workshop on urban upgrading. TDLc arranged international and Japanese experts (including World Bank experts) to share knowledge and insights on community-driven urban upgrading approaches.

5.2 EXTERNAL STAKEHOLDERS

TDLC works with, and has mutually reinforcing relationships with, a wide range of partners within Japan and globally. These partnerships have been useful in delivering knowledge to client countries and developing solutions based on best practices. TDLC's partners represent the public sector, private companies, academia, multi-donor and UN agencies, and various other institutions. TDLC collaborates with the Japan International Cooperation Agency (JICA) to support its program, offering trainings, knowledge sharing and dissemination, event organizing, and many other activities. Additionally, various ministries of Japan, including the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Ministry of Environment (MoE) have

regularly partnered with TDLC to promote its agenda and support it in achieving its objectives. JICA and MLIT are key partners of TDLC and participate as observers in its Steering Committee. Details of TDLC activities undertaken in collaboration with JICA and MLIT in FY21 are described in the next subsection.

TDLC has been strengthened by its collaboration with external partners, which contribute important experience and expertise to TDLC activities. In FY21, external stakeholders partnered with TDLC to deliver TDDs and other events, and experts were deployed for World Bank operational projects. A summary of key partners and their areas of engagement is in table 4.

TABLE 4

AREAS OF COLLABORATION FOR TDLC PARTNERS IN FY21

PARTNER	AREA OF COLLABORATION
Art Front Gallery	Participate in World Bank's operational project in Sri Lanka and collaborated in research and publications on creative cities.
Cambridge Innovation Center (CIC) Japan	Collaborate on knowledge-sharing events on innovation and smart city development.
National Graduate Institute for Policy Studies (GRIPS)	Collaborate on research and knowledge sharing on innovation and start-ups for Sustainable Development Goals.
Institute for Global Environmental Strategies (IGES)	Collaborate with and reach out to cities, especially around the environment agenda. Participate in Technical Deep Dive on Solid Waste Management (October 2020) as resource expert. Participate in World Bank's operational project in Colombia.
Japan International Cooperation Agency (JICA)	Collaborate on research, knowledge exchange and dissemination, training programs, operational support, and city partnerships (details in next subsection).
Loftwork	Collaboration on transition to virtual TDDs and creation of Community of Experts (CoE).
Ministries of Japan: MLIT and MoE	Collaborate on research, knowledge exchange and dissemination, training programs, operational support, and city partnerships (details in next subsection).
Pacific Consultants K.K.	Collaborate on knowledge-sharing events on public-private partnership approaches, transit-oriented development (TOD), and metro regions.
Smart City Expo World Congress	Collaborate on knowledge-sharing events on innovation and smart city development.
Smart City Institute (SCI) Japan	Collaboration on knowledge-sharing events on smart city development.
Sotonoba (Community Media)	Collaborate on knowledge-sharing events on placemaking.
Tokyu Corporation	Collaborate on knowledge-sharing events on innovation, transit-oriented development, and smart city development.

5.3 JICA AND TDLc COLLABORATION

JICA and the World Bank undertake an annual high-level dialogue to identify issues of common interest and agree on areas of collaboration. Several common interests emerged from the last dialogue. TDLc, JICA, and the World Bank share a commitment to supporting the development of sustainable cities as a priority goal in the post-2015 development agenda, and they recognize the importance of disaster and climate resilience as an essential feature of sustainability. JICA and the World Bank are also closely aligned in their commitment to QII as an important modality for achieving the Sustainable Development Goals.

In FY21, JICA and TDLc collaborated on the following events and activities:

- At the request of JICA, TDLc had a meeting with JICA staff to share knowledge and insights related to design and development of online knowledge-sharing programs.
- TDLc and two JICA departments—the Urban and Regional Development Department and the Global Environmental Department—are in close communication about cooperating on World Bank projects and collaborating on operational support.
- TDLc worked closely with JICA in promoting the Africa Clean City Platform agenda.
- TDLc worked closely with JICA in discussing the Basic Study for Start-up/Entrepreneur Support in Indonesia
- TDLc invited a speaker from JICA for the TDLc online event QII Principles in Action – Learning from Fukuoka and Toyama, on March 2, 2021.
- Fifteen JICA staff participated as observers in the Solid Waste Management TDD, the TDD on Vitalizing Urban Neighborhoods and Space through Transit-Oriented Development, and the Healthy Cities for All TDD.

5.4 MLIT AND TDLc COLLABORATION

MLIT and the World Bank are closely aligned in their commitment to QII as an important modality for achieving the Sustainable Development Goals.

In FY21, MLIT and TDLc collaborated on the following events and activities:

- At the invitation of MLIT, TDLc attended the 2nd ASEAN-Japan Smart Cities Network High Level Meeting in December 2020 as an observer.
- At the request of MLIT, TDLc sent a speaker to the 3rd Spatial Planning Platform (SPP) Online Meeting in February 2021.
- At the request by MLIT, TDLc had a meeting with MLIT officers to share knowledge and insights related to design and development of online knowledge-sharing events.

5.5 MoE AND TDLc COLLABORATION

MoE and the World Bank are closely aligned in their commitment to climate change and solid waste management as an important topic for achieving the Sustainable Development Goals.

In FY 21, MoE and TDLc collaborated on the following events and activities.

- At the invitation of MoE, TDLc sent a speaker to the Zero Carbon City International Forum in March 2021.

6. FINANCIALS

FOR FY21 WORK PROGRAM

C **COVID-19 IMPACT** on FY21 TDLC's activity is reflected in this year's financials. The pivoting to new virtual modalities required TDLC to redesign its main flagship learning program (TDDs) and revamp all other activities. This resulted in lower activity as TDLC offering has been under continuous iteration and reevaluation to adapt to evolving changes in clients' and World Bank teams' demand due to COVID19. The temporary suspension of face-to-face events coupled with mobility restrictions resulted in a substantial reduction of TDLC costs, as travel costs were a large component

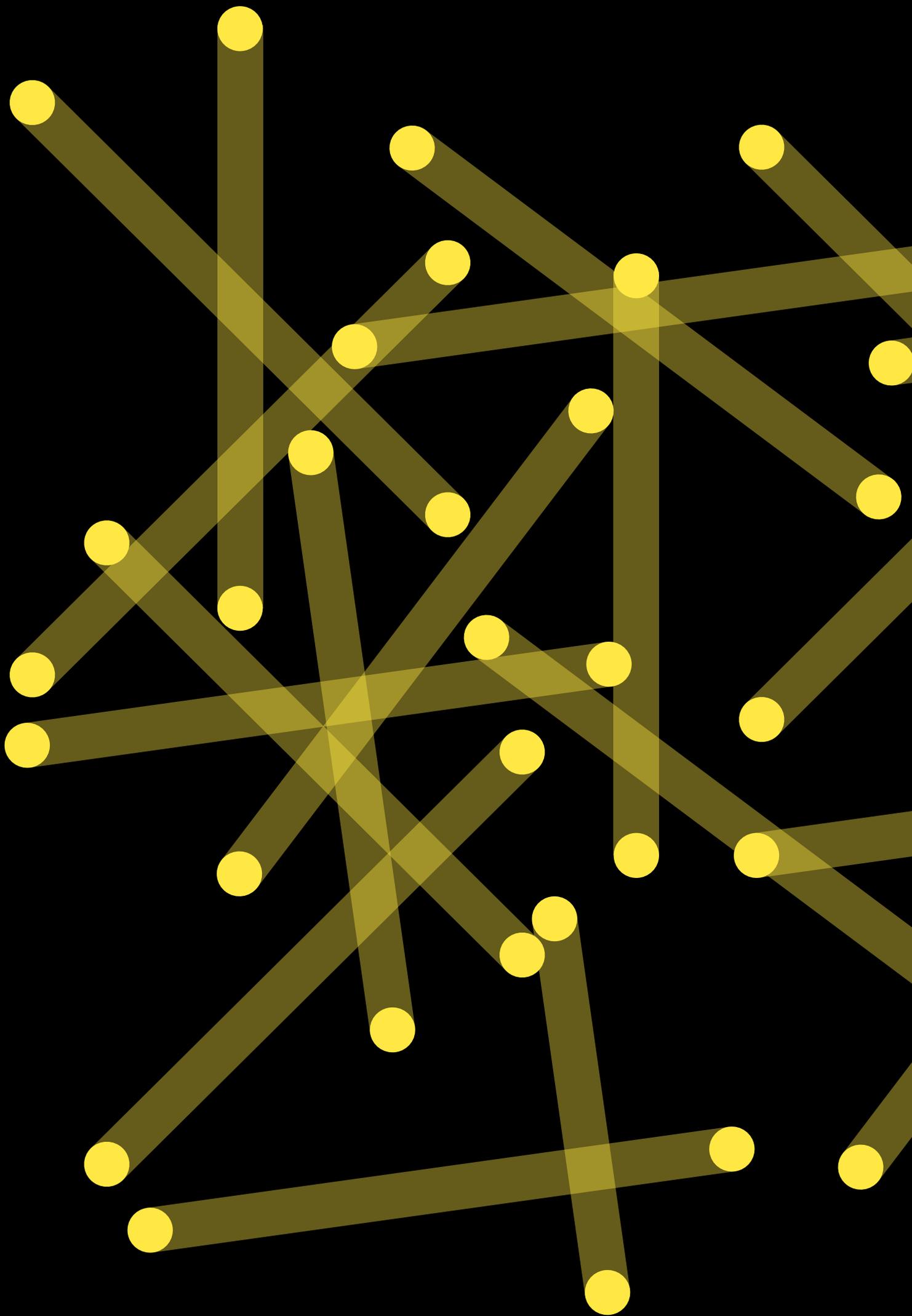
of the program. Some new costs due to COVID-19 emerged with the need to adapt safety measures in TDLC facilities, but those were minor. Overall and due to the reduction of activity and the reduction in travel costs, TDLC presents this year a surplus for carryover for next FY22 activities. This surplus is expected to be applied to new activity as travel restrictions are lifted and hybrid and face-to-face events commence.

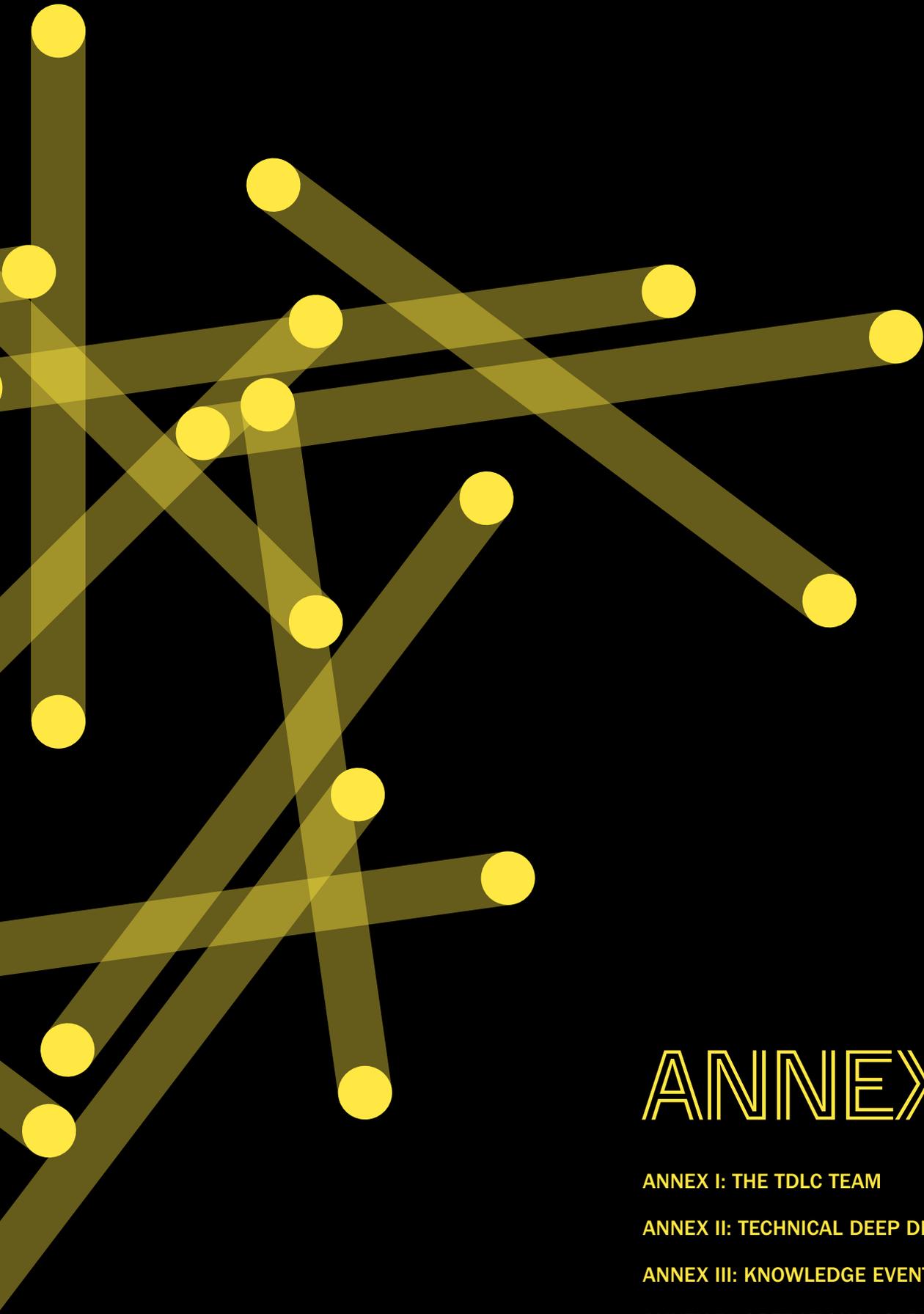
TDLC's FY21 budget and expenditures year to date are shown in table 5.

