WORLD BANK GROUP

KOREA GREEN GROWTH TRUST FUND

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## YOUTH INTERNSHIP PROGRAM SECTOR BOOKS



# Environment

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Korea Green Growth Trust Fund (KGGTF)

# Environment Portfolio Book

## Introduction

The environment sector is a foundation of sustainable development essential for protecting natural ecosystems, supporting livelihoods, and advancing global climate goals. Healthy environmental systems regulate air and water, sustain agriculture, buffer communities against climate shocks, and underpin economies worldwide. For billions of people, particularly those in rural and vulnerable communities, these services are not optional but vital to daily life and long-term well-being.

The World Bank places the environment at the core of its poverty reduction and sustainability agenda, building on over 30 years of expertise in analytics, finance, and knowledge-sharing. With $13 billion in active investments, the Bank supports low- and middle-income countries to create jobs, enhance food security, *reduce* pollution, and strengthen resilience. It is a leading financier of ocean stewardship, biodiversity conservation, and circular economy transitions, while advancing tools like natural capital accounting to inform evidence-based policymaking. By mobilizing targeted financing and promoting equitable access to green finance, the World Bank helps countries unlock new pathways to sustainable, resilient, and job-rich growth.

Yet the sector is under mounting pressure. Pollution, deforestation, biodiversity loss, and land degradation are accelerating, compounded by weak enforcement, fragmented governance, and limited access to green technologies. In many countries, inefficient waste management systems and underdeveloped regulatory frameworks slow the shift to a circular economy. These challenges threaten the environment's ability to deliver resilience, inclusive growth, and job creation.

**Looking Ahead**

Priorities include scaling up sustainable waste management, restoring forests and landscapes, strengthening climate adaptation, and reducing pollution across sectors, all of which can generate significant employment opportunities in restoration, recycling, and clean technology. At the same time, digital innovation from AI-powered monitoring to data driven forest and air quality management is opening new possibilities for improved governance and environmental outcomes, while creating demand for new digital and technical skills. To seize these opportunities, countries will require targeted investment, stronger institutions, and access to green finance that support both environmental goals and job creation.

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### The Korea Green Growth Trust Fund's Role

The **Korea Green Growth Trust Fund (KGGTF)** plays a catalytic role in advancing these efforts. Its current portfolio of more than 38 environment-focused grants supports the deployment of innovative technologies, fosters cross sectoral collaboration, and promotes knowledge exchange to support governments pilot and scale integrated environmental solutions. Each year, new grants are added. Further enabling countries to adopt resource efficient and resilient approaches.

**Why Korea?**

Korea's transformation from an aid recipient to a global leader in innovation and sustainability stands as a powerful example of what can be achieved with visionary leadership and evidence-based policy. In just a few decades, Korea transitioned from resource scarcity to global competitiveness by investing in science, technology, and human capital.
Today, Korea shares its hard-earned lessons with the world through the **Korea Green Growth Trust Fund (KGGTF)**. By connecting forward-looking policies, advanced technologies, and institutional expertise with World Bank teams and partner countries, Korea helps nations **leapfrog development barriers** and pursue climate smart, future ready growth. Korea's experience provides a compelling roadmap for countries seeking to turn environmental challenges into opportunities for

## KGGTF Environment Strategic Priorities

KGGTF's engagement in the environment sector has steadily evolved to meet shifting global and country level priorities. In its early years, the Trust Fund supported foundational objectives such as pollution control, waste management, and the development of regulatory frameworks. These initiatives helped strengthen institutional capacity and improve environmental governance, particularly in countries facing urgent infrastructure gaps and compliance challenges.

As environmental challenges have become more complex and increasingly intertwined with economic development goals KGGTF's strategic focus has broadened. The Environment sector focuses on the sustainable use and management of natural resources such as forests, fisheries, water, and land to ensure they continue to support communities and ecosystems. Today, the Trust Fund emphasizes **climate smart, digitally enabled, and system integrated solutions** that address the root causes of environmental degradation while also establishing pathways that create jobs and expand economic opportunities for communities.

This evolution mirrors global priorities, including the World Bank's **Green, Resilient, and Inclusive Development (GRID)** framework, the **UN Sustainable Development Goals (SDGs)**, and the **Paris Agreement**. KGGTF now serves as a platform for innovation, cross sectoral knowledge exchange, and catalytic investment that supports countries in transitioning to sustainable, inclusive environmental systems.

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## Current Priority Areas

KGGTF's environment grants are advancing transformative solutions across five priority themes:

- **Circular Economy and Resource Efficiency**
  Promotes waste reduction, recycling, and material recovery to accelerate the shift toward closed loop systems and more sustainable consumption and production.
- **Climate Resilience and Ecosystem Adaptation**
  Strengthens adaptive capacity through nature-based solutions, disaster risk reduction, and ecosystem restoration, protecting vulnerable communities and building resilience to climate shocks.
- **Sustainable Land Use and Forest Management**
  Promotes reforestation, carbon sequestration, and biodiversity conservation to safeguard ecosystems and reduce environmental impacts.
- **Digital Environmental Monitoring and Governance**
  Harness AI, IoT, and geospatial data for real time pollution tracking, forest monitoring, and decision-making enhancing transparency, accountability, and rapid response.
- **Policy Coherence and Capacity Building**
  Strengthens governance through cross-sector collaboration, regulatory reform, and capacity development at national and local levels.

Together, these priorities highlight KGGTF's commitment to enabling **transformative environmental action** through innovation, country ownership, and partnership with Korean and global expertise. They also reinforce the Trust Fund's broader mission to support inclusive green growth and sustainable development outcomes across sectors and geographies.

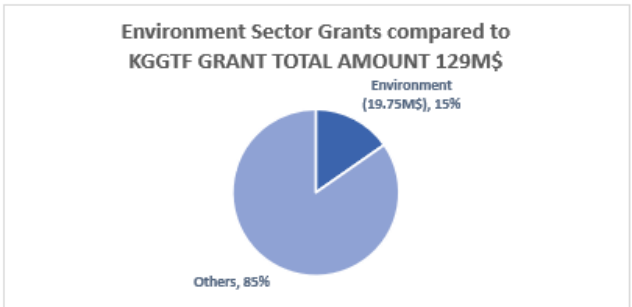
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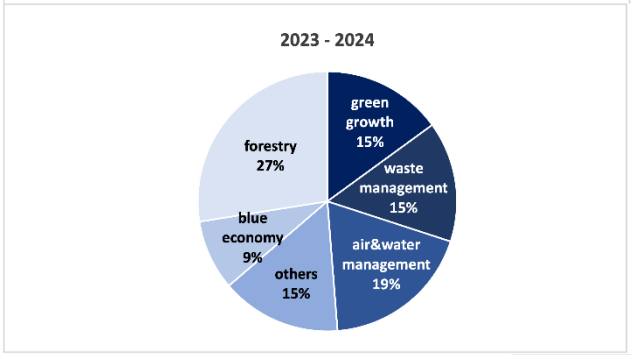
# KGGTF Environment Portfolio Snapshot

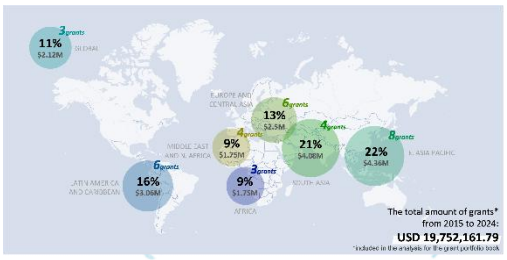


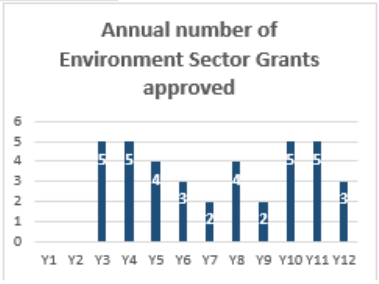

List of Client Countries / Region

Argentina
Azerbaijan
Bangladesh
Bhutan
Bolivia
Cambodia
Chile
Colombia
Ecuador
Egypt
Global
Haiti
India
Indonesia
Jordan
Kazakhstan
Kyrgyz Republic
Lao PDR
Mauritius
Mexico
Mongolia
Morocco
Myanmar
Nepal
Pakistan
Peru
Philippines
South Africa
Thailand
Tunisia
Turkiye
Uzbekistan
Vietnam
West Africa




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## How KGGTF Supports Bank Teams

**Policy Development and Institutional Strengthening**

KGGTF supports governments in designing and implementing robust environmental policies and regulatory frameworks, including national strategies for pollution control, natural resource management, and adaptation planning. Its grants have also advanced institutional reforms that promote sustainable resource use and strengthen long-term environmental resilience.

### Case-Study: Enhancing Pollution Management in Bangladesh through Green Growth Policies

Bangladesh faces one of the world's most severe air pollution crises, with fine particulate matter (PM2.5) linked to over 159,000 premature deaths annually and economic losses exceeding 8% of GDP. Pollution arises from brick kilns, industry, vehicles, household fuels, and waste burning, with cross-border emissions compounding the problem. In response, the government endorsed the **National Air Quality Management Plan (NAQMP) 2024–2030**, marking a decisive step toward comprehensive emissions control and stronger environmental governance. With support from the Korea Green Growth Trust Fund (KGGTF), Bangladesh embedded sustainability, and public health protection into the heart of its policies.

The program, **Enhancing Pollution Management in Bangladesh through Green Growth Policies,** was designed to strengthen regulatory frameworks, expand emissions monitoring, and build the institutional foundations for lasting improvements in air quality. Beyond pollution control, it aimed to safeguard public health, boost economic resilience, and demonstrate that green reforms can attract transformative investment.

**Key Achievements**

- Drafted and secured approval of the **Environmental Enforcement Guidelines** and **NAQMP 2024–2030**, establishing enforceable standards and measurable reduction targets.
- Launched the **Continuous Emissions Monitoring Program (CEMP)**, with 20+ major industrial facilities now connected to real-time compliance systems.
- Facilitated **international study visits for 50 policymakers and technical staff**, enabling Bangladesh to adapt global best practices.

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- Conducted **outreach campaigns, workshops, and media engagement** that informed and mobilized over 100,000 citizens.

