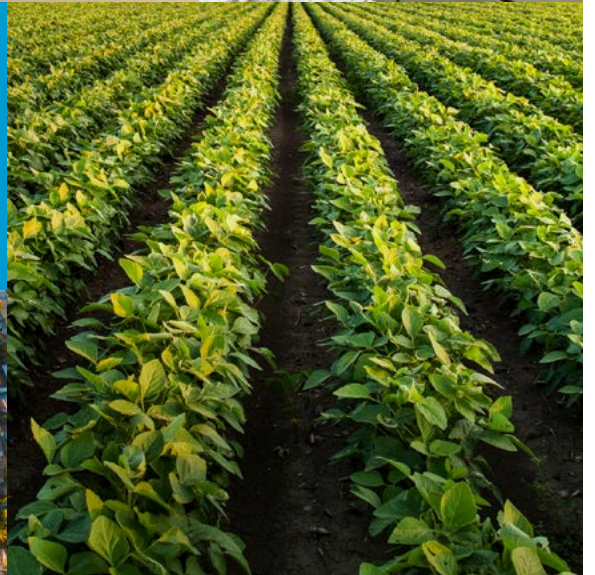


ANNUAL REPORT 2020 WORLD BANK GROUP KOREA GREEN GROWTH TRUST FUND



ANNUAL
REPORT 2020
**WORLD BANK
GROUP
KOREA GREEN
GROWTH
TRUST FUND**





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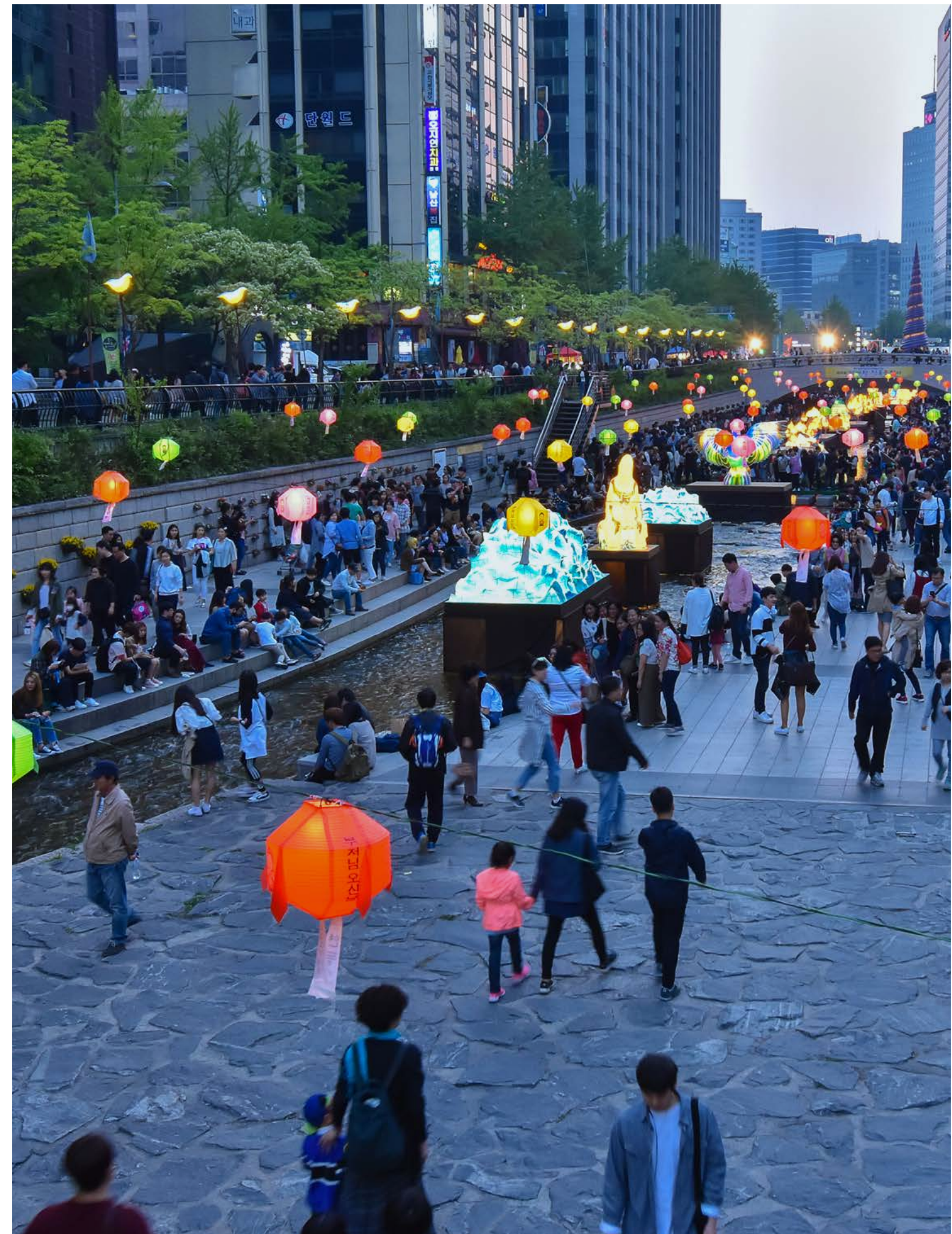
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Abbreviations

ADF	African Drone Forum	KE	Knowledge Exchange
AFR	Africa	KGGTF	Korea Green Growth Trust Fund
ASA	Advisory Services and Analytics	KGID	Korea Green Innovation Days
BBL	Brown Bag Lunch	KPOK	Korea Program for Operational Knowledge
CASSOA	Civil Aviation Safety and Security Oversight Agency	LAC	Latin America and Caribbean
EAP	East Asia and Pacific	MAFRA	Ministry of Agriculture Food and Rural Affairs
EBRD	European Bank for Reconstruction and Development	MNA	Middle East and North Africa
ECA	Europe and Central Asia	MOU	Memorandum of Understanding
ENB	Environment, Natural Resources, and Blue Economy	ODA	Official Development Assistance
ESS	Energy Storage Systems	OLC	Open Learning Campus
FY	Fiscal year	RoK	Republic of Korea
GDP	Gross Domestic Product	SAR	South Asia
GIS	Geographic Information System	SDG	Sustainable Development Goal
GP	Global Practice	SME	Small and Medium Sized Enterprises
IATA	International Air Transport Association	SNU	Seoul National University
ICAO	Uniting Aviation, A United Nations Specialized Agency	SUSA	Seoul Urban Solutions Agency
ICT	Information and Communication Technology	SWM	Solid Waste Management
IDA	International Development Association	TA	Technical Assistance
IFC	International Finance Corporation	TTL	Task Team Leader
IWRM	Integrated Water Resources Management	UTF	Utility Turnaround Framework
ITS	Information Technology Systems	WBG	World Bank Group
JIT	Just-in-Time	WSDP	Water and Sanitation Development Project
		WSP	Water Service Provider





About the Korea Green Growth Trust Fund

The Korea Green Growth Trust Fund (KGGTF) is a partnership between the World Bank Group (WBG) and the Republic of Korea (RoK). As an implementation-focused trust fund that prioritizes the World Bank's inclusive green growth objectives, this partnership supports countries in their sustainable growth strategies and investments.

The pandemic and subsequent global effort to build back better and greener, in a more sustainable and inclusive way, puts KGGTF in even greater demand. Now, as countries around the world are actively searching for solutions on the specifics of *how* to build back better and greener, KGGTF is supporting the World Bank by providing access to technical experts and facilitating dialogue between green growth practitioners and policy decision-makers.

KGGTF is unique within the World Bank and highly valued for its multi-sectoral approach. As of December 2020, KGGTF has approved 165 grant programs across seven key green growth sectors, including agriculture, energy, environment, ICT, transport, urban, and water.

Based on strong performance and increasing demand from World Bank staff and client countries for technical engagements and knowledge support to operationalize green growth, following its second replenishment, the fund continues to expand, reaching US\$138 million to support green growth programs through 2024.

To date, funds disbursed by KGGTF have leveraged over \$14 billion in World Bank lending and external co-financing, which represents a huge \$160 in lending for every \$1 invested. Now in its third phase of operations, with over eight years of green growth experience and practical knowledge gained from technical experts and policy makers in Korea and around the world, the KGGTF team is highly effective in supporting World Bank client countries by sharing evidence-based knowledge and innovative technologies, and building partnerships with Korean Institutions that support World Bank lending projects and add enormous value to development programs globally.

The Republic of Korea is a highly relevant and inspiring example for other countries looking to grow their economies in an environmentally conscious and sustainable way. Having achieved an extraordinary transformation from resource-poor, low-income nation into a global leader in technological innovations that provides a high standard of living for its citizens, the RoK is the only country to have transitioned from a recipient of World Bank aid to a donor nation within one generation. Through its successful experience investing through public and private resources, it has gained a unique understanding of the challenges faced by developing countries and the importance of the World Bank's partnership with Korea cannot be overstated.

This past year, Korea's skillful response and management of COVID-19 has brought global attention for its remarkable agility in handling the complex health and economic crisis. In many respects, the dynamic, technology-driven model deployed exemplifies the green growth approach: multiple sectors collaborating, the government and private sector working in tandem, and the active integration of technology and data, resulting in faster, more efficient and streamlined solutions for Green, Resilient, and Inclusive Development (GRID).

Green Growth Defined

Green growth is a strategic approach that prioritizes economic development and protecting the environment while increasing shared economic prosperity. Green Growth recognizes that problems and solutions are intertwined, and with a multi-sectoral and strategic approach, disruptive technologies, and innovative financing, solutions can be found for Green, Resilient, and Inclusive Development (GRID).



Annual Letter from the World Bank

It is a great honor for the World Bank Group to strengthen its partnership with the Republic of Korea, and on behalf of the World Bank, I would like to extend my sincere gratitude to the Ministry of Economy and Finance (MOEF) for its recent commitment of \$50 million to replenish the Korea Green Growth Trust Fund (KGGTF) through to 2024.

Thanks to the new funds pledged by the Republic of Korea, the Trust Fund will continue to support developing countries as they shift to a green economic growth model, facilitating the sharing of knowledge, technical expertise, and real-world best-practices, as well as vital funding for green growth investments and initiatives.

Now, as countries come to terms with the humanitarian and economic crisis brought on by the COVID-19 pandemic, KGGTF's mandate is more important than ever as it will assist World Bank client countries to navigate their recovery from the crisis, build preparedness for future pandemics, and crucially, to rebuild their economies better, stronger, and greener.

Thanks to the KGGTF, the World Bank is developing the RISE Framework; a tool that aims to diagnose development challenges across four pillars that are critical for sustaining both the quantity and quality of economic growth, namely: resilience, inclusivity, sustainability, and efficiency, or 'RISE'. The framework tools have proven highly effective at identifying key development challenges and then supporting leaders to develop tailored solutions to assist countries in building back better. It has been rolled out in 30 countries at this time of writing.

With globally low interest rates, public investment is a powerful element of stimulus packages to limit the economic fallout from COVID-19. Policies for a sustained economic recovery amount to much more than just short-term fiscal stimulus – they will likely have lasting effects on the global economy and will shape societies for decades to come. The RISE

framework and approach to building better aims to ensure that these opportunities are not squandered.

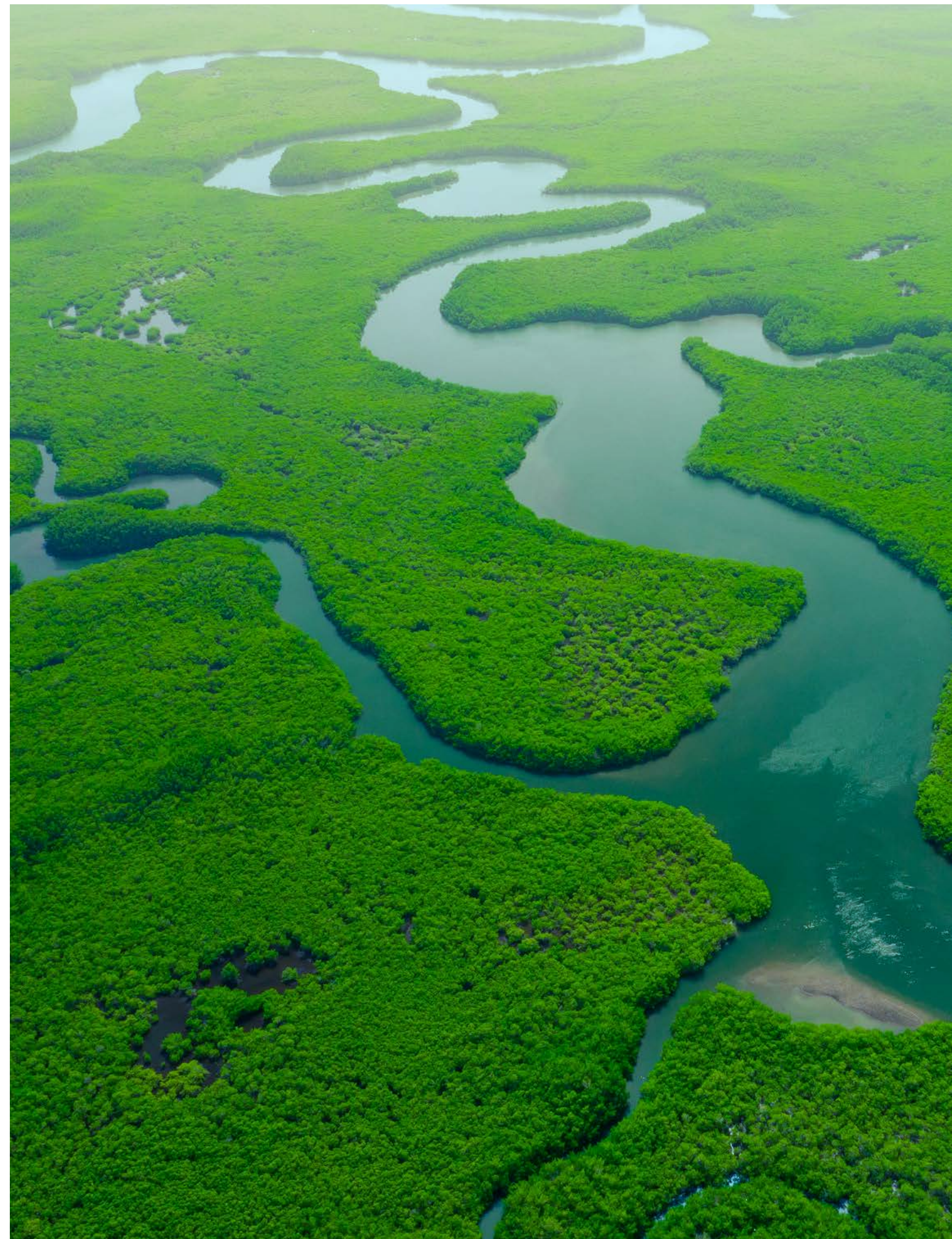
Building on the valuable ideas, insights, innovative technologies and green growth expertise the Republic of Korea has shared globally through KGGTF, there is growing demand from World Bank staff and client countries seeking to learn from Korea's economic transformation, as well as from its successful strategy to contain the spread of COVID-19. KGGTF will respond to the increased demand expected in the new reality of a pandemic-prone world by leveraging the first-hand experience of technical experts and policy makers in Korea to scale-up support for client countries re-building their economies.

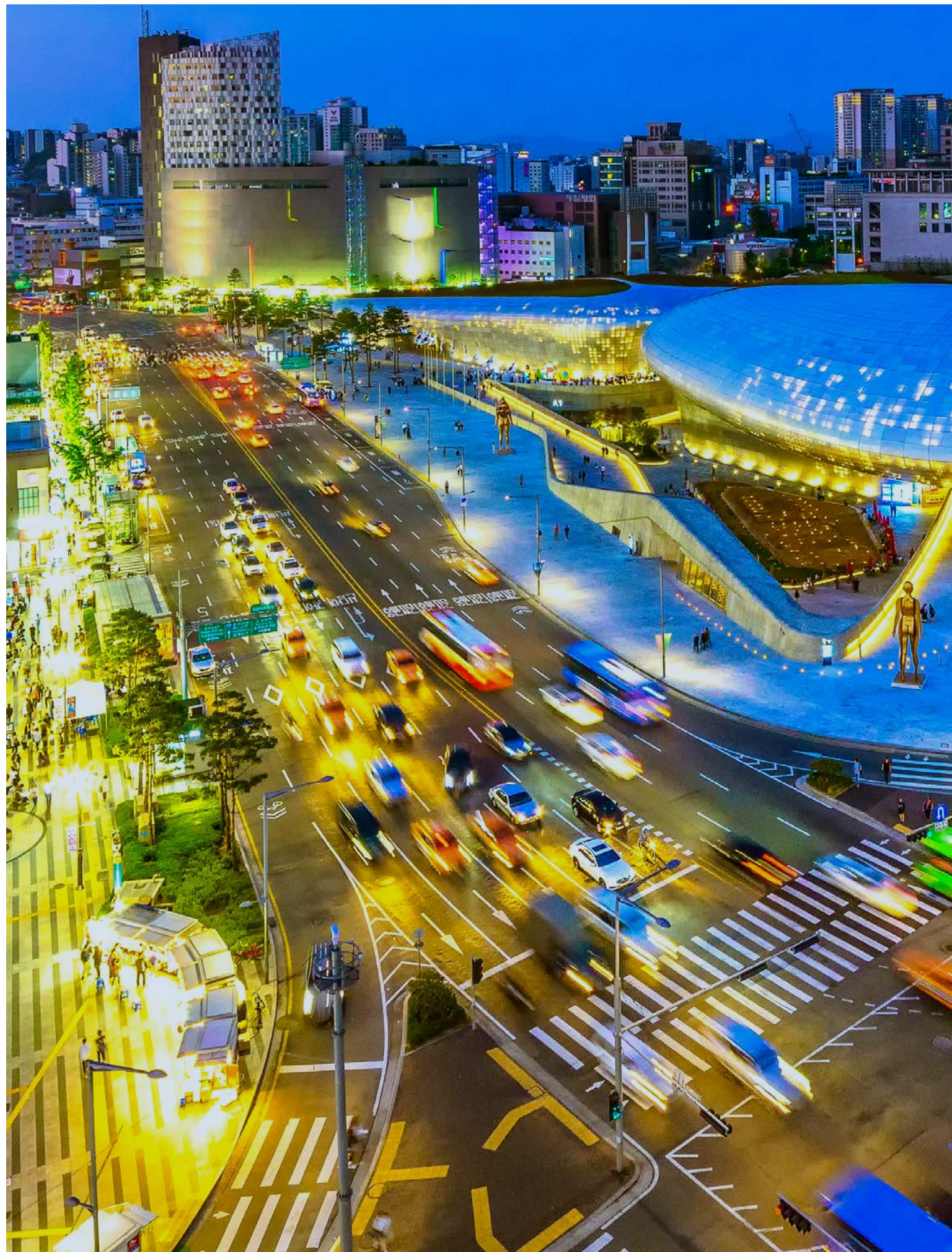
I would like to take this opportunity to thank Eun Joo Yi for her energetic and visionary leadership over the past many years as the former manager of the KGGTF and her dedication and commitment to making it the dynamic trust fund it is today. Additionally, I would like to welcome Dr. Hyoung Gun Wang, who with his years of experience at the World Bank is well positioned to take over at the helm of KGGTF and I look forward to working together with him and the enormously talented and dedicated KGGTF team to highlight Korea's expertise and leadership on the global stage.

The World Bank has been fortunate to have such a visionary partner in the Republic of Korea's MOEF, and we look forward to continuing our work together to support the world to build back better and greener.

Richard Damania

*Chief Economist
Sustainable Development Practice Group
The World Bank*





Annual Letter from the Donor

Over the past year, we have seen profound changes as the world fought against COVID-19. As the pandemic brought tremendous health and economic hardship to many, the citizens of Korea continued to work together to keep each other safe and healthy. Amid such difficulties, the Korean government adopted 277 trillion won of fiscal support measures and strengthened preparations for a post-COVID era.

In this context, we established the Korean New Deal a national development strategy to support recovery from the pandemic and lead global action against structural changes within the international community. The Korean New Deal is built around two key policies, the Digital New Deal and the Green New Deal, which strengthen employment and the social safety net while continuing to work towards global sustainability goals.

The green growth framework has always been at the center of Korean growth strategies. With this framework, we plan to transform Korea into a country that achieves a balance between growth, people and nature. Creating a green and low-carbon economy as a responsible member of the international community remains our top priority. As such, Korea has been actively participating in the international efforts for climate adaptation and mitigation, and will continue to be closely engaged in global dialogue on climate change issues.