TABLE 5
TDLC FY21 ANNUAL BUDGET

	FY20	FY21	DIFFERENCE
Knowledge Outreach (TDDs)	\$1,616.46	\$1,487.37	\$129.09
Partnerships (CPP and CoE)	\$648.76	\$508.48	\$140.28
Operational support	\$843.52	\$436.42	\$407.10
Research and Publications	\$483.77	\$279.27	\$204.50
*Technology	\$131.87	N/A	N/A
Program management	\$311.06	\$202.69	\$108.37
Office fixed costs	\$776.58	\$744.64	\$31.94
COVID-19 adaptation		\$42.68	(\$42.68)
TOTAL EXPENSES	\$4,812.02	\$3,701.55	\$978.60
BUDGET		\$6,750.00	
Carryover amount			\$3,048.45

Note: Actual expenses and commitments as of May 31st, 2021. Estimated amounts for remaining of FY. Amounts subject to modifications with actuals.
(All values are in US\$ thousands)





ANNEXES

ANNEX I: THE TDLC TEAM

ANNEX II: TECHNICAL DEEP DIVES

ANNEX III: KNOWLEDGE EVENTS

ANNEX IV: OPERATIONAL SUPPORT

ANNEX V: COMMUNITY OF EXPERTS

ANNEX VI: MEDIA COVERAGE

ANNEX I

THE TDLc TEAM

LEADERSHIP

SAMEH WAHBA is the Global Director at the Urban, Disaster Risk Management, Resilience and Land Global Practice, based in Washington, DC. The Global Practice, which also covers territorial development, geospatial, and results-based financing issues, has a portfolio of close to US\$30 billion in commitments in Investment Project Financing, Program-for-Results, and Development Policy Financing projects and about 450 staff.

He previously served as the Director for Urban and Territorial Development, Disaster Risk Management, and Resilience at the World Bank Group's Urban, Disaster Risk Management, Resilience and Land Global Practice, where he oversaw the formulation of strategy, design, and delivery of all lending, technical assistance, policy advisory activities, and partnerships at the global level. He also served as Practice Manager for the Urban and Disaster Risk Management Unit in Africa and the Global Urban and Resilience Unit, and as Acting Director of Operations and Strategy for the Global Practice. He worked as Sustainable Development Sector Leader for Brazil, based in Brasilia, and as an Urban Specialist focused on housing, land, local economic development, and municipal management and service delivery in the Latin America and Caribbean region as well as the Middle East and North Africa region. Prior to joining the Bank in 2004, he worked at the Institute of Housing and Urban Development Studies in Rotterdam and at the Harvard Center for Urban Development Studies.

He holds MA and PhD degrees in urban planning from Harvard University, and a BSc and MSc in architectural engineering from Cairo University. He speaks Arabic, French, English, and Portuguese. He co-authored the World Bank's flagship publication *The Hidden Wealth of Cities: Creating, Financing and Managing Public Spaces*, as well as *Regenerating Urban Land: A Practitioner's Guide to Leveraging Private Investment* and (jointly with UNESCO) *Culture in City Reconstruction and Recovery*.

MAITREYI DAS is the Practice Manager of the Global Programs Unit at the Urban, Disaster Risk Management, Resilience and Land Global Practice. Based in Washington, DC, she leads a talented group of professionals who work on urban development, resilience, and inclusion. She has extensive experience in both human development and infrastructure-related sectors, most notably in urban development, water and sanitation, demography, health, social protection, and social development.

Maitreyi has led and been part of several research and policy initiatives. She was lead author of the 2013 report *Inclusion Matters: The Foundation for Shared Prosperity*, the 2015 publication *Scaling the Heights: Social Inclusion and Sustainable Development in Himachal Pradesh*, and most recently (2019) *Inclusion Matters in Africa*. She started her career as a lecturer at St. Stephen's College, University of Delhi, and has been a MacArthur Fellow at the Harvard Center of Population and Development Studies and an advisor to the United Nations Development Programme. She has a PhD in sociology (demography) from the University of Maryland. Before joining the World Bank, she was in the Indian Administrative Service (IAS).

STAFF

VICTOR MULAS is TDLc Team Lead. He previously worked in the Markets and Technology Unit at the Finance, Competitiveness and Innovation Global Practice. He joined the World Bank in 2010 and has been since involved in numerous operations and technical assistance initiatives at the intersection of technology, innovation, start-ups, and cities, across regions. Victor has also led Bank-wide programs to mainstream innovation and technologies in operations, including the Innovation Acceleration Program from the Innovation Labs Unit and, most recently, the Disruptive Technologies for Development (DT4D) Program. Before joining the World Bank Group, Victor worked in global consulting and legal firms, advising governments and multinational companies on technology regulatory strategy. He holds an MBA from the McDonough School of Business at Georgetown University, an LLM in telecommunications law from Universidad de Comillas, and a law degree from Universidad Autonoma de Madrid.

HARUKA MIKI-IMOTO is Operational Officer. She leads TDLC's operational support component, working with projects across multiple regions. She is actively involved in research and analytics on global and Japanese urban development, contributing to global publications such as *What a Waste 2.0*, *Global Analytics on Healthy Cities*, and *Cities, Culture, Creativity: Leveraging Culture and Creativity for Sustainable Urban Development and Inclusive Growth*. Throughout her career, Haruka has devoted herself to sustainable, resilient, and inclusive urban development, working with cities in Japan and across Europe. Before joining the World Bank, she worked at Morgan Stanley and at the Institute for Global Environmental Strategies in Japan. Haruka holds dual MPAs from the London School of Economics and Sciences Po Paris and a BSc in social sciences from Hitotsubashi University in Tokyo.

SHIN TANABE is a Knowledge Management Analyst at TDLC. He serves as functional lead of TDDs and other international knowledge exchange programs, ensuring their design, development, and implementation. Before joining the World Bank, Shin worked with the Association for Overseas Technical Scholarship (a Japanese nonprofit organization for human resource development in developing countries), Robert Walters Japan K. K. (a global recruitment firm), and Kwansai Gakuin University (a private university in Japan), focusing on global talent acquisition and development. He has also been active in learning design and program evaluation and has developed, implemented, and evaluated service-learning courses, internship courses, and other knowledge-exchange programs in collaboration with local and international stakeholders. Shin holds a master of arts degree in political science from the University of Toronto and two bachelor of arts degrees in political science, one from Amherst College and one from International Christian University.

SHOKO TAWARA is a Knowledge Management Analyst at TDLC overseeing the design, development, and implementation of knowledge activities and partnerships. Prior to joining TDLC, Shoko was Assistant Manager in project management at a consultancy firm, where key areas of engagement included budget and contract management and resource mobilization for large-scale infrastructure projects. Her project portfolio includes consultancy for design and construction supervision projects in rail, bridge, and shipbuilding in India and the Philippines. She also was a Sales Consultant for a SaaS (software as a service) company providing media and brand monitoring solutions to public relations and marketing executives in Japan and the Republic of Korea. Shoko has a BA in political science from Northwestern University and an MA in international affairs from the Johns Hopkins School of Advanced International Studies (SAIS).

IAIN MITCHELL joined the TDLC in August 2004 to support multimedia operations for a wide range of World Bank Group events, including distance learning seminars, public seminars, high-level government roundtable meetings, and Technical Deep Dives. In 2015, Iain was assigned as Task Team Leader and system architect for the multimedia and conference room upgrade project, which involved the redesign of the control room and conference rooms to reflect the latest trends in presentation and communication technologies. In his current position, Iain is responsible for technical operations and facility maintenance within the center, and he also shoots off-site events and records interviews before editing the content for distribution on the TDLC website and social media networks. Prior to joining the World Bank Group, Iain worked in live television news operations for CNBC Financial Television in London, Reuters Financial Television Tokyo, and Bloomberg Financial Television in Tokyo.

ASAMI OTSUKA is the TDLC Program Assistant. She interfaces and communicates with individuals at all levels of the organization, managing general affairs (office administration, finance, human resources), coordinating the logistics of operational support, and assisting the Senior Program Officer. Prior to joining the World Bank, she gained experience in both the private sector and international diplomatic organizations as an Executive Assistant in Edenred Japan and at the Honduran Embassy in Japan. Having lived 15 years in Latin America, Asami is proficient in Japanese, English, and Spanish. She holds a BA in English literature from Aoyama Gakuin University.

CHIYUKI MIFUJI joined the TDLC in FY17 as Event Coordinator STT (Short-Term Temporary) for the delivery of Technical Deep Dives. Previously, she organized seminars and study tours at Passive House Japan, a research institute that teaches architectural methods for energy-saving residences. She also worked at the Institute for Global Environmental Strategies as a Program Officer, where she was in charge of the city-to-city cooperation project for low-carbon development in Asia and also organized several international conferences mainly focused on climate change. Since joining TDLC, she has organized more than 25 TDDs as well as some events related to Smart Cities and G20.

YUMI SARUMARU joined TDLC in FY17 as an Event Coordinator STT. After graduating from university, Yumi worked for two airline companies to pursue her interest in international cultural differences and to enhance her communication skills. She also worked for the Institute for Global Environmental Strategies as an Administrative Assistant and supported study tours and conferences related to climate change and natural resources ecosystem services.

SUPPORTING STAFF

AKIKO ASAMI is the TDLC's Communications STC (Short-Term Consultant). She has over 10 years of experience in corporate communication and public affairs at global public relations firms, with particular expertise in communication strategy development and coordination with external and internal stakeholders as a project lead. To multinational clients, she has advocated the power of communication that fosters positive change to society, through corporate social responsibility (CSR) program development, executive visibility enhancement, employee engagement, strategic message development, brand building in new markets, and crisis and issues management. She holds a MSc in Media and Communications from London School of Economics and Political Science, and a BA in History of Educational Thoughts from Keio University.

TOMOKO UNAKI is Knowledge Management Consultant for TDLC. Over the last five years, Tomoko worked with the Japan International Cooperation Agency (JICA), supporting the capacity building of clients from the Western Balkans, southern Africa, and Southeast Asia. Prior to that, she served as Extended-Term Consultant at the World Bank in Tirana and Vienna. She primarily supported knowledge management on gender mainstreaming, development and implementation of land tenure, and social development projects in the Western Balkans. Tomoko holds an MSc in urbanization and development from the London School of Economics and Political Science, and a BA in International Relations from Ritsumeikan University.