A defining achievement was the establishment of Bangladesh's first nationwide framework for emissions governance, projected to cut air-pollution-related deaths by half by 2030. This breakthrough showed that strong governance, combined with technology transfer and public participation, can unlock transformative financing: $600,000 in KGGTF support catalyzed $500 million in World Bank lending—one of the highest leverage ratios in the entire portfolio.

K-Partners played a central role. The Korea Environment Corporation (KECO), the Korea Environmental Industry & Technology Institute (KEITI), and EcoPartners introduced advanced monitoring technologies and compliance models rooted in Korea's experience. Their expertise allowed Bangladesh to rapidly accelerate the rollout of modern regulatory systems, ensuring that policies were grounded in reliable, real-time data.

The catalytic impact of the grant extended far beyond technical reform. By embedding the National Air Quality Management Plan (NAQMP) and enforcement guidelines directly into the World Bank's lending operations, the program aligned large-scale financing with institutional reforms. This alignment ensured Bangladesh had not only a strategic framework but also the capital required to address one of the world's most severe air pollution crises. With a leverage effect of $1,316 for every $1 of grant support, the initiative exemplifies how targeted technical assistance can spark transformative investment.

The momentum generated in Bangladesh is already resonating across South Asia, offering a model of how policy reform, technology partnerships, and citizen engagement can converge to tackle shared environmental threats. It illustrates the power of KGGTF grants to catalyze systemic change—delivering results that protect public health, safeguard the environment, and advance inclusive development.

*"KGGTF has been an essential partner in our engagement with the Government of Bangladesh. The outcomes of this collaboration are already evident, with new policies being adopted by the government and substantial investments being directed towards sustainable development and air quality management. This partnership highlights the tangible impact of international cooperation in addressing environmental challenges and promoting green growth." - Ana Luisa Gomes Lima, Senior Environmental Specialist*

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*“This new financing will help bring essential services such as health, water and sanitation to the people of Bangladesh, while laying the foundation for clean, climate-resilient and sustainable development.” - Abdoulaye Seck, World Bank Country Director for Bangladesh and Bhutan.*



**Technical Assistance and Capacity Building**

Effective environmental management depends on strong institutions and skilled professionals. To meet this need, KGGTF has delivered targeted technical assistance that builds the capacity of partner countries through hands-on training, knowledge-sharing workshops, and tailored technical guidance. By introducing advanced monitoring technologies and promoting data-driven decision making, this support has enabled governments to strengthen environmental governance, improve the quality and use of data, and adopt innovative solutions for pollution control and resource efficiency

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## Case Study: Boosting the Blue Economy Potential in Morocco

Morocco's 3,500 km coastline is a cornerstone of its economy, contributing 59% of GDP and more than half of total employment. The fisheries sector alone sustains 700,000 jobs. Yet this potential is under threat: overfishing, illegal practices, and ecosystem degradation cost the country an estimated US$260 million annually. To reverse these losses and unlock new opportunities in aquaculture, seaweed farming, and marine renewable energy, Morocco turned to Marine Spatial Planning (MSP) as a tool to balance growth with conservation. With support from the Korea Green Growth Trust Fund (KGGTF), Morocco launched its first MSP process as the foundation for establishing Marine Protected Areas (MPAs).

The initiative aimed to conserve fragile ecosystems while sustaining artisanal fisheries and creating space for emerging blue economy sectors. MSP was introduced to coordinate resource use, reduce conflicts among stakeholders, and safeguard long-term coastal resilience.

**Key Activity:**

- Conducting an MSP diagnostic in Agadir Bay, analyzing socio-economic and ecological data to identify priority sites for MPAs.
- Organizing multi-stakeholder consultations, exchanges, and workshops to ensure a participatory process.
- Delivering training on MSP and GIS tools to build local planning capacity.
- Partnering with the Korean Maritime Institute (KMI) and others for technical expertise and knowledge exchange.
- Exploring innovative blue finance instruments to support SMEs, aquaculture ventures, and infrastructure projects.

**Result and Impact:**

A clear roadmap was developed for Morocco's Department of Maritime Fisheries (DPM) to establish MPAs, including zoning, management, and monitoring frameworks. Project recommendations informed national strategies, embedded MSP into the Blue Economy Program for Results (PforR), and shaped new financing approaches endorsed by the Ministry of Economy and Finance.

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Korean expertise proved pivotal, with KMI sharing global best practices on marine governance and sustainable coastal planning. These insights helped Moroccan institutions—including DPM, INRH, and ANDA—adapt proven models to local realities.

At its core, the project strengthened institutions and empowered communities. Artisanal fishers, researchers, and civil society groups were actively engaged in the MSP process, ensuring that conservation and economic opportunities advance together.

**Looking Ahead:**

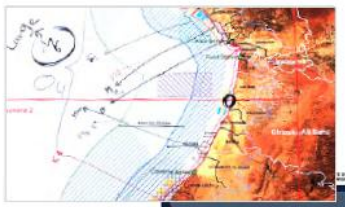
Morocco is scaling up MSP to additional coastal zones and integrating resilient MPA management into its national Blue Economy strategy. By linking marine conservation with innovative finance and inclusive participation, this program demonstrates how KGGTF support can catalyze systemic reforms that preserve natural capital while driving sustainable growth.

*"This program will provide key solutions to protect marine resources and endangered species through the creation of three marine protected areas in Agadir, Larache, and Cape Three Forks as well as the development of income-generating activities for the benefit of Moroccan fishers"*

*Mrs. Zakia DRIOUICH, Secretary General of the Department of Maritime Fishery, October 2022*

*"Creating marine protected areas through marine spatial planning brings innovation, reconciling conservation, and development objectives.*

*It also unleashes job creation in a range of sectors, including tourism, energy, aquaculture, transport, commerce, fishing sector, and marine science."*
*Sandrine Jauffret, Senior Natural Resources Management Specialist at the World Bank*



Participatory mapping workshop in Agadir, March 17, 2022



Three possible locations identified for the creation of a new MPA for fisheries management identified during the diagnostic phase (WB, 2022a)

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**Piloting Innovative Solutions**

KGGTF-funded pilot programs provide World Bank teams and client governments the opportunity to test cutting-edge approaches, de-risk emerging technologies, and generate practical insights for implementation. These pilots serve as proving grounds that often lead to scaled-up investments, shape national strategies, and fast-track the adoption of environmental innovations.

## Case Study: Promoting Forest ICT in Uzbekistan

Forests in Uzbekistan are vital for rural livelihoods, soil and water conservation, and carbon storage. Yet decades of human pressure, weak monitoring, and harsh natural conditions have left them severely degraded, costing the economy nearly 4% of GDP each year.

To reverse this trend, the government committed to the Bonn Challenge and secured a US$142 million IDA loan under the RESILAND CA+ Landscape Restoration Program. To complement this effort, the KGGTF introduced an ICT-driven forest management component, drawing on advanced technologies pioneered in Korea.

The initiative, *Promoting Forest ICT in Uzbekistan*, set out to modernize the State Forestry Agency by embedding digital information systems to guide policy, improve restoration practices, and generate sustainable income through agroforestry and ecotourism. By integrating ICT into forest management, the program aimed to strengthen ecosystem resilience while opening new livelihood pathways for rural communities.

**Key Activities:**

- Identifying ICT gaps in monitoring, reporting, and data services, and preparing an implementation plan with 9 major and 20 specific tasks.
- Designing a National Forest Inventory (NFI) to map forest conditions, quantify economic values, and inform climate and restoration strategies.
- Developing plans for a forest ecotourism portal, mobile applications, and CCTV monitoring to promote sustainable tourism and strengthen visitor management.
- Assessing disruptive technologies in agroforestry to improve plantation efficiency and rural incomes.

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**Result and Impact:**

The program's most significant achievement was integrating ICT into the US$142 million RESILAND CA+ Landscape Restoration Project, ensuring that modern, data-driven systems became a core part of large-scale investments. This was further reinforced through co-financing from the PROGREEN Trust Fund (US$8 million) and the Korea World Bank Partnership Facility (US$3 million), bringing total leveraged financing to US$156 million. With only US$350,000 in KGGTF support, the program achieved a remarkable leverage effect while anchoring reforms in Uzbekistan's presidentially approved Green Growth Strategic Framework.

Korean partners, including the Korea Forest Service (KFS) and the National Institute of Forest Science, provided hands-on expertise in smart mobile forest tools, fire control systems, geospatial mapping, and drone imagery. Their contributions not only introduced cutting-edge solutions but also laid the groundwork for long-term bilateral cooperation on forest restoration.

The initiative also prioritized capacity building. Through workshops, knowledge exchanges, and policy dialogue, Uzbek forestry officials gained exposure to advanced ICT platforms and global best practices. By combining technology, financing, and institutional partnerships, the program has positioned Uzbekistan as a regional leader in technology-driven restoration.

**Looking Ahead:**

Uzbekistan's experience offers a replicable model for countries seeking to align forest restoration with digital innovation. It demonstrates how KGGTF support can catalyze systemic reforms that protect natural capital, enhance livelihoods, and advance green growth at scale.

*"Uzbekistan and the SCF hope for continuous cooperation with Korea and KFS to improve its technical expertise to lead forest restoration in Central Asia, as Uzbekistan also provides a lot of cooperation and support to neighboring countries for the expansion of green areas. The SCF has a strong will to promote this project and perform the tasks specified in the goal by expanding cooperation with Korea's forest-related organizations." Abduvokhid Zakhadullaev, Director of International Relations Forest Agency of Uzbekistan*

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**Knowledge Sharing and Cross Regional Collaboration**

Knowledge exchange is a critical component of KGGTF's approach. By facilitating study tours, virtual workshops, and technical exchanges, the program enables partner countries to share lessons, adapt successful models, and replicate proven solutions. These activities promote cross-regional learning and capacity building, creating opportunities for governments, technical experts, and development organizations to collaborate on common challenges.

Through this networked approach, KGGTF has nurtured a global community of environmental practitioners committed to sustainable development. Its support has strengthened institutional capacity, advanced the implementation of innovative solutions, and helped integrate sustainability principles into national and regional policies. Together, these efforts are laying the groundwork for long-term environmental resilience and inclusive green growth.

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## Case Study: Green jobs in Haiti through enhanced resource efficiency, renewable energy and waste management in industrial parks

In a country where unemployment remains high and environmental pressures continue to mount, Haiti is reimagining industrial development through the lens of sustainability. With support from the Korea Green Growth Trust Fund (KGGTF), the government launched an ambitious initiative to transform its industrial parks into engines of green growth—creating jobs while strengthening environmental performance.