The establishment of the Korea Green Growth Trust Fund (KGGTF) at the World Bank in 2011 was one of the most important commitments and milestones by the Korean government to actively share with the World Bank and its member countries our knowledge and experience accumulated to date on our pathway towards green growth. KGGTF is a key vehicle through which to help countries to operationalize green growth solutions, navigate investments and work towards building back better from the impacts of COVID-19.

As part of Korea's commitment to increasing international cooperation and global action, this year we were pleased to strengthen our partnership

with the World Bank through the pledge of an additional \$50 million to fund KGGTF operations through 2024. Therefore, as we look to the next phase and building on the successful results to date, MOEF invites the trust fund to take an even larger leadership role in Korea's plans to increase green ODA and to become a greater integral part of Korea's commitment to international development.

Having leveraged nearly \$14billion in WBG lending to date, KGGTF has demonstrated the force multiplier of this partnership and it is our hope that we can further increase the trust fund's impact on lending operations. To this end, one of the most important tasks is to facilitate dialogue amongst various stakeholders and get them engaged from the initial stage of project exploration.

While some countries may initially feel overwhelmed by the tremendous task of greening their economy, it is important to remember that green growth is a framework. It is a flexible and dynamic approach to development and is therefore relevant to the most highly and technologically developed countries, just as it is to those embarking on their green development journey.

The year also brought about leadership changes in the KGGTF team. We would like to thank Eun Joo Yi for her years of dedication to the Fund and to welcome Dr. Hyung Gun Wang and wish him tremendous success as he takes over leadership at KGGTF. We look forward to continuing to build on the success and achievements of the Trust Fund to date and to working together to support the global effort to build back better and greener.

Director Kwangchul Ji

*Director of Development Finance Division,
Ministry of Economy and Finance (MOEF)
Republic of Korea*

KGGTF in 2020 - At a Glance

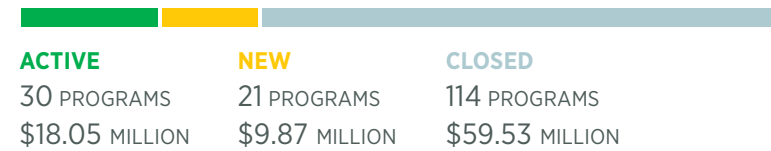
By the numbers
Portfolio Data (as of Dec 31, 2020)

All dollar amounts are donor approved amounts in US dollars.

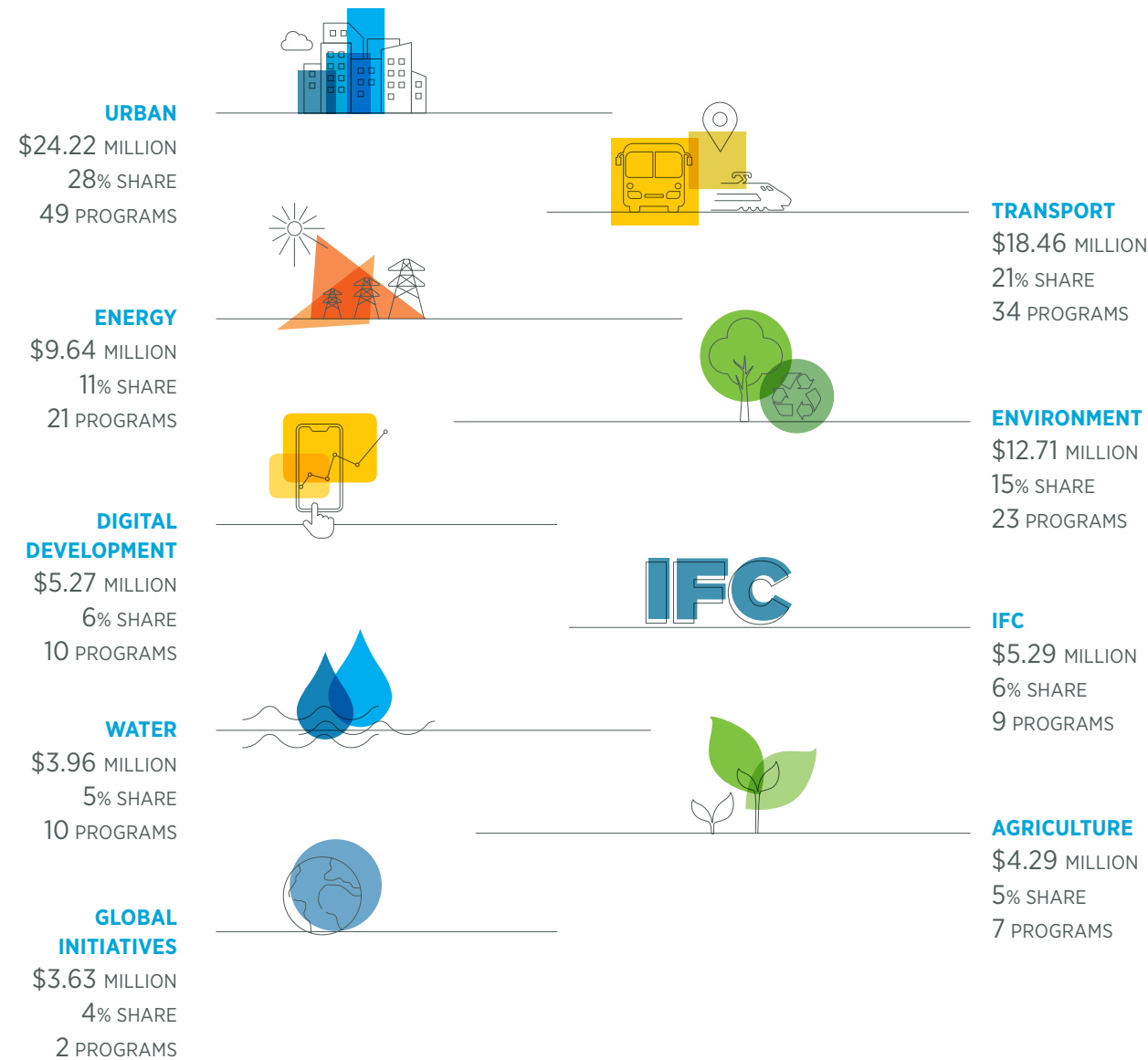
GRANT STATUS

TOTAL

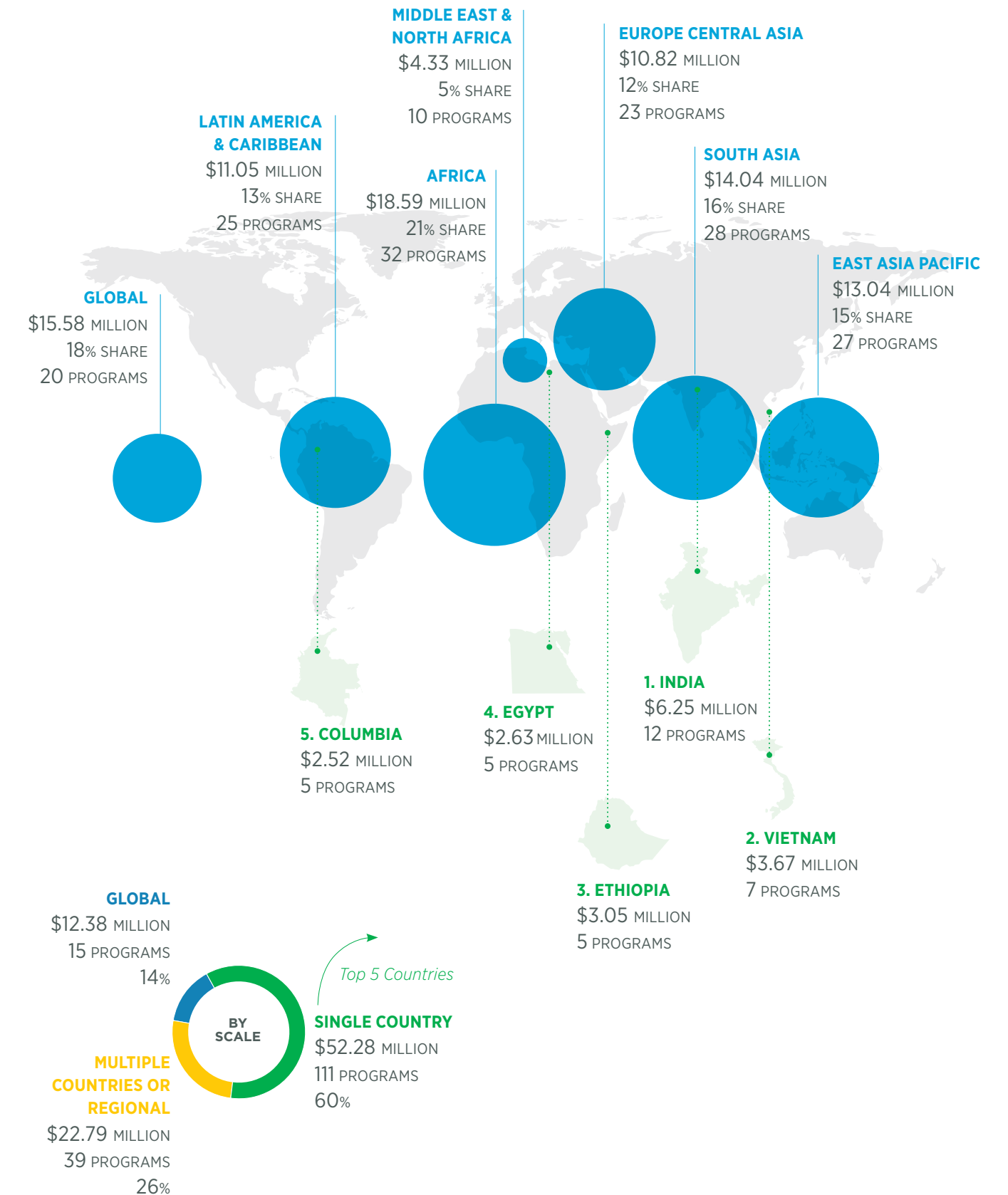
165 PROGRAMS
\$87.45 MILLION



BY SECTOR



BY REGION



KGGTF Highlights In 2020

Response to COVID-19

The COVID-19 pandemic brought unprecedented challenges to countries around the world. Despite the scale of the crisis, our long-term mission of operationalizing green growth remains unchanged. In fact, it brings greater resolve and urgency as the pandemic brings unique opportunities for countries to choose green growth approaches as they invest in their recovery. Therefore, to increase green growth solutions and mainstream technologies, KGGTF is funding the development of the green growth diagnostic known as 'RISE'.

RISE — Translating Challenges into Opportunities

The KGGTF is supporting the World Bank to establish a new set of green growth diagnostics, which is summarized by the acronym **RISE**: for **Resilience, Inclusion, Sustainability, and Efficiency**. These four pillars are critical for a return to the path of prosperity, and to ensure both the quality and quantity of growth for developing countries.

Green growth is affordable, efficient and necessary. Evidence gathered worldwide shows there is no single green growth model — green growth strategies can and should vary across countries, reflecting local contexts and preferences. But all countries, rich and poor, will benefit from a green growth approach. The SDGs set forth have influenced countries investments, but there are concerns as countries attempt to emerge from a pandemic, it is likely that SDGs will be pushed further down from the list of priorities. Moreover, countries continue to fail to achieve their target goals, stumbling on the implementation of HOW to achieve their SDGs targets. Green growth is HOW to achieve SDGs. It is the operationalizing that is so difficult, and green growth provides the toolkit for how to set policies, choose investments, align incentives and create jobs.

The RISE Framework

The RISE Framework is build around four pillars of which an economy should be structured: Resilience, Inclusion, Sustainability, and Efficiency. These are critical ingredients of success in a world confronting the twin challenges of rising inequality and planetary instability arising from multiple threats to Earth systems – climate change, deforestation, land degradation, ocean acidification, nitrogen pollution, declining fish stocks and so on. Addressing these challenges calls for approaches that can diagnose “pinch points” and constraints; determine why these issues matter and how they can be addressed. The RISE pillars are key to building a fairer, more durable and robust economy:

Resilience: Living in a world full of large-scale risks—climate change and weather variability, zoonotic disease risks, and recessions, amongst others—requires that we make decisions and investments which prepare people and assets for these shocks, their impact on the well-being of citizens, and the country’s development. A country with low resilience to shocks will often find that its citizens are repeatedly recovering from the last shock instead of accumulating capital and improving their long-term prospects.



Inclusion: Baseline levels of inequality are already high and increasing, and this can lead to dissent, scapegoating, and negative feedback impacts on economic growth. Improving inclusivity in a society means closing these gaps by increasing access to disadvantaged groups to markets (land, housing, labor, credit, etc.), services (electricity, healthcare, water, social protection, etc.), and spaces (political, physical, cultural, or social). Left unaddressed, the exclusion of disadvantaged groups can have a high cost. Individuals will see losses of wages, education, and employment outcomes. And at an aggregate level this will impact economic growth and competitiveness. From a political standpoint, excluding groups can lead to grievances and in the extreme, to conflict and violence.

Sustainability: Given the high levels of debt and lower growth that most countries will see in the near future, it is more important than ever that countries use their resources sustainably. Using resources sustainably is critical for ensuring that we can satisfy the needs of the present without compromising the ability of future generations to meet their own needs. Renewable resources like forests, air, and water, should be managed in a way that ensures their economic dividends can benefit generations well into the future. And the dividends of non-renewable resources, like minerals or fossil fuels need to be reinvested in the society rather than simply consumed, so the country can reap their benefits for years to come.

Efficiency: It is now more critical than ever that countries improve their efficiency of resource use as well as their efficiency of government. In anticipation of a more resource constrained future—where government debts are higher due to the response to the COVID-19 induced recession, and natural resource depletion continues—countries need to spend their fiscal resources and utilize their natural resources in more efficient ways. Productive use of agricultural lands, fisheries, forests, and more competitive cities are key to achieving prosperity and improving lives and livelihoods.

This comprehensive approach brings clarity to country leaders, policy makers and the private sector on the unique challenges and opportunities for each country. It provides a roadmap on how and where each country could focus its investment dollar, and can be utilized as a valuable tool for the World Bank and client countries on their journey to build back better and greener.

2021 — Continuing Our Mission, Finding New Synergies

KGGTF will continue to invest across all sectors going forward. In 2021 funding will prioritize programs that align with Korea’s Green New Deal, the Digital New Deal and greening the Post-COVID recovery. It is our hope that by aligning closely with Korea’s current priorities we can find even more synergies that will bring about even greater impact.

RISE DIAGNOSTICS COMPLETED FOR:

Argentina
Azerbaijan
Bangladesh
Bulgaria
Croatia
Ecuador
Egypt
Ghana
Greece
Indonesia
Kenya
Myanmar
Pakistan
Peru
Philippines
Poland
Romania
Russia
Tunisia
Turkey
Uzbekistan
Vietnam

Enhanced Results Monitoring & Evaluation (M&E)

Newly Introduced or Enhanced M&E Activities

Continuous engagements with individual KGGTF grant teams, progress tracking and assessment of performance and impacts were strengthened through the following activity:

- Monthly monitoring of disbursement and expenses for timely identification of issues and provision of support to grant teams.
- Profiling grant teams' individual needs and facilitating connections with Korean Partners (public and private) for collaboration, partnerships and sharing best practices.
- Targeted Knowledge Support including technical engagements and facilitation of knowledge exchange programs by the KGGTF Team and the Green Growth Innovation Team at the WBG KoreaOffice.
- Demand-driven knowledge promotion through Korea Green Innovation Days (KGID) and Deep-dive Breakout Sessions led by knowledge partners in Korea and Regions to facilitate knowledge sharing, networking, and business opportunities for World Bank client countries, Korean agencies and companies.

- Online Grant Tracking System (KGGTF Dashboard) for grant activity monitoring, evaluating and reporting is undergoing continuous enhancement to improve efficiency and support more accurate assessment of KGGTF performance at individual grant, portfolio and Trust Fund level.

KGGTF Annual Grant Progress Report (APR)

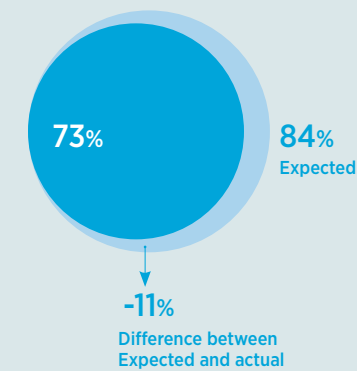
The KGGTF Annual Grant Progress Report (APR) summarizes the status of grant activities and tracks grant awardees' progress towards achieving the expected outputs and outcomes set out in the approved grant proposal. Informed through this feedback loop, KGGTF can better support all grant awardees to successfully achieve their expected outputs and outcomes on completion of their grant programs, as planned, and assess the performance of the Trust Fund, at both grant and fund level.

The APR also serves to highlight any current or anticipated issues, delays or changes to the planned activities approved in the grant proposal and provides an opportunity for grant awardees to request KGGTF action or support during grant implementation. Analyzing data, experiences and lessons learned from KGGTF grant activities contributes to improved design, implementation, quality and impact of green growth investments across the World Bank and client countries.

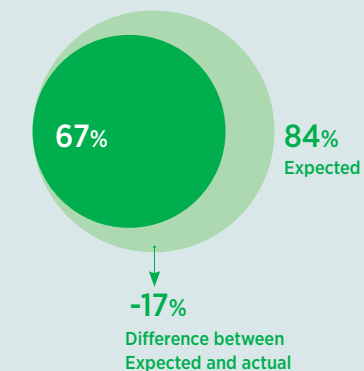
“A key lesson learnt through the grant implementation was the power of learning events such as KGID that can open up the minds of government officials through direct engagements with practitioners such as those from Korea. The team witnessed a newfound excitement and stronger engagement with government officials (the client) who actively engaged in and benefitted from the knowledge exchange and knowledge sharing events.”

Gayatri Singh, Senior Urban Development Specialist, Task Team Leader for KGGTF Year 5 Grant 'City Planning Labs'

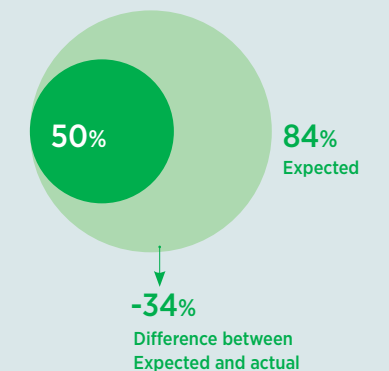
Disbursement



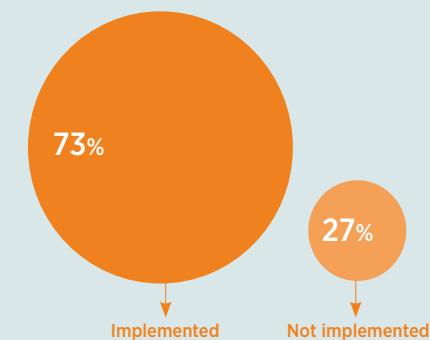
Outputs Delivered



Outcomes Achieved



Visibility Activities



The 2020 APR reviewed different dimensions of grant progress at both individual and aggregated levels and identified issues and actions to be taken to improve grant performance and enhance the impact and effectiveness of KGGTF grants.

While several grant progress measures are based on self-assessments by grantees, aggregated patterns of those self-assessment measures are consistent with those of verified ones, such as financial data from SAP. The combined aggregates show consistent patterns that provide insights on grant performance across the portfolio and by region and GP. These charts indicate average performance across the active portfolio in relation to implementing disbursement, achieving planned outputs and outcomes, establishing partnerships, and enhancing visibility.

Annual Highlights by Month

The KGGTF had a busy year in 2020 and responded to COVID-19 by quickly adapting our Knowledge Exchanges to a virtual format to continue supporting our clients navigate impending challenges. Here is a brief overview of our activities.

JAN

FEB

MAR

APR

MAY

JUN

Energy in Turkey Knowledge Dissemination
 “Turkey is Reaching for the Sun, Setting Ambitious Goals for its Rooftop Solar Photovoltaic (RSPV) Market.”

KGGTF and Energy GP co-authored a technical blog sharing learnings from a valuable and enlightening Knowledge Exchange to Korea for Energy delegates from Turkey, funded and facilitated by KGGTF.



African Drone Forum (Feb 5-7)
 KGGTF supported the African Drone Forum (ADF) 2020 as a key partner and joint collaborator with the World Bank Korea Office. The event, which took place in Kigali, Rwanda, showcased the latest drone technologies and brought international experts, regulators and entrepreneurs and funding partners together to promote the best drone ideas, technologies, and practices for the continent.



COVID-19 Pandemic Disrupts Operations Worldwide
 The COVID-19 pandemic brought all global travel to a halt and countries around the world entered various states of national lockdown. As an essential component of many KGGTF grant activities, technical Knowledge Exchange programs supported the implementation of planned outputs and outcomes, and can be critical for their successful achievement. Therefore, to continue to ensure progress and results it was important to adapt to the new situation and environment.