RUTSUKO NAKAJIMA is the TDLC's Communications and Public Relations STC. She has over seven years of professional PR and communications experience, gained at a leading global PR agency (Weber Shandwick) and at not-for-profit organizations in Japan, New York City, and Southeast Asia. She has a strong track record in development of bilingual communications strategy, consultancy, and day-to-day PR support for enterprises of all sizes, from small start-ups to large multinational organizations. Leveraging her academic training in social work (gained in New York) and in coaching, Rutsuko is passionate about empowering the "stories" of socially minded organizations and people in order to unleash their untapped potential. She holds a BA in comparative culture studies from Sophia University (Tokyo, Japan) and a master of social work from New York University. She is a certified PR Planner.

ASAKO SATO is a Knowledge Management Associate STC at TDLC. She started her career at the Asian Productivity Organization, where she helped disseminate knowledge and provide technical assistance to member countries in the Asia Pacific region through study missions, technical expert services, and e-learning programs. She joined the Bank in 2010 as a Senior Knowledge Management Assistant for TDLC and was responsible for managing program delivery through blended learning utilizing the distance learning platform (e-learning, Global Development Learning Network, and webinars). She was also supporting the team in developing the Community of Practice platform, event websites, and mobile apps, as well as data management and knowledge research products.

VIBHU JAIN is an Urban Consultant who joined TDLC in FY18. Vibhu holds a master's degree in urban regional planning and public policy. She has worked at the World Bank since 2012, first on urban development projects in the New Delhi office and now supporting TDLC, the Disaster Risk Management (DRM) Hub, and the Urban team of East Asia and Pacific (EAP) in the Tokyo office. Before joining the Bank, she worked with PricewaterhouseCoopers Ltd. and Deloitte Touche Tohmatsu. Much of her work has been on infrastructure sector projects, including solid waste management (SWM) and transport, with a focus on project design, transaction advisory for public-private partnerships, and implementation support. Currently, she co-leads the research and publication component of TDLC and supports knowledge and operational projects on urban issues.

JAMES LEE joined TDLC in 2019 as a Technology and Operations Consultant and has worked with the wider TDLC team in helping to prepare, organize, and delivery virtual TDDs. James is also involved in supporting operational support and has been the project lead for technical assistance to Colombia's SWM sector and waste-related digital infrastructure. He also serves as the team's focal point on disruptive technologies and has supported the work on smart cities and the disruptive technologies for sustainable development publication. Previously, he worked as an Emerging Markets Equity Research Analyst at Limiar Capital Management. He holds an MSc in foreign service from Georgetown University and a BA in International Affairs from the George Washington University.

XIN ZHANG is a KM & Operations consultant at TDLC. She supports the design, implementation, and evaluation of knowledge activities such as the Technical Deep Dives (TDDs) and leads the Low Carbon Cities series events. Xin is also a core member of TDLC Operational Support team, providing operational support to WB lending projects in Liberia, Tanzania, West Bank & Gaza, etc. Before TDLC, Xin has worked with multiple teams at the Bank, including the Development Research Group, Finance Competitiveness & Innovation GP, and Corporate IDA & IBRD on program management, stakeholder engagement, and data analytics. Prior to joining the World Bank, she worked for the United Nations Development Programme and International Labour Organization. Xin holds a master's degree in public policy from Georgetown University and a bachelor's degree in International Relations from Renmin University of China.

MICHIKO KADONO is an Urban Consultant who joined TDLC in FY20. She has been working at the World Bank since FY19, first on creative cities research at the Singapore Hub and now supporting TDLC. She has been involved mainly in research and publication including *Kyoto: A Creative City Leveraging Creativity for City Competitiveness and Inclusive Urban Transformation*, and also in operational projects on Sri Lanka. Before joining the Bank, she worked 8 years in Research Institute of Architecture, an architectural design/urban planning firm in Tokyo, where she was involved in planning, consultation and coordination of many prominent urban development projects. Michiko holds a BSc and MEng in urban landscape and civic design from the University of Tokyo.

MIHO INAGAKI joined TDLC as a Communications Consultant in January 2020. Since joining the World Bank in 2009, she has worked on multiple teams, mainly in the Social Protection Global Practice. Prior to joining the World Bank, she worked as a Front-End Web Developer at a private website development company in the United States, and as an Application Engineer/Project Manager at a systems integrator in Japan. She holds a BA from Sophia University.

RYOTA NISHIYAMA joined TDLC in August 2020 as a Communications Consultant. Before this, he was a Journalist for a national newspaper in Japan for eight years and worked in public relations for an international NGO and JICA for two years. He holds a master's degree in development studies from the Institute of Development Studies in the UK.

KOICHI ITO joined TDLC as a Research Intern in April 2020. He supports the team's research activities with his skills in data analysis. Before joining TDLC, he had interned at various IT start-ups and developed his skills and knowledge in data analysis. He also worked at an international nonprofit organization in Senegal, supporting research activities for developing water infrastructure. He holds a BA degree in liberal arts from Soka University of America and currently attends a master's program in urban planning at the National University of Singapore.

ADVISORS

KIYOSHI KODERA is a Senior Advisor to TDLC. He served as TDLC's Mid-Term Review reviewer in 2019. He has over 40 years of experience working in international finance and development. He also works as Senior Research Associate for the Overseas Development Institute, UK; is currently Chair of the Water Aid Japan Board of Trustees; and is a Trustee of Save the Children Japan. Mr. Kodera has served as Executive Secretary for the joint World Bank/International Monetary Fund Development Committee, World Bank Country Director for Central Asia, Senior Vice President of JICA, and Deputy Vice Minister for International Affairs at Ministry of Finance, Japan.

TAKEHIKO NAGUMO is Senior Managing Executive Officer at Mitsubishi UFJ Research and Consulting, Ltd and concurrently, Executive Director of Smart City Institute Japan dedicated to conducting research on and designing digital government and smart city policies. Tak is serving as a Council Member of Japanese Government's Regulatory Reform Promotion Council, Industrial Structural Council, and several other national and local government councils. Tak is also active in academia, serving as Adjunct Professor at Graduate School of Management at Kyoto University, Visiting Professor at Tallinn University of Technology in Estonia, and Senior Industry Fellow at Royal Melbourne Institute of Technology in Australia.

PHIL KARP is currently a Senior Advisor for TDLC. Previously, he was the Lead Knowledge Management Specialist in the World Bank's Urban, Disaster Risk Management, Resilience and Land Global Practice (GPURL) and served as the TDLC Program Manager until last year. In his current role he advises on TDLC's programming, including research and operational support activities. In his previous role he provided technical oversight to TDLC and helped link it to GPURL's operational program, knowledge communities, and partnerships. He has more than 25 years of experience in the fields of knowledge, learning, and advisory services, with special emphasis on practitioner-to-practitioner and South-South knowledge exchange. He holds a master's degree in public policy from the University of California, Berkeley.

PAUL KRISS is the Lead Urban Specialist at the World Bank Group and a Senior Advisor of TDLC for quality infrastructure investment (QII). Paul seeks to provide value and help cities deal with their enormous challenges by successfully integrating the planning, social, technical, and financial aspects of urban development. Recent changes, such as large migrations and extreme weather events, require new and innovative solutions in the urban space. Paul has more than 20 years of experience in urban development and infrastructure projects in large, medium, and small cities, and over this time has demonstrated that attention to detail can significantly improve results in delivering services to poor populations. He has identified, prepared, and executed large-scale investment programs for the World Bank that target urban and rural infrastructure across the world.

HIROSHI NISHIMAKI serves as Urban/Regional Planning Advisor STC to TDLC. He is a professional consultant with over 30 years of global experience in the field of urban development and management. He has been involved in project planning, policy proposals, surveys, and implementation support in the field of urban planning, urban infrastructure development, and urban transport, often as a team leader. His first assignment with TDLC was in 2017 and focused on transit-oriented development in Belgrade. Since then he has provided urban planning support for Romania and Georgia (Tbilisi), and has worked on case studies of Toyama, Fukuoka, and the evolution of Japanese urban infrastructures under QII. He has a PhD in city and regional planning from the University of California, Berkeley, and holds an MA in public administration from the Kennedy School of Harvard and a BA in urban planning from Tokyo Institute of Technology

ANNEX II

TECHNICAL DEEP DIVES

IN FY21

SOLID WASTE MANAGEMENT (SWM)

REGION	COUNTRY	TITLE	LENDING (IPF/PFR/DPO) NON-LENDING (ASA)	COMMITTED FUNDING (US\$ million) ¹
AFRICA	Ghana	Greater Accra Resilient and Integrated Development Project	IPF	200.00
	Liberia	Cheesemanburg Landfill and Urban Sanitation Project—AF1	IPF	9.30
		Cheesemanburg Landfill and Urban Sanitation Project	IPF	10.50
	South Africa	Urban MDTF for South Africa	ASA	0.18
EAST ASIA & THE PACIFIC	Philippines	Philippines Sustainable Inclusive and Resilient Tourism Project	IPF	150.00
EUROPE & CENTRAL ASIA	Estonia	Estonia Municipal Solid Waste Management Support	ASA	0.07
	Georgia	Municipal Solid Waste Management	ASA	0.00
LATIN AMERICA & CARIBBEAN	El Salvador	Regional Initiative on Solid Waste Management and Marine Environment Protection—Central America	ASA	0.03
MIDDLE EAST & NORTH AFRICA	West Bank and Gaza	Gaza Solid Waste Management Project	IPF	10.00
SOUTH ASIA	India	Chennai Sustainable Urban Services Program	P4R	150.00
		Karnataka SWM Project	IPF	N/A
	Pakistan	Karachi Solid Waste Emergency and Efficiency Project	IPF	100.00

¹ As of May 2021

Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing; IPF = Investment Project Financing; P4R= Program-for-Results.

VITALIZING URBAN NEIGHBORHOOD AND SPACE THROUGH TRANSIT-ORIENTED DEVELOPMENT

REGION	COUNTRY	TITLE	LENDING (IPF/PFR/DPO) NON-LENDING (ASA)	COMMITTED FUNDING (US\$ million) ¹
AFRICA	Côte d'Ivoire	Abidjan Urban Mobility Project	IPF	300.00
		Greater Abidjan Port— City Integration Project	IPF	315.00
	Tanzania	Dar es Salaam Metropolitan Development Project-Lower Msimbazi Upgrading	IPF	100.00
		Dar es Salaam Metropolitan Development Project	IPF	300.00
	Uganda	Greater Kampala Metropolitan Area Urban Development Program	P4R	460.00
		Second Kampala Institutional and Infrastructure Development Project	IPF	175.00
		Uganda Support to Municipal Infrastructure Development Program	P4R	150.00
		Uganda: Albertine Region Sustainable Development Project	IPF	145.00
		Greater Kampala Metropolitan Area Urban Development Program	P4R	460.00
	EAST ASIA & THE PACIFIC	China	CN Yunnan Honghe Prefecture Diannan Center Urban Transport	IPF
Indonesia		Indonesian Mass Transit Program Support Project	IPF	500.00
		National Urban Development Project (NUDP)	IPF	49.60
		Global Environment Facility Indonesia Sustainable Cities Impact Project	IPF	15.87
EUROPE & CENTRAL ASIA	Bulgaria	Bulgaria-Transport and Trade Facilitation—Phase Two	ASA	0.06
LATIN AMERICA & CARIBBEAN	Argentina	Metropolitan Buenos Aires Urban Transformation Project	IPF	200.00
		Buenos Aires—Mitre Passenger Railway Line Modernization Project	IPF	315.00
	Colombia	Support to the Bogota Metro Line 1 Section 1 Project (Series 1)	IPF	70.00
		Supporting Urban Regeneration Financing Instruments in Medellin	ASA	0.00
MIDDLE EAST & NORTH AFRICA	Egypt, Arab Republic of	Upper Egypt Local Development PforR	P4R	500.00
		Railway Improvement and Safety for Egypt	IPF	440.00
	Jordan	Municipal Services and Social Resilience	IPF	50.00
		Amman Bus Rapid Transit Phase 2 —Public Private Partnership	IPF	120.00
		KSA SMNUR-2: Saudi Arabia Urban Development and Management Programmatic RAS	ASA	4.43
SOUTH ASIA	India	West Bengal Inland Water Transport, Logistics and Spatial Development Project	IPF	105.00

1 As of May 2021

Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing;
IPF = Investment Project Financing; P4R= Program-for-Results.