The program, *Green Jobs in Haiti through Enhanced Resource Efficiency, Renewable Energy, and Waste Management*, aimed to embed circular economy practices and green technologies into the nation's industrial zones. The goal extended beyond cutting emissions or improving waste systems: it sought to catalyze an economic transformation that placed people and the planet at the center of development.

**Key Activities:**

- **Technical assessments** identified opportunities to apply cleaner production methods, reuse waste streams, and integrate renewable energy systems such as solar panels and bioenergy.
- **Capacity building workshops** brought together policymakers, engineers, business leaders, and community stakeholders to learn about eco-industrial strategies and the practical steps needed to implement them.
- **Public private dialogues** helped align government priorities with industry needs, laying the groundwork for regulatory reforms and new investment channels that support green infrastructure.





December 19, 2024 Technical workshop with the National Industrial Parks Corporation (SONAPI) on the Action plan for the Metropolitan Industrial Park (PIM), including World Bank staff and consultants and Buro Happold (contractor/main author of the Action Plan).

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## Notable Innovations and Delivery Methods

KGGTF's environment portfolio brings forward cutting edge innovations and adaptive delivery models that help countries tackle today's most pressing sustainability challenges. By emphasizing **climate resilience, circular economy integration, and digital transformation**, the Trust Fund ensures that environmental systems are not only strengthened but also made more inclusive, future ready, and adaptable to local needs.

• **AI Driven Environmental Monitoring**: Artificial intelligence and advanced analytics are being used to track air and water pollution, monitor ecosystem health, and manage resource use in real time improving decision making, enforcement, and transparency.

• **Circular Economy and Resource Efficiency Models**: Closed loop production systems that reduce waste, extend product lifecycles, and limit dependence on virgin raw materials encouraging more sustainable consumption and production.

• **Nature Based Solutions (NbS)**: Ecosystem based approaches such as reforestation, wetland restoration, and green infrastructure help countries manage floods, sequester carbon, and reverse land degradation while delivering co benefits for biodiversity and livelihoods.

• **Digital Platforms for Environmental Data Management**: Through IoT sensors, GIS mapping, and big data tools, KGGTF supports the development of digital platforms that enable evidence-based policymaking, environmental forecasting, and more efficient resource allocation.

### Types of Delivery Approaches

**Cross Sectoral Collaboration** Environmental priorities are embedded across urban planning, transport, energy, and industrial strategies promoting holistic solutions that align infrastructure investments with sustainability goals.

**Knowledge Exchange and Capacity Building** Peer learning, technical workshops, and cross-country collaboration provide the foundation for lasting institutional change transferring tools, insights, and know how across borders and sectors.

**Pilot Testing and Proof of Concept Projects** Targeted pilots allow teams to test and refine innovative technologies in real world conditions, building operational knowledge and making a stronger case for scale up through World Bank lending and public private investment. This combination of innovation and adaptive delivery enables KGGTF to tailor solutions to local conditions, accelerate uptake of climate smart technologies, and foster institutional change supporting a global shift toward more sustainable and resilient environmental systems.

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## Case Study: Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda

Lao PDR, a rapidly developing country, faces mounting challenges in managing plastic pollution, solid waste, and weak regulatory systems that threaten human health, ecosystems, and long-term growth. In 2017 alone, pollution-related health risks were linked to nearly 11,000 deaths—22.7% of all mortality—while the economic cost was estimated at 14.6% of GDP. Recognizing the urgency, the government adopted the *National Green Growth Strategy 2030*, signaling a shift toward circular economy practices. To support this transition, the Korea Green Growth Trust Fund (KGGTF), in partnership with the Korea Environmental Industry & Technology Institute (KEITI) and the World Bank, launched a program to embed sustainability into national policy, investment planning, and citizen behavior.

The KGGTF-supported grant focused on tackling pollution through **policy innovation, fiscal reform, and behavioral change**—tailored to the local context but informed by international best practices.

**Key Activities:**

- **Policy Design for Green Growth:** Development of the *National Green Growth Strategy 2030*, which introduced regulatory reforms to reduce plastic waste, strengthen recycling, and incentivize sustainable production and consumption.
- **Environmental Fiscal Instruments:** Advisory support for pollution taxes, plastic bag levies, and discharge fees—tools designed both to raise revenues for environmental programs and to shift consumer and producer behavior.
- **Capacity Building and Peer Learning:** Targeted training and exposure visits, including study tours in Korea, helped policymakers adapt proven waste management and enforcement models to the Lao context.
- **Strategic Communication and Public Engagement:** Public awareness campaigns, stakeholder dialogues, and multimedia materials educated citizens on recycling, reducing single-use plastics, and embracing green growth principles.

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**Result and Impact:**

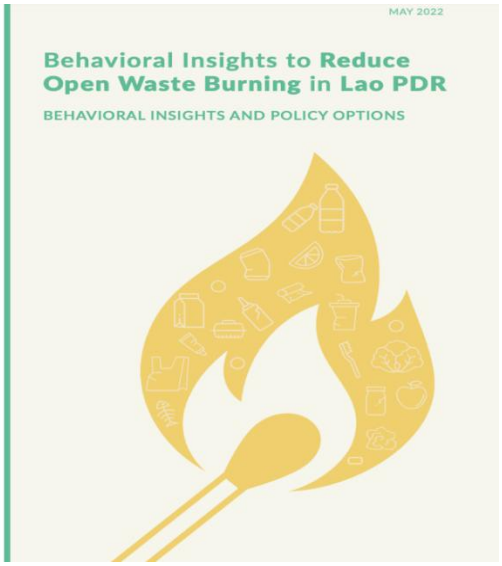
The initiative turned high-level commitments into actionable investment and policy roadmaps. A costed Action Plan identified priority investments in pollution management, while pre-feasibility studies developed bankable projects. New fiscal instruments created incentives for greener practices while generating revenue streams for environmental programs.

International expertise played a pivotal role. KEITI co-financed landfill studies and introduced advanced waste and recycling technologies, while knowledge exchanges exposed Lao officials to new regulatory and enforcement frameworks. These contributions ensured reforms were both internationally informed and locally relevant.

Most importantly, the program bridged **national reform with grassroots change**. Environmental taxes were coupled with awareness campaigns that encouraged citizens to reduce plastic use and embrace recycling. Opportunities in nature-based tourism were also identified, linking conservation with job creation.

This case demonstrates the power of combining high-level policy reform with community engagement. By drawing on Korean expertise and fostering cross-ministerial collaboration, Lao PDR laid the groundwork for stronger environmental governance and offered a replicable model for countries seeking to move from linear to circular economies. It shows that even in emerging markets, green growth is not only possible but achievable through integrated action and inclusive design.




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# Collaboration with Knowledge Partners (K-Partners)

## Key Institutions and Roles

A defining strength of the KGGTF environment portfolio lies in its strategic collaboration with leading Korean institutions that have demonstrated global leadership in green technology, environmental management, and sustainability policy. These **K-Partners** contribute deep technical knowledge, cutting edge solutions, and decades of practical experience enabling World Bank teams and client countries to design and implement transformative environmental projects.

By leveraging Korea's successful track record in areas such as forest restoration, water management, circular economy, and marine sustainability, these partnerships ensure that global projects are grounded in proven approaches while tailored to local needs. The result is a powerful blend of international best practices and context-specific innovation that accelerates impact and fosters long-term sustainability.

## Main K-Partners and Their Contributions

- **K water (Korea Water Resources Corporation)**
  Oversees dam operations, water supply systems, and hydroelectric generation. K water supports stable water delivery, flood control, and sustainable watershed management offering valuable expertise for programs on climate resilient water infrastructure and ecosystem conservation.
- **KFS (Korea Forest Service)**
  Leads Korea's efforts in afforestation, reforestation, and forest conservation. KFS supports partner countries in restoring degraded lands, promoting carbon sequestration, and implementing climate smart forest management strategies.
- **NIFS (National Institute of Forest Science)**
  Provides advanced research and technical assistance on biodiversity conservation, forest health monitoring, and climate adaptation enhancing natural resource management and scientific capacity in forest related programs.
- **KEITI (Korea Environmental Industry & Technology Institute)**
  A national leader in circular economy and green innovation, KEITI brings expertise in sustainable waste management, eco innovation policy, and pollution control supporting countries in developing cleaner, resource efficient systems.
- **KECO (Korea Environment Corporation)**
  Specializes in environmental infrastructure, industrial pollution mitigation, and air quality monitoring. KECO supports projects focused on eco industrial park planning, emissions reduction, and environmental compliance.

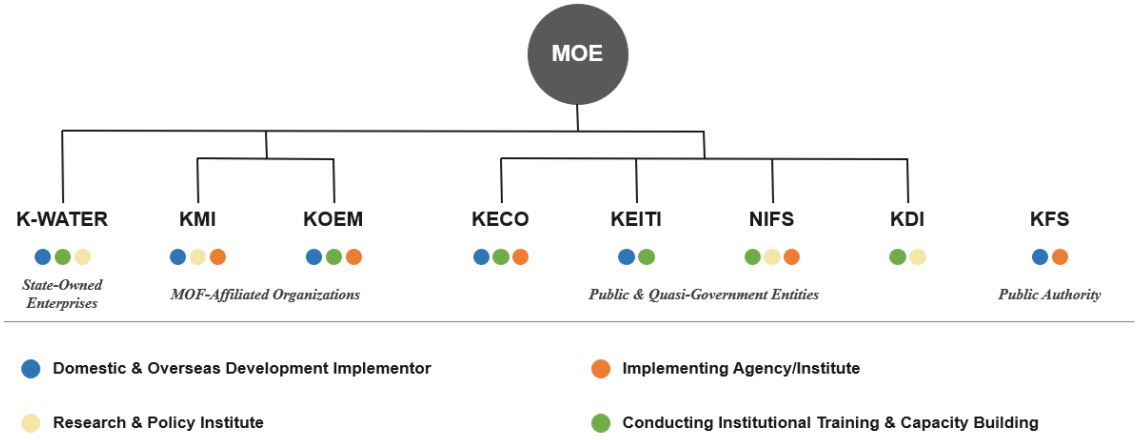
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- **KMI (Korea Maritime Institute)**
  Offers policy research and strategic guidance in marine spatial planning, ocean resource governance, and sustainable fisheries. KMI contributes to the design of integrated marine management approaches that support blue economy development and marine biodiversity protection.