Working remotely, the KGGTF team consulted with World Bank management, staff and client countries, tested virtual meeting platforms and multimedia materials, and supported the development of a new virtual Knowledge Exchange modality with robust content and opportunities to build dialogues and foster multilateral collaborations. This new, virtual Knowledge Exchange model proved effective in bringing practitioners and policy decision-makers from client countries together with Korean institutions and experts and WBG staff to learn, share best practices and discuss methodologies and solutions for technical issues and challenges.

Circular Economy Virtual Knowledge Exchange (Mar 12-13)
 The KGGTF team hosted the first virtual Knowledge Exchange program, Circular Economy for Green Growth, as a part of the Central Asia Climate and Environment Program (CLIENT) for Uzbekistan and Kazakhstan.



Knowledge Product Launch – Agriculture and Food
 KGGTF launched the ‘Agriculture Sector Guidebook’, the first in its Knowledge Exchange Sector Guidebooks series, a series of sector-focused directories for reference, guidance and comprehension of the policies and experiences from Korea that shaped the development of key sectors, as well as more recent green growth practices and government frameworks and institutional structures.



KGGTF Year 8 Call for Proposals Opened
 KGGTF opened its Year 8 Annual Call for Proposals, inviting grant applications from its 7 World Bank Global Practice partners.

Transport Virtual Knowledge Exchange (May 12)
 KGGTF and the Middle East and North Africa (MNA) Transport Team hosted a Knowledge Exchange workshop with Egypt’s Land Transport Regulatory Authority (LTRA) delegation. This technical working session facilitated the exchange of best practices in urban transport from Korea, focusing on the enabling environment and governance supporting the integrated fare system. Contributing partners including MOLIT, SMG, KOTI, KSCC, KTS Korea, and SI shared their technical knowledge and insights.

Energy Virtual Knowledge Exchange (May 27-28)
 KGGTF and the East Asia and Pacific (EAP) Energy and Extractives GP hosted a Knowledge Exchange together with a delegation of Pacific Island Countries, including: Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu to share experiences and learnings on the deployment of E-Mobility and Energy Storage System.



KGGTF 2nd Replenishment (June 5)
 Korea’s Ministry of Economy and Finance pledged an additional \$50 million to fund KGGTF operations through 2026, bringing total funds committed to \$138 million.

Drones for Development Just in Time (JIT)
 To meet increasing demand from client countries to support planning and implementation of drone ecosystems, the ‘Drones for Development’ initiative was established with Just-in-Time funding from KGGTF to accelerate all aspects of drone deployment across multiple sectors.

Urban Virtual Knowledge Exchange (Jun 17-18)
 KGGTF and the Latin America and Caribbean (LAC) Urban GP co-hosted a Virtual Knowledge Exchange focused on land, housing, and urban development, attended by Korean Institutions and delegates from the LAC region. Attendees engaged in policy dialogue, and representatives from MINURVI, a forum of Ministers and Highest Authorities of Housing and Urban Planning for Latin America and the Caribbean, joined the program and presented policies on housing and urban development in the LAC region amidst the challenges of COVID-19.




Digital Development and Transport Virtual Knowledge Exchange (June 25)
 KGGTF facilitated a Virtual Knowledge Exchange for the Latin America and Caribbean (LAC) Digital Development and Transport GPs to learn about Korea’s urban mobility using digital technologies. Participants from LAC cities including Ecuador, Peru, Mexico, Bolivia, and Panama shared their experiences and engaged in technical discussions with Korean institutions.



JUL

Agriculture and Food Virtual Knowledge Exchange (Jul 20-22)

KGGTF and the Europe and Central Asia (ECA) Agriculture and Food GP co-hosted a two-day Virtual Knowledge Exchange on Soil Testing for clients from Uzbekistan, including the Ministry of Agriculture, Food, and Rural Affairs.



AUG

Knowledge Product Launch – Environment, Water, Oceans & Fisheries

KGGTF launched the 'Environment, Water, Oceans & Fisheries Sector Guidebook', the second in its Knowledge Exchange Sector Guidebooks series introducing the policies and experiences from Korea that shaped the development of the Environment, Oceans and Fisheries sector, as well as more recent green growth practices and government frameworks and institutional structures.



SEP

KGGTF's New Leadership

Dr. Hyoung Gun Wang joined KGGTF as the new KGGTF Program Manager, taking over the reins from Eun Joo Yi. A Senior Operations Officer at the World Bank, he was previously Task Team Leader for several urban lending projects in Afghanistan, the Global Smart City Partnership Program, and he led the Smart Cities Knowledge Silo Breaker (community of practice at the World Bank). His analytical and advisory work programs at the Bank have included urbanization and urban/regional development, smart cities and e-government, incremental and affordable housing, GIS and spatial analysis, and economic impacts of infrastructure investment, and spanned more than 30 countries in six regions. Before joining the Bank, Hyoung Gun worked as an economist at the Bank of Korea (the Central Bank of Korea). He holds a Ph.D. in Economics from Brown University.



OCT

Sustainable Coastal Management Virtual Knowledge Exchange (Oct 12-13)

KGGTF and the South Asia Region Environment, Natural Resources and Blue Economy GP team co-hosted and facilitated a Virtual Knowledge Exchange program together with Korea's marine organizations. India and Korea shared key insights and lessons learned in coastal management, and various institutional arrangements to maintain sustainable coastal management.

Soft Launch of the RISE Green Growth Diagnostic

KGGTF provided funding to support the development of the Bank wide program RISE to the Challenge and Build Back Better Framework. The Resilience, Inclusion, Sustainability and Efficiency (RISE) Framework helps countries identify their unique barriers across to progress and pursue higher quality growth that addresses extreme poverty while simultaneously reducing inequality, key environmental risks, and ensuring sustainable progress.

NOV

Knowledge Product Launch - Solid Waste Management Bite-Sized Learning Video Series

In cooperation with the Korea Program for Operational Knowledge, the Korea-based Environment GP team, Seoul Metropolitan Government and Sudokwon Landfill Corporation, the KGGTF team produced a 5-module video series on Korea's Solid Waste Management policies, technologies, and operations experience.

Knowledge Product Launch – Energy & Extractives

KGGTF launched the 'Energy Sector Guidebook', the third in its Knowledge Exchange Sector Guidebooks series introducing the policies and experiences from Korea that shaped the development of the Energy sector, as well as more recent green growth practices and government frameworks and institutional structures.



NOV

Knowledge Product Launch – Urban, Land & Transport

KGGTF launched the 'Urban, Land and Transport Sector Guidebook', the fourth in its Knowledge Exchange Sector Guidebooks series introducing the policies and experiences from Korea that shaped the development of the urban, land and transport sectors, as well as more recent green growth practices and government frameworks and institutional structures.



KGGTF Featured at the Korea-IDA Forum (Nov 5)

Dr Hyoung Gun Wang, KGGTF Program Manager, was a featured speaker for "International Partnerships on Technology in the Post COVID-19 Era" at the IDA-Korea Workshop on Innovation and Digital Technology in a Post-Pandemic World, where he introduced the KGGTF program and strategy to support World Bank client countries to 'green their post-COVID-19 recovery'.



DEC

New Year 8 Grants Approved by the KGGTF Donor

21 new grants to support green growth programs were approved by the KGGTF Donor and the KGGTF Team began the onboarding process with the newly approved grant teams.

Dissemination Activity (Dec 10)

KGGTF launched the Green Growth Webinar/BBL series to disseminate results and lessons learned from KGGTF funded activities and share their impacts. The first in the series on 'Sustainable Coastal Management in Asia' shared important results and impacts of the KGGTF Virtual Knowledge Exchange held in October.



KGGTF Featured at the Sixth Seminar on Climate Change Projects and Programs (Dec 15)

Dr Hyoung Gun Wang, KGGTF Program Manager, joined the Sixth Annual Seminar on Climate Change Projects and Programs, hosted by Korea's Ministry of Economy and Finance, delivering a presentation on Leveraging Technical Expertise, Decades of Experiences, and Finance of Korea to Support Green Growth Plans in partner countries.

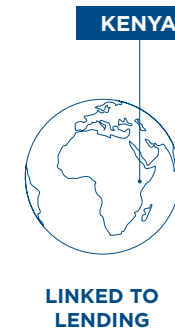
RISE Green Growth Diagnostic Beta Roll-Out

RISE Green Growth country diagnostics and deep dives were completed for Ghana, Argentina, Uzbekistan, Bangladesh, Vietnam, Egypt, Tunisia, Montenegro, and Peru, with KGGTF support.



KGGTF Impacts in 2020

KGGTF Impact on Eastern and Southern Africa



Turning Kenya's Water Utilities Green

CONTEXT

The World Bank Group is providing support to the Government of Kenya to address sector challenges through a combination of technical assistance and investments programs under its water operations. The Water & Sanitation Development Project (WSDP) is supporting investments in select counties in the North-Eastern and Coastal regions of Kenya that face critical water and sanitation challenges. Through its National Sanitation Initiative, Kenya is focusing its efforts on improving Sustainable Development Goals (SDGs) sanitation indicators, particularly by eliminating open defecation practices and improving sanitation conditions in rural communities and urban settlements. Technical Assistance activities have also been rolled out to support Government of Kenya's national sanitation initiative through the application of best practices and innovative approaches (such as the County-Wide Inclusive Sanitation approach), as well as knowledge sharing activities to raise awareness and create demand.

PROGRAM GOAL

To maximize the impact of the programs, assistance was needed to help facilitate the knowledge flow among institutions and decision-making stakeholders to foster green growth practices into national and county policies.

KGGTF has financed activities to support the adoption of green growth practices into the WSDP and the National Sanitation Initiative, which will influence expenditure and investment of smart water practices and infrastructure development. Through the program, advisory services and knowledge activities have been delivered at the county and national levels to support the flagship projects and foster information sharing among institutions in Kenya and Korea.



1

IMPACT ON THE GROUND

Application of Water Related Green Growth Principles

The KGGTF directly supported institutional strengthening activities under the Kenya WSDP project. Following an assessment of six utilities carried out in 2018, each of the WSDPs received their assessment reports, that presented their current performance and potential areas of improvement in the five management areas including organization & strategy, commercial, technical, financial and human resources. The assessments were carried out in April 2018. In June 2018, the utilities top management participated in a 3-day training program, as a way to further deepen their knowledge in key area of utility management. The course content covered the five utility management areas, as described in the Utilities Turnaround Framework (UTF)

Following the assessment, the Trust Fund supported the development of a Terms of Reference for the recruitment of an international firm to deepen the assessments earlier carried out in 2018 and prepare a Performance Improvement Plan for each participating WSDP in the coastal region. The TOR was reviewed and validated during a November 2019 technical mission with the WSDPs. In February 2020 a workshop on organizational aspects of managing non revenue water (NRW) in a middle-sized utility was organized. Representatives from the six WSDPs, under the UTF program, and Mombasa WSDP participated in the workshop. The objective of the workshop can be summarized as follows: (i) A deep dive into current and future NRW-management tasks (ii) Formulation of activities to enhance the readiness of the WSDPs to absorb new NRW-management tasks in the coming UTF program.

Given the onset of the COVID-19 Pandemic, the ToRs for the Performance Improvement Plans developed under the KGGTF were augmented to incorporate Water Safety and Disaster Preparedness Plans as part of the response to COVID-19 and any other future disasters the WSDPs may face.

2

City Wide Inclusive Sanitation (CWIS)

The KGGTF program supported the adoption of city wide inclusive sanitation (CWIS) into the National Sanitation Initiative aimed at improving sanitation conditions in urban towns and cities of selected counties. Through this TA, the concept of countywide inclusive sanitation has been developed and adopted. The countywide inclusive sanitation approach seeks to address the entire sanitation service chain, from containment, collection, transportation, treatment and disposal/re-use, in line with SDGs sanitation targets. Given that the provision of sanitation services is a devolved function, the county is taken as the unit of planning, covering both urban and rural areas, thus 'leaving no one behind'. The program is assisting to deepen the discussions with local and national stakeholders on comprehensive sanitation solutions by applying the approaches and tools in two cities. Recommendations from the CWIS will inform the Government of Kenya's sanitation initiatives and policies, as well as potential new sanitation operations with the World Bank.

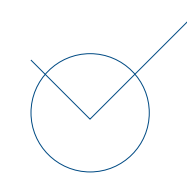
Through the TA, Nakuru countywide inclusive sanitation strategy and investment plan has been developed.



3

Water Related Green Growth Capacity Building

Throughout the program, KGGTF supported Kenya through knowledge sharing and learning from real and practical Korean experiences in September 2018. The objective of the visit was to promote knowledge sharing between Kenya and South Korea for deepening understanding and integration of water security issues, integrated urban water management, and utility turnaround to support cleaner cities with efficient and reliable water and sanitation services. Kenyan participants in the knowledge events were water service providers and counties to promote implementation of investment projects. Knowledge was leveraged through key Korean institutions including K-Water, Korea Water and Wastewater Works Association and the Ministry of Environment (MOE) Water Policy Bureau.



KEY RESULTS

- Initial assessments of six water utilities have been undertaken and recommendations on interim Utilities Turnaround Framework related actions have been provided.
- Nakuru countywide inclusive sanitation strategy and investment plan has been developed.
- National Countywide Inclusive Sanitation workshop has been delivered.
- A knowledge exchange and learning event on Utilities Turnaround Framework has been delivered.
- A knowledge exchange between Kenya's water related agencies and key water agencies in Korea has been delivered.

“Trust Fund resources are a critical complement to Bank lending projects. Through the KGGTF, our clients have been exposed to world class knowledge in utility reform and city wide inclusive sanitation. This was possible through an exposure visit to Korea and local learning opportunities organized. Their technical knowledge has been deepened and they are now executing key aspects of their learning. In sanitation, policy and strategy formulation is underway and in utility reform, Performance Improvement Plans are under development.”

Lewnida Sara, Task Team Leader: Water and Sanitation Development Program, World Bank

Inputs provided by: Christine Ochieng, Water Supply and Sanitation Specialist

TANZANIA



Smart Tanzania: Transforming Mobility Through Technology

CONTEXT

In July 2020, Tanzania reached a remarkable milestone toward the objectives set in the country's own Tanzania Development Vision (TDV) 2025 by achieving lower middle-income country status. This was the result of two decades of sustained growth and investment supported by stable macroeconomic conditions, rich natural endowments, and the country's strategic geographical position. The country is one of the largest Sub-Saharan African economies, home to over 52 million people. Under the Tanzania Development Vision (TDV) 2025, government officials aspire to a middle-income status with access to education, and a competitive economy capable of achieving sustainable growth, security, and peace. To do this, the Tanzanian government aims to leverage digital technologies and applications to accelerate its transformation from a low-income country to a semi-industrialized economy that is prepared for the compounding challenges of climate change and population growth.

In 2016 KGGTF funding was awarded for a three-year program named 'Tanzania Smart Services' in response to the Government of Tanzania's request for advice on three emerging technology fields with potential for delivering green growth. These were:

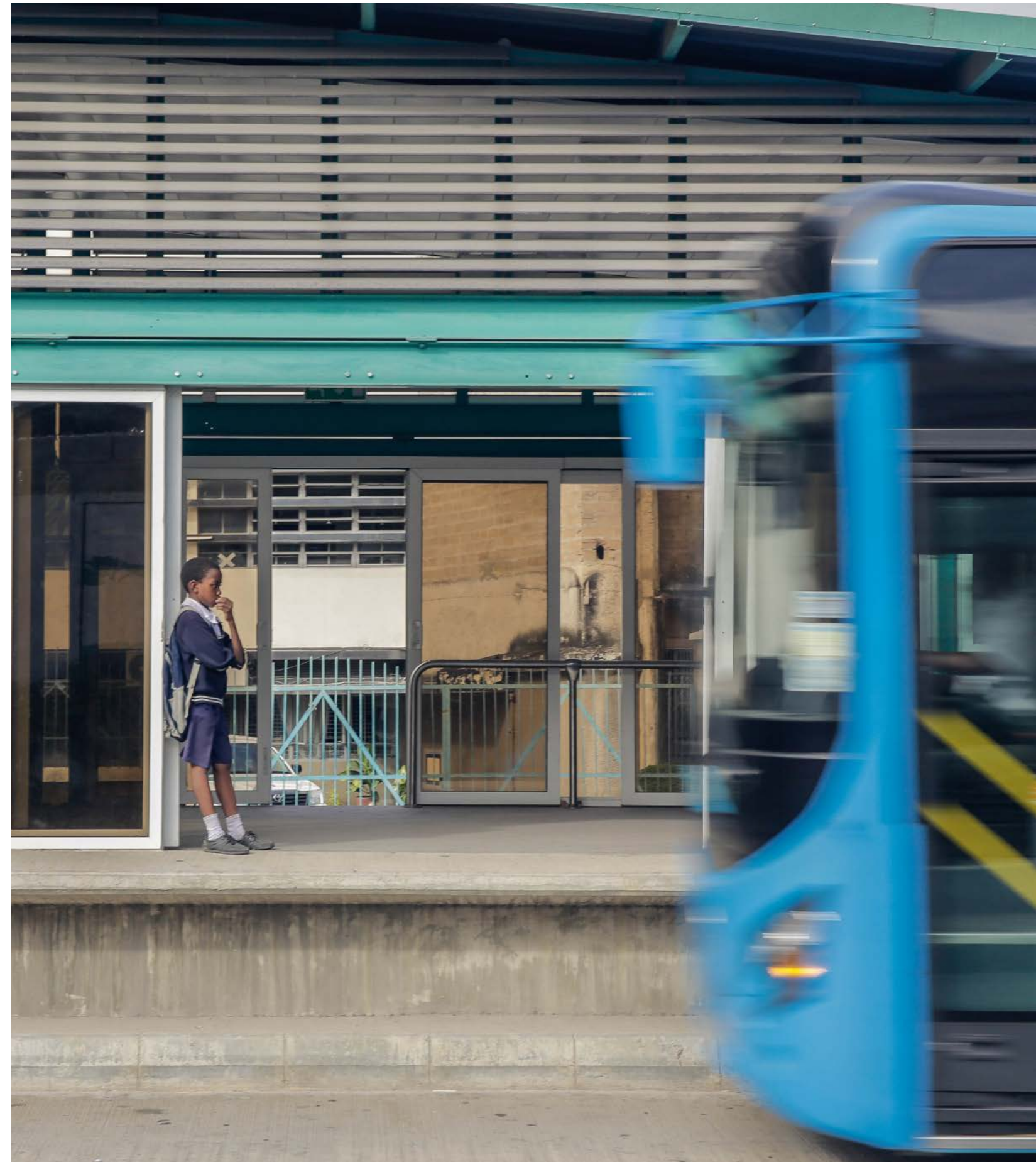
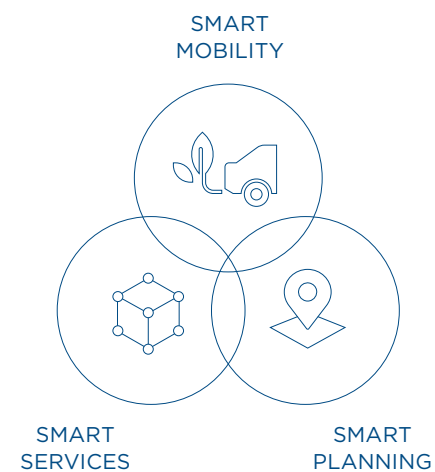
- The rapid development and capabilities of electric unmanned aerial vehicles (UAV) for surveying, mapping, planning, monitoring, risk assessment, flood response, agriculture, environmental management and transport (with the potential to connect excluded communities, enhance the resilience of supply chains, and create new markets and services that connect urban and rural opportunities).
- Smart digital services for citizen engagement and feedback built around data and interface standards and allowing for mobile access, finance, and data analytics to support service delivery.
- Shared economy business models in transportation with potential to change business models, reduce congestion, fuel consumptions/ emissions and support new livelihoods.

PROGRAM GOAL

This program focused on three goals:

- **Smart Mobility:** Leveraging emerging standards, technologies, policies and business models for low carbon, sustainable transport of goods and people.
- **Smart Services:** Seeking to transform the relationship between service provider and customer for greater efficiency by leveraging citizen feedback and open standards.
- **Smart Planning:** Digitizing and formalizing the country's land and physical assets by adopting UAVs for aerial surveying to accelerate local area planning, cadaster, title, risk assessment, flood modelling and monitoring.

Activities funded by this grant included technical assistance to build critical capacity relating to UAVs, and to fill knowledge gaps in regulatory policy and strategy, capacity building and pilot development, and strengthen partnerships and networks.