HEALTHY CITIES FOR ALL

REGION	COUNTRY	TITLE	LENDING (IPF/PFR/DPO) NON-LENDING (ASA)	COMMITTED FUNDING (US\$ million) ¹
AFRICA	Angola	Second Water Sector Institutional Development - PDISA2	IPF	200.00
		Luanda Bitá Guarantee Project	IPF	500.00
		Angola Urbanization Review	ASA	0.01
	Malawi	Malawi Resilience and Disaster Risk Management	IPF	104.00
		Lilongwe Water and Sanitation Project	IPF	100.00
	Nigeria	Lagos Platform for Development	ASA	0.00
		Municipal SWM and Plastic Waste Management	ASA	N/A
MIDDLE EAST & NORTH AFRICA	Jordan	Jordan Water Sector Recovery Program	ASA	N/A
		Municipal Services and Social Resilience Project	IPF	50.00
	Tunisia	Tunisia Urban Development and Local Governance	P4R	300.00
		Tunisia Sanitation PPP Support Project	IPF	131.63
	Yemen, Republic of	Integrated Urban Service Emergency Project	IPF	150.00
SOUTH ASIA	Bangladesh	Bangladesh Local Government COVID-19 Response & Recovery Project	IPF	300.00
		Metro Dhaka Transformation Platform	ASA	N/A

¹ As of May 2021

Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing; IPF = Investment Project Financing; P4R= Program-for-Results.

METRO REGIONS TO BUILD BACK BETTER

REGION	COUNTRY	TITLE	LENDING (IPF/PFR/DPO) NON-LENDING (ASA)	COMMITTED FUNDING (US\$ million) ¹
AFRICA	Kenya	Nairobi Metropolitan Services Improvement Project	IPF	300.00
	South Africa	Cape Town Infrastructure Strategy	ASA	0.09
EAST ASIA & THE PACIFIC	Philippines	EAP Cities	N/A (IFC)	N/A
		Metro Manila Flood Management Project	IPF	207.60
		Sustainable Inclusive Resilient Tourism (SIRT)	IPF	150.00
EUROPE & CENTRAL ASIA	Kazakhstan	Metropolitan & territorial development support	ASA	0.00
SOUTH ASIA	Nepal	Nepal Urban Governance and Infrastructure Project	IPF	150.00

¹ As of May 2021

Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing; IPF = Investment Project Financing; P4R= Program-for-Results.

ANNEX III

**KNOWLEDGE EVENTS
IN FY21**

**1. GUEST LECTURE AT
MIYAZAKI UNIVERSITY**

Virtual, August 28, 2020

SPEAKER

SHIN TANABE
Knowledge
Management Analyst,
World Bank, TDLC

PARTICIPANTS

17

At the request of Professor Yasuyuki Kanaoka of Miyazaki University, TDLC made a presentation in an undergraduate seminar on global careers. TDLC explained the World Bank’s history and mandates, the relationship between the World Bank Group and Japan, the TDLC ecosystem, and the importance of knowledge sharing in international development.

2. SHARING JAPANESE QII PRACTICES AT VEB RF AND WORLD BANK JOINT SESSION

Virtual, November 9, 2020

ORGANIZERS

Russian National Development Corporation (VEB.RF), World Bank

SPEAKERS

PAVEL SNISORENKO

Director, Department for International Financial Relations of the Ministry of Finance of the Russian Federation;

RENAUD SELIGMANN

Director and Resident Representative of the World Bank for the Russian Federation

SVETLANA YACHEVSKAYA

Deputy Chair, VEB.RF Management Board

MASASHI TANABE

Director of Multilateral Development Banks Division, International Department, Ministry of Finance, Japan

FATOUMA TOURE IBRAHIMA

Practice Manager, PPP [Public-Private Partnership] Group Infrastructure Finance, PPPs and Guarantees (IPG) Group, Infrastructure Vice Presidency, World Bank

CLIVE HARRIS

Lead Infrastructure Specialist, World Bank

LISA MITCHELL

Senior Director for Investment, Infrastructure Canada

ISABEL RIAL

International Monetary Fund

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead, World Bank

HIROSHI NISHIMAKI

World Bank Consultant

PARTICIPANTS

50

TDLC participated in a joint strategic session of VEB.RF (the Russian National Development Corporation) and the World Bank, which was convened by the World Bank Russia Country Management Unit in collaboration with Infrastructures Finance, PPPs & Guarantees (IPG) Department, PPP Group. Under the theme of “Efficiency and Governance in Quality Infrastructure Investment (QII)”, the discussion centered on the operationalization of QII Principles 2 (economic efficiency) and 6 (infrastructure governance) on the ground. Some 50 policy makers, implementing agencies, and international organization partners in the field of infrastructure development participated in this virtual session.

Joined by Japan’s Ministry of Finance, TDLC spoke at a panel session entitled “Ensuring Economic Efficiency throughout the Project Lifecycle”, which explored life-cycle costs, procurement, and tracking in investment planning and implementation.



Victor Mulas, Senior Urban Specialist and TDLC Team Lead, speaking on how TDLC supports SDG goals, with a strong focus on SDG 9 (industry, innovation, and infrastructure), SDG 11 (sustainable cities and communities), and SDG 12 (responsible consumption and production).

3. SDGs DESIGN INTERNATIONAL AWARDS 2020

Virtual, November 10, 2020

ORGANIZERS

SDGs Design Unit Secretariat,
Faculty of Design, Kyushu University

PARTICIPANTS

100

SPEAKERS

KAZUHIRO KUBOTA

Executive Director, International Affairs
Department, General Affairs & Planning
Bureau, Fukuoka City Government

NICHOLAS YUU

Guangzhou, China

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

SHIGERU YOSHIMURA (Moderator)

Director, Asian-Pacific City Summit, International
Affairs Department, General Affairs & Planning
Bureau, Fukuoka City Government

TDLC was invited to speak in the Fukuoka City session of the SDGs Design International Awards 2020 Final Presentation and Awards Ceremony. TDLC introduced the global challenges and opportunities arising from urbanization along with the World Bank’s approach to solving these urban challenges to achieve the Sustainable Development Goals (SDGs). The event provided TDLC with an opportunity to show how it is working with Japanese cities like Fukuoka to contribute to the urban development of developing countries.



Haruka Miki-Imoto, Operations Officer of TDLC, discusses the importance of inclusive urban development at a panel session moderated by Ryosuke Toura, Executive General Manager of Shibuya Development Division, Tokyu.

4. SOCIAL INNOVATION WEEK SHIBUYA 2020

Virtual, November 11, 2020

ORGANIZERS

Social Innovation Week Shibuya
Planning Committee

SPEAKERS

KAZUO YANO

Fellow of Hitachi, Ltd./ Leader of the Happiness Project in the Future Investment Division

MASANOBU TODOME

CEO, SUNDRED

TAKASHI MAENO

Professor, Keio University

HARUKA MIKI-IMOTO

Operations Officer, Tokyo

Development Learning Center, World Bank

RYOSUKE TOURA (Moderator)

Executive General Manager of Shibuya

Development Division, Tokyu Corporation

PARTICIPANTS

350

TDLC was invited to serve on the panel for the Shibuya Startup Summit session of the Social Innovation Week event. TDLC's presentation addressed building resilient, inclusive, and competitive cities of the future that focus on citizen happiness and capture the various dimensions of urban livability. TDLC provided a preview of the Transit-Oriented Development (TOD)-Urbanscapes Technical Deep Dive that explores the concepts of urban regeneration, livability, inclusion, and competitive cities.



Fireside chat on exploring the future of cities after COVID-19 with **Ryosuke Toura**, Executive General Manager of Shibuya Development Division, Tokyu Corporation; **Victor Mulas**, Senior Urban Specialist and Team Lead of TDLc, was moderator.

5. SMART CITY LIVE 2020 SIDE EVENT: REINVENTING CITIES WITH TECHNOLOGY AFTER COVID-19 & UNPACKING IDEAS FROM JAPAN

Virtual, November 17-18, 2020

ORGANIZERS

Smart City Expo World Congress

PARTICIPANTS

335

SPEAKERS

RYOSUKE TOURA

Executive General Manager of Shibuya Development Division, Tokyu Corporation

VICTOR MULAS (Moderator)

Senior Urban Specialist and TDLc Team Lead, Tokyo Development Learning Center, World Bank

TORU HASHIMOTO

Director General, Development Cooperation Department, International Affairs Bureau, City of Yokohama

KOICHI MATONO

Director of Smart City Planning, Fukuoka City

TAISUKE MATSUZAKI

Director for Smart City Projects, Cross-Sector Coordination Lab, Planning and Coordination Bureau, City of Kobe

ABHAS JHA (Moderator)

Practice Manager, Climate Change and Disaster Risk Management, South Asia Region, World Bank

TAKEHIKO NAGUMO

Executive Director, Smart City Institute Japan

NARAE CHOI (Moderator)

Senior Urban Specialist, Lead of Global Smart Cities Partnership Program, World Bank

The Smart City Expo World Congress (SCEWC) is one of the largest smart city events in the world. This year, the event was held virtually as Smart City Live (November 17–18, 2020), with a day-long main event plus dedicated online workshops, sessions, and side events. The previous year, SCEWC had gathered 24,000 attendees from 146 countries and over 700 cities, including over 1,000 exhibitors and over 400 speakers. Smart City Live 2020 focused on the global impact of COVID-19 on cities and the ensuing health crisis, as well as issues of urban mobility, resilient infrastructures, economic recovery, and the digital era and urban living. The event created a platform to rebuild ecosystems and accelerate recovery.

TDLc organized a side event with representatives from Yokohama, Kobe, Fukuoka, and the private sector to share practical experiences and emerging trends on the intersection of cities and technology in the context of new urban challenges arising from COVID-19. The side event sought to advance the agenda of new thinking on urban design, planning, and regeneration following COVID-19, which aims to make cities more resilient, inclusive, sustainable, and ultimately livable by leveraging cross-cutting themes of QII and digital transformation. Through the SCEWC platform, TDLc shared Japanese expertise in new urban thinking with global practitioners, experts, and policy makers, particularly those from developing countries, offering practical ways to address common and pressing challenges cities now face.

6. WORLD CONGRESS ON INFORMATION TECHNOLOGY 2020

Virtual, November 19, 2020

ORGANIZERS

Smart Cities Council, World Information Technology and Services Alliances (WISTA)

PARTICIPANTS

400

SPEAKERS

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead, Tokyo Development Learning Center, World Bank

DR. TRUONG BINH

Founder and Chairman of FPT Group

KOK-CHIN TAY (MODERATOR)

Director of Smart Cities Council

TDLC was invited by the Smart Cities Council to present at the World Congress on Information Technology 2020, a regional event in Asia that brings together technology leaders from the private sector. At the “Eye on Growth & Smart Cities” session, TDLC described disruptive technology solutions implemented by the World Bank to address urban challenges in developing countries and strengthen the capacity of municipal authorities to meet urban challenges more effectively.

The presentation highlighted ready-to-use and on-the-ground technological solutions that support key areas of urban development, especially disaster preparedness, solid waste management, and urban planning. TDLC highlighted several World Bank activities, including a project in the Zanzibar region of Tanzania that utilizes drones to map flood-prone areas and an activity in Guatemala City that detects buildings that are potentially vulnerable to earthquakes using machine learning and open maps. The presentation was followed by a brief discussion on how local governments can utilize disruptive technologies and leverage open data to achieve more with limited urban resources.