## Enabling Impact through Partnership

These institutional partnerships have been instrumental in increasing the reach and effectiveness of KGGTF environment grants. By embedding Korean expertise into project design and implementation, the Fund facilitates the **transfer of practical solutions, proven technologies, and policy innovations** to diverse global contexts.

Together, KGGTF and its Korean partners are helping countries build resilient, sustainable, and inclusive environmental systems laying the groundwork for a more s resource-efficient and future-ready path.




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## Case Study: Reducing Health Risks through Cleaner Air in Bishkek, Kyrgyz Republic

Bishkek, the capital of Kyrgyzstan, faces some of the most severe air quality challenges in Central Asia. WHO pollution thresholds are exceeded year-round, and during the winter of 2019–2020 the city recorded some of the highest global Air Quality Index levels. Reliance on coal-based heating, open waste burning, and mounting traffic emissions have fueled chronic respiratory illnesses, premature deaths, and annual economic losses of up to $31 million. The COVID-19 pandemic further amplified these health risks.

Recognizing the urgency, the government drafted an Action Plan (2020–2023) to curb emissions. Yet gaps in investment planning and technical capacity hindered progress. With support from the Korea Green Growth Trust Fund (KGGTF), Bishkek launched a forward-looking initiative with the World Bank and Korean partners to create a comprehensive framework for cleaner urban air and healthier, more livable cities.

**Air Quality Master Plan Development**

The program began with a detailed assessment of pollution sources across heating, transport, solid waste, and industry. These findings shaped an Air Quality Master Plan, a strategic roadmap linking urban environmental planning to clean energy, infrastructure modernization, and public health investment.

**Digital Monitoring and Public Awareness**

Drawing on international best practices, the team introduced a real-time digital air quality monitoring platform. By providing open-access data, the system empowered citizens with knowledge and encouraged behavioral change. Complementary awareness campaigns underscored both individual and collective responsibility for air quality.

**Institutional Coordination and Task Force Creation**

To ensure lasting impact, the grant supported the establishment of a national Task Force on Air Quality, bringing together ministries, municipalities, and civil society. This platform strengthened coordination, dismantled governance silos, and aligned policies and financing to advance cleaner air initiatives.

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**International Knowledge Exchange**

A study visit to Seoul allowed Kyrgyz officials to learn firsthand about clean heating technologies, emissions control systems, and Seoul's integrated monitoring network. Lessons on transforming the Nanjido landfill into an eco-park, shared by the Seoul Metropolitan Government, provided inspiration for urban redevelopment in Bishkek.

**Outcomes:**

- **Comprehensive Master Plan**: Provided a government roadmap to target the most polluting sectors and guide cost-effective investments.
- **Private Sector Engagement**: Introduced pre-feasibility studies to accelerate green infrastructure and alternative heating solutions.
- **Institutionalized Collaboration**: Established a Task Force and dialogue platform to coordinate reforms across stakeholders.
- **Knowledge and Technology Transfer**: Leveraged Korean expertise from KEITI and KECO on energy, waste, and monitoring systems.

**Result and Impact:**

This program demonstrates how even cities with limited resources can take bold steps toward cleaner air when equipped with the right tools, partnerships, and vision. By integrating policy reform, digital technology, public engagement, and international knowledge exchange, Bishkek created a scalable model for addressing air pollution across Central Asia and beyond. Most importantly, it placed health and environment at the heart of urban development.

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## Conclusion

The Korea Green Growth Trust Fund (KGGTF) has played a pivotal role in advancing climate resilience, driving policy reform, and scaling innovative solutions across diverse country contexts. By forging strategic partnerships, particularly with Korean institutions, the Trust Fund has enabled the adoption of AI-driven environmental monitoring, circular economy practices, and nature-based solutions. These efforts have strengthened institutional capacity and paved the way for low-carbon, climate-smart development pathways.

Looking ahead, KGGTF will continue its focus on four strategic priorities:

- **Scaling digital innovation** to improve environmental governance through real-time data platforms, AI-powered monitoring, and advanced decision-support tools.
- **Building ecosystem-based resilience** by promoting nature-based solutions that protect biodiversity, mitigate risks, and support adaptation to climate shocks.
- **Accelerating circular economy transitions** to reduce resource dependency, close waste loops, and drive sustainable production and consumption.
- **Expanding co-learning and replication** through sustained collaboration with Korean technical institutions and global peer networks.

By advancing these priorities, KGGTF will continue to foster environmental systems that are digitally enabled, climate-smart, and fully aligned with global sustainability goals. Together, these actions lay the foundation for a more resilient, resource-efficient, and inclusive future.

If you are interested in applying for KGGTF grant funding or in connecting with our Knowledge Partners expertise to strengthen your program, please reach out to the KGGTF team. We are committed to co-designing impactful solutions that deliver results on the ground.

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# Annex 1. Total Grant List

| Approval Year | K# | Grant Name | Country | $ Approved by Donor | K-partner | Linked P-Code |
|---|---|---|---|---|---|---|
| 2026 | 242 | Livable Planet ASA: Supporting Forest Economies | Liberia, Ghana, Sierra Leone | $400,000 | KOFPI | P514830 |
| 2026 | 240 | Ukraine: Hazardous Waste Management and Policy Development Project | Ukraine | $700,000 | KOSHA, Korea Environment Corporation | P508568 |
| 2024 | 225 | Leveraging seaweed to lower emissions and increase competitiveness of agri-food systems in the Andes | Chile; Ecuador; Peru | $350,000 | Korea Maritime Institute (KMI), Seaweed Research Institute, National Institute of Fisheries Science (NIFS), Korean Embassy and KOTRA in Chile | P504284 |
| 2024 | 224 | Wildfire Management in a Changing Climate: A digital partnership between Korea and Türkiye | Turkiye | $500,000 | Korean Forest Service (KFS) | P179345 |
| 2024 | 223 | Unlocking Climate Financing and Climate Resilient Green Growth Potential in Mauritius | Mauritius | $600,000 | KDI (GKEDC), KMI | P501014, P511257 |
| 2024 | 222 | Understanding the security implications of Earth systems stress – a strategic foresight project | Global | $380,000 | KDI | P507124 |
| 2023 | 210 | Restoration and Development Program for Jordan's Zarqa River Basin | Jordan | $600,000 | k-eco, k-water, KICOX | P506341 |
| 2023 | 209 | Mongolia Resilient Green Landscapes | Mongolia | $600,000 | AFoCO, KFS, NIFS, KFPI | P505034 |
| 2023 | 208 | Urban Air Quality Management in Indonesia: Analysis of Sources, Impacts and Emission Control Measures | Indonesia | $150,000 | KEITI, KECO, Kyunghee University | P503308 |
| 2023 | 207 | Catalyzing Biodiversity and Protected Lands Remediation, Restoration and Expansion around Retired Mining Sites in South Africa | South Africa | $600,000 | KOMIR, NIGT, MoE Korea, KFS | P170213 |
| 2023 | 206 | Exchange of Circular Economy Experiences with Korea | Global | $600,000 | KEITI, KMOE, KMOTIE, KITECH | P180273 |
| 2022 | 190 | Enhancing Pollution Management in Bangladesh through Green Growth Policies | Bangladesh | $376,862 | | P179079 |
| 2022 | 189 | Circular Economy for Waste Management in Province of Buenos Aires | Argentina | $600,000 | KEITI, The Seoul Institute | P105680 |
| 2022 | 188 | Enhancing India's Capacity for Green and Resilient Coastal and Marine Ecosystems Management: Pathway for a Sustainable Blue Economy | India | $550,000 | KMI, KMOF, KOEM, NCSCM, NCCR | P178721 |
| 2022 | 187 | Technical and Capacity Support towards the implementation of plastics circularity in the select ASEAN countries | Thailand, Philippines | $600,000 | KOMIR, NGIT, MoE | P176923 |
| 2022 | 186 | Capacity Strengthening of India's Forest Sector | India | $403,200 | Korea Forest Service (KFS) | P179935 |
| 2021 | 174 | Strategic Green Growth Transitions in Bangladesh: Toward a post-COVID recovery | Bangladesh | $500,000 | KEI, KEA, KMAC, KEITI, K-Eco, KDI, EU, FCDO, P4G | P175908 |
| 2021 | 173 | Green jobs in Haiti through enhanced resource efficiency, renewable energy, and waste management in industrial parks | Haiti | $700,000 | K-eco, KEITI, KITECH, KEA, IDB, USAID, Industrial Ecology Department at Yale University | P173743 |
| 2020 | 155 | Reducing Health Risks through Improvement of Air Quality in Bishkek City of the Kyrgyz Republic | Kyrgyz Republic | $350,000 | Ministry of Environment (MoE), KEITI, K-ECO, Seoul Metropolitan Government | P170870 |
| 2020 | 154 | Supporting Identification of Riverine and Coastal Plastics Waste Management Solutions in Mekong countries: Technology, Innovation, Impacts | Cambodia; Lao PDR; Myanmar; Thailand; Vietnam | $400,000 | KMI, KOEM, KIOST, NIFS | P177225 |
| 2020 | 153 | Promoting Forest Information and Communication Technology in Uzbekistan | Uzbekistan | $350,000 | Korea Forest Service (KFS) | P174135 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| 2020 | 152 | Boosting the Blue Economy Potential in Morocco | Morocco | $400,000 | KMI | P170596 |
| 2019 | 139 | Action on Circular Economy for Green Growth in Uzbekistan and Kazakhstan | Uzbekistan and Kazakhstan | $500,000 | KEITI, KECC, KEXIM | P170870 |
| 2019 | 138 | Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda | Lao PDR | $655,850 | KEITI | P171011 |
| 2018 | 129 | Catalyzing Green Investments in Pakistan | Pakistan | $400,000 | KEITI, KNCPC, KEA | P165388 |
| 2018 | 128 | Blue Economy | Tunisia | $300,000 | KIOST | P166339 |
| 2018 | 127 | Myanmar, Cambodia, Sustainable Solid Waste & Plastic Management | Myanmar | $230,000 | KEITI, K-ECO, Sudokwon Landfill Site Management Corp. | P168826 |
| 2017 | 115 | Solid Waste in Mountainous Regions of India, Pakistan and Nepal | India, Nepal, Pakistan | $500,000 | KECO, KEITI, SLC | P167228 |
| 2017 | 112 | Green Growth via Green Infrastructure Construction | Global | $650,000 | KEITI, MOE, KAIST, BTS, DEC | P165777 |
| 2017 | 111 | Learning from Korea's Green Growth Experience to Tackle Environmental Health Challenges | Global | $875,000 | The Ministry of Environment, KEITI, K-ECO, K-water, The Ministry of Trade and Industry, The Ministry of Agriculture, Food and Rural Affairs, The Ministry of Land, Infrastructure and Transport | P170784 |
| 2017 | 110 | Towards green growth of Baku: enhancing people's quality of life through sustainable cleanup of polluted lakes | Azerbaijan | $600,000 | MoE, KEC, KOICA, Office of National River Restoration | P166058 |
| 2016 | 95 | Investing in green growth under uncertainty | Global | $2,475,000 | K-Water, KICT, KOTI, KDI (PIMAC) | P158601 |
| 2016 | 94 | Integrated Catchment Management for Sustainable Hydropower in Bhutan, Nepal and Pakistan | Bhutan, Nepal, Pakistan | $750,000 | | P161596 |
| 2016 | 93 | Resource Efficient Cleaner Production in South Asia | Pakistan, India and Bangladesh | $600,000 | Korea National Cleaner Production Center (KNCPC) | P161784 |
| 2016 | 92 | Green Growth Platform for Lao PDR | Lao PDR | $900,000 | | P159956 |
| 2016 | 91 | Support to the Colombia Green Growth Policy | Colombia | $500,000 | Committee on Green Growth (CGG), GTC | P163604 |
| 2016 | 90 | Promoting equitable access to sustainable development in Bolivia and Mexico | Bolivia, Mexico | $487,000 | KEI, NIER, KECO, KEMCO, NREC, K-Water, MAFRA, MoLIT, SLC | P171917 |
| 2015 | 64 | Air and Water Pollution Management Program | Egypt | $450,000 | | P157564 |
| 2015 | 63 | Investments in Environmental Management and Green Growth | Peru | $430,000 | | P147342 |
| 2015 | 62 | Developing Integrated and Green Solutions for Municipal Solid Waste Management in Kazakhstan | Kazakhstan | $200,000 | Korean Ministry of Environment (KMoE), K-eco, KEI, Sudokwon Landfill Corporation (SLC), City Governments of Seoul, Gwangju, and Wonju | P153683 |
| 2015 | 61 | Scaling up Implementation of Vietnam's Green Growth Priorities | Vietnam | $780,100 | Korea Ex-Im Bank, KOICA, KICOX | P148188 |
| 2015 | 60 | West Africa Fishery Partnership for Competitiveness and Sustainability | West Africa | $670,000 | | P126773 |
| 2013 | 1 | Decision Making Under Uncertainty | Global | $1,150,000 | Korean Research Institute for Human Settlements (KRIHS) | P146704 |
| 2024 | 225 | Leveraging seaweed to lower emissions and increase competitiveness of agri-food systems in the Andes | Chile; Ecuador; Peru | $350,000 | Korea Maritime Institute (KMI), Seaweed Research Institute, National Institute of Fisheries Science (NIFS), Korean Embassy and KOTRA in Chile | |
| 2024 | 224 | Wildfire Management in a Changing Climate: A digital partnership between Korea and Türkiye | Turkiye | $500,000 | Korean Forest Service (KFS) | |
| 2024 | 223 | Unlocking Climate Financing and Climate Resilient Green Growth Potential in Mauritius | Mauritius | $600,000 | KDI (GKEDC), KMI | |