RESULTS ON THE GROUND

The progress made in relation to UAV services exceeded expectations, including a number of notable achievements:

- The combined UAV experience of several Tanzanian agencies (including aviation, business, science, and regional government entities) was brought together to create an Organizing Committee.
- The establishment of the Tanzania Flying Labs, providing pilot trainings as well as business incubation program for four companies based on digital UAV services.
- Partnerships with Korean Drone Survey and Korea Land and Geospatial Informatix Corporation (LX) were established and Korean expertise in drone delivery and mapping was leveraged through technical workshops which took place during 2016 and 2017.

- A draft Droneport Concept Note for Public Private Partnerships was prepared.
- The first African Drone Innovation Symposium for Regulators was organized in October 2018.
- MoUs were signed with UNICEF, World Economic Forum, World Food Program, John Snow Inc., ICAO, IATA, CASSOA and Deloitte.



RESPONSE FOR COVID-19

- Drone technology is now finding promising applications to support socially distanced and contactless supervision, delivery and vaccine cold chain.



“The Lake Victoria Challenge is a catalyst for digital innovation in Mwanza and Tanzania that will lead to job creation for youth and impact industrialization while laying an enabling environment foundation for sustainable infrastructure.”

Regional Commissioner of Mwanza, Hon. John Mongela



RIPPLE EFFECT

These outcomes, alongside investments from other organizations and World Bank programs, helped to support and drive the movement towards green urban ecosystems in the region, and subsequently the creation of the Lake Victoria Challenge (LVC). LVC was held in October 2018 in Mwanza, Tanzania - an international gathering of key government and regulatory officials with global and local innovators, investors, businesses and media, the event aimed to propel the use of drones and other aerial technologies for positive economic and social impact. The event established world-class operating and risk management procedures and an Organizing Committee of local authorities with a bigger vision, to create the African Drone Forum (ADF), a multi-year, multi-stakeholder engagement program on Unmanned Aerial Systems technologies and services that meet the needs of emerging African market opportunities through 2021.



KNOWLEDGE LEVERAGED AND PARTNERSHIPS STRENGTHENED

- Korea Land and Geospatial Informatix Corporation (LX)
- National Information Society Agency (NIA)
- ePeople
- UAViators
- FSD
- WeRobotics
- La Fondachion Bundi
- Hojung Solutions

Inputs provided by: Edward Anderson, Senior Disaster Risk Management Specialist, & Catalina Ochoa Senior Urban Transport Specialist

KGTF Impact on Western and Central Africa

SENEGAL



LINKED TO LENDING: US\$300M

Improving Solid Waste Management in Africa Cities, Senegal

CONTEXT

Dakar, Senegal

Rapid urbanization has put significant strains on the capacity of solid waste management in West Africa. Currently waste from Dakar is disposed at a large open dumpsite in Mbeubeuss, a densely populated suburban area of the capital, and a source of water, air, and land pollution. The site hosts roughly 1,880 informal recyclers – or ‘waste pickers’ – working and living at the dumpsite. Nearly 600 are women and children who are highly vulnerable to health risks. There is an urgent need to develop appropriate social, entrepreneurial, and technical skills to mitigate these risks.

PROGRAM GOALS

As part of a KGGTF grant to improve solid waste management in African sites, a Knowledge Exchange visit to Seoul took place in June 2016. The visit sparked the interest of Senegalese authorities, and led to a comprehensive financial and technical analysis on factors such as climate change, rising sea-levels and the deleterious effects it could have on the current dump site. Next the economic impact of inadequate solid waste management systems and the overall financial cost of NOT investing was clearly articulated. Additionally, new frameworks for financing operations and maintenance costs

were evaluated including the introduction of an ecotax to increase financial resources to the sector. The comprehensive financial and technical review funded by the grant resulted in an innovative three-pronged approach:

1. An integrated approach to both collection and governance
2. Results-based financing
3. Maximizing finance for development by identifying new private sector partners

RESULTS ON THE GROUND

A clear turning point occurred when the Ministry of Finance was shown that poor waste management was costing Senegal an estimated 1.06% of the country’s GDP. This finding spurred the Ministry of Finance to request donor support to prepare a comprehensive solid waste management project to address the situation.

Understanding of the economic cost of non-action, accompanied by a clear strategy for financing and implementation resulted in the enthusiastic support of the Ministry of Finance for the expansion of solid waste investment.



FUNDING RIPPLE EFFECT

Based on the successful results of the grant, Senegal has obtained \$125 million in financing from the World Bank. Additional funding is being mobilized through other development partners such as the French Development Agency (AFD), the Spanish Agency for International Cooperation and Development (AECID) and the European Investment Bank (EIB). The total package of over \$300 million is the largest single solid waste management investment to date. Neighboring countries inspired by Senegal have requested support for help to conduct similar studies with the aim of advancing similar SWM programs in their respective countries.

“About six million residents in seven regions of Senegal will benefit from improved waste management services, 5,000 people will receive training and all municipalities will also enjoy stronger regulations and a more efficient mechanism to mobilize resources and partner with private firms in the sector,”

Farouk Mollah Banna, Sustainable Development Sector Leader at the World Bank based in Dakar, Senegal who is also the Task Team Leader for this operation.



STAKEHOLDER ENGAGEMENT AND BEHAVIORAL CHANGE

Additionally, a pilot initiative to change community behavior by engaging stakeholders was a success and is now a model for future work in the region. Working with an influential Imam, city officials were able to illuminate the crucial need for radical changes in waste disposal. Adoption of new behaviors, with the help of the local leaders, to initiate and maintain new behaviors will be replicated in this and future projects.

“The Korean solid waste management experience was an inspiration to our new strategy to address waste management challenges in Senegal. Our new vision around waste management is not to just to collect and dispose of waste but rather to gradually move to a circular economy where waste is no longer a nuisance but becomes a resource.”

Mass Thiam, Director of UCG at the Ministry of Urbanism of Senegal, in charge of the solid waste program

Inputs provided by: Farouk Mollah Banna, Sector Leader

KGTF Impact on East Asia Pacific



Building a Green Growth Platform for Lao PDR

CONTEXT

Lao PDR has achieved an average GDP growth rate of 7% between 2010 to 2019. This growth, however, and has not translated into poverty reduction, and has been driven in large part by natural resource-based industries, such as mining, timber, and hydropower. Policy makers worry that the recent economic growth is environmentally damaging and unsustainable, especially in the face of climate change and the increased risk of flood and drought.

PROGRAM GOAL

Building on previous KGTF efforts to support the World Bank to identify and implement green growth solutions in Lao PDR, this KGTF grant comprises technical assistance, analysis, and advisory services to develop a Green Resilient Growth Platform with the National Economic Research Institute and the Ministry of Planning and Investment, among others. The proposed program supports the government of Lao PDR to operationalize its stated green growth policy and investment priorities to drive the circular economy. The program analyzed the current air quality monitoring network data and collected information about key pollution sources. This information influenced the recommendations on how best to strengthen the monitoring of air quality, and source apportionment studies.

The analytical work and consensus building are key to the program and will directly support World Bank lending investments and further collaboration between the World Bank and the Government of Laos the green growth agenda.

RESULTS ON THE GROUND

The first and second financing instruments under the Lao PDR Green Growth Development Policy Financing series have been delivered with excellent progress made across all policy tracks and targeted sectors:

Information:

- Diagnostics completed on tourism, forestry, pollution, cost of environmental degradation, land valuation and biodiversity.
- Policy note series prepared for rolling circulation in early FY21; more to come.
- Draft reports have been completed or are in the final stages of review.

Incentives (policies and markets):

- Understanding and interest has increased for relevant reforms due to the diagnostic work.
- Greater interest in and willingness to consider multi-sector trade-offs and synergies.

Institutions:

- Consolidated multi-sector green growth dialogue across ministries and GPs.

Investment:

- Investment dialogue on green growth supported: Protected area management and tourism regulation, wildlife, forest landscapes and sector development, watershed management, environment, and waste management.
- Many policy reforms were advanced under Green Growth development policy operations (DPO) series, including the Ministry of Natural Resources and Environment Instruction on Groundwater Management No. 1509; Prime Minister's Decree No. 258/PM on Pesticide Management.

Since the original KGTF proposal, the dialogue has continued evolve and strengthen, with additional tasks and an adjusted scope to support the client precisely and cooperatively in identifying the next generation of investment needs. For example, Lao PDR's National Green Growth Strategy, and new policies on protected areas, timber legality, and environmental management (ESIA – Environmental and Social Impact Assessments, SEA – Strategic Environment Assessment) that support strong dialogues and generating future investment projects. The reports have been presented and validated across a range of stakeholder groups.

“Lao PDR has been shifting its development trajectory to a green growth path that is more resilient, inclusive and sustainable. Various products supported by the Korea Green Growth Trust Fund have provided evidence-based recommendations, including specific interventions to help identify priorities, and institutional and governance reforms that have provided government organizations with the mandate, incentives and resources to support the transition towards green growth.”

Maurice Andrew Rawlins, Senior Environmental Specialist, World Bank Group

KNOWLEDGE LEVERAGED & PARTNERSHIPS STRENGTHENED

Two global Green Growth learning events were held in Seoul and were attended by a diverse group of Government of Laos ministries and representatives from over 30 other countries. World Bank Group and Government partnerships have been deeply strengthened through the on-going forestry engagement, with KGTF playing a key role in this, and a new generation of lending investments and private investment on the horizon.

The Laos Landscapes and Livelihoods project, through KGTF-funded advisory inputs, is helping to establish a stronger partnership in the country among private sector actors and the various

ministries involved in protected area management, tourism regulation, and environmental regulation. KGTF is adding value to this multi-sector dialogue and contributing tangible results to improved conservation and strategic planning. A new project is currently under preparation – the Lao PDR Environmental Waste Management Project – and is also benefitting from KGTF-funded advisory inputs.

Korean Partners:

Seoul National University

Korean International Cooperation Agency (KOICA)

Korea Environmental Industry and Technology Institute (KEITI)



Inputs provided by: Maurice Rawlins, Senior Environmental Specialist

“...We sincerely appreciate the World Bank's support through the Korea Green Growth Trust Fund

to develop an interdisciplinary assessment on the Lao PDR environmental challenges that has helped to identify the environmental priorities that are most closely interwoven with poverty reduction and shared prosperity in Lao PDR.”

H.E. Madame Bounkham Vorachit, Minister of Natural Resources and Environment for Lao PDR

KGTF Impact on Europe and Central Asia

KAZAKHSTAN



Agriculture and Food Support to the Preparation of the Sustainable Livestock Development Program for Results in Kazakhstan

CONTEXT

Kazakhstan is developing an export-oriented meat sector to diversify its exports away from oil and to better use its natural resource (pasture and grassland) potential and promote rural development by creating jobs in regions with low employment. The Government's Livestock Program for 2018-2027 is the first such program in the nation to address these important development objectives. The aim is to increase rural incomes by creating livestock sector jobs while establishing greater diversification across the export sector while further utilizing their large natural resources for sustainable livestock production more effectively.

Given the little experience Kazakhstan has with the export-oriented meat sector and the considerable international competition in the sector, the country faces significant difficulties. While the sector can be lucrative; livestock production is associated with significant negative environmental externalities including carbon output and environmental degradation. Kazakhstan's strategy to transition to a green economy by 2050 aims to improve agricultural land productivity and water access, among other things, but the country has limited experience in translating green growth principles into agri-food sector operations.

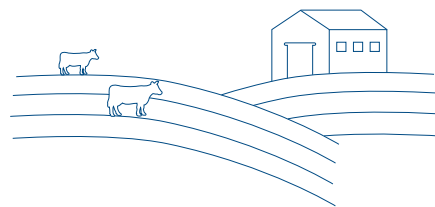
Therefore, the Green Growth approach to Kazakhstan's livestock sector requires streamlining public expenditures and agricultural subsidies and shifting public expenditures away from inefficient subsidies towards investments that have climate co-benefits and positive environmental externalities.

PROGRAM GOAL

KGTF supported the preparation of: (a) technical assessment of government programs, (b) fiduciary systems assessment, (c) environmental and social systems assessment. These assessments contributed to the design of the 5-year Sustainable Livestock Development Program for Results and set targets for the sustainable transformation of beef cattle sector in Kazakhstan with focus on green growth, better rural jobs, improved productivity and competitiveness.

- ✓ TECHNICAL ASSESSMENT
- ✓ FIDUCIARY SYSTEMS ASSESSMENT
- ✓ ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT

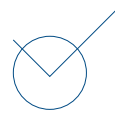
TRANSFORM THE RURAL ECONOMY BY CREATING JOBS IN LOW-EMPLOYMENT REGIONS



KAZAKHSTAN'S LIVESTOCK SECTOR DEVELOPMENT RESULT TARGETS INCLUDE:

- doubling the national cattle herd to 15 million,
- importing one million high-quality bulls,
- supporting around 80,000 rural households to begin livestock farming, by provision of land and financing for cattle,
- creating 62 new feedlot operations with intensive livestock feeding technologies,
- increasing exports of beef to 1 million tons from the current level of 15,000 tons
- increase fodder production on an additional 1 million hectares.





RESULTS ON THE GROUND

Support Sustainable Export Promotion and Competitiveness

The comprehensive technical assessment of government programs provided clarity on which programs will promote systems and mechanisms for an export-oriented meat sector by establishing an effective traceability system, improving veterinary service delivery for better animal health and nationwide disease control, and introducing environmental and climate-smart enforcement mechanisms for livestock production.

Create Jobs and Improve Incomes in Rural Areas

The fiduciary systems assessment identified the process and created support materials to all aspects of livestock expansion. Support materials, including guidebooks for farmers, and others in the livestock ecosystem provided operational tools to expand jobs and improve incomes in rural areas through sustainable expansion of grassland and pastures. It includes by making more land available to small and medium livestock farmers, supporting infrastructure upgrades to increase the quality and quantity of fodder and promote market linkages and service provision for small and medium farmers.

Improve Efficiency of Public Expenditures

The objective is to support the enabling policy framework, by improving the efficiency and targeting of the selected livestock subsidy programs to incentivize green investments for productivity gains, technology transfer and food quality/safety improvements.

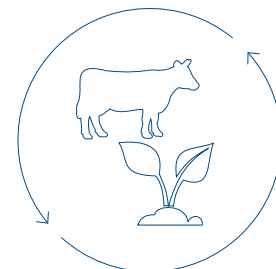
KGTF's support is influencing the application of Green Growth principles to the Government's Livestock Program and facilitating stakeholder involvement that enhances application of technologies and practices for green growth operationalization.

Korean Partners:

Korea Rural Economic Institute (KREI)

ADDITIONAL SUPPORT MATERIAL WAS PRODUCED TO HELP CREATE JOBS BY SUPPORTING THE FARMING ECO-SYSTEM

- Pasture plants suitable for cattle
- Changing seasonal productivity of pastures
- Rotational grazing systems for seasonal pastures
- Scientific support for pasture resources
- Seasonal productivity of forage plants for cattle
- Pasture utilization and stocking rate
- Cultivating and harvesting proved pastures (silage)
- Establishing support for pasture users' associations
- Plant catalogue



“The KGGTF Grant has been very instrumental for the design of the Kazakhstan Sustainable Livestock Development Program for Results, which is an innovative development program oriented at transforming Kazakhstan’s livestock sector, with focus on competitiveness, environmental and climate sustainability and employment generation in rural areas.”

Yerkebulan Akhmetov, Director of the Department of Production and Processing of Livestock Products, Ministry of Agriculture, Republic of Kazakhstan



“The KGGTF Grant to Support to the Preparation of the Sustainable Livestock Development Program for Results in Kazakhstan helped finance critical analytical and advisory activities for the preparation of the Program. These activities focused on mainstreaming green growth in national and sectoral programs for agriculture and livestock development in Kazakhstan. For example, through the grant support, the Bank together with national and international experts, and national research institutes, developed good practice guidelines for green and climate-smart beef cattle production. These fourteen guidelines, when adopted by the Ministry of Agriculture of Kazakhstan, will serve as important training material for 100,000 small and medium cattle farmers and will help improve agri-environmental outcomes, including reducing greenhouse gas emissions from the beef cattle production.”

Artavazd Hakobyan, Senior Agriculture Economist, World Bank

Inputs provided by: Artavazd Hakobyan, Senior Agriculture Economist

Innovative & Green Growth for Rural Kosovo: Women Online Working

Creating Jobs In The Digital Economy

KOSOVO

LINKED TO
LENDING

CONTEXT

Following the COVID-19 pandemic and the rapid adoption of digital technologies across a range of sectors – business, school, healthcare and government services – the KGGTF team checked-in on the results and impact of a pioneering digital skills and jobs program, ‘Women in Online Work (WOW)’ that was piloted in Kosovo with funding from KGGTF. The original program in 2017 trained over 250 underemployed young women in technical and soft skills that enabled them to access jobs online. Jobs ranging from secretarial, data-entry, translation services, to graphic and web-design. The initial program has continued to inspire and influence projects around the region.

UNEMPLOYMENT IN RURAL AREAS

Kosovo’s high rate of unemployment averaged 41.5% from 2001 until 2016. Due to structural bottlenecks, both cultural and policy related, only one in eight females can find employment, with job creation especially constrained in rural areas of Kosovo. In these areas the transition from agriculture economy to a service-based economy is hampered by poor telecommunications infrastructure. A significant number of households are without broadband internet coverage and communities lack digital skills. Considering this, the Government of Kosovo has set a clear goal to create better and more inclusive economic opportunities in rural areas with the help of information and communication technology (ICT).



The Kosovo Digital Economy Project (KODE) was approved in 2018 and the first group of Youth Online and Upward (YOU) a gender-neutral spinoff of WOW shall start trainings later in 2021. The Government of Kosovo received a \$25 million loan from IDA to implement the KODE from 2019-2023.

The KODE project is working to:

1. Expand access to high-quality, digital infrastructure for Kosovars
2. Support Kosovars to access the regional and global opportunities of the Digital Economy

The KODE project is funding critical foundations needed for digital transformations and will provide high-speed broadband infrastructure and support access to labor markets, new sources of knowledge and public services for households and institutions in rural areas lacking services.

At the national level, the project will train and connect young people with online employment opportunities and improve access to knowledge resources including opportunities for Higher Educational institutions (HEIs).

To find out more information, visit <https://kodeproject.org/en/home>

Albania is replicating the program across their country in 2021. Engagement is being led by the MOF and Prime-Minister’s office.

PROGRAM GOAL

KGGTF funded a technical assistance activity aimed at improving access to high-speed affordable broadband internet services in underserved rural areas of Kosovo, as a platform for enabling innovative green growth in the country.

“WOW was not just success in itself, it served to tailor other programs and projects for Digital Skills in Kosovo and the region. Started as a small pilot and ended up with huge impact for women and the ICT industry in Kosovo.”

Agim Kukaj, Director of the ICT Department, Ministry of Economy of Kosovo





“Our team is thrilled to observe enduring success of WOW pilots, Year after year our humble engagement reminds us that even small things implemented with a lot of dedication can have a transformative effect on human lives and inspire to reach for more.”

Natalija Gelvanovska-Garcia, Senior Digital Development Specialist, World Bank

RESULTS BY THE NUMBERS

After two KGGTF funded WOW pilot phases:

250 graduated from the WOW program

85 women obtained online contracts with collective earnings around

\$30,000

335 contracts were obtained by WOW beneficiaries

Contracts were obtained from employers in

28 countries across 3 continents

5 participants found jobs in the local IT market generating over

\$9,000



RESULTS ON THE GROUND

The WOW pilot program was among the first of its kind, both for the World Bank and globally. The program demonstrated that by piloting and upscaling innovative approaches, economic, environmental and social benefits can be achieved, including income generation and work opportunities for unemployed residents in rural area.

As a result, a rigorous rural broadband program was designed, based on detailed feasibility studies and international best practices. In addition, the World Bank devised and implemented a pilot ‘green jobs’ intervention to demonstrate the importance of broadband internet for inclusive job creation. The intervention, called the Women in Online Work (WOW) program supported 250 women living across five rural and urban municipalities to learn the technical and soft skills to engage in IT-enabled jobs offered through a global online work marketplace.



ADDITIONAL RIPPLES

Internal best practices can be a catalyst for local market innovation.

Following the success of the WOW program, local IT training providers, having seen proof of the success of the concept, built on the model and implemented similar versions of the program.

ICT policy makers shifted their understanding of the importance of incorporating local capacity of training providers, ensuring the sustainability of online work from both the supply AND the demand sides.

Inputs provided by: Natalija Gelvanovska-Garcia, Senior Digital Development Specialist

KGTF Impact on Latin America and the Caribbean

MEXICO



LINKED TO LENDING

Inner City Affordable Housing Program Strengthening Urban Management in Mexican Cities

CONTEXT

Mexico went through a rapid urbanization process during the 20th century and is now 79 percent urban. Mexican cities added more than 80 million urban residents since the 1960s, which created enormous challenges in terms of managing urban growth and providing adequate services and opportunities to new urban residents. Moreover, widespread and rapid horizontal expansion of urban areas led to challenges in terms of urban sustainability, efficiency, and quality of life. This urbanization trend is particularly worrisome as it becomes difficult to capture the economic benefits associated with urban agglomeration and increases pollution and traffic congestion as residents commute long distances from the suburbs.