7. ECO PRO ONLINE 2020

Virtual, November 25, 2020

ORGANIZERS

Nikkei Inc.; Sustainable Management Promotion Organization (SuMPO)

SPEAKERS

KAZUO YANO

Director, Future Investment Headquarters Happiness Project Leader, Hitachi

HARUKA MIKI-IMOTO

Operations Officer, Tokyo Development Learning Center, World Bank

MASANOBU TODOME

CEO, Sundred

TAKASHI MAENO

Professor, Graduate School of System Design and Management, Keio University

PARTICIPANTS

UNKNOWN

The World Bank exhibited at EcoPro Online 2020: Towards a Sustainable Society, which was hosted by Nikkei Inc. and Sustainable Management Promotion Organization and held online November 25–28, 2020. The World Bank virtual booth introduced the World Bank’s efforts to provide loans, technical support, and advisory services to developing country governments. It also hosted online seminars by World Bank staff on global development issues and the SDGs, on the World Bank’s work in the transportation sector and the SDGs, and on the Tokyo Development Learning Center.



Panel discussion on start-up ecosystem development moderated by **Todd Porter**, Venture Cafe Tokyo Advisory Board and Edmund Hillary Fellow.

8. VISION FOR 2021: STARTUP ECOSYSTEM NIGHT

Hybrid (Tokyo), November 26, 2020

ORGANIZERS

Cambridge Innovation Center (CIC) Tokyo

PARTICIPANTS

60

SPEAKERS

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

TODD PORTER

Venture Cafe Tokyo Advisory Board
and Edmund Hillary Fellow

HARUKA FURUKAWA

CEO Bark & Slush Japan

TRISTA BRIDGES

Co-founder Read the Air

TDLC spoke at the Vision for 2021: Startup Ecosystem Night, an online/in-person hybrid event organized by CIC Tokyo, one of the largest start-up innovation firms in Japan. One of three panelists for the “Ecosystem Building–Local & Global Lesson” session, TDLC set the framework of the discussion by introducing key findings of the World Bank’s research and practical experience on start-up ecosystem development acquired since 2014.

9. SACRED HEART UNIVERSITY LECTURES

Virtual, December 8 and December 15, 2020

PARTICIPANTS

10

SPEAKERS

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

HARUKA MIKI-IMOTO

Operational Officer, World Bank TDLC

SHIN TANABE

Knowledge Management Analyst, World Bank TDLC

SHOKO TAWARA

Knowledge Management Analyst, World Bank TDLC

At the request of Dr. Junko Okahashi of Sacred Heart University, TDLC delivered two lectures in an undergraduate course on international policies for cultural sustainability. The students were exposed to World Bank operational frameworks and case studies to illustrate how Japanese knowledge and expertise is leveraged to achieve better development outcomes in developing countries. Four topics were covered in the span of the two lectures: (1) overview of the TDLC program; (2) a case study of Kyoto as a creative city; (3) TOD, public spaces, and urban regeneration in Shibuya; and (4) an exploration of career paths leading to work at the World Bank.



Victor Mulas, Senior Urban Specialist, World Bank TDLC, discusses the key challenges and opportunities of global urbanization.

10. 9TH ASIA SMART CITY CONFERENCE PRE-EVENT

Virtual, December 14, 2020

ORGANIZERS

City of Yokohama

PARTICIPANTS

200

SPEAKERS

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

ALLISON WOODRUFF

Senior Urban Development Specialist,
Asia Development Bank

PITCHAYA SIRIVUNNABOOD

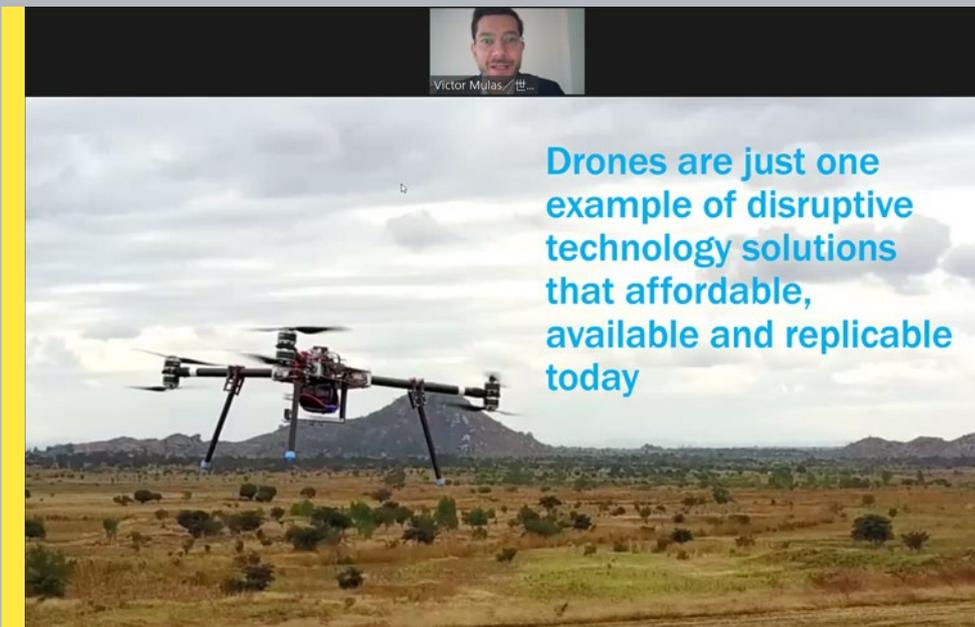
Asia Development Bank Institute

KAZUNARI KUDO (Moderator)

Mitsubishi UFJ Research and Consulting Co., Ltd.

TDLC served as a panelist for the Yokohama Week pre-event at the 9th Asia Smart City Conference.

At the panel session, which centered on the theme of smart cities in Asia, TDLC presented on global trends in urbanization and on efforts to leverage Japanese knowledge to address urban challenges. TDLC continuously collaborates with Yokohama through the City Partnership Program (CPP) to identify and codify Japanese urban expertise for the benefit of developing countries.



Victor Mulas, Senior Urban Specialist, World Bank TDLC, discusses the importance of knowledge-sharing in smart city development with Toru Hashimoto, Director General, City of Yokohama.

11. 9TH ASIA SMART CITY CONFERENCE

Virtual, January 18, 2021

ORGANIZERS

City of Yokohama

PARTICIPANTS

300

SPEAKERS

VICTOR MULAS (Moderator)

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

GAYATRI SINGH

Senior Urban Development Specialist, World Bank

MANSHA CHEN

Urban Specialist, World Bank

TORU HASHIMOTO

Director General, Development
Cooperation Department, International
Affairs Bureau, City of Yokohama

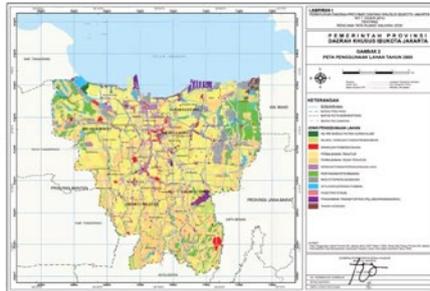
The Asia Smart City Conference (ASCC) is an international conference that brings together private and public sector stakeholders from Japan and abroad to discuss the future of urban development and smart cities. This year was the ninth ASCC but the very first virtual conference due to the COVID-19 pandemic. The theme for this year’s conference, “Building Smart Cities Aiming for Carbon Neutrality through City to City Collaboration under the Influence of COVID-19”, relates to Japan’s 2020 pledge to achieve net carbon neutrality by the year 2050.

In response to a request from Yokohama City, TDLC organized a session on leveraging Japanese and global experiences of smart solutions to achieve sustainable urban development. The session explored the initiatives and lessons learned from developing economies, shedding light on the deployment of smart solutions in a cost-effective manner with engagement cases in Asia that are supported by the Global Smart City Partnership Program (GSCP) at the World Bank.



Dr. Gayatri Singh

Spatial plans exist but don't translate into urban transformation



Gayatri Singh, Senior Urban Development Specialist of the World Bank, discusses current approaches to spatial planning.

12. THE THIRD SPECIAL PLANNING PLATFORM (SPP) ONLINE MEETING

Virtual, February 3, 2021

ORGANIZERS

Ministry of Land, Infrastructure, Transport and Tourism (MLIT), UN-Habitat

PARTICIPANTS

200

SPEAKERS

ARISA OSAWA (Moderator)

Director for National Spatial Planning and Coordination, MLIT, Japan

SENGDARA DOUANGMYXAY

Director of Urban Planning Division, Department of Housing and Urban Planning, Ministry of Public Works and Transport, Laos

PADMA K. MAINALEE

Joint Secretary (Urban Development Division), Ministry of Urban Development, Nepal

JOAQUIM LANGA

National Director of Land and Territorial Development, Mozambique Ministry of Land and Environment

NOBUYUKI KOBE

Deputy Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department, Japan International Cooperation Agency

GAYATRI SINGH

Senior Urban Development Specialist, World Bank

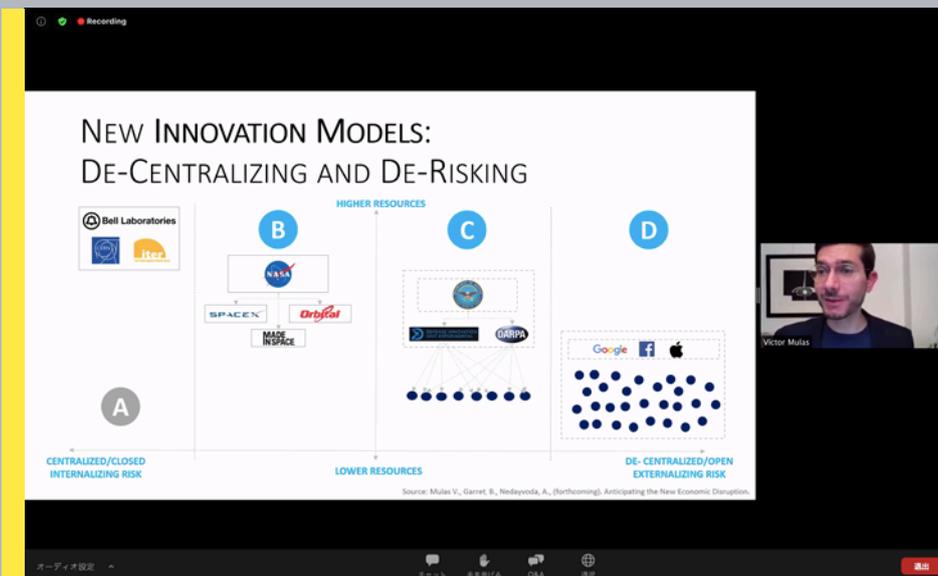
TADASHI MATSUMOTO

Head of Unit, Sustainable Development and Global Relations Cities, Organisation for Economic Co-operation and Development (OECD)

YOSHINOBU FUKASAWA

Overseas Business Department Director, Nishi-Nippon Railroad Co., Ltd.

The Third SPP meeting aimed to share experiences and good practices for dealing with multiple urban challenges in the aftermath of the COVID-19-induced socioeconomic crisis, including ways to build back better and greener through spatial planning tools and interventions at various territorial levels. Participants had a chance to consider those issues in depth through discussions among countries and cities, the United Nations, the OECD, international financial institutions, donor agencies, and the private sector. Gayatri Singh, Senior Urban Development Specialist at the World Bank, made a presentation entitled “The Roles of Spatial Planning in Solving the Current Crisis”, which pointed out that many developing countries lack spatial planning strategies and emphasized the importance of linking spatial planning more effectively with capital investment plans to ensure sustainable urban development. More than 200 people watched the online World Bank session, which was offered in both Japanese and English.



Victor Mulas, Senior Urban Specialist of the World Bank TDLC, discusses the innovation challenges in Japan.