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| 2024 | 222 | Understanding the security implications of Earth systems stress – a strategic foresight project | Global | $380,000 | KDI | |
| 2023 | 210 | Restoration and Development Program for Jordan's Zarqa River Basin | Jordan | $600,000 | k-eco, k-water, KICOX | P506341 |
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| 2021 | 173 | Green jobs in Haiti through enhanced resource efficiency, renewable energy, and waste management in industrial parks | Haiti | $700,000 | K-eco, KEITI, KITECH, KEA, IDB, USAID, Industrial Ecology Department at Yale University | P173743 |
| 2020 | 155 | Reducing Health Risks through Improvement of Air Quality in Bishkek City of the Kyrgyz Republic | Kyrgyz Republic | $350,000 | Ministry of Environment (MoE), KEITI, K-ECO, Seoul Metropolitan Government | P170870 |
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| 2019 | 138 | Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda | Lao PDR | $655,849.92 | KEITI | P171011 |
| 2018 | 129 | Catalyzing Green Investments in Pakistan | Pakistan | $400,000 | KEITI, KNCPC, KEA | P165388 |
| 2018 | 128 | Blue Economy | Tunisia | $300,000 | KIOST | P166339 |
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| 2017 | 110 | Towards green growth of Baku: enhancing people's quality of life through sustainable cleanup of polluted lakes | Azerbaijan | $600,000 | MoE, KEC, KOICA, Office of National River Restoration | P166058 |
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| 2015 | 64 | Air and Water Pollution Management Program | Egypt | $450,000 | | P157564 |
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| 2015 | 61 | Scaling up Implementation of Vietnam's Green Growth Priorities | Vietnam | $780,100 | Korea Ex-Im Bank, KOICA, KICOX | P148188 |
| 2015 | 60 | West Africa Fishery Partnership for Competitiveness and Sustainability | West Africa | $670,000 | | P126773 |
| 2013 | 1 | Decision Making Under Uncertainty | Global | $1,150,000 | Korean Research Institute for Human Settlements (KRIHS) | P146704 |

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# Annex 2. Grant Summaries

**K240 Hazardous Waste Management and Policy Development Project**

| | |
|---|---|
| Grant Title | Hazardous Waste Management and Policy Development Project |
| Region | ECA |
| Countries | Ukraine |
| Sector | Environment |
| Program Year | Year 13 |
| Amount | $700,000 |
| Status | Active / Approved in 2025 |
| Program Goal | The program aims to strengthen the Government of Ukraine's institutional capacity to manage hazardous waste, including PCBs, mercury, and asbestos, in line with international standards and best practices. It supports the development of regulatory frameworks, technical guidelines, and laboratory systems to improve hazardous waste monitoring, risk management, and policy implementation. The program also promotes environmentally sound management and contributes to sustainable and resilient development through enhanced governance and technical capacity. |
| Key Results | The program strengthens Ukraine's regulatory and institutional framework for hazardous waste management in alignment with EU standards and international conventions. It enhances laboratory capacity and establishes standardized procedures for the analysis of PCBs, mercury, and asbestos. In addition, it improves the ability of government agencies to monitor, enforce, and implement hazardous waste policies. The program also supports data-driven decision-making for risk assessment, policy formulation, and investment planning. |

**K242 Livable Planet ASA: Supporting Forest Economies**

| | |
|---|---|
| Grant Title | Livable Planet ASA: Supporting Forest Economies |
| Region | WCA |
| Countries | Liberia, Ghana, Sierra Leone |
| Sector | Environment |
| Program Year | Year 13 |
| Amount | $400,000 |
| Status | Active / Approved in 2025 |
| Program Goal | The program aims to develop and operationalize analytical and technical tools to promote forest environmental services and strengthen sustainable forest-based value chains. It supports job creation, policy development, investment planning, and mobilization |

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| | |
|---|---|
| | of finance by enhancing institutional capacity and providing tailored technical assistance based on international best practices. |
| Key Results | The program develops analytical outputs and technical tools to support sustainable forest management and value chain development. It strengthens institutional capacity through knowledge exchange and technical assistance, and supports the design of policies and investment strategies in the forestry sector. In addition, it identifies market opportunities and investment pathways for timber and non-timber forest products, enhances private sector engagement, and contributes to job creation and sustainable economic growth |

**K225 Leveraging seaweed to lower emissions and increase competitiveness of agri-food systems in the Andean countries**

| | |
|---|---|
| Grant Title | Leveraging seaweed to lower emissions and increase competitiveness of agri-food systems in the Andean countries |
| Region | LAC |
| Countries | Chile, Ecuador, Peru |
| Sector | Environment |
| Program Year | Year 12 |
| Amount | $350,000 |
| Status | Active / Approved in 2024 |
| Program Goal | The program aims to strengthen institutional capacity in Latin America to advance blue economy growth and climate-resilient coastal and marine investments. It identifies opportunities in the seaweed sector to support Green, Resilient, and Inclusive Development (GRID) strategies in the Andean region coastal communities, and promotes agri-food diversification, climate adaptation, and sustainable economic development through targeted policy and investment initiatives. |
| Key Results | The program aims to strengthen institutional capacity in Latin America to advance blue economy growth and climate-resilient coastal investments. It identifies opportunities in the seaweed sector to support Green, Resilient, and Inclusive Development (GRID) strategies in the Andean region coastal communities, and promotes agri-food diversification, climate adaptation, and sustainable economic development through targeted policy and investment initiatives. |

**K224 Wildfire Management in a Changing Climate: A digital partnership between Korea and Türkiye**

| | |
|---|---|
| Grant Title | Wildfire Management in a Changing Climate: A digital partnership between Korea and Türkiye |
| Region | ECA |
| Countries | Türkiye |
| Sector | Environment |

| | |
|---|---|
| Program Year | Year 12 |
| Amount | $500,000 |
| Status | Active / Approved in 2024 |
| Program Goal | This program strengthens Türkiye ‘s wildfire resilience by integrating digital technologies, climate-informed risk modeling, and inter-agency coordination. Leveraging Korea’s expertise, it bolsters institutional capacity, regional collaboration, and future investment in climate-resilient forest management to protect ecosystems and communities from escalating wildfire risks driven by climate and land-use changes. |
| Key Results | Updated Türkiye ‘s Incident Command System (ICS) framework to improve wildfire response through real-time data sharing, climate-integrated risk modeling, and digital training. Response time decreased from 12 to 10 minutes, positioning Antalya as a regional hub. The scalable model supports resilience across over 6.8 M ha and enables replication in other high-risk ECA countries. |

**K223 Unlocking Climate Financing Resilient Mauritius**

| | |
|---|---|
| Grant Title | Unlocking Climate Financing Resilient Mauritius |
| Region | Eastern and Southern Africa |
| Countries | Mauritius |
| Sector | Energy |
| Program Year | Year 12 |
| Amount | $600,000 |
| Status | Active / Approved in 2024 |
| Program Goal | This program supports Mauritius in advancing sustainable policies, green investment, and institutional capacity-building. It aims to strengthen resilience, enable sustainable development, and facilitate reforms aligned with international sustainability goals for a greener, more resilient economy by promoting economic diversification, mobilizing green finance, and leveraging global best practices. |
| Key Results | The program is currently in implementation, with results expected in future reporting cycles. |