The result are cities with high levels of inequality, uneven access to services and infrastructure, particularly in urban peripheries where many of the large scale housing developments were built that are distant from job opportunities and other amenities. Despite Government efforts, many cities and municipalities lack the capacities to effectively manage urban growth and undertake the necessary investments to ensure a more sustainable and inclusive urban development.

Recognizing these challenges, the Government of Mexico launched an important policy reform agenda for the urban and housing sectors aimed at promoting sustainable and equitable compact urban growth. The key priorities are to: (i) foster the orderly growth of human settlements, population centers, and metropolitan areas; (ii) consolidate compact, productive, competitive, inclusive and sustainable cities that facilitate mobility and enhance the quality of life of their inhabitants; and (iii) promote WB lending operations to i) support more sustainable urban development and ii) expand access to affordable housing in Mexico.

PROGRAM GOAL

This KGGTF program set out to support green and inclusive urban growth in Mexico's main metropolitan areas through financing urban renovation projects

in inner-city areas that prioritize affordable housing through mixed use and transit-oriented developments.

The transition towards more dense and compact cities requires a new range of policies (for urban and spatial planning, land management and densification) and instruments (housing subsidies, land-value capture mechanisms). The grant provided technical assistance to Mexican municipalities and metropolitan areas to support city governments to:

- Design a framework model and institutional structures to support urban renovation
- Establish effective incentive mechanisms
- Structure urban renovation plans to be presented for funding
- Increase the institutional, technical, and financial capacity to structure urban renovation projects at the national level

Housing subsidies (for ownership or rental) can contribute to a more sustainable urban form but need to be coupled with urban policy at the local level to be effective. For example, through urban re-development, the city can combine energy efficiency (buildings, lighting, transport) and land use management, planning and zoning with transit-oriented development to de-couple urban growth and resource use.

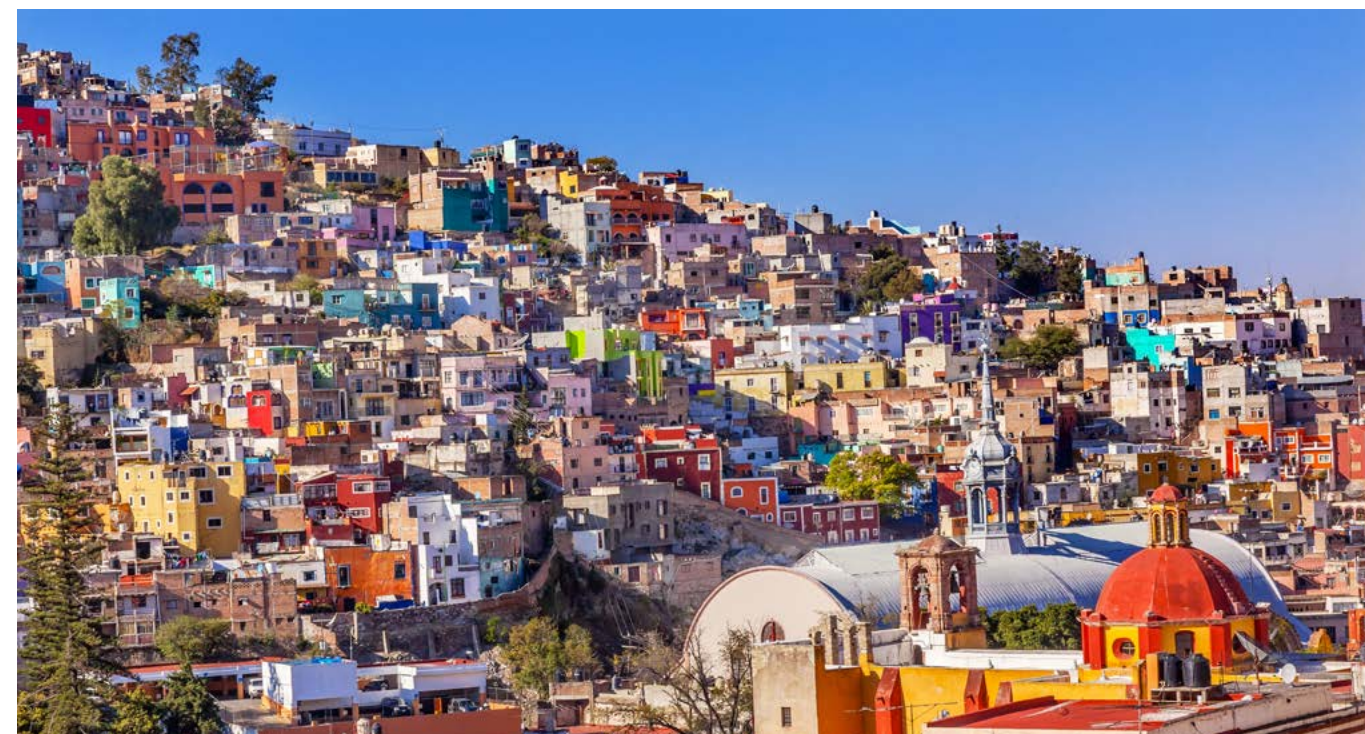
RESULTS ON THE GROUND

The sharing of best practices with Korean counterparts greatly influenced the approach taken by the Mexican government. Korea's unique approach to public-private partnerships substantially changed the understanding of how to finance renewal projects. In particular, the incentives given to private entities with stringent requirements to build in a way that benefits the greater community opened new avenues of funding for much needed mid-size projects.

The ability to fund small and mid-sized projects – such as transforming an abandoned hospital, a no-longer-needed military base, or empty car factory – into multi-use and highly integrated mixed-use facilities is having a transformative impact on the densification of urban areas.

“The technical support provided by the World Bank team has helped Mexico in its efforts to transform the country’s housing policy and programs. With the KGGTF sponsored technical assistance and the engagement with Korean counterparts, Mexico has gained access to global best practices and critical knowledge that allowed the country to adapt its existing programs to the needs of the most vulnerable segments of the population and to better respond to the emergency caused by COVID-19.”

Edna Elena Vega Rangel, Director General, National Housing Commission Mexico



BUILDING ON PREVIOUS KGGTF SUPPORT

The design of the proposed program benefited from previous KGGTF support for a study tour of Mexican Government officials to South Korea to learn about the experience in urban renovation and affordable housing, and the development of tools to evaluate the benefits of green urban growth in Mexican metropolitan areas.

Korean Partner:
Korea Land and Housing Corporation

Inputs provided by: Horacio Terraza, Lead Urban Specialist

“Due to its well-developed housing ecosystem and solid track record of delivering new housing solutions to citizens at scale, Mexico is an international reference in the field of housing policy. Nevertheless, the housing challenge is a moving target as has been clearly demonstrated by the recent pandemic. The KGGTF support made it possible to explore with national and local authorities alternative schemes that could allow them to get closer to their objectives of increasing urban density, mitigating urban sprawl and forging a more sustainable city development.”

Horacio Terraza, Lead Urban Specialist, World Bank

KGTF Impact on Middle East and North Africa

EGYPT



Smart Technology and Energy Efficient Production (STEP) Program

CONTEXT

In response to the increasing cost of energy, and market distortions caused by subsidies, the Egyptian government has set a policy to gradually phase out electricity subsidies as part of its economic program. The energy subsidy removal process, while important, will affect many sectors of the economy, in particular the competitiveness of the industrial sector whose cost structures and production systems were built based on access to cheaper, subsidized energy. In light of the increasing energy demands of industry to fuel its growth ambition, and the plan to phase out energy subsidies, the Ministry of Trade and Industry (MoTI) is working on facilitating this transition and mitigating its impact on industries.

PROGRAM GOAL

To mitigate the impact of increasing energy prices, MoTI reached out to the World Bank Group to support Egyptian industries in light of the changing energy context. With the support of the KGGTF,

the Egypt Smart Technology and Energy Efficient Production (STEP) program was launched with the objective of improving the competitiveness of Egyptian industries by lowering their energy use, encouraging energy efficient practices, and facilitating the growth of Egypt's domestic energy efficient technology manufacturing sector. The program was composed of the following two components:

1. Standards & Labelling (S&L) Program for Industrial Motors: Aimed at developing the regulatory frameworks and tools needed to strengthen and accelerate programs supporting energy efficiency and improving the overall feasibility and attractiveness of industry specific energy efficiency solutions.
2. Clean Technology Manufacturing: Aimed at encouraging the development of international and local clean technology manufacturing in addition to the development of energy efficiency and renewable energy services.

“The Smart Technology and Energy Efficiency Production (STEP) program lies at the nexus of climate resilience and economic development as it seeks to improve the competitiveness of Egyptian industries by promoting energy efficient practices and technologies. The program has been benefited significantly from the technical expertise of our Korean partners on how to adopt climate smart and green technologies to support countries’ sustainable growth plans. The STEP-supported Decree brings energy efficiency classes for electric motors in Egypt up to the global ‘good practice’ level; a critical milestone for the country’s industrial sector that is aligned with the Government of Egypt’s commitment to progress towards achieving the Sustainable Development Goals. I am proud to be working with a dynamic team and partners on leading an engagement that contributes to IFC’s mission of creating markets for energy efficiency in Egypt.”

Menan Omar, Operations Analyst and STEP Program TTL, MENA Advisory Services, IFC

It is estimated that effective implementation of high efficiency motor standards could save industry nearly US\$560 million by 2030.

RESULTS ON THE GROUND

Government Decree 436/2020

Through the STEP program, Egypt has acted to fulfill its part in that undertaking, starting with the formal adoption of IEC 60034-2-1 (test method to determine losses) and IEC 60034-30-1 (definition of motor energy efficiency classes) as Egyptian Standards ES 2623-1/2015 and ES 2623-3 /2017 respectively by the Egyptian Organization for Standardization and Quality (EOS) and followed by the issuance of Decree 463 in September 2020 mandating the implementation of high efficiency motor standards (IE3) in industries. This Decree is expected to catalyze a change in market access for more energy efficient motor suppliers, who can now market their products based on superior performance. Similarly, establishing standards and reliable performance information provides confidence to consumers in the equipment they purchase so they can choose high quality and efficient motors.

PARTNERSHIP AND COLLABORATION

Over the course of the project, three trips were made to Korea with the purpose of promoting knowledge exchange and developing partnerships with Korean entities in 2014, 2015 and 2018 respectively. The objective of these technical knowledge exchange events and study tours was to expose Egyptian stakeholders to the transformation reforms carried out in Korea, distill lessons that can be applied to Egypt's advantage and build partnerships for future engagements and potential opportunities to fill in the technology gap in the Egyptian clean production market. Korean entities engaged with included the Ministry of Trade, Industry and Energy, Korea Energy Agency, The Small and the Medium Business Corporation, Korea Electric Power Corporation, Korea National Cleaner Production Center, E TechHive / Green Technology SME, etc.



Inputs provided by: Menan Omar, Operations Analyst

KGTF Impact on South Asia

INDIA, NEPAL & PAKISTAN



LINKED TO LENDING

Solid Waste in Mountainous Regions of India, Nepal and Pakistan

CONTEXT

India, Nepal, and Pakistan share the snow-capped peaks of the Himalayan Mountain range. Over the last fifty years (1961-2011) the Himalaya population has grown by 250%, from 19.9 to 52.8 million. Over half of the population from India or Nepal are living below the poverty line (2 USD a day), and almost one quarter fall below the extreme poverty line (1.25 USD a day). Tourism, a chief driver of the economy depends on the mountains, rivers and magnificent landscapes continuing to draw visitors to the region. These mountainous ecosystems are fragile and the recent increasing population, and steady influx of tourists are straining the environment. The indiscriminate dumping of trash is negatively impacting economic growth potential as the pristine landscape drawing tourists is becoming increasingly littered with waste, odor and pollution leaching into ground water sources.

PROGRAM GOAL

Develop a sustainable solid waste management model for the mountainous regions of India, Nepal and Pakistan.

Shared Challenges Require Specific Strategies

The uniqueness of mountain areas adds to the challenges of managing solid waste in high-altitude areas. While SWM challenges may be shared by many types of locations, mountain areas share challenges more commonly associated with other eco-sensitive areas rather than their counterparts in the plains.

- Scattered and remoteness of settlements makes it challenging to collect and transport waste,
- Distance to developed infrastructure makes provision of waste services more expensive,
- Lack of road networks makes access difficult,
- Diverse temperature and weather conditions make storage, collection, and treatment challenging,

- Tourists generate even more waste, particularly plastic,
- Sensitive environmental and ecological conditions.

RESULTS ON THE GROUND

- A comprehensive review of current practices in the Himalayan mountainous regions and the international experiences (including South Korea) in the management of municipal solid waste occurred.
- Analysis of options for integrated solid waste management in mountainous regions of India, Nepal and Pakistan and development of customized models for each region and country were designed.
- An operational model and program were created for selected cities and can now be deployed across the Himalayan mountainous region.
- The development of hands-on training and capacity building programs (including exchange programs) for stakeholder agencies to help implement the model was conducted.

SWM DOWNSTREAM EFFECT

The inadequate treatment and disposal of waste creates risks not only for ecosystems and human health in mountain regions, but also for regions downstream. The steep terrain and rivers enlarge the footprint made by waste from the mountain regions, resulting in waste showing up downstream thousands of kilometers away in the ocean.

“Waste management has become a major challenge all over the world, particularly in low- and middle-income countries. Governments and communities are increasingly recognizing that SWM is a fast-growing critical issue in environmentally fragile areas like mountain areas. With generous support from the KGGTF, the World Bank initiated a study on solid waste in mountain areas in India, Nepal, and Pakistan. This is the first attempt of the Bank to examine SWM issues in these unique, ecologically fragile areas that face concurrent challenges of high poverty and increasing pressures from tourism development. Support from KGGTF has been immeasurable to this study that is poised to benefit the three countries.”

Rahat Jabeen, Environmental Specialist, World Bank
Pyush Dogra, Senior Environmental Specialist, World Bank
Drona Raj Ghimire, Senior Environmental Specialist, World Bank



“The Knowledge Exchange (KE) held in Seoul provided an opportunity for firsthand visual observations, social interactions, and networking with Korean partners. The sessions and visits were curated specifically to meet the requests from the client countries and to provide them a platform to meet experts in the sector. It was also a great opportunity to bring the client countries together for initial consultations on the draft reports and share their expectations of the entire package of materials being created. We are excited to present these knowledge products to the wider SAR region. This ASA sets an excellent precedent for crossing barriers and regional cooperation toward a common goal. The benefits of this initiative will be long term. We look forward to continued engagement with our Korean partners, donors, clients, and stakeholders. This would not have been possible without the support of a diligent core team and proactive clients that have made this trailblazing study a reality.”

Rahat Jabeen, Environmental Specialist, World Bank
 Pyush Dogra, Senior Environmental Specialist, World Bank
 Drona Raj Ghimire, Senior Environmental Specialist, World Bank



CHALLENGES



OPPORTUNITIES

“Moving from an orthodox way of manual waste collection to innovative, effective, and scientific means is the key takeaway of our learning experience from the Knowledge Exchange in Seoul. The visit to Korea helped us in critically reviewing our waste management system, and our knowledge was enhanced about more effective and sustainable ways of solid waste management within limited resources of developing countries.”

Currently, we are in the process of constructing a landfill site, which will be the first of its kind in the mountainous areas of Pakistan. This initiative is the main outcome of the learning experience at the KE program arranged by the World Bank at Seoul. I sincerely thank World Bank and KGGTF for their support in tackling solid waste issues in the mountain regions of our country.”

Raza Ali Habib, Director General, Galiyat Development Authority, Pakistan

Inputs provided by: Rahat Jabeen, Environmental Specialist

KGGTF Impacts on Global



MALAWI

LINKED TO LENDING

Long-term Resilience: Investing in Hydropower Green Growth Under Uncertainty

CONTEXT

In an era of climate change, infrastructure developers face the challenge of making massive hydropower investments that can withstand the risks of variable climatic conditions, including increasingly extreme weather events and changes in hydrological patterns for generations to come.

“Climate risks, if not adequately addressed in planning and operations, could drastically undermine hydropower investments. There is an urgent need to actively prepare for the resilience of hydropower assets in the face of increased frequency of events and rapid changes in the hydrological patterns to reduce the risk of climate-related disruptions,” said Pravin Karki, Global Lead Hydropower and Dams at WBG. “The World Bank Group works to ensure that its hydropower projects and other energy investments are adapted to climate change and natural disasters, and to create financial mechanisms to encourage upfront investments in resilient hydropower infrastructure.” Over the past few years, a climate change resilience guide based on the principles of Decision Under Deep Uncertainty was developed, funded by KGGTF and developed by the World Bank together with EBRD and the International Hydropower Association. The guide assess climate risks and identifies corresponding climate resilience measures and provides technical guidance to help the hydropower industry become more resilient to the impacts of climate change. The approach provides a new framework not previously available for planning long term infrastructure investments in the context of climate change.

The guide was recently introduced in two pilot hydropower projects by the World Bank – Upper Arun in Nepal and Mpatamanga in Malawi, helping in the preparation of multiple WBG lending programs in the hydropower sector and will shape the investment decisions of roughly USD 2 billion over the next three years.

PROGRAM GOAL

Departing from traditional approaches that rely on historical information about past climatic and hydrological conditions, the guide provides a practical framework for assessing the projected impacts of climate change on hydropower systems. This includes guidance for selecting appropriate measures and operational procedures that build climate resilience across a range of scenarios, and for the development of a climate risk management plan.

RESULTS ON THE GROUND

The guide was adopted by the International Hydropower Association and launched at the World Hydropower Congress in 2019. The Guidelines offer international good practice guidance to help project operators and developers to identify, assess and manage climate risks to enhance the resilience of proposed and existing hydropower projects.

“Greater investment in hydropower is needed as part of the transition toward low-carbon and climate-resilient energy systems,” said Craig Davies, Head of Climate Resilience Investments at the EBRD. “The guide is playing an important role in helping financial institutions to scale up both the quantity and the quality of their investment in climate-resilient hydropower.”

“Countries like Nepal are rich in hydropower resources but are also vulnerable to climate change and natural disasters. Having a guide helps planners tackle climate change and at the same time develop more sustainable projects in delivering access to both energy and water services”

Dr. Divas Basnyat, NDRI, Nepal (pilot project)



“As an integrator of variable renewable energy, like solar and wind, and a stabilizer of the power system through storage, hydropower will play a vital role in countries that have significant hydropower resources. Having climate resilience guidelines will help these countries on the decarbonization path closely aligned with the Paris agreement.”

Pravin Karki, Global Lead Hydropower & Dams, World Bank

Inputs provided by: Pravin Karki, Senior Hydropower Specialist

Knowledge and Partnership

Knowledge Creation, Dissemination and Promotion in Collaboration with Partners in Korea

The KGGTF team identifies relevant technical and policy solutions from Korea and around the world to share with World Bank staff and client countries. The books, materials, courses and other knowledge products help client countries and World Bank staff deepen their understanding of green growth strategies and solutions and encourages mainstreaming of green growth investments.