13. OPEN FORUM FOR THE SCIREX CENTER CHANGING SCIENCE AND TECHNOLOGY INNOVATION POLICY ECOSYSTEM AND HUMAN RESOURCE DEVELOPMENT

Virtual, February 5, 2021

ORGANIZERS

National Graduate Institute for Policy Studies (GRIPS) SciREX Center

SPEAKERS

MICHIKO IIZUKA (Moderator)
Professor, National Graduate Institute for Policy Studies

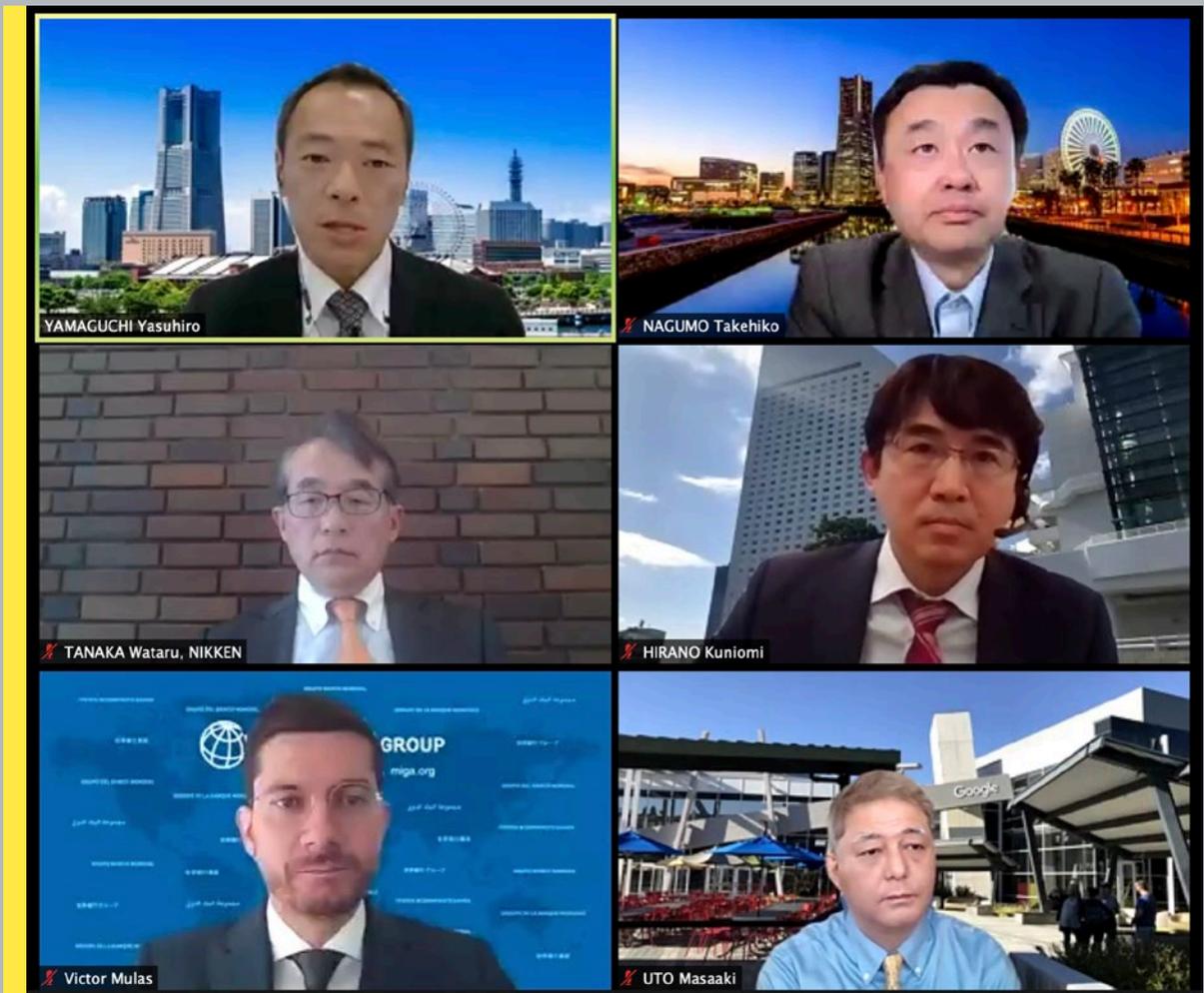
SUSANA BORRÁS
Professor of Innovation and Governance at Copenhagen Business School, Denmark

VICTOR MULAS
Senior Urban Specialist and TDLC Team Lead, Tokyo Development Learning Center, World Bank

PARTICIPANTS

UNKNOWN

The SciREX Program pursues research on science, technology, and innovation policies, runs educational programs at six Japanese universities, and carries out training for government administrators. At the Open Forum event, TDLC spoke on implementing “science for policy” with international experts. The discussion centered on the human resources and capabilities needed in Japan to implement science, technology, and innovation policies as part of a transformation for meeting social challenges.



Victor Mulas, Senior Urban Specialist of the World Bank TDLC, joins the panel discussion on designing vibrant and livable cities through knowledge sharing.

14. 9TH ASIA SMART CITY CONFERENCE FOLLOW-UP EVENT

Virtual, February 18, 2021.

ORGANIZERS

City of Yokohama

SPEAKERS

YASUHIRO YAMAGUCHI (Moderator)
Advisor, Yokohama Urban Solution Alliance (YUSA)

TAKEHIKO NAGUMO
Executive Director, Smart City Institute Japan

WATARU TANAKA
Executive Officer, Principal Urban and Landscape Design, Nikken Sekkei Ltd.

VICTOR MULAS
Senior Urban Specialist and TDLC Team Lead,
World Bank Tokyo Development Learning Center

KUNIOMI HIRANO
General Manager, Urban Development
Department, Consulting Operations
Headquarters, Nippon Koei Co., Ltd.

MASAAKI UTO
Professor, Tokyo City University

PARTICIPANTS

200

TDLC spoke at the 9th Asia Smart City Conference follow-up event, “Designing Vibrant and Livable Cities through Knowledge Sharing”. TDLC highlighted the recent collaboration with Yokohama City in hosting a workshop on Yokohama Urban Design Sketchbook methodology to promote citizen-driven planning in Barranquilla, Colombia.



Haruka Miki-Imoto, Operations Officer of the World Bank TDLC, and **Hiroshi Nishimaki**, World Bank Consultant, discuss the evolution of the quality infrastructure investment principles and QII cases in Japan.

15. QII PRINCIPLES IN ACTION

Learning from Fukuoka and Toyama

Virtual, March 2, 2021

ORGANIZERS

TDLC

PARTICIPANTS

100

SPEAKERS

MAITREYI DAS (Moderator)

Practice Manager, Urban, Disaster Risk Management, Resilience and Land GP, World Bank

FATOUMA TOURE IBRAHIMA WANE (Moderator)

Practice Manager, Infrastructure Finance, PPPs and Guarantees (IPG) Department, World Bank

MASASHI TANABE

Director, Multilateral Development Banks Division, International Department, Ministry of Finance, Japan

HIROSHI NISHIMAKI

Consultant, Tokyo Development Learning Center, World Bank

HARUKA MIKI-IMOTO

Operations Officer, Tokyo Development Learning Center, World Bank

CLIVE HARRIS

Lead Infrastructure Specialist, Infrastructure Finance, PPPs and Guarantees (IPG) Department, World Bank

KIYOSHI AMADA

Director General of Infrastructure Management Department, Japan International Cooperation Agency

In collaboration with the Quality Infrastructure Investment (QII) Partnership, TDLC has published two case studies that document Fukuoka’s efficient water management and Toyama’s compact city development initiatives through the lens of economic efficiency and infrastructure governance. In this online event, urban experts from the World Bank shared key findings from the two case studies and discussed how government officials and development practitioners in Japan and abroad can apply QII principles in a practical manner in their field projects.



Mayor Masashi Mori shares his experience and insights related to compact city development in Toyama.

16. TRAJECTORY OF COMPACT CITY DEVELOPMENT IN JAPAN

Lessons Learned from Toyama

Virtual, March 26, 2021

ORGANIZERS

TDLC; City of Toyama

PARTICIPANTS

70

SPEAKERS

MASASHI TANABE

Director, Multilateral Development Banks Division,
International Bureau, Ministry of Finance, Japan

MAYOR MASASHI MORI

City of Toyama

SHINJI HONDA

Senior Policy Administrator, City of Toyama

MITSUHIRO YAMAZAKI

Consultant, World Bank TDLC

HARUKA MIKI-IMOTO

Operations Officer, World Bank TDLC

HIROSHI NISHIMAKI

Consultant, World Bank TDLC

HIROSHI TANIGUCHI

Advisor, City of Toyama

DARWIN MARCELO

Senior Infrastructure Economist, World Bank

As a part of the City Partnership Program, the city of Toyama and TDLC co-published a case study in 2017 that summarized the city's urban development initiatives under its Compact City policy. This year, the second edition of the case study, "The Development Story of Toyama: Reshaping Compact and Livable Cities", was released.

For this event, TDLC invited Mayor Masashi Mori, City of Toyama, and other key city officials to unpack the city's difficult journey toward becoming a compact city and discuss how Japan's compact city development approach can potentially be applied in developing countries.



Victor Mulas, Senior Urban Specialist of the World Bank TDLc, discusses the importance of promoting open innovation in the 21st century.

17. THE SUCCESS OF OPEN INNOVATION IN GLOBAL COMPANIES

Lecture on Successful “Process” Case Studies—World Bank Perspective: Cutting-Edge Cases of Solving Grand Challenges Such as Carbon Neutral with Open Innovation

Hybrid (Tokyo), April 26, 2021

ORGANIZERS

Cambridge Innovation Center (CIC) Tokyo

PARTICIPANTS

30

SPEAKERS

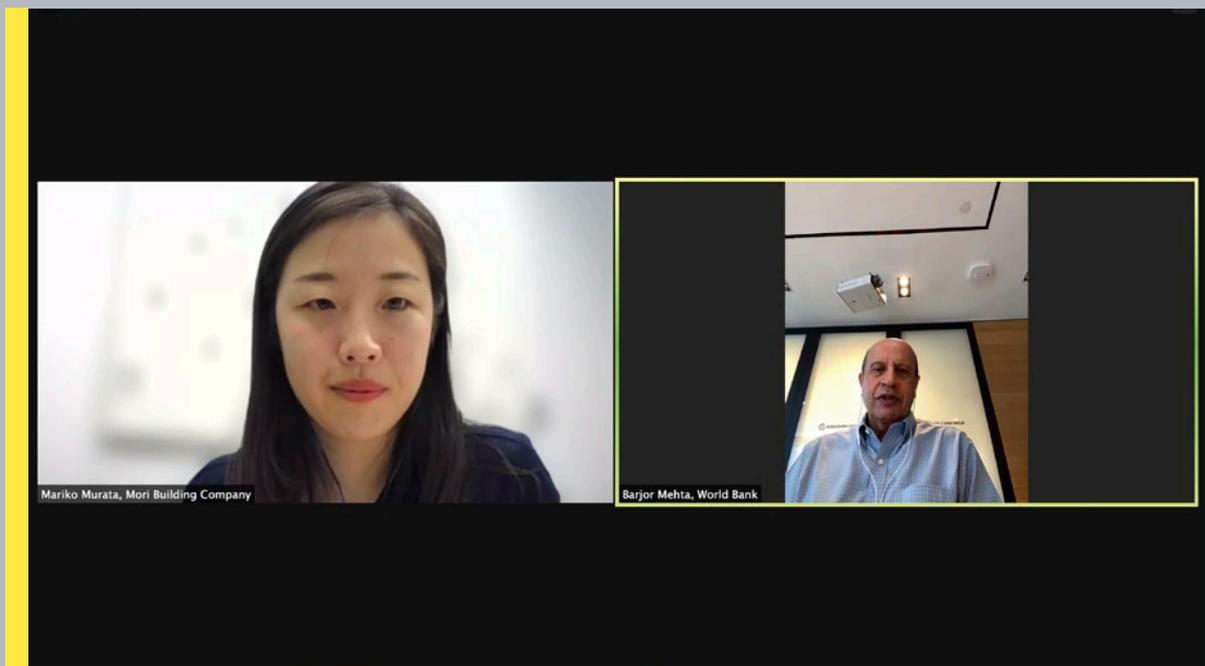
VICTOR MULAS

Senior Urban Specialist and TDLc Team Lead, Tokyo Development Learning Center, World Bank

FARIZA ABIDOVA

CEO, Trusted K.K.; Mie Ishibashi, Director, Trusted K.K.