**K210 Restoration and Development Program for Jordan's Zarqa River Basin**

| | |
|---|---|
| Grant Title | Restoration and Development Program for Jordan's Zarqa River Basin |
| Region | Middle East and North Africa (MNA) |
| Countries | Jordan |
| Sector | Environment & Natural Resources |
| Program Year | Year 11 |
| Amount | $600,000 |
| Status | Active / Approved in 2023 |

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| | |
|---|---|
| Program Goal | Supports Jordan's national program to rehabilitate the Zarqa River Basin, addressing water scarcity, pollution, and degradation. Integrates circular economy, cleaner production, and green growth strategies with Korean innovations in wastewater, pollution control, and water management. Strengthens institutional capacity and mobilizes investment to restore a vital basin and advance sustainable development. |
| Key Results | Advanced restoration of the Zarqa River Basin through strategic guidance, wastewater reduction, and cleaner production in industrial zones. Facilitated Korea study visit for circular economy exchange and strengthened partnerships. Identified high-priority interventions and delivered pilot projects. Produced the Zarqa River Basin Environmental Restoration and Development (ZRBRD) Roadmap and disseminated findings to support long-term restoration and sustainability. |

**K209 Mongolia Resilient Green Landscapes**

| | |
|---|---|
| Grant Title | Mongolia Resilient Green Landscapes |
| Region | East Asia and Pacific (EAP) |
| Countries | Mongolia |
| Sector | Environment |
| Program Year | Year 11 |
| Amount | $600,000 |
| Status | Active / Approved in 2023 |
| Program Goal | This program supports Mongolia's Green Resilient Landscapes initiative by integrating forest restoration, sustainable land management, and climate finance. It enhances institutional capacity, promotes private sector engagement, and develops investment strategies aligned with climate goals. The initiative fosters partnerships and establishes a framework to monitor reforestation progress toward long-term sustainability. |
| Key Results | The program strengthened Mongolia's capacity for sustainable forestry by developing carbon accounting tools, training materials, and investment plans. It mobilized climate finance through stakeholder engagement and public-private partnerships, supported afforestation and carbon sequestration efforts, and informed national and World Bank initiatives aligned with the Green Resilient Landscapes strategy. |

**K208 Urban Air Quality Management in Indonesia: Analysis of Sources, Impacts, and Emission Control Measures**

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|---|---|
| Grant Title | |
| Region | EAP |

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|---|---|
| Countries | Indonesia |
| Sector | Environment |
| Program Year | Year 11 |
| Amount | $150,000 |
| Status | Active / Approved in 2023 |
| Program Goal | Supports Indonesia's air quality management by strengthening systems through insights, policy recommendations, and capacity building for emission control. Introduces scalable solutions from Korea to address pollution in affected cities. Aligns interventions with sustainable urban growth and low-carbon development, advancing public health and climate action in one of the world's most polluted regions. |
| Key Results | Delivered urban air pollution assessment for Jakarta and major cities, identifying emission sources and health impacts. Outlined cost-effective AQM strategies with climate co-benefits and institutional recommendations. Developed policy and financing options, enhanced capacity through workshops and exchanges, integrated monitoring into planning, and strengthened frameworks—unlocking climate finance and fostering regional cooperation. |

**K207 Catalyzing Biodiversity and Protected Lands Remediation, Restoration and Expansion around Retired Mining Sites in South Africa**

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|---|---|
| Grant Title | Catalyzing Biodiversity and Protected Lands Remediation, Restoration and Expansion around Retired Mining Sites in South Africa |
| Region | Eastern and Southern Africa |
| Countries | South Africa |
| Sector | Environment |
| Program Year | Year 9 |
| Amount | $600,000 |
| Status | Active / Approved in 2023 |
| Program Goal | This program supports South Africa's transition to a climate-resilient future by catalyzing financing and capacity-building for biodiversity conservation, land rehabilitation, and protected area expansion. It focuses on Mpumalanga's shift to a greener economy and leverages international best practices and stakeholder partnerships to facilitate policy reforms and investment strategies aligned with national and global conservation goals. |
| Key Results | This program supports sustainable reuse of retired mining sites in Mpumalanga through biodiversity assessments, conservation and tourism planning, and a detailed report. It strengthens the Biodiversity Stewardship Programme by outreach tools, training, and policy integration. A soil carbon assessment was conducted in |

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| | the efforts of advancing an understanding of carbon sequestration that can guide future restoration and financing opportunities in the region. |

**K206 Exchange of Circular Economy Experiences with Korea**

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|---|---|
| Grant Title | Exchange of Circular Economy Experiences with Korea |
| Region | Global |
| Countries | Global |
| Sector | Environment & Natural Resources |
| Program Year | Year 11 |
| Amount | $600,000 |
| Status | Active / Approved in 2023 |
| Program Goal | This grant accelerates circular economy transition by leveraging Korea's expertise and best practices across World Bank client countries. It strengthens institutions through knowledge sharing, capacity building, and policy dialogue. This program equips policymakers with tools for waste management, implementation, and financing and embeds strategies into operations, fosters global cooperation, and advances plastic pollution reduction and resource efficiency. |
| Key Results | The program enabled direct exposure to Korea's circular economy strategies through exchange visits and virtual events. It produced a summary report, developed an OLC course on circular economy innovations, and disseminated learning materials. A framework with key indicators and policy recommendations was launched, advancing global adoption of circular economy practices. |

**K189 Circular Economy for Waste Management in Province of Buenos Aires**

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|---|---|
| Grant Title | Circular Economy for Waste Management in Province of Buenos Aires |
| Region | Latin America and Caribbean (LAC) |
| Countries | Argentina |
| Sector | Environment |
| Program Year | Year 10 |
| Amount | $600,000 |
| Status | Active / Approved in 2022 |
| Program Goal | This program transforms waste management in Buenos Aires Province by applying circular economy principles to reduce landfill waste, promote recycling, and support sustainable urban development. Linked to Argentina's basin project, it strengthens technical capacity, advances policy reforms, and fosters |

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| | investment to enhance environmental resilience, public health, and green growth. |
| Key Results | The program conducted a baseline assessment of municipal waste systems in Buenos Aires Province, produced a waste report, and analyzed value chains to identify circular economy priorities. It developed a 2025–2035 strategy and investment plan, designed a GIIRSU facility, and strengthened capacity through training, study visits, and dissemination. Findings inform future planning and investments. |

**K188 Enhancing India's Capacity for Green and Resilient Coastal and Marine Ecosystems Management: Pathway for a Sustainable Blue Economy**

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|---|---|
| Grant Title | Enhancing India's Capacity for Green and Resilient Coastal and Marine Ecosystems Management: Pathway for a Sustainable Blue Economy |
| Region | South Asia |
| Countries | India |
| Sector | Environment |
| Program Year | Year 11 |
| Amount | $550,000 |
| Status | Active / Approved in 2022 |
| Program Goal | This program enhances India's capacity for resilient coastal and marine ecosystems management by improving policy frameworks, fostering institutional collaboration, and leveraging international best practices. Through multi-stakeholder engagement and Korean knowledge exchange, it supports sustainable Blue Economy development, balancing economic growth with environmental sustainability, and strengthening climate resilience. |
| Key Results | The program developed policy toolkits for marine ecosystem management, including Nature-Based Solutions (NBS) for coastal erosion, marine litter management, and a roadmap for integrating Marine Spatial Planning into coastal governance. It facilitated stakeholder dialogues, promoted coastal livelihoods, and strengthened the Blue Economy Policy agenda through green investments and global best practices. |

**K187 Technical and Capacity Support Towards the Implementation of Plastics Circularity in Select ASEAN Countries**

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|---|---|
| Grant Title | Technical and Capacity Support Towards the Implementation of Plastics Circularity in Select ASEAN Countries |
| Region | East Asia and Pacific (EAP) |
| Countries | Philippines, Thailand |
| Sector | Environment |

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| Program Year | Year 9 |
| Amount | $600,000 |
| Status | Active / Approved in 2023 |
| Program Goal | This program addresses plastic waste pollution in the East Asia & Pacific region by advancing plastics circularity and the blue economy. It supports policy development, business model innovation, and capacity-building in the Philippines, Thailand, and Malaysia, promoting sustainable growth, environmental resilience, and long-term opportunities through improved waste management and recycling practices. |
| Key Results | The program developed business models and a Center of Excellence in Thailand, created EPR training and policy tools in the Philippines, and facilitated regional knowledge exchange through frameworks and workshops. These efforts enhanced capacity, strengthened mechanisms, promoted best practices, and improved cooperation on plastic pollution reduction and circular economy strategies. |

**K186 Capacity Strengthening of India's Forest Sector**

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|---|---|
| Grant Title | Capacity Strengthening of India's Forest Sector |
| Region | South Asia |
| Countries | India |
| Sector | Landscape Management |
| Program Year | Year 10 |
| Amount | $403,200 |
| Status | Active / Approved in 2022 |
| Program Goal | This grant strengthens India's forest management by equipping policymakers, officials, and institutions to implement integrated landscape approaches. It addresses capacity, technology, and coordination gaps through institutional enhancement, training upgrades, and global best practices. The initiative promotes afforestation, ecotourism, and governance to advance NDCs, biodiversity, and sustainable economic opportunities. |
| Key Results | The program assessed India's forest policies and capacity, producing a gap report and White Paper with strategy, roles, and budget provisions. It facilitated consultations and engagement with experts and the Korea Forest Service, organized study tours and workshops, and documented insights to support forest sector reforms and sustainable ecosystem restoration. |

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**K174 Strategic Green Growth Transitions in Bangladesh: Toward a Post-COVID Recovery**

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|---|---|
| Grant Title | Strategic Green Growth Transitions in Bangladesh: Toward a Post-COVID Recovery |
| Region | South Asia |
| Countries | Bangladesh |
| Sector | Environment |
| Program Year | Year 9 |
| Amount | $500,000 |
| Status | Closed / Approved in 2021 |
| Program Goal | This program supports Bangladesh's green economic transition by integrating sustainability into national policies and investments. Leveraging Korean expertise and international collaboration, it promotes innovative solutions for pollution control, resource efficiency, and climate resilience. The initiative aims to achieve long-term sustainability while enhancing economic growth and improving social well-being. |
| Key Results | The program advanced Bangladesh's sustainable development by producing a Green Growth Action Plan, Clean Air 2030 roadmap, and air pollution report. It strengthened capacity through training, knowledge exchange, and awareness campaigns, expanded green financing access, and embedded international best practices into policy frameworks via a multi-sectoral platform and stakeholder collaboration. |