KNOWLEDGE PRODUCTS

- KGGTF Sector Guides
- Knowledge Notes Series
- Green Growth

Implementation Series

- Knowledge Exchange

Books & Videos

- Multi-Media Tools & Materials

KNOWLEDGE PLATFORM

- Korea Green Innovation Days (KGID)
- External learning platform wbgkgtf.org

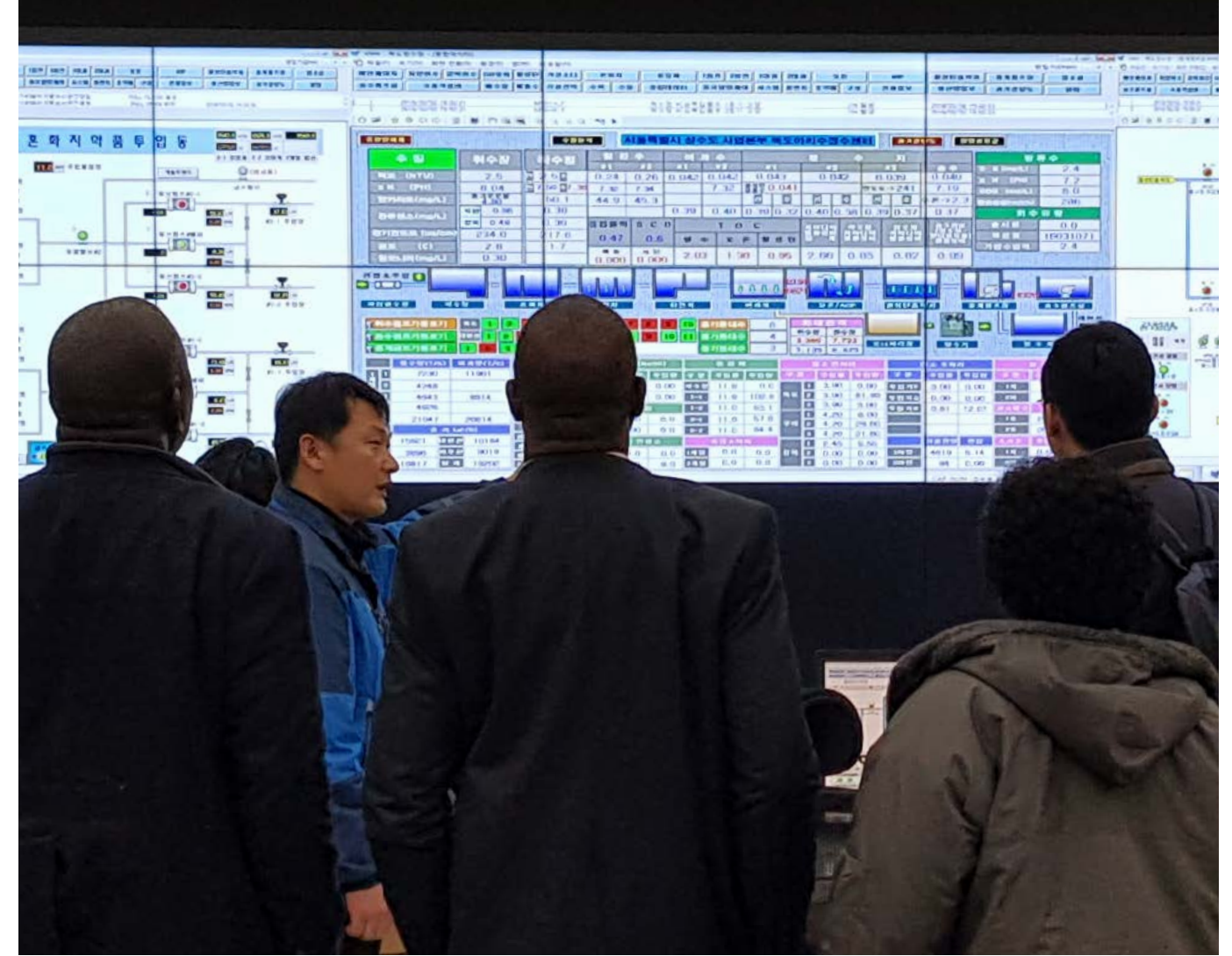
DISSEMINATION & VISIBILITY

- BBLs, webinars (hosted and co-hosted)
- Monthly newsletter
- Bi-lateral meetings between technical and policy experts

Knowledge Exchange

Knowledge Exchange (KE) programs are innovative knowledge sharing experiences scheduled on-demand to deepen understanding of specific technical issues and foster collaborations and partnerships. The main goal of Knowledge Exchange programs is to connect representatives of client countries with Korean professionals and officials and provide first-hand knowledge about the process of Green Growth policy setting and implementation. Site visits, technical presentations,

and meetings with policy and operational experts create opportunities to learn from and work with Korean partners. Knowledge Exchange programs are also invaluable for World Bank staff and client countries as an introduction to, or immersion into, green growth strategy as a vehicle for sustainable development. Knowledge Exchanges can be planned to occur in-person, or virtually.



KNOWLEDGE EXCHANGE BY NUMBERS

To date KGGTF has facilitated and delivered

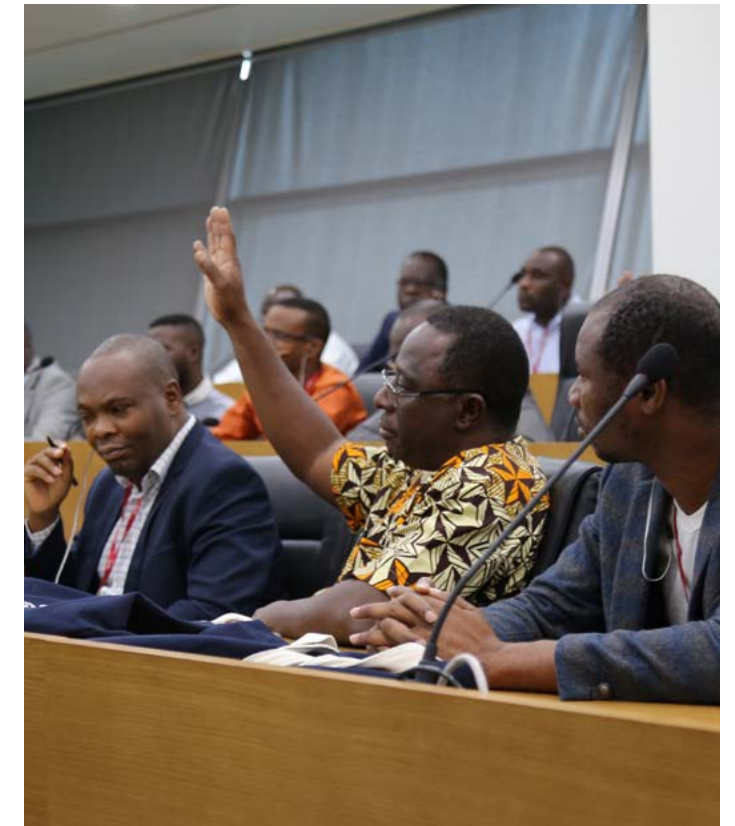
58 Knowledge Exchange programs

1,345 Participants including

801 Client Country Representatives

463 World Bank staff

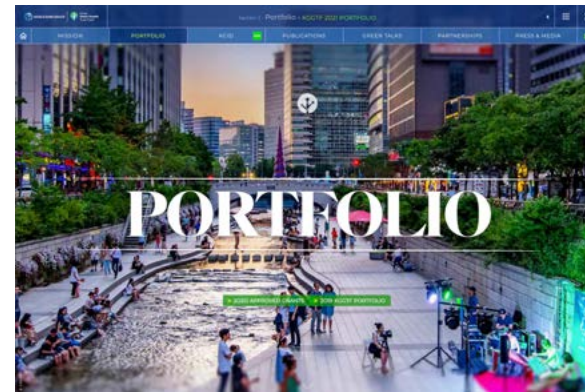
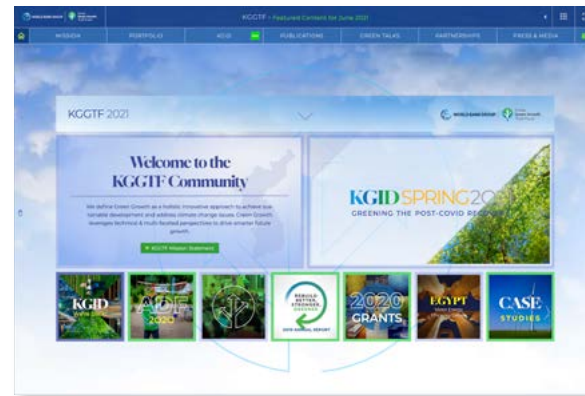
150 Korean organizations across multiple sectors in partnership



Knowledge Promotion Platform: KGGTF Website

To support sharing of green growth knowledge and solutions, KGGTF continues to develop its dynamic and comprehensive website that provides a platform for sharing technical knowledge and impact case-studies from KGGTF-funded activities around the world. A rich source of green

growth information delivered through videos, images, feature stories and publications, the site is continuously updated and is a valuable source of knowledge. Visit www.wbgkkgtf.org to learn about the 165 programs that have leveraged over \$14 billion in World Bank lending.



African Drone Forum, February 2020

The African Drone Forum (ADF) 2020 was a symposium, expo, learning-sessions, and policy session held in Kigali, Rwanda that showcased how a drone-ecosystem can support a range of industries and sectors. More than 1000 delegates and 80 speakers met and discussed how best to deploy the new technologies and the policies needed to support further development. The event brought international governments and regulators

together with global and local innovators, investors, businesses, and the media to promote the best drone ideas, technologies, and practices for the continent. KGGTF was honored to support Korea's Ministry of Land, Infrastructure and Transport (MOLIT), and many public and private Korean institutions to actively participate in the African Drone Forum.



World Bank Group-Korea Partnership Week on Innovation and Technology

Korea Innovation Week, February 18 to 20, 2020

Before COVID-19 caused the world to pause, KGGTF supported the World Bank Group Korea Partnership Week on Innovation and Technology which took place at the World Bank headquarters in Washington D.C. The three-day event was filled with sessions, thematic workshops and informational discussions showcasing innovative technologies and solutions from Korea.

WBG staff and around 140 delegates from Korea participated. Leading the Korean delegation was Yongbeom Kim, first vice Minister of Economy and Finance of the Republic of Korea, along with officials and experts from more than 50 Korean institutions. Cohosted by the World Bank's executive director for Korea, MOEF, and the World Bank's EAP Regional Vice Presidency, Korea Innovation Week showcased the longstanding collaboration between the World Bank Group and Korea, shared lessons from Korea's remarkable innovation- and technology-driven growth and highlighted the importance of the WBG-Korea partnership in supporting innovative solutions in developing countries.

RESULTS

In addition to knowledge sharing, relationship building and a greater understanding of Korea's current and future role in shaping global development, partnership agreements were signed between the World Bank's global practices and Korean partners.

AGRICULTURE SECTOR

- Memorandum of understanding (MoU) with Korea's Rural Development Agency (RDA)
- Statement of intent (Sol) with Korea Rural Community Corporation (KRC)

ENVIRONMENT SECTOR

- Statement of intent (Sol) with Korea Forest Service (KFS)

Additionally, respective agreements were developed focusing on smart cities, forest restoration, agricultural productivity improvement and ICT.

KGTF FACILITATED PROGRAMS WITH THE FOLLOWING PARTNERS

- Ministry of Environment (MOE)
- Korea Environmental Industry and Technology Institute (KEITI)
- Korea Environment Corporation (KECO)
- Ministry of Agriculture, Food and Rural Affairs (MAFRA)
- Korea Rural Community Corporation (KRC)
- Korea Agency of Education, Promotion and Information Service in Food, Agriculture, Forestry and Fisheries (EPIS)
- Rural Development Administration (RDA)



KEY THEMES INCLUDED:

Innovation and Entrepreneurship
Digital Economy and 5G
Smart Cities
Green Innovations
Future of Education and Skill

Solid Waste Management in Korea Learning Series

<https://olc.worldbank.org/content/solid-waste-management-sw-m-korea-learning-series>

The Solid Waste Management (SWM) in Korea Learning Series provides an overview of the solid waste and landfill management systems in South Korea. The films are relevant for policymakers, technical government staff working on waste management, energy, environment, and related issues, policymakers, the World Bank staff, technical government staff and others working on waste management, energy and other environment related issues. .

The KGGTF team produced five bite-sized learning videos in cooperation with the Korea Program for Operational Knowledge/Open Learning Campus (KPOK/OLC) team and Environmental, Natural Resources Blue Economy (ENB) Global Practice (GP) EAP team.

Seoul Metropolitan Government and its Guro district, and Sudokwon Landfill Corporation (SLC) have been significant partners for this video production project.

The learning series walks participants through the evolution of waste management policies and strategies in Korea from open dumping era to a holistic waste management system anchored in Korea's green growth and circular economy. The roles and responsibilities of different stakeholders in SWM and the financing structure for SWM are also explained.



Topic 1: SWM Policy, Governance, and Financing Structures

Topic 2: Waste Segregation and Collection

Topic 3: Landfill Operation and Management

Topic 4: Waste to Energy Facilities

Topic 5: Operation and Economic Benefits of the Waste to Energy Facilities

The Sudokwon landfill in the Seoul Metropolitan area is featured in this series as an excellent example of a regional landfill that uses state-of-the-art technology to manage the landfill and convert waste into energy. The learning series enables participants to experience a virtual walkthrough of Seoul's metropolitan landfill and understand the daily operation and see new technologies such as maintenance conducted by wireless, RFID, and CCTV technologies.

The video series is available (subtitled and narrated) in English and French on the WBG Open Learning Campus platform for the Bank staff & clients' access.

The series became a part of the 'Clean Environment' module of the KPOK/OLC & ENB team's 4-week learning event <GREENTECH: Mainstreaming Technologies in Green, Blue, and Clean Operations> that took place from November 16 to December 13, 2020.

Virtual Knowledge Exchange and BBL

Early in 2020, to continue supporting World Bank staff and client countries during the pandemic, KGGTF quickly transitioned to a Virtual Knowledge Exchange modality. Spanning multiple time-zones the team utilized the full potential of virtual environments to engage with clients, partners, and audiences in Korea and around the world.

PACIFIC ISLANDS, E-MOBILITY & ENERGY STORAGE SYSTEMS MAY 2020

Client countries: Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu

May 27-28, 2020

60 participants
WBG 10; Client countries 36;
Others 14

KGGTF conducted a virtual knowledge exchange program with EAP Energy and Extractives GP to support the KGGTF Year 7 grant 'E-mobility and Battery Storage Programmatic Technical Assistance for the Pacific Island Countries.' The Pacific Islands delegations shared their priorities and challenges in deploying electric vehicles (EV) and energy storage systems (ESS). Participants learned Korea's policy framework on deploying EV and ESS and best practices from the Korean institutions including: MOLIT, KOTI, KEPCO, SMG, JRI, KIND, K-BIA, and Hanyang University.



LATIN AMERICA AND THE CARIBBEAN, LAND, HOUSING AND URBAN DEVELOPMENT JUNE 2020

Client countries: Colombia, Mexico, Chile, Peru, Costa Rica, Honduras, Bolivia, Ecuador

June 17-18, 2020

66 Participants
WBG 12; Client countries 45;
Others 9

KGGTF and LAC Urban GP co-hosted a virtual knowledge exchange for the LAC delegation, consists of member countries of Ministers and Maximum Authorities of Housing and the Urbanism of the Latin America and the Caribbean Countries (MINURVI). Participants exchanged experiences on housing development and resilient recovery strategies from COVID-19 in housing and urban development.

Korean institutions, including LH, LHI, KAIA, and KIND, introduced the government subsidy programs for low-income housing, effective coordination between urban and housing policies, and the development strategies to promote inner-city affordable housing.



LATIN AMERICA AND THE CARIBBEAN, URBAN MOBILITY USING DIGITAL TECHNOLOGIES JUNE 2020

Client countries: Ecuador, Peru, Mexico, Bolivia, Panama

June 24, 2020

51 Participants
WBG 13; Client countries 33;
Others 5

KGGTF hosted the knowledge exchange webinar with Digital Development GP and Transport GP in the LAC Region. Many cities in Latin America are embarking on city-wide transit reforms towards the integration of all transport services. Korea has established an integrated public transport system successfully and keeps its operation efficiently using digital technologies. Participants from LAC countries learned Korea's transport policies, institutional framework, and technical solutions from MOLIT, SMG, SH, SUSA, T-money, and ITS Korea.



UZBEKISTAN, AGRICULTURE AND SOIL TESTING TECHNOLOGIES JULY 2020

Client country: Uzbekistan

July 20-22, 2020

39 Participants
WBG 6; Client countries 20;
Others 13

KGGTF and Agriculture and Food GP team in Europe and Central Asia co-hosted a two-day virtual knowledge exchange on soil testing as a part of the KGGTF Year 7 grant program 'Uzbekistan Agricultural Modernization.'

The Uzbekistan Ministry of Agriculture and the Implementation agency of projects in the field of agro-industry and food security participated and shared their agricultural practices in soil fertility management.

Korean institutions, MAFRA, RDA, EPIS, SNU, and Technel, shared Korea's soil management solutions, including IT applications, and KRC introduced Korea's farmland bank and pensions.



INDIA, SUSTAINABLE MARINE AND COASTAL MANAGEMENT OCTOBER 2020

Client country: India

Oct 12-13, 2020

49 Participants
WBG 6; Client countries 30;
Others 13

KGGTF and South Asia Region ENB GP team provided a knowledge exchange webinar for India in partnership with Korea's marine organizations, including KMI, KIOST, and KOEM. Clients from India's coastal management institutions, including the Ministry of Environment, Forest & Climate Change (MOEFCC) and National Centre for Sustainable Coastal Management (NCSCM) shared India's coastal management issues associated with climate changes. 11 Coastal State Governments (Goa, Karnataka, Odisha, Gujarat, Puducherry, Andhra Pradesh, Tamil Nadu, Lakshadweep, West Bengal, Kerala, and Daman) were invited as well. The webinar focused on Korea's coastal and marine spatial management practices and how to cope with coastal erosion, marine pollution, and disaster risk.



BBL ON SUSTAINABLE COASTAL MANAGEMENT IN ASIA

KGGTF launched the Green Growth Webinar/BBL Series. The first, Sustainable Coastal Management in Asia, was held on December 10, 2020, in partnership with the ENB GP team in South Asia Region. It focused on a green growth approach in coastal and marine spatial management in Korea and India, sharing the results and impacts of the KGGTF virtual knowledge exchange with the wider audiences in the Bank.



Knowledge Exchange Sector Guidebooks

KGTF's Knowledge Exchange Sector Guidebooks bring together key policy solutions, technological innovations and best practices from Korea. The series consists of the following sectors:

Agriculture and Food

Energy

Environment, Oceans & Fisheries, and Water

Urban, Land & Transport

Each guidebook provides an overview of the sector and a directory of reference materials to help readers understand how Korea implemented green growth. It includes details of past experiences that have shaped the sectors, as well as recent green growth practices and frameworks. Key institutions are highlighted with maps of site visits worth paying

a visit when sector practitioners and decision-makers are in Korea.

KGTF developed the guidebooks in partnership with leading institutions of each sector in Korea. Some institutions consulted contents, some wrote feature stories, and some provided resource materials, which made the book contents richer and more relevant.

The books have been disseminated through diverse channels, including the KGTF website as well as the newsletter. They have been shared with the relevant Bank GPs and Korean partners as well. Later, they will be provided to clients who will make visits to Korea to explore evidence of Korea's green growth.



SECTOR

AGRICULTURE BOOK

ENERGY BOOK

ENVIRONMENT BOOK

URBAN, LAND & TRANSPORT BOOK

KEY PARTNERS

RDA, KREI, GKEDC

MOTIE, KEA, KEPCO, KEPRI, KIAT, K-WATER

K-ECO, KEITI, KFS, KMI, K-WATER, SLC

MOLIT, SMG, LH, LX

K-Partners and the World Bank Korea Office

Partnership with Korean Institutions (K-Partners)

Korean Partnerships are central to KGTF's value proposition. Country leaders from around the world choose to work with the World Bank because of its global network of connecting sector experts and leading institutions.

The KGTF team has facilitated business development between World Bank project teams and K-Partners through grant and knowledge activities. In this way, KGTF has established a K-Partner network in various sectors, and the extensive partnership portfolio demonstrates strong business needs between World Bank project teams and K-Partners in various sectors.

Partnership with the World Bank Group Korea Office

KGTF and the WBG Korea Office collaborate, partner, and cost share the Korea Office Green Growth Innovation (KGGI) program. The KGGI program includes renewable energy and energy efficiency, environment and natural resource management, land administration and geospatial technology, and smart cities. KGTF is working closely the EAP Energy, ENB and Urban teams at the Korea Office and leverages KGTF's value as a global connector and facilitator. Through the partnership program with the WBG Korea Office, KGTF will continue to strengthen green growth collaboration and joint business development between World Bank project teams and K-Partners and facilitate knowledge sharing and bilateral cooperation with client countries.



Financial Review

TF Financial Statement in 2020

INFLOWS

Beginning balance 01/01/20	\$ 16,060,919.42
<hr/>	
Receipts	
Cash contributions	\$ 14,000,000.00
Transfers within Hierarchy	\$ 213,319.81
Contributions via Transfers	\$ (213,319.81)
Total Receipts	\$ 14,000,000.00

OUTFLOWS

Project disbursements	\$ (6,940,497.34)
Non-project disbursement	\$ (171,755.69)
Total Disbursements	\$ (7,112,253.03)

FUND BALANCE

End of period balance 12/31/20	\$ 22,948,666.39
Undisbursed commitments as of 01/22/21	\$ 9,404,103.06
Investments income to other TFs	\$ 1,540,345.68

Disbursement

Overall Disbursement by 12/31/2020

APPROVAL YEAR	DISBURSEMENT AMOUNT (\$US MILLION)	AVG IMP RATE ¹	NUMBER OF PROGRAMS
Year 1	9.65	100%	23
Year 2	13.49	100%	25
Year 3	15.00	100%	33
Year 4	13.71	98%	21
Year 5	9.28	89%	20
Year 6	3.42	80%	9
Year 7	3.45	46%	13
Year 8	-	-	21
Grand Total	68.00	88%	165

¹ The implementation rate = (total disbursement + commitment amount) / donor approved grant amount.