TDLc spoke at this online/offline hybrid event organized by CIC Tokyo, one of the largest start-up innovation firms in Japan. TDLc introduced cutting-edge case studies of open innovation, technological approaches, and ecosystem formation by leading global companies working on carbon neutrality. As a panelist, TDLc also set the framework of the discussion by introducing key findings of the World Bank’s research and practical experience on start-up ecosystem development acquired since 2014.



Mariko Murata from Mori Building and Barjor Mehta of the World Bank discuss the importance of public-private partnerships to achieve low-carbon cities.

18. LOW-CARBON CITIES SERIES 1

Energy Efficient Buildings

Virtual, April 28, 2021

ORGANIZERS

TDLC

SPEAKERS

FRANCIS GHESQUIERE

Practice Manager, World Bank

MARIKO MURATA

Urban Planning and Development Division,
Project Planning Department Environmental
Promotion Unit & Town Management Division,
Park Management Unit, Mori Building Co., Ltd.

SHUHEI OKUNO

Deputy Director General, Climate Change
Policy Headquarters, City of Yokohama

PARTICIPANTS

70

TDLC organized the first online event of the World Bank's Knowledge Sharing Series on Low-Carbon Cities, which focused on the topic of energy-efficient buildings. The 1.5-hour virtual seminar brought together practitioners and city government officials from Japan (Mori Building and City of Yokohama) to share their experience and knowledge in planning, operating, and evaluating energy-efficient buildings when working toward the goal of zero-carbon cities. The discussion also outlined some of the major challenges that cities face and emphasized takeaways for cities, especially those in emerging economies, that share the decarbonization agenda.

19. VIRTUAL KNOWLEDGE EXCHANGE OF SMART CITIES FOR SUSTAINABLE DEVELOPMENT

Virtual, May 4, 2021

ORGANIZERS

Global Smart City Partnership Program, World Bank

PARTICIPANTS

265

SPEAKERS

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

JOHN SONG

Deputy Director, Global R&DB
Center of Seoul National University

MIKKO RUSAMA

Chief Digital Officer, Helsinki

CARLOS CARDILLO

Director of Nevada Center of Applied
Research, University of Nevada

JUNSEOK HWANG

Professor, Seoul National University

At the Virtual Knowledge Exchange on Smart Cities for Sustainable Development organized by the World Bank's Global Smart City Partnership Program, TDLC gave a presentation on its vision of the future of smart cities. TDLC introduced key guiding principles for designing smart cities, including leveraging the opportunities presented by the COVID-19 uncertainty. TDLC shared global and Japanese examples of key characteristics of smart cities, including urban mobility, urban service delivery and logistics, public space, and city livability. The presentation also touched upon the reuse and regeneration of existing urban infrastructure, along with emerging trends on agile testing and adoption of open source technology standards, as fundamental building blocks for a resilient and sustainable smart city design.

20. SMART CITY INSTITUTE JAPAN WEBINAR SERIES

“Thinking Smart Cities in the time of COVID-19”

Virtual, May 25, 2021

ORGANIZERS

Global Smart City Partnership Program,
World Bank; Smart City Institute, Japan

SPEAKERS

VICTOR MULAS

Senior Urban Specialist and TDLC Team Lead,
Tokyo Development Learning Center, World Bank

JOHN SONG

Deputy Director, Global R&DB Center
of Seoul National University

MIKKO RUSAMA

Chief Digital Officer, Helsinki

CARLOS CARDILLO

Director of Nevada Center of Applied
Research, University of Nevada

JUNSEOK HWANG

Professor, Seoul National University

HARUKA MIKI-IMOTO

Operations Officer, Tokyo Development
Learning Center, World Bank

NAGUMO TAKEHIKO

Executive Director, Smart City Institute Japan

PARTICIPANTS

50

At the Virtual Knowledge Exchange on Smart Cities for Sustainable Development organized by the World Bank’s Global Smart City Partnership Program, TDLC gave a presentation on its vision of the future of smart cities. TDLC introduced key guiding principles for designing smart cities, including leveraging the opportunities presented by the COVID-19 uncertainty. TDLC shared global and Japanese examples of key characteristics of smart cities, including urban mobility, urban service delivery and logistics, public space, and city livability. The presentation also touched upon the reuse and regeneration of existing urban infrastructure, along with emerging trends on agile testing and adoption of open source technology standards, as fundamental building blocks for a resilient and sustainable smart city design.

Smart City Institute Japan organizes 75 min-long webinar series called “Thinking Smart Cities in the time of COVID-19”. TDLC introduced a snapshot of the key themes and topics that are critical in the World Bank urban operations, advisory works and knowledge exchange, including but not limited to urban regeneration, transit-oriented development, urban service deliveries and basic infrastructure, and frontier topics such as creative cities, green and low carbon cities, and healthy cities. The presentation also touched on TDLC’s ongoing engagement with Japanese cities, as well as its core activities such as TDDs, knowledge documentation and dissemination, and operational support. The webinar aimed to connect how the global trends, the tacit Japanese urban knowledge, and the client countries’ needs are interlinked in catalyzing sustainable, competitive, livable and resilient cities.

ANNEX IV

OPERATIONAL SUPPORT IN FY21

COMPLETED OPERATIONAL SUPPORT FY21

In FY21, TDLC supported lending and advisory projects across regions, including Africa (Ethiopia), South Asia (Sri Lanka), and Latin America and the Caribbean (Colombia).

REGION	COUNTRY	PROJECT	LENDING (IPF/P4R/ DPF) OR ASA	EXPERT ORGANIZATIONS	TDD PARTICIPATED between FY16 to FY21
AFRICA	Ethiopia	Ethiopia Urban Institutional and Infrastructure Development Program (P163452)	P4R	Independant	SWM TDD 2019
		Integrated Strategic Development of Addis Ababa (P172091)	ASA	Independant	SWM TDD 2019
LATIN AMERICA & CARIBBEAN	Colombia	Mainstreaming Sustainable and Competitive Infrastructure for Low Carbon Development Programmatic App (P172319)	ASA	IGES	SWM TDD 2019
		Plan PAZcifico: Water Supply and Basic Sanitation Infrastructure and Service Delivery Project (P156239)	IPF	IGES	SWM TDD 2019
SOUTH ASIA	Sri Lanka	Local Development Support Project (LDSP) (P163305)	IPF	Fram Kitagawa (Art Front Gallery)	Creative City TDD 2020

Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing;
IPF = Investment Project Financing; P4R= Program-for-Results;
SWM = Solid Waste Management.

DETAILS OF COMPLETED OPERATIONAL SUPPORT FY21

SOLID WASTE MANAGEMENT POLICY REVIEW

Colombia (P172319/P156239)

TDLC ENGAGEMENT

- Identify institutional gaps in support of the Ministry of Housing, Cities and Territories and the Ministry of Environment and Sustainable Development of Colombia in updating and designing a comprehensive law on integrated solid waste management (SWM).
- Assess the capacity and training needs of concerned agencies to digitize and modernize waste-related information systems and analytics. Update digital policies to improve the monitoring and evaluation of economic instruments, and track the country's progress in achieving committed goals to reduce carbons.
- Identify priority areas and provide guidelines to address those priorities in the process of modernizing SWM.

SOLID WASTE MANAGEMENT IN ETHIOPIAN PILOT CITIES OPERATIONAL SUPPORT

Ethiopia (P163452/P172091)

TDLC ENGAGEMENT

- Assess the current systems and gaps within the solid waste management initiatives of Addis Ababa and Bahir Dar. Recommend tools and the use of such tools for integrated SWM of the two cities. Determine how quality infrastructure investment (QII) principles can be implemented in the recommendation.
- Assess the capacity and training needs of the concerned agencies, and develop and deliver training and knowledge-sharing activities to relevant government officials from Addis Ababa and a few selected cities in Ethiopia. The recommended training can also help to meet QII principles.
- Identify and prioritize SWM national investment activities and recommend an action plan to implement an integrated SWM strategy in Addis Ababa and Bahir Dar.

LOCAL ECONOMIC DEVELOPMENT PROJECT

Sri Lanka (P163305)

TDLC ENGAGEMENT

- As part of a medium-term plan under the project's economic cluster and local economic development (LED) support, TDLC offers an array of options to benchmark innovative approaches to LED. Experiences in Japan using creative industries and local creative/artistic capital to reinvigorate rural and economically challenged areas may offer important lessons for lagging provinces in Sri Lanka.
- Building on consolidated examples (such as the Setouchi Triennale, Echigo-Tsumari Art Field, Oku-noto Triennale), the team will assess the viability of implementing a methodology to identify and organize these anchor events in Sri Lanka.
- The support will help provinces develop the strategic vision for building the tourism sector and capturing a growing share of the inbound markets that are increasingly positioning Sri Lanka as a tourism destination. Building destinations around this unique methodology of creative repurposing of underutilized assets would also align with current business trends shifting global tourism markets, as tourists seek genuine experiences and prioritize do-it-yourself travel over packaged tours.

PIPELINE OPERATIONAL SUPPORT FY21

In FY21, TDLC started preparing support for Africa (Liberia) and MENA (West Bank and Gaza).

REGION	COUNTRY	PROJECT	LENDING (IPF/P4R/ DPF) OR ASA	EXPERT ORGANIZATIONS	TDD PARTICIPATED between FY16 to FY21
AFRICA	Liberia	Cheesemanburg Landfill and Urban Sanitation Project AF (P1713261)	IPF	To be confirmed	SWM 2020
	Tanzania	Tanzania Metropolitan Development and City Transformation Project	IPF	To be confirmed	SWM 2020
MIDDLE EAST & NORTH AFRICA	West Bank and Gaza	Mainstreaming Sustainable and Competitive Infrastructure for Low Carbon Development Programmatic App (P172319)	IPF	To be confirmed	TOD Urbanscapes 2021

Note: ASA = Advisory Services and Analytics; DPF = Development Policy Financing; IPF = Investment Project Financing; P4R= Program-for-Results; SWM = Solid Waste Management; TOD = Transit-Oriented Development.

DETAILS OF PIPELINE OPERATIONAL SUPPORT

THE CHEESEMANBURG LANDFILL AND URBAN SANITATION PROJECT

Liberia (P159961 & P173261)

TDLC ENGAGEMENT

- The Cheesemanburg Landfill and Urban Sanitation Project (CLUS) was designed and approved by the World Bank in 2017 to support Liberia to build the fundamentals of a solid waste management system in the Greater Monrovia area. The specific objective of the project is to support increased access to solid waste management (SWM) services in Greater Monrovia through (1) the construction of the Cheesemanburg landfill; (2) the closure of the Whein Town landfill; and (3) improvement to existing transfer stations. The project is also designed to sustain existing employment associated with solid waste collection, transportation, and disposal, as well as support capacity-building activities for municipal staff of Monrovia and surrounding townships.
- To meet the financing gaps and cope with additional challenges brought by COVID-19, this engagement received additional financing (Cheesemanburg Landfill and Urban Sanitation project-AF1-P173261), which was approved in June 2020. The clients and the task team joined the TDD on Solid Waste Management (SWM) organized by TDLC in October 2020. TDLC received a request for the operational support as the post-TDD follow-up.