**K155 Reducing Health Risks through Improvement of Air Quality in Bishkek City of the Kyrgyz Republic**

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|---|---|
| Grant Title | Reducing Health Risks through Improvement of Air Quality in Bishkek City of the Kyrgyz Republic |
| Region | ECA |
| Countries | Kyrgyz Republic |
| Sector | Environment |
| Program Year | Year 8 |
| Amount | $350,000 |
| Status | Closed / Approved in 2020 |
| Program Goal | The program aimed to support the government in developing an Air Quality Master Plan, with an investment strategy to tackle pollution sources such as solid waste, household heating, and transport emissions. By leveraging international expertise, the program provided technical knowledge, strengthened institutional capacity, and advanced investment planning. These efforts equipped Bishkek with the tools to adopt sustainable and cost-effective air quality |

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| | management measures that protect public health and foster long-term environmental resilience. |
| Key Results | The program prioritized air pollution investments, addressing Bishkek's environmental challenges. It delivered a Master Plan for long-term policy and green infrastructure financing, strengthened institutional capacity through knowledge exchange with Korea, and raised public awareness of cleaner heating and waste practices—advancing urban development and reducing Bishkek's reliance on high-emission energy sources. |

**K154 Supporting Identification of Riverine and Coastal Plastics Waste Management Solutions in Mekong Countries: Technology, Innovation, and Impacts**

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|---|---|
| Grant Title | Supporting Identification of Riverine and Coastal Plastics Waste Management Solutions in Mekong Countries: Technology, Innovation, and Impacts |
| Region | East Asia and Pacific (EAP) |
| Countries | Cambodia, Lao PDR, Myanmar, Thailand, Vietnam |
| Sector | Environment |
| Program Year | Year 8 |
| Amount | $400,000 |
| Status | Closed / Approved in 2020 |
| Program Goal | This program supports Mekong countries in managing plastic waste in riverine and coastal areas through effective policies and investment strategies. By leveraging Korean expertise and international collaboration, it promotes recycling innovations, technical assistance, and stakeholder knowledge exchange to strengthen waste management frameworks and drive sustainable economic opportunities in the plastics sector. |

**K138 Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda**

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|---|---|
| Grant Title | Pollution Solutions for Lao PDR's Green Growth Policy and Investment Agenda |
| Region | East Asia & Pacific |
| Countries | Lao PDR |
| Sector | Environment |
| Program Year | Year 7 |
| Amount | $700,000 |
| Status | Closed / Approved in 2019 |
| Program Goal | This grant supported Lao PDR’s green growth transition by addressing pollution through policy reform, capacity building, and targeted investments. It advanced waste management, air quality, and environmental fiscal tools, promoted ICT for monitoring, and |

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| | fostered sustainable tourism. Collaboration with Korean institutions enhanced resilience, resource efficiency, and long-term environmental and economic development. |
| Key Result | Delivered landfill pre-feasibility studies, air quality management roadmap, and regulatory frameworks for wastewater fees, taxes, and incentives. It assessed ICT solutions like recycled plastic roads, promoted behavioral change on waste burning, and advanced green tourism concessions. Communication campaigns and training built public and institutional capacity, while fiscal reforms and technology adoption improved efficiency, resilience, and competitiveness for sustainable economic growth. |

**K137 Action on Circular Economy for Green Growth in Uzbekistan and Kazakhstan**

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|---|---|
| Grant Title | Action on Circular Economy for Green Growth in Uzbekistan and Kazakhstan |
| Region | Europe and Central Asia |
| Countries | Uzbekistan, Kazakhstan |
| Sector | Environment |
| Program Year | Year 7 |
| Amount | $500,000 |
| Status | Closed / Approved in 2019 |
| Program Goal | The program promoted circular economy models in Uzbekistan and Kazakhstan to strengthen green growth through regulatory reforms, stakeholder engagement, and Korea-led knowledge exchange. It developed action plans, piloted green finance tools, and introduced recycling, eco-design, and waste-to-energy solutions, enhancing competitiveness, job creation, and sustainable industrial practices in both countries. |
| Key Result | Delivered Circular Economy Action Plans, feasibility studies, and technical training in both countries. It supported Extended Producer Responsibility (EPR) collaboration, identified disruptive technologies, and assessed green finance options, including concepts for green bonds. Knowledge exchange activities fostered regional cooperation, while evidence-based analytical work and guidance tools equipped policymakers and World Bank staff. The results improved resource productivity, strengthened resilience, and enhanced competitiveness through industrial symbiosis. |

**K129 Catalyzing Green Investments in Pakistan**

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|---|---|
| Grant Title | Catalyzing Green Investments in Pakistan |
| Region | South Asia |
| Countries | Pakistan |

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|---|---|
| Sector | Environment |
| Program Year | Year 6 |
| Amount | $400,000 |
| Status | Closed / Approved in 2018 |
| Program Goal | This grant promoted sustainable environmental practices and green growth in Punjab by addressing pollution and waste challenges. Leveraging Korea's expertise, it enhanced policy frameworks, supported industrial estate strategies, and improved SME financing. Through collaboration and knowledge sharing, the initiative advanced eco-friendly practices, resilience, and long-term environmental and economic sustainability. |
| Key Result | Delivered an integrated solid waste management strategy, a regulatory framework for sustainable industrial estates, and diagnostic reports for green PPPs and SME financing. It built bank capacity for green lending and organized exchanges with Korea, Afghanistan, and other provinces. These actions improved waste and resource efficiency, enhanced industrial symbiosis, reduced environmental risks, and positioned Punjab industries to meet global sustainability standards while fostering resilient, inclusive growth. |

**K128 Blue Economy**

| | |
|---|---|
| Grant Title | Blue Economy |
| Region | Middle East & North Africa |
| Countries | Tunisia |
| Sector | Environment |
| Program Year | Year 6 |
| Amount | $300,000 |
| Status | Closed / Approved in 2018 |
| Program Goal | This grant enhanced Tunisia's environmental sustainability by addressing coastal erosion, climate vulnerability, and ecosystem degradation. It strengthened institutional and community capacity, integrated climate-resilient strategies into development frameworks, and promoted investment in sustainable coastal management. Through knowledge-sharing and adaptation approaches, the initiative supported long-term resilience and climate-proofed infrastructure and governance. |
| Key Result | Produced multi-hazard risk assessments that established a biophysical evidence base for coastal hazards. Developed coastal resilience investment plans highlighting climate-sensitive sectors and priority hotspots. Facilitated regional and Korea-South knowledge exchanges to share best practices. |

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| | Strengthened institutional capacity by identifying adaptation options, advancing policy-based planning, and enhancing investment readiness for both public and private sector engagement in resilience projects. |

**K127 Sustainable Solid Waste & Plastic Management in Myanmar and Cambodia**

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|---|---|
| Grant Title | Sustainable Solid Waste & Plastic Management in Myanmar and Cambodia |
| Region | East Asia & Pacific |
| Countries | Myanmar, Cambodia |
| Sector | Environment |
| Program Year | Year 6 |
| Amount | $700,000 |
| Status | Closed / Approved in 2018 |
| Program Goal | This grant addressed solid waste management (SWM) challenges in Myanmar and Cambodia through policy reforms, infrastructure investments, and capacity-building. It enhanced decision-making, promoted public awareness, and fostered collaboration with Korean institutions. Outcomes included improved waste operations, reduced emissions, and strengthened governance, supporting public health, tourism, and long-term sustainable development. |
| Key Result | Conducted economic impact assessments that quantified health and tourism-related losses from unmanaged waste. Designed investment options, pre-feasibility studies, and financial recovery models to support sustainable operations. Formulated solid waste development and investment plans for participating countries. Facilitated regional knowledge exchange with Korea and partners, strengthened institutional capacity, advanced regulatory reforms, and embedded resilience, climate mitigation, and citizen participation into national waste management systems. |

**K115 Solid Waste in Mountainous Regions of India, Pakistan, and Nepal**

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|---|---|
| Grant Title | Solid Waste in Mountainous Regions of India, Pakistan, and Nepal |
| Region | South Asia |
| Countries | India, Pakistan, Nepal |
| Sector | Environment |
| Program Year | Year 5 |
| Amount | $500,000 |
| Status | Closed |

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| Program Goal | This grant developed sustainable solid waste management models for mountainous regions in India, Pakistan, and Nepal. It addressed urbanization, tourism-related waste, and environmental threats through tailored strategies, capacity building, and stakeholder training. The initiative improved waste efficiency, reduced emissions, protected natural resources, and enhanced regional competitiveness through international collaboration and technical expertise. |
| Key Result | Prepared comprehensive reports on current waste practices and sustainable management models for mountainous areas. Designed implementation plans for pilot deployment in selected cities and regions. Established capacity building and training programs for municipal governments and agencies, enhancing long-term institutional capabilities. Advanced scientific waste management practices that improve resource efficiency, mitigate GHG emissions, and position the Himalayan region for environmentally sustainable tourism and economic competitiveness. |

**K112 Green Growth via Green Infrastructure Construction**

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|---|---|
| Grant Title | Green Growth via Green Infrastructure Construction |
| Region | Global |
| Countries | Global |
| Sector | Environment |
| Program Year | Year 5 |
| Amount | $650,000 |
| Status | Closed / Approved in 2017 |
| Program Goal | This program advances sustainable infrastructure by introducing real-time environmental, health, and safety (EHS) monitoring tools that are integrated into World Bank projects. It strengthens capacity through e-learning and training and fosters global knowledge exchange via the Knowledge Platform on Environmentally Sustainable Construction (KPESIC). By combining regulatory compliance, innovative technologies, and international partnerships, the program delivers practical solutions for stakeholders working to implement greener, safer, and more resilient infrastructure. |
| Key Results | Developed and deployed IT tools for real-time monitoring of environmental, health, and safety (EHS) performance in infrastructure projects, improving transparency and decision-making. Delivered e-learning programs and capacity-building activities to strengthen institutional capacity for green infrastructure design, sustainable construction, and |