2020 Grant Disbursement

YEAR	GP/CCSA	COUNTRY	GRANT NAME	ACTUAL DISBURSEMENT + COMMITTED AMOUNT	IMPLEMENTATION RATE END OF 2020	IMPLEMENTATION RATE (2019)	IMPLEMENTATION RATE CHANGE FROM END OF 2019 TO END OF 2020
Year 3	Urban, Rural & Land	Mexico	Strengthening urban management in Mexican cities	\$398,083	99.5%	85.8%	13.7%
Year 4	Energy & Extractives	Ecowas member countries*	Energy Storage application studies and knowledge exchange framework for Sustainable Green Growth in WAPP	\$764,962	100.0%	92.0%	8.0%
Year 4	Environment & Natural Resources	Bolivia, Mexico	Promoting equitable access to sustainable development in Bolivia and Mexico	\$631,111	90.2%	46.6%	43.6%
Year 4	Environment & Natural Resources	Lao PDR	Green Growth Platform for Lao PDR	\$899,396	99.9%	88.7%	11.2%
Year 4	Transport	Ethiopia	Resilience of the Ethiopian Roads Network	\$526,817	75.3%	69.6%	5.7%
Year 5	Urban, Rural & Land	Regional	Improving Solid Waste Management in African Cities	\$494,186	98.8%	73.9%	25.0%
Year 5	Urban, Rural & Land	Indonesia	City Planning Labs and Spatial Planning	\$199,946	100.0%	70.2%	29.8%
Year 5	Urban, Rural & Land	Honduras, El Salvador, Paraguay, Pakistan, Uganda, Burkina Faso	Land Records and Geo-Spatial Information Systems Linked to Green Growth (LRGIGG)	\$565,538	94.3%	75.2%	19.1%
Year 5	Urban, Rural & Land	Nepal	Supporting Green Growth Urban Development and Planning Processes in Nepal	\$396,090	99.0%	58.2%	40.8%
Year 5	IFC	Ethiopia	Ethiopia Green Industrialization support program	\$352,118	64.0%	35.8%	28.2%
Year 5	Environment & Natural Resources	Azerbaijan	Towards green growth of Baku: enhancing people's quality of life through sustainable cleanup of polluted lakes	\$572,330	95.4%	32.4%	62.9%
Year 5	Environment & Natural Resources	Global	Learning from Korea's Green Growth Experience to Tackle Environmental Health Challenges	\$549,771	62.8%	44.8%	18.0%
Year 5	Environment & Natural Resources	Global	Green Growth via Green Infrastructure Construction	\$331,057	50.9%	36.0%	14.9%
Year 5	Energy & Extractives	Pakistan	Renewable Energy Scale-Up to Support Green Growth in Pakistan	\$748,588	99.8%	37.4%	62.5%
Year 5	IFC	Turkey	Greener Manufacturing in Turkey	\$361,433	80.3%	27.2%	53.1%
Year 5	Environment & Natural Resources	India, Nepal, Pakistan and Nepal	Solid Waste in Mountainous Regions of India, Pakistan and Nepal	\$405,125	81.0%	62.0%	19.0%
Year 5	Transport	Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine	Greener Transport Connectivity for the Six Eastern Partnership Countries	\$959,209	99.9%	79.7%	20.2%
Year 5	Transport	Colombia	Improving Public Transit & Sustainable Territorial Dev in Bogota	\$648,207	99.7%	86.1%	13.6%
Year 5	Water	Kenya	Turning Kenya's Water Utilities Green	\$398,762	99.7%	97.6%	2.1%
Year 5	Water	Uganda	Strengthening capacity in climate resilience for water infrastructure development in Uganda	\$287,042	47.8%	9.1%	38.7%
Year 5	Energy & Extractives	Ecowas member countries*	Strengthening Utility Capabilities by Capacity Building and South-South KE (SUCCESS-KE)	\$514,072	85.7%	90.0%	-4.4%
Year 5	Energy & Extractives	Sri Lanka	KGTF Sri Lanka Energy	\$356,564	89.1%	58.0%	31.2%
Year 6	Energy & Extractives	Vietnam	KGTF - Improving readiness for energy efficiency investment in Vietnam's industries	\$159,115	45.5%	20.8%	24.6%
Year 6	Energy & Extractives	Turkey	Scaling Up Rooftop Solar PV	\$297,063	99.0%	80.0%	19.0%

* Benin, Burkina Faso, Cote d'Ivoire, Ghana, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo

YEAR	GP/CCSA	COUNTRY	GRANT NAME	ACTUAL DISBURSEMENT + COMMITTED AMOUNT	IMPLEMENTATION RATE END OF 2020	IMPLEMENTATION RATE (2019)	IMPLEMENTATION RATE CHANGE FROM END OF 2019 TO END OF 2020
Year 6	Energy & Extractives	Global	Hydropower climate change resilience guidelines development	\$299,872	100.0%	76.4%	23.6%
Year 6	Environment & Natural Resources	Myanmar, Cambodia, Philippines	Myanmar, Cambodia, Sustainable Solid Waste & Plastic Management	\$583,603	83.4%	40.2%	43.2%
Year 6	Environment & Natural Resources	Tunisia	Blue Economy	\$258,398	86.1%	72.2%	13.9%
Year 6	Environment & Natural Resources	Pakistan	Catalyzing Green Investments in Pakistan	\$204,238	51.1%	31.9%	19.1%
Year 6	Transport	Colombia	Piloting Electromobility in the Integrated Transport System of the Aburra Valley (Medellin, Colombia)	\$862,847	99.2%	41.4%	57.8%
Year 6	Urban, Rural & Land	Myanmar, Pakistan, Kosovo	Fostering Green Growth in Fragile States	\$358,257	44.8%	20.7%	24.1%
Year 6	IFC	Argentina, Province of Santa Fe	Non-Revenue Water (NRW) project for Santa Fe Province - Argentina	\$399,999	100.0%	89.7%	10.3%
Year 7	Agriculture	Kazakhstan	Support to the preparation of the Sustainable Livestock Development Project in Kazakhstan	\$499,972	100.0%	5.5%	94.5%
Year 7	Agriculture	Uzbekistan	Leveraging technology for Uzbekistan's agricultural modernization	\$122,543	24.5%	0.0%	24.5%
Year 7	Energy & Extractives	Pacific Island Countries and Territories	Regional E-mobility and Battery Storage Programmatic Technical Assistance (TA) for Pacific Island Countries and Territories	\$88,474	29.5%	0.2%	29.3%
Year 7	Energy & Extractives	Global	Capacity building and technical Learning workshops on Energy storage to Accelerate energy Transition (CLEAN)	\$297,325	42.5%	0.0%	42.5%
Year 7	Water	Angola	Building Drought Resilience in the South of Angola through the use of geospatial information and nature-based infrastructure	\$91,764	18.4%	0.0%	18.4%
Year 7	Environment & Natural Resources	Lao PDR	Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda	\$147,777	21.1%	0.0%	21.1%
Year 7	Environment & Natural Resources	Uzbekistan and Kazakhstan	Action on Circular Economy for Green Growth in Uzbekistan and Kazakhstan	\$349,893	70.0%	0.0%	70.0%
Year 7	Urban, Rural & Land	Mali	Greening Urban Development in Bamako (Mali)	\$271,030	54.2%	1.9%	52.3%
Year 7	Urban, Rural & Land	Lao PDR, Colombia, Mongolia, Cote d'Ivoire	Geospatial Information Management for Green Growth Operationalization (GIMGGO)	\$80,282	11.5%	0.0%	11.5%
Year 7	Transport	Lao PDR, Cambodia	Green Mobility for Luang Prabang and Seam Reap	\$499,346	83.2%	3.6%	79.6%
Year 7	Transport	Egypt	Egypt Green Transport Master Plan and Data Management System to Support Digital Transformation of the Transport Sector and Intelligent Transport Systems	\$543,603	90.6%	0.0%	90.6%
Year 7	Agriculture	Vietnam	Enhancing agricultural green growth in Vietnam by applying disruptive technology to facilitate export of quality, safety and climate resilient agricultural products from Vietnam to Korea	\$402,148	50.3%	0.0%	50.3%
Year 7	Digital Development	Ecuador, Colombia	Smart-city digital approaches for sustainable urban mobility in Latin-American cities	\$53,725	9.0%	0.0%	9.0%

Annexes

Annex 1: Annual Progress Report

The Annual Grant Progress Report (APR) is critical for effective monitoring and evaluation of the Trust Fund and assessment of the performance of KGGTF grant programs. All active KGGTF grant awardees are responsible for the submission of their respective APRs, which is a mandatory requirement from the Donor.

For the 2020 APR, the KGGTF team collected individual APRs from all 45 grants active in 2020, reviewed their performances and pending issues to address, and drew lessons for KGGTF's Call for Proposals and Portfolio Management.

1. Objective

The Annual Grant Progress Report (APR) is intended to summarize the status of grant activities and track grant awardees' progress towards achieving the expected outputs and outcomes set out in the approved grant proposal.¹ Informed through this feedback loop, KGGTF can better support all grant awardees to successfully achieve their expected outputs and outcomes on completion of their grant programs, as planned, and assess the performance of the Trust Fund, at both grant and fund level.

The APR also serves to highlight any current or anticipated issues, delays or changes to the planned activities approved in the grant proposal and provides an opportunity for grant awardees to request KGGTF action or support during grant implementation. Analyzing data and experiences from KGGTF grants and program activities will contribute to improved design, implementation, quality, and impact of green growth investments across the World Bank and client countries.

¹ KGGTF-funded programs set out to produce specific outputs that are grouped into 5 categories under the KGGTF M&E Framework. These are: Green Growth operationalization (policy, concept, strategy), Green Growth operationalization (Expenditure/investment), Use of knowledge/resources (behavioral change, increased awareness), Strengthened capacity to implement Green Growth /Institutionalization, and Partnerships. Grant proposals must also identify expected outcomes influenced by KGGTF's support that are grouped under the same 5 categories and result in improved efficiency, greater resilience, and/or increased competitiveness.

2. Key Findings from the 2020 APR Cycle

Key findings from the 2020 APR and actions to be taken by the KGGTF team are provided below for improving the performance of active and future grants and enhancing the impact and effectiveness of the KGGTF program.²

A. PROGRESS SEVERELY AFFECTED BY COVID-19

Progress made by grants active during 2020 was severely affected by the COVID-19 pandemic. Many activities were delayed or derailed, field studies and planned knowledge exchange activities were postponed or could not be completed. Grants in the early and mid-stages of implementation (those approved in 2019) were particularly affected. Against this backdrop, some grant teams actively responded to overcome the challenges including travel restrictions. For example, grant teams substituted a virtual training for the planned study tour, modified work plans to complete the approved proposal, and engaged international consultants, paired with local consultants to get the work done.

B. CLOSE MONITORING OF DISBURSEMENT AND ACTIVITY IMPLEMENTATION IS CRITICAL

Close monitoring of disbursement and activity implementation is critical to ensure that implementation is on schedule, in line with disbursement, and all approved activities can be completed within the grant period. Slow disbursement, high staff time costs (above 30%), and other irregularities that might indicate internal/external issues need to be flagged by close monitoring.

The internal analysis shows that i) country/national scale grants, ii) grant funding amounts between \$400k and \$599k, and iii) projects linked to lending demonstrated strong performance consistently across disbursement rate, delivery of outputs, outcomes and visibility activities, as well as overall grant performance score (KGGTF internal M&E scoring).

C. EXTERNAL PARTNERSHIPS AT AN EARLY STAGE OF GRANT IMPLEMENTATION HAVE A POSITIVE IMPACT

External partnerships reported between grant teams and Korean and other organizations that support knowledge sharing and capacity building were shown to have a positive impact on grant implementation, to benefit the outputs and outcomes of the grant program, and to increase Donor and KGGTF visibility, particularly when partnerships were initiated at an early stage of grant activity implementation. In particular, the South Asia Region grants established the strongest partnership and cooperation with external partners and, as a result, scored highest in terms of achieving planned outputs/outcomes and implementation of visibility activities, as well as overall grant performance (KGGTF internal M&E score).

D. SUBSTANTIAL BENEFITS CAN RESULT FROM TECHNICAL ENGAGEMENTS AND KNOWLEDGE ACTIVITIES

KGGTF knowledge activities were used effectively by many grant teams as platforms for leveraging expertise and technical knowledge from Korea and other countries. For some grants these engagements were critical to achieving the outputs and outcomes proposed. It was notable that grant programs that *did not* engage in partnerships with Korean or other external organizations may have benefitted from doing so and improved their performance and impact.

“A key lesson learnt through the grant implementation was the power of learning events such as KGID that can open up the minds of government officials through direct engagements with practitioners such as those from Korea. The team witness a newfound excitement and stronger engagement with government officials (the client) who actively engaged in and benefitted from the knowledge exchange and knowledge sharing events.” Gayatri Singh, Senior Urban Development Specialist, Task Team Leader for KGGTF Year 5 Grant ‘City Planning Labs.’

E. ACTIVITIES PROMOTING KGGTF/DONOR VISIBILITY OFTEN UNSTRUCTURED AND VAGUE

Activities promoting KGGTF/Donor visibility were very wide ranging, and in some cases unstructured and vague. For example:

“The World Bank team plans to use a wide range of communication tools to ensure higher visibility and benefit from citizen engagement and stakeholder consultations throughout implementation of the activity.”

“The Bank will take all appropriate measures to ensure that KGGTF’s support receives local publicity as and when the opportunity arises.”

3. Conclusion and Moving Forward

The APR reviewed different dimensions of grant progress at both individual and aggregated levels. It identified issues and actions to be taken to improve grant performance and enhance the impact and effectiveness of KGGTF grants.

Although several grant progress measures are based on self-assessments by grantees and not verified by the KGGTF team, aggregated patterns of those self-assessment measures are consistent with those of verified ones, such as financial data from SAP. The combined aggregates show consistent patterns that grants of certain groups are performing relatively well in implementing disbursement, achieving planned outputs and outcomes, establishing partnerships, and enhancing visibility, while some are not.

Going forward, it is critical that the KGGTF team monitor individual grant progress continuously on a regular basis (monthly, as already underway), flag and address any potential issues at an early stage with the grant team. At the same time, the KGGTF team needs to look more deeply into the reasons different performance results among aggregated groups, identify the reasons for slower progress and understand whether it is an irregularity or a reflection of systemic sector issues, engage and work with grantees to develop and implement targeted improvement plans.

² This analysis is based on data provided by KGGTF Grantees in a self-assessment (KGGTF Annual Grant Progress Report) and is not based on verification of the self-reported data.

Annex 2: List of KGGTF Grants

* 🚩 Ongoing ✓ Completed



AFRICA

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
African Cities	Urban	3	Improving Solid Waste Service Delivery in African Cities.	✓	2 Years	\$600,000
Regional	Urban	5	Improving Solid Waste Management in African Cities	✓	2 Years	\$500,000
Sub-Saharan Africa	Transport	2	Africa Sustainable Transport Forum	✓	4 Years	\$1,000,000
Sub-Saharan Africa	ICT	2	Green Cities and Low Carbon Industries Initiative	✓	4 Years	\$600,000
Sub-Saharan Africa	Transport	2	Streets as Drivers of Green Growth and Urban Prosperity in Africa	✓	4 Years	\$600,000
Sub-Saharan Africa	ICT	2	Negawatt Challenge for Energy Efficiency	✓	2 Years	\$500,000
Sub-Saharan Africa	Environment	3	Greener Cement Industries in Africa	✓	3 Years	\$700,000



EASTERN AND SOUTHERN AFRICA

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Angola	Water	7	Building Drought Resilience in the South of Angola through the Use of Geospatial Information and Nature-based Infrastructure	🚩	2 Years	\$500,000
Ethiopia	Transport	1	TA to Promote Integrated Urban Planning in Addis Ababa to Foster Green Growth	✓	4 Years	\$1,100,000
Ethiopia	Urban	3	TA to Promote Solid Waste Management and Urban Greenery in Selected Ethiopian Secondary Cities	✓	4 Years	\$400,000
Ethiopia	Transport	4	Resilience of the Ethiopian Roads Network	🚩	3 Years	\$700,000
Ethiopia	Energy	5	Ethiopia Green Industrialization Support Program	🚩	2 Years	\$550,000
Ethiopia	Energy	8	Grid Integration of Variable Renewable Energy in Ethiopia	🚩		\$300,000
Kenya	Water	5	Turning Kenya's Water Utilities Green	✓	3 Years	\$400,000
Kenya	Agriculture	8	Leveraging Digital Technologies for Scaling up Climate Smart Agriculture in Kenya	🚩		\$400,000
Kenya, Malawi, Zimbabwe	Agriculture	8	Novel Protein: Insect Farming for Food and Feed for a Circular Green Growth Economy (IF4FF)	🚩		\$800,000
Kenya, Rwanda, Tanzania, Uganda	Transport	8	Preparing East Africa 4 future Megacities for Moving 50 Million People by 2050	🚩		\$450,000
Malawi	Transport	8	Digital Skies in East Africa	🚩		\$450,000
Rwanda	Urban	2	Secondary Cities program	✓	3 Years	\$650,000
Tanzania	Transport	4	Smart Tanzania – Strengthening Data Services and Planning	✓	3 Years	\$600,000
Uganda	Transport	2	Developing Skills to Support Transport and Logistics	✓	2 Years	\$400,000
Uganda	Transport	4	Green Logistics Policy and Strategy for Uganda	✓	2 Years	\$500,000
Uganda	Water	5	Strengthening Capacity in Climate Resilience for Water Infrastructure Development in Uganda	🚩	2 Years	\$600,000
Uganda	Agriculture	8	Building a Green Agri-Food Ecosystem in Uganda	🚩		\$535,000
Uganda, Tanzania, South Africa	Urban	1	Enhancing Green Urban Development in Sub-Saharan Africa	✓	4 Years	\$1,000,000

* 🚩 Ongoing ✓ Completed



WESTERN AND CENTRAL AFRICA

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Benin	Urban	2	Leveraging Korea's Experience in the Solid Waste	✓	2 Years	\$225,000
Ecowas member countries*	Energy	5	Strengthening Utility Capabilities by Capacity Building and South-South KE (SUCCESS-KE)	🚩	2 Years	\$600,000
Ecowas member countries*	Energy	4	Energy Storage Application Studies and Knowledge Exchange Framework for Sustainable Green Growth in WAPP	✓	3 Years	\$765,000
Mali	Urban	3	Real Time Urban Flood Risk Management and Decision Support Tool for Bamako Greater Area	✓	4 Years	\$495,000
Mali	Urban	7	Greening Urban Development in Bamako (Mali)	🚩	2 Years	\$500,000
Senegal	Urban	8	Strengthening the Senegalese Spatial Data Infrastructure	🚩		\$500,000
West Africa	Environment	3	West Africa Fishery Partnership for Competitiveness and Sustainability	✓	3 Years	\$670,000



EAST ASIA AND PACIFIC

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Cambodia, Lao PDR, Myanmar, Thailand, Vietnam	Environment	8	Supporting Identification of Riverine and Coastal Plastics Waste Management Solutions in Mekong countries: Technology, Innovation, Impacts	🚩		\$400,000
Cambodia, Mongolia, Philippines, Vietnam	Land	7	Geospatial Information Management for Green Growth Operationalization (GIMGGO)	🚩	2 Years	\$700,000
Indonesia	Urban	1	Sustainable Urban Growth Analytics and Planning Systems	✓	3 Years	\$375,000
Indonesia	Urban	1	Inclusive Green Growth for East Asia Pacific Cities	✓	2 Years	\$150,000
Indonesia	Urban	5	City Planning Labs and Spatial Planning	✓	2 Years	\$200,000
Indonesia	Transport	8	Greening the Maritime Sector in Eastern Indonesia	🚩		\$550,000
Indonesia	Water	8	Support to Development of National Program for Citywide Inclusive Sanitation	🚩		\$400,000
Indonesia, Philippines	Transport	3	Improving Urban Mobility Using Big Data Analytics	✓	2 Years	\$500,000
Lao PDR	Environment	4	Green Growth Platform for Lao PDR	✓	3 Years	\$900,000
Lao PDR	Environment	7	Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda	🚩	2 Years	\$700,000
Lao PDR, Cambodia	Transport	7	Green Mobility for Luang Prabang and Seam Reap	🚩	2 Years	\$600,000
Mongolia	ICT	2	SMART Gov – Civic Innov. Solving Old Problems in New Ways	✓	2 Years	\$430,000
Mongolia	Water	8	Mongolia: Utilization of Treated Water from over Melting Ice in the “ger” District Area for the Heating System in Eastern Part of Ulaanbaatar City	🚩		\$489,000
Mongolia	ICT	8	Green Data Center Strategy in Mongolia	🚩		\$350,000
Myanmar, Cambodia, Lao PDR	Agriculture	8	Harnessing Digital Agriculture Technologies for Smallholder Farmers in Myanmar, Cambodia, Lao PDR	🚩		\$750,000
Myanmar, Cambodia, Philippines	Environment	6	Myanmar, Cambodia, Sustainable Solid Waste & Plastic Management	🚩	2 Years	\$700,000