SOLID WASTE MANAGEMENT PROJECT

AF, Gaza (P171328)

TDLC ENGAGEMENT

- Designed with the objective of improving solid waste management services in the Gaza Strip through provision of more efficient, environmentally sound, and socially sound waste management systems, the Gaza Solid Waste Management Project (GSWMP) has been under implementation since 2014. The project includes constructing environmentally sound sanitary infrastructure facilities and improving the capacity of solid waste management institutions in Southern Gaza. It is organized under four main components: (1) Solid waste transfer and disposal facilities, (2) institutional strengthening, (3) primary collection and resource recovery, and (4) project management.
- The TDLC will provide technical assistance in one of the following areas: (1) waste to energy technologies with a decision model to choose the most appropriate technology for Gaza context, or (2) climate change (GHG Module with a perspective of calculating GHG emissions and savings for various technology/intervention under the project), or consideration of utilizing solar energy as part of landfill final cover, the project will build the landfill.

METROPOLITAN DEVELOPMENT AND CITY TRANSFORMATION PROJECT

IPF, Tanzania (P171189 / P169425)

TDLC ENGAGEMENT

- Tanzania's urban population is growing rapidly but is not generating productivity gains due to weak management of the urbanization process. The local institutions in Tanzania don't develop sufficient capacities and systems to improve the management of related infrastructure in rapidly urbanizing contexts. In addition, Tanzanian cities are increasingly vulnerable to disasters and climate-related hazards. Urban areas have witnessed widespread flooding in recent decades. Dar es Salaam (the largest city in the country, accounting for 40 percent of the urban population) is especially impacted by river floods.

- TDLC will provide assistance in one of the following areas: (1) institutional capacity development on TOD projects by delivering training to government officials; (2) technical support for the Dar es Salaam Metropolitan Development Project Phase 2 with guidance on key approaches and advisory on redevelopment; or (3) technical support on Tanzania Cities Transforming Infrastructure and Competitiveness Project with best practices on TOD financing mechanisms.

MOBILIZING FINANCE THROUGH ANTICIPATING ECONOMIC IMPACT OF URBAN INFRASTRUCTURE

Global ASA (P173320)

TDLC ENGAGEMENT

- The objective of the global ASA is to increase World Bank knowledge and capacity in designing and capturing wider economic impacts of urban infrastructure. To this end, the global ASA seeks to (a) encourage the consideration of economic benefits and costs during project design and approval; (b) better estimate wider benefits and convey opportunities to catalyze, directly or indirectly, additional private sector investment; and (c) enable maximization of economic impact of urban infrastructure investments and mobilize additional private capital, in line with World Bank Maximizing Finance for Development (MFD) agenda.
- Under the global ASA, deep-dive case studies are being developed aiming to showcase the wider economic impacts of World Bank and non-World Bank urban infrastructure projects. TDLC has provided technical assistance in showcasing relevant examples from Japan's development experience and will be referenced in the final case studies output. More specifically, experiences from (i) cultural heritage preservation in Okayama prefecture, (ii) Miyashita park regeneration in Shibuya, Tokyo; (iii) walkable city development in Himeji City, Hyogo Prefecture; and (iv) waterfront redevelopment in Natori City, Miyagi Prefecture, among others.

ANNEX V

COMMUNITY OF EXPERTS MEMBERS INVOLVED IN TDLA ACTIVITIES

CoE EXPERTS	AREA OF EXPERTISE	SUPPORTED ACTIVITIES	TDD	NON-TDD EVENT	RESEARCH	OPERATIONAL SUPPORT
Hiroshi Nishimaki Senior urban consultant and urban planner	QII	QII event		●		
		QII Toyama webinar		●		
		QII Japan case studies			●	
	TOD	Urbanscapes TOD TDD	●			
Urbanscapes TOD TDD follow-up (in design phase)					●	
Ryosuke Toura Tokyu Corporation	TOD and urban development	Smart City Live 2020		●		
		Social Innovation Forum		●		
Noriaki Nakamura Tokyu Corporation	TOD and urban development	Urbanscapes TOD TDD	●			
Urban experts from Pacific Consulting Co., LTD. (PCKK)	Urban upgrading	Kingdom of Saudi Arabia Workshop on Urban Upgrading		●		
	Urban planning	Urbanscapes TOD TDD	●			
	Urban development	Green neighborhoods in metropolitan areas	●		●	
Shiko Hayashi SWM Specialist	SWM	SWM TDD	●			
		SWM TDD follow-up (Colombia support for SWM economic instrument)				●

Note: QII = quality infrastructure investment; SWM = solid waste management; TDD = Technical Deep Dive; TOD = transit-oriented development.

CoE EXPERTS	AREA OF EXPERTISE	SUPPORTED ACTIVITIES	TDD	NON-TDD EVENT	RESEARCH	OPERATIONAL SUPPORT
Toshi Mito SWM Specialist	SWM	SWM TDD	●			
		SWM TDD follow-up (Colombia support for SWM economic instrument)				●
Mitsu Yamazaki Senior Urban Specialist and former Portland city official	Compact city	Compact City of Toyama webinar		●		
		Update of <i>Development Story of Toyama</i>			●	
	Healthy city	Healthy Cities TDD	●			
		Healthy City Japan case study			●	
Koichiro Tamura Sotonoba	Placemaking	Urbanscapes TOD TDD	●			
		Urbanscapes TOD TDD follow-up (in design phase)	●			
Fram Kitagawa Art Director and Head of the Art Front Gallery	Creative city	Creative City TDD	●			
		Creative City TDD follow-up Sri Lanka Local Economic Development operational support				●
Keiko Nakamura Senior Advisor to Healthy Cities Case Study	Healthy city	Healthy Cities TDD	●			
		Healthy City analytics Japan case study			●	
Mitsu Suwa Loftwork	Creative city	Creative City TDD	●			
Tak Nagumo Smart City Institute	Smart city	Smart City Live 2020		●		
		Smart City Institute webinar		●		

Note: QII = quality infrastructure investment; SWM = solid waste management; TDD = Technical Deep Dive; TOD = transit-oriented development.

ANNEX VI**MEDIA COVERAGE
OF TDLc****THE NISHINIPPON
SHIMBUN**

posted an article on November 11, 2020

**“Learning from Fukuoka and
Kitakyushu about Solid Waste
Management: World Bank provided
training for emerging economies”**

SUMMARY OF THE ARTICLE

The World Bank held a training session for government officials from emerging countries to learn about the waste management efforts of Fukuoka and Kitakyushu. Representatives from Fukuoka City and Kitakyushu City briefed participants from 11 countries on the cities’ waste management initiatives, including nighttime garbage collection, cooperation with private businesses, and waste separation.

ABOUT THE NISHINIPPON SHIMBUN

The Nishinippon Shimbun is a Japanese-language daily newspaper published by the Nishinippon Shimbun Co., Ltd. As of 2013, it had a circulation of about 875,000 (total of morning and evening editions). It is headquartered in Fukuoka, which accounts for the bulk of its circulation, and is also sold throughout the Kyushu region.

THE TOYAMA SHIMBUN

published an article on March 2, 2021

“The publication *The Development Story of Toyama* to be Released in the Middle of this Month”

SUMMARY OF THE ARTICLE

Mayor Mori announced that a publication describing the history of the city’s development will be released in the middle of this month. The publication, titled “The Development Story of Toyama”, is a casebook prepared by TDLC through research and interviews with city officials. An online event will be held on March 26 to celebrate the publication, including a discussion between Mayor Mori and TDLC officials.

ABOUT THE TOYAMA SHIMBUN

The Toyama Shimbun is a daily Japanese language newspaper based in the city of Toyama, Japan, run by the Hokkoku Shimbun Co., Ltd. The Toyama Shimbun was first published in 1923 and covers news from mainly Toyama Prefecture in the Hokuriku region.

posted an article on March 27, 2021

“Launch event of the publication *The Development Story of Toyama*”

SUMMARY OF THE ARTICLE

TDLC organized a virtual event on March 26 to commemorate the publication “The Development Story of Toyama”. based on research and interviews with city officials. At the event, the city’s achievements in creating a compact city focusing on public transportation were introduced.

THE KITANIPPON SHIMBUN

published an article on March 3, 2021

“The World Bank introduces Toyama’s compact city policy in a publication”

SUMMARY OF THE ARTICLE

The World Bank has compiled a publication on the city of Toyama’s efforts at compact city development. The publication is titled “The Development Story of Toyama” and is available in English. The city will prepare its own Japanese version and distribute it to the government and private sector. The World Bank and the city of Toyama have signed a memorandum of understanding (MoU) on the City Partnership Program, which aims to help developing countries with Toyama’s compact city and environmental policies.

ABOUT THE KITANIPPON SHIMBUN

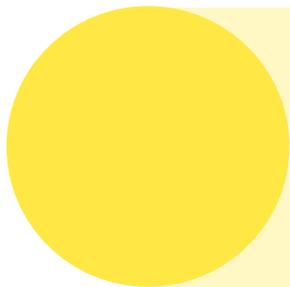
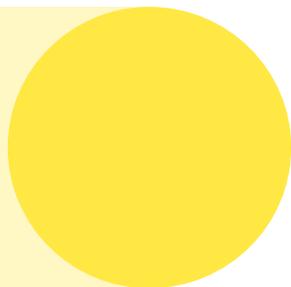
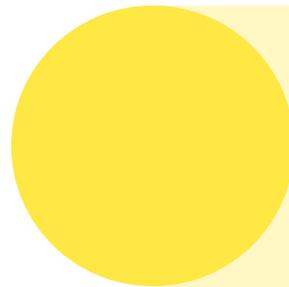
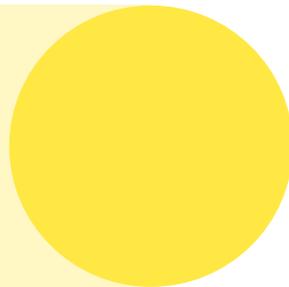
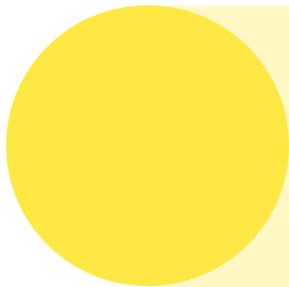
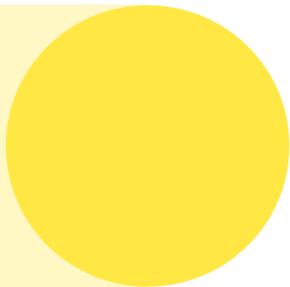
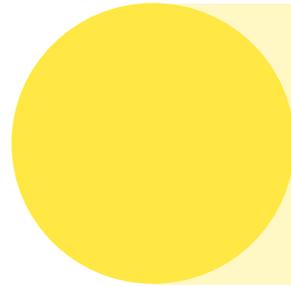
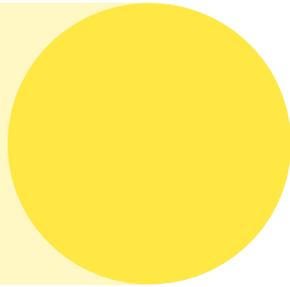
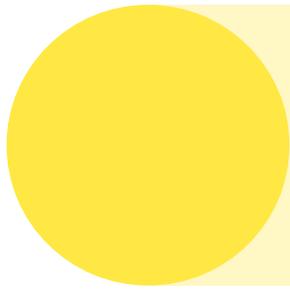
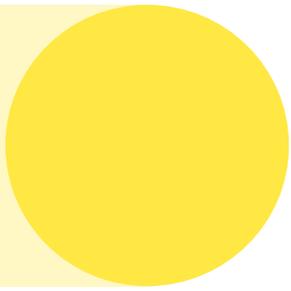
The Kitanippon Shimbun is a daily newspaper that was first published in 1887 and is headquartered in the city of Toyama. It mainly covers news in Toyama Prefecture and, according to its website, publishes a daily morning edition of 200,000 copies.

published an article on March 27, 2021:

“Introducing the city of Toyama’s urban policies at the World Bank’s online event”

SUMMARY OF THE ARTICLE

TDLC held an online event on urban development on April 26, where the city of Toyama Mayor Masashi Mori introduced the city’s compact city policy initiatives centered on public transportation. The World Bank and the city of Toyama have an MoU on the City Partnership Program, which aims to apply the city’s policies to urban planning for a declining birthrate and aging population. The World Bank has issued a publication on the city’s efforts, and the event was held to commemorate the launch of the publication.



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