* Benin, Burkina Faso, Cote d'Ivoire, Ghana, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo

EAST ASIA AND PACIFIC *Continued*

* Ongoing Completed

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Pacific Island Countries and Territories	Energy	7	Regional E-mobility and Battery Storage Programmatic Technical Assistance (TA) for Pacific Island Countries and Territories		2 Years	\$300,000
Philippines	Transport	1	East Asia & Pacific Green Transport ICT		3 Years	\$400,000
Philippines	Urban	2	Metro Manila Citywide Slum Upgrading Project		2 Years	\$350,000
Vanuatu	Urban	3	Vanuatu Affordable and Resilient Housing		3 Years	\$675,000
Vietnam	Urban	2	Promoting Green Growth in Industrial Zones		4 Years	\$750,000
Vietnam	Environment	3	Scaling up Implementation of Vietnam's Green Growth Priorities		3 Years	\$780,100
Vietnam	Energy	3	Scaling-Up Rooftop Solar in Vietnam II		Single	\$91,379
Vietnam	Energy	4	Scaling-Up Rooftop Solar in Vietnam		3 Years	\$350,000
Vietnam	Transport	5	Public Transport Development Strategy for Sustainable Urban Mobility in Hanoi		Single	\$550,000
Vietnam	Energy	6	KGTF - Improving Readiness for Energy Efficiency Investment in Vietnam's Industries		2 Years	\$350,000
Vietnam	Competitiveness	7	Enhancing Agricultural Green Growth in Vietnam by Applying Disruptive Technology to Facilitate Export of Quality, Safety and Climate Resilient Agricultural Products from Vietnam to Korea		2 Years	\$800,000
Vietnam, Indonesia	Energy	3	Inclusive Green Growth for EAP Cities		Single	\$150,000



EUROPE AND CENTRAL ASIA

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine	Transport	5	Greener Transport Connectivity for the Six Eastern Partnership Countries		2 Years	\$960,000
Azerbaijan	Environment	5	Towards Green Growth of Baku: Enhancing People's Quality of Life through Sustainable Cleanup of Polluted Lakes		3 Years	\$600,000
Georgia	Transport	1	Georgia Green Freight Transport and Logistics		2 Years	\$250,000
Kazakhstan	Environment	3	Developing Integrated and Green Solutions for Municipal Solid Waste Management in Kazakhstan		2 Years	\$200,000
Kazakhstan	Transport	4	Kazakhstan Green Growth in Road Sector through E-tolling		3 Years	\$700,000
Kazakhstan	Agriculture	7	Support to the preparation of the Sustainable Livestock Development Project in Kazakhstan		2 Years	\$500,000
Kazakhstan, Uzbekistan	Transport	8	A Tale of Two Smart and Green Cities: Innovative Solutions for Urban Mobility in Almaty and Tashkent			\$600,000
Kosovo	ICT	2	Innovative and Green Growth for Rural Areas: Investing & Scoping		2 Years	\$485,000
Kyrgyz Republic	Environment	8	Reducing Health Risks through Improvement of Air Quality in Bishkek City of the Kyrgyz Republic			\$350,000
Kyrgyzstan	Urban	3	Moving Towards Green Urban Development of Kyrgyz Cities		3 Years	\$300,000
Moldova	Energy	3	Energy Efficiency Transformation in DH		2 Years	\$530,000
Poland	Transport	1	Piloting Sustainable and Green Urban Transport Solutions for Sub National Governments		3 Years	\$625,000
Regional	Water	3	Central Asia Water Resources Management (CA-WARM) Phase-I Project		Single	\$370,000
Turkey	Urban	2	Developing Green Growth Strategies for Metropolitan Municipalities		3 Years	\$500,000
Turkey	Energy	5	Greener Manufacturing in Turkey		2 Years	\$450,000
Turkey	Energy	6	Scaling Up Rooftop Solar PV		Single	\$300,000
Ukraine	Transport	1	Sustainable Urban Transport for the City of Kyiv		2 Years	\$350,000

EUROPE AND CENTRAL ASIA *Continued*

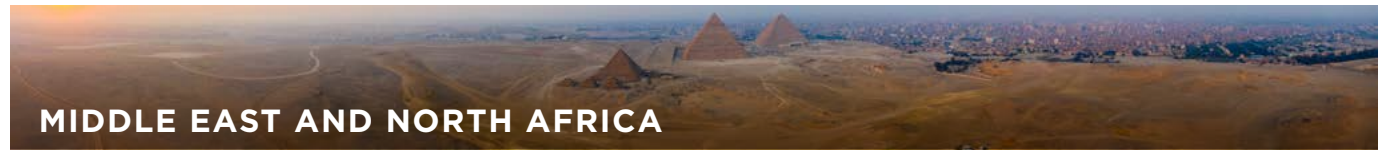
* Ongoing Completed

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Ukraine	Transport	4	Towards Greener and More Efficient Logistics in the Ukraine: An Integrative Approach		2 Years	\$700,000
Uzbekistan	Energy	3	Support the Development of a National Industrial Energy Management Program in Uzbekistan		2 Years	\$400,000
Uzbekistan	Urban	5	Leveraging Green Growth for Balanced Spatial Development in Uzbekistan		2 Years	\$300,000
Uzbekistan	Agriculture	7	Leveraging Technology for Uzbekistan's Agricultural Modernization		2 Years	\$500,000
Uzbekistan	Environment	8	Promoting Forest Information and Communication Technology in Uzbekistan			\$350,000
Uzbekistan and Kazakhstan	Environment	7	Action on Circular Economy for Green Growth in Uzbekistan and Kazakhstan		2 Years	\$500,000



LATIN AMERICA AND THE CARIBBEAN

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Argentina	Urban	2	Implementing Green Solution for Waste Management		2 Years	\$400,000
Argentina	Urban	5	Greening Urban Growth in Metropolitan Buenos Aires		2 Years	\$300,000
Argentina (Province of Santa Fe)	Water	6	Non-Revenue Water (NRW) Project for Santa Fe Province - Argentina		2 Years	\$400,000
Bolivia, Mexico	Environment	4	Promoting Equitable Access to Sustainable Development in Bolivia and Mexico		3 Years	\$700,000
Brazil	Urban	1	Rio de Janeiro Low Carbon City Development Program		2 Years	\$625,000
Brazil	Urban	1	A Sustainable Vision for the Rio de Janeiro Metropolitan Region		2 Years	\$320,000
Colombia	Water	3	Greening Cities through a Water-Centric Urban Planning Approach		Single	\$200,000
Colombia	Environment	4	Support to the Colombia Green Growth Policy		3 Years	\$500,000
Colombia	Water	4	Water Initiatives to Support Green Growth and Sustainable Cities in Colombia		2 Years	\$300,000
Colombia	Transport	5	Improving Public Transit & Sustainable Territorial Dev in Bogota		2 Years	\$650,000
Colombia	Transport	6	Piloting Electromobility in the Integrated Transport System of the Aburra Valley (Medellin, Colombia)		3 Years	\$870,000
Ecuador, Colombia	Transport	7	Smart-City Digital Approaches for Sustainable Urban Mobility in Latin-American Cities		2 Years	\$600,000
Guatemala	ICT	2	Using ICT to Increase Green Competitiveness in Guatemala		3 Years	\$605,000
Guatemala, Honduras, Nicaragua, El Salvador, Costa Rica and Panama	Energy	4	Sustainable Green Growth in Central America		2 Years	\$700,000
Haiti	Energy	3	Haiti Green Growth Through Renewable Energy Integration		2 Years	\$250,000
Honduras	Energy	3	Tackling Power Sector Barriers for Green Growth in Honduras		Single	\$450,000
Mexico	Urban	1	Green Growth Strategies for Mexican Cities		4 Years	\$250,000
Mexico	Urban	1	Mexico Instruments for Urban Redevelopment		2 Years	\$150,000
Mexico	Urban	3	Strengthening Mexico's Capacity for Integrated Solid Waste Management		2 Years	\$400,000
Mexico	Urban	3	Strengthening Urban Management in Mexican cities		5 Years	\$400,000
Panama	Urban	1	Supporting Green Growth Urban Dev. Strategy in Ecuador		3 Years	\$300,000
Paraguay	Urban	8	Building Coastal Resilience in Asuncion through Climate Smart Solutions			\$500,000
Peru	Environment	3	Investments in Environmental Management and Green Growth		2 Years	\$430,000
Peru	Energy	4	Greening Peru's Energy System: Promoting Clean Energy for a Resilient Power System		2 Years	\$600,000
Regional	Urban	1	Regional Resource Recovery and Recycling		Single	\$150,000



MIDDLE EAST AND NORTH AFRICA

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Egypt	Energy	3	Smart Technology and Energy Efficient Production (STEP)	✓	4 Years	\$700,000
Egypt	Urban	3	Cairo Smart Service Delivery Project	✓	3 Years	\$575,000
Egypt	Environment	3	Air and Water Pollution Management Program	✓	3 Years	\$450,000
Egypt	Energy	3	MENA Cleaner Production for Companies	✓	Single	\$304,000
Egypt	Transport	7	Egypt Green Transport Master Plan and Data Management System to Support Digital Transformation of the Transport Sector and Intelligent Transport Systems	↗	2 Years	\$600,000
Jordan	Urban	4	Greening Growth for the Displaced in Jordan	✓	2 Years	\$600,000
Lebanon	Transport	1	Implementing Congestion Reduction Measures in Beirut	✓	2 Years	\$200,000
Morocco	Water	1	Quantifying Tradeoffs of the Water – Energy Nexus	✓	3 Years	\$300,000
Morocco	Transport	1	Climate Change Adaptation in the Road Sector	✓	Single	\$200,000
Morocco	Environment	8	Boosting the Blue Economy Potential in Morocco	↗		\$400,000
Tunisia	Environment	6	Blue Economy	↗	2 Years	\$300,000



SOUTH ASIA

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
Bangladesh	Energy	3	An Efficient, Resilient, and Green Grid for the Bangladesh Power System	✓	4 Years	\$500,000
Bangladesh	Water	8	Innovative Technology to Support Brahmaputra-Jamuna River Economic Corridor Development	↗		\$400,000
Bhutan	Transport	2	Green Transport Initiative	✓	2 Years	\$300,000
Bhutan, Nepal, Pakistan	Environment	4	Integrated Catchment Management for Sustainable Hydropower in Bhutan, Nepal and Pakistan	✓	3 Years	\$750,000
India	Urban	1	Options Study for Development Along the Eastern Dedicated Freight Corridor	✓	Single	\$400,000
India	Urban	2	E-Waste Advisory Project KGGTF Funds	✓	4 Years	\$840,000
India	ICT	2	ICT Applications to Achieve Green Growth in an Indian City	✓	3 Years	\$700,000
India	Energy	2	Towards Green Growth in DVC through Use of ICT and Investment in Clean Energy Generation	✓	4 Years	\$600,000
India	Urban	2	Design and Preparation of Tamil Nadu Sustainable Urban Development	✓	4 Years	\$600,000
India	Transport	2	Promoting the Use of Green Construction Technology in Road Sector	✓	3 Years	\$500,000
India	Urban	2	Regional Economic and Infrastructure Investment Strategy	✓	3 Years	\$400,000
India	Transport	3	Kolkata Metropolitan Transport Efficiency Improvement	✓	2 Years	\$400,000
India	Transport	3	Intelligent Transport Systems and PPP in City Bus Systems for Indian Cities	✓	3 Years	\$350,000
India	Urban	3	Green Regional Development Plan for Growth Centers in India	✓	2 Years	\$350,000
India	Urban	4	ICT Applications to Achieve Green Growth in Indian Cities (Phase II)	✓	2 Years	\$700,000
India	Urban	8	Metropolitan Kolkata Urban Transport and Spatial Planning	↗		\$400,000
India, Bangladesh	Transport	3	Smartcard Integration for Better Connected Public Transport System	✓	3 Years	\$400,000

SOUTH ASIA Continued

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
India, Nepal, Pakistan	Environment	5	Solid Waste in Mountainous Regions of India, Pakistan and Nepal	↗	2 Years	\$500,000
Nepal	Urban	5	Supporting Green Growth Urban Development and Planning Processes in Nepal	↗	2 Years	\$400,000
Pakistan	Urban	1	Initial Assessment of Karachi Economy and Role as a Growth Center	✓	3 Years	\$400,000
Pakistan	Urban	4	Green Karachi through Improved Service Delivery System	✓	2 Years	\$500,000
Pakistan	Energy	5	Renewable Energy Scale-Up to Support Green Growth in Pakistan	↗	2 Years	\$750,000
Pakistan	Environment	6	Catalyzing Green Investments in Pakistan	↗	2 Years	\$400,000
Pakistan, India and Bangladesh	Environment	4	Resource Efficient Cleaner Production in South Asia	✓	3 Years	\$600,000
Sri Lanka	Urban	2	Sri Lanka Strategic Cities	✓	4 Years	\$500,000
Sri Lanka	Energy	4	Sri Lanka Renewable Energy Integration	✓	2 Years	\$400,000
Sri Lanka	Energy	5	KGGTF Sri Lanka Energy	↗	3 Years	\$400,000
Sri Lanka, Bangladesh, and India	Urban	3	Transforming Cities through Public Space	✓	4 Years	\$600,000



GLOBAL

COUNTRY	SECTOR	YEAR	PROGRAM TITLE	*	NUMBER OF YEARS	DONOR APPROVED AMOUNT
El Salvador, Honduras, Nicaragua, Pakistan, Burkina Faso	Urban	5	Land Records and Geo-Spatial Information Systems Linked to Green Growth (LRGIGG)	↗	2 Years	\$600,000
Global	Climate Change	1	Decision Making Under Uncertainty	✓	4 Years	\$1,150,000
Global	Urban	1	Capacity Building for Green Urban Growth	✓	3 Years	\$500,000
Global	Urban	1	City Creditworthiness Program	✓	3 Years	\$500,000
Global	Transport	1	Capacity Building for Leaders in Energy Efficient Urban Transport Planning	✓	3 Years	\$500,000
Global	Urban	2	Low Carbon City Development	✓	3 Years	\$1,370,000
Global	Transport	2	Training Hub "Transportation for Green Growth"	✓	4 Years	\$500,000
Global	Urban	3	An Integrated Approach to Urban Sustainability Planning	✓	3 Years	\$1,560,000
Global	ICT	3	Unlocking Data Innovations for Smarter Urban Transport	✓	2 Years	\$300,000
Global	Climate Change	4	Investing in Green Growth under Uncertainty	✓	3 Years	\$2,475,000
Global	Transport	4	Mainstreaming GHG Mitigation in Rail Freight and Developing Strategies for Sustainable Transport Infrastructure	✓	2 Years	\$500,000
Global	Environment	5	Learning from Korea's Green Growth Experience to Tackle Environmental Health Challenges	↗	2 Years	\$875,000
Global	Environment	5	Green Growth via Green Infrastructure Construction	↗	2 Years	\$650,000
Global	Energy	6	Hydropower Climate Change Resilience Guidelines Development	✓	2 Years	\$300,000
Global	Energy	7	Capacity Building and Technical Learning Workshops on Energy Storage to Accelerate Energy Transition (CLEAN)	↗	2 Years	\$700,000
Global	Transport	8	Transforming Urban Transport to Support Green and Resilient Recovery – Leaders in Urban Transport Planning (LUTP)	↗		\$500,000
India, Tunisia	Urban	2	Green Smart City Development with Citizen Participation	✓	2 Years	\$800,000
Myanmar, Pakistan, Kosovo	Land	6	Fostering Green Growth in Fragile States	✓	2 Years	\$800,000

Annex 3 Institutions and Partners

Agricultural Policy Insurance & Finance Service (APFS)	Korea Energy Agency (KEA)	Korea Land and Housing Corporation (LH)	Ministry of Environment (MOE)
ASEM Eco-Innovation Center (ASEIC)	Korea Energy Economics Institute (KEEI)	Land & Housing Institute (LHI)	Ministry of Land, Infrastructure and Transport (MOLIT)
Busan Port Authority (BPA)	Korea Engineering Consultants Corporation (KECC)	Korea Local Information Research & Development Institute (KLID)	Ministry of Oceans and Fisheries (MOF)
Electricity Regulatory Commission (KOREC)	Korea Environment Corporation (KECO)	Korea Marine Environment Management Corporation (KOEM)	Ministry of Science and ICT (MSIT)
Electronics and Telecommunications Research Institute (ETRI)	Korea Environment Institute (KEI)	Korea Maritime Institute (KMI)	Ministry of SMEs and Startups (MSS)
Financial Services Commission (FSC)	Korea Environmental Industry & Technology Institute (KEITI)	Korea National Clean Production Center (KNPCPC)	Ministry of the Interior and Safety (MOIS)
Fisheries Monitoring Center (FMC)	KEITI eTechhive	Korea Overseas Infrastructure and Urban Development Corporation (KIND)	Ministry of Trade, Industry and Energy (MOTIE)
FOODPOLIS (Korean National Food Cluster)	Korea Export-Import Bank (KEXIM)	Korea Power Exchange (KPX)	National Civil Defense and Disaster Management Training Institute (NDTI)
Global Knowledge Exchange and Development Center (GKEDC)	Korea Forest Service (KFS)	Korea Rail Network Authority (KR)	National Disaster Management Institute (NDMI)
Green Technology Center - Korea (GTC-K)	Korea Gas Corporation (KOGAS)	Korea Railroad Corporation (KORAIL)	National Federation of Fisheries Cooperation (Suhyup)
Gyeonggi Research Institute (GRI)	Korea Hydro & Nuclear Power Corporation (KHNP)	Korea Railroad Research Institute (KRRRI)	National Geographic Information Institute (NGII)
Incheon International Airport Corporation (IIAC)	Korea Hydrographic and Oceanographic Agency (KHOA)	Korea Real Estate Board (REB)	National Information Society Agency (NIA)
Incheon Port Authority (IPA)	Korea Industrial Complex Corporation (KICOX)	Korea Research Institute for Human Settlements (KRIHS)	National Institute of Environmental Human Resources Development (NIEHRD)
Institute of Information & Communications Technology Planning (IITP)	Korea Information Society Development Institute (KISDI)	Korea Research Institute for Vocational Education and Training (KRIVET)	National Institute of Environmental Research (NIER)
Jeju Research Institute (JRI)	Korea Institute for Advancement of Technology (KIAT)	Korea Rural Community Corporation (KRC)	National Institute of Fisheries Science (NIFS)
KEC Research Institute (KECRI)	Korea Institute of Aviation Safety Technology (KIAST)	Korea Rural Economic Institute (KREI)	National IT Industry Promotion Agency (NIPA)
Korea Advanced Institute of Science and Technology (KAIST)	Korea Institute of Civil Engineering and Building Technology (KICT)	Korea Seed & Variety Service (KSVS)	Office for Government Policy Coordination (OPC)
KAIST Graduate School of Green Growth	Korea Institute of Industrial Technology (KITECH)	Korea Small Business Institute (KOSBI)	Rural Development Administration (RDA)
Korea Agency for Infrastructure Technology Advancement (KAIA)	Korea Institute of Ocean Science and Technology (KIOST)	Korea South-East Power Co (KOEN)	Seoul Housing & Communities Corporation (SH)
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Korea Agro-Fisheries & Food Trade Corporation (AT)	Korea Institute of Startup and Entrepreneurship Development (KISED)	Korea Technology Finance Corporation (KOTEC)	Seoul Metropolitan Government (SMG)
Korea Automobile Environmental Association (KAEA)	Korea Integrated Logistics Association (KILA)	Korea Transport Institute (KOTI)	Seoul National University (SNU)
Korea Battery Industry Association (K-BIA)	Korea Intelligent Transport Society of Korea (ITS Korea)	Korea Transportation Safety Authority (KOTSA)	Seoul Urban Solutions Agency (SUSA)
Korea Data Center Council (KDCC)	Korea International Cooperation Agency (KOICA)	Korea Trucking Association (KTA)	Seoul Water Institute (SWI)
Korea Development Bank (KDB)	Korea Internet & Security Agency (KISA)	Korea Water Resources Corporation (K-Water)	Sudokwon Landfill Site Management Corporation (SLC)
Korea Development Institute (KDI)	Korea Land and Geospatial Informatix Corporation (LX)	K-Water Academy	T-money Co. (T-money)
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		Ministry of Economy and Finance (MOEF)	World Smart Sustainable City Organization (WeGO)

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