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| | procurement. Identified and disseminated innovative materials, technologies, and equipment (MTE) through the Knowledge Platform on Environmentally Sustainable Infrastructure Construction (KPESIC), promoting knowledge transfer and replication. Enhanced efficiency and resilience across World Bank-financed and non-Bank projects by fostering compliance, reducing emissions, and promoting sustainable practices within the global construction sector. |

**K111 Learning from Korea's Green Growth Experience to Tackle Environmental Health Challenges**

| | |
|---|---|
| Grant Title | Learning from Korea's Green Growth Experience to Tackle Environmental Health Challenges |
| Region | Global |
| Countries | Global |
| Sector | Environment |
| Program Year | Year 5 |
| Amount | $875,000 |
| Status | Closed / Approved in 2017 |
| Program Goal | This grant aimed to institutionalize green growth knowledge by equipping World Bank staff and client countries to integrate environmental health into development strategies. It enhanced policymakers' capacity to assess pollution risks and to design and implement green growth initiatives that address air, water, and soil contamination through targeted strategies. |
| Key Results | Developed multilingual online courses and produced analytical resources to support green growth strategies. Facilitated study tours and peer-learning events sharing best practices in pollution management. Strengthened institutional capacity by equipping policymakers with training, technical tools, and data-driven frameworks, enabling integration of environmental health into development strategies and alignment with climate goals. |

**K95 Investing in green growth under uncertainty**

| | |
|---|---|
| Grant Title | Investing in green growth under uncertainty |
| Region | Global |
| Countries | Global |
| Sector | Climate Change (Global Initiatives) |
| Program Year | Year 4 |
| Amount | $2,475,180 |
| Status | Closed / Approved in 2016 |

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| Program Goal | The program integrated climate resilience into World Bank infrastructure planning across water, hydropower, and transport sectors using Decision Tree Frameworks. It supported lending operations, training, and technical assessments, built a global professional community, and fostered collaboration with Korean partners, contributing to $3 billion in lending and climate-resilient infrastructure development. |
| Key Result | Delivered Decision Tree Framework training to World Bank staff, government officials, and academics, creating a global community of resilience practitioners. Developed hydropower guidelines, transport standards, and resilience-informed investment plans. Supported at least $3 billion in World Bank lending projects by embedding climate and disaster resilience. Established collaborative networks with governments, universities, and Korean partners, advancing best practices for resilient, green infrastructure planning worldwide. |

**K 94 Integrated Catchment Management for Sustainable Hydropower in Bhutan, Nepal, and Pakistan**

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|---|---|
| Grant Title | Integrated Catchment Management for Sustainable Hydropower in Bhutan, Nepal, and Pakistan |
| Region | Global |
| Countries | Bhutan, Nepal, and Pakistan |
| Sector | Environment |
| Program Year | Year 4 |
| Amount | $750,000 |
| Status | Closed / Approved in 2016 |
| Program Goal | This program develops methodologies to measure and value ecosystem services from watershed management and demonstrates their application in the Kali Gandaki (Nepal) and Mangla (Pakistan) watersheds, generating evidence on the economic and environmental benefits of green infrastructure. |
| Key Result | |

**K93 Resource Efficient Cleaner Production in South Asia**

| | |
|---|---|
| Grant Title | Resource Efficient Cleaner Production in South Asia |
| Region | SAR |
| Countries | Pakistan, India, and Bangladesh |
| Sector | Environment |
| Program Year | Year 4 |
| Amount | $600,000 |
| Status | Closed / Approved in 2016 |

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| Program Goal | The program promoted RECP among SMEs in Bangladesh, India, and Pakistan to reduce environmental impacts and address industrial challenges. It improved resource efficiency, cut emissions, and created jobs through life-cycle analyses, policy support, and regional forums. Capacity-building and technical assistance established local institutions to sustain green manufacturing practices. |
| Key Result | Completed baseline assessments and regulatory framework reviews that informed RECP policy design. Launched capacity building programs to establish local institutional anchors for long-term sustainability. Designed financing mechanisms leveraging concessional and commercial channels to support RECP technology and interventions. Strengthened regional knowledge sharing through forums, enabling governments to exchange best practices. Enhanced SME competitiveness while supporting national climate goals through pollution reduction, efficiency gains, and GHG mitigation. |

**K92 Green Growth Platform for Lao PDR**

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|---|---|
| Grant Title | Green Growth Platform for Lao PDR |
| Region | EAP |
| Countries | Lao PDR |
| Sector | Environment |
| Program Year | Year 4 |
| Amount | $900,000 |
| Status | Closed / Approved in 2016 |
| Program Goal | The program supported Lao PDR in implementing its National Green Growth Strategy by strengthening cross-sectoral coordination and policy coherence. It developed a Green Growth Policy Action Matrix, provided technical inputs, and facilitated structured dialogue. These efforts clarified mandates, guided implementation, and laid the foundation for inclusive, sustainable, and resilient development. |
| Key Result | Organized technical workshops, study tours, and structured dialogues that fostered cross-sector consensus on green growth policies. Produced analytical studies on sustainable agriculture, nature-based tourism, certification systems, and urban service gaps. Developed technical notes, roadmaps, and policy recommendations that informed national strategies. Strengthened government capacity to apply integrated spatial planning, improve environmental and social safeguards, and mainstream green growth principles into World Bank lending and national development frameworks. |

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**K91 Support to the Colombia Green Growth Policy**

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|---|---|
| Grant Title | Support to the Colombia Green Growth Policy |
| Region | LAC |
| Countries | Colombia |
| Sector | Environment |
| Program Year | Year 4 |
| Amount | $500,000 |
| Status | Closed / Approved in 2016 |
| Program Goal | The program supported Colombia's transition to a green growth economy by aligning with the 2014 Green Growth Policy and providing technical assistance, economic analysis, and regulatory guidance. It prioritized policy actions, investment needs, and economic instruments to guide sustainable development through 2030, establishing indicators aligned with the SDGs. Sector assessments in transport, energy, water, and governance shaped cross-cutting policies and interventions to boost resilience, efficiency, and competitiveness. By fostering stakeholder engagement and partnerships with UNEP, IADB, GGGI, and European development banks, the initiative laid a strong foundation for long-term green growth strategies, equipping Colombia with the tools to scale up sustainable investments, improve policy coherence, and strengthen economic resilience. |
| Key Result | Conducted macroeconomic and sectoral analyses that defined Colombia's green growth baseline and potential pathways. Developed indicators, targets, and investment estimates to guide long-term policy. Produced studies on economic tools and reforms, identifying feasible improvements in regulatory frameworks. Facilitated validation workshops and consensus building with ministries and stakeholders. Generated draft policy proposals, including the 2030 Green Growth Policy, aligned with SDGs and designed to attract investment and private sector participation. |

**K90 Promoting equitable access to sustainable development in Bolivia and Mexico**

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|---|---|
| Grant Title | Promoting equitable access to sustainable development in Bolivia and Mexico |
| Region | LAC |
| Countries | Bolivia, Mexico |
| Sector | Environment |
| Program Year | Year 4 |
| Amount | $700,000 |
| Status | Closed / Approved in 2016 |

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| Program Goal | The program advanced equitable green growth in Bolivia and Mexico by addressing pollution, water and energy efficiency, and resilience for vulnerable communities. Leveraging Korea's expertise, it strengthened policy frameworks, investment planning, and stakeholder engagement, promoting participatory decision-making and scalable solutions for inclusive, sustainable development and future green growth investments. |
| Key Result | Identified and prioritized interventions to control water and air pollution, remediate contaminated sites, and prevent waste-related flooding in Bolivia. Assessed carbon pricing and subsidy reform options to strengthen Mexico's climate policy. Improved environmental information systems (SNIA), developed monitoring guidelines, and created citizen engagement platforms. Facilitated hackathons, technical studies, and knowledge exchanges that fostered innovation, enhanced governance, and positioned both countries to scale inclusive green growth strategies. |

**K64 Air and Water Pollution Management Program**

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|---|---|
| Grant Title | Air and Water Pollution Management Program |
| Region | Middle East & North Africa |
| Countries | Egypt |
| Sector | Environment |
| Program Year | Year 3 |
| Amount | $450,000 |
| Status | Closed / Approved in 2015 |
| Program Goal | The program supported Egypt's green economy transition by addressing air and water pollution through sanitation improvements, cost-effective technologies, and policy reforms. It advanced rural solutions, built technical capacity, and integrated environmental concerns into planning. Key outcomes included updated COED analysis, natural capital policy notes, and a CGE model for sustainable growth. |
| Key Result | Updated the Costs of Environmental Degradation (COED) study for Egypt, providing an economic foundation for policy decisions. Identified and prioritized scalable technological options for reducing agricultural waste burning and improving rural sanitation. Developed policy notes and initiated a Computable General Equilibrium (CGE) model that incorporates pollution management into national accounts. Strengthened the capacity of the Ministries of Environment and Planning, aligning findings with ongoing Bank operations in rural sanitation. |

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**K63 Investments in Environmental Management and Green Growth**

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|---|---|
| Grant Title | Investments in Environmental Management and Green Growth |
| Region | Latin America & Caribbean |
| Countries | Peru |
| Sector | Environment |
| Program Year | Year 3 |
| Amount | $430,000 |
| Status | Closed / Approved in 2015 |
| Program Goal | The program supported Peru's environmental sustainability and aquaculture management by addressing pollution, deforestation, and overfishing. It enhanced analytical capacity, modernized fisheries governance, and produced technical studies and a Project Appraisal Document to guide investments. These efforts improved data quality, transparency, and stakeholder engagement for sustainable development and policy reform. |
| Key Result | Prepared technical studies and analytical work that informed Peru's environmental and aquaculture policies. Supported the design and approval of large-scale investment projects, including the *Investments for Environmentally Sustainable Development Project*. Improved mechanisms for identifying environmental priorities and incorporating them into decision-making. Established systems for better environmental data collection, certification of laboratories, and public reporting, thereby enhancing transparency, accountability, and long-term institutional capacity for sustainable natural resource management. |

**K62 Developing Integrated and Green Solutions for Municipal Solid Waste Management in Kazakhstan**

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| Grant Title | Developing Integrated and Green Solutions for Municipal Solid Waste Management in Kazakhstan |
| Region | Europe and Central Asia |
| Countries | Kazakhstan |
| Sector | Environment |
| Program Year | Year 3 |
| Amount | $200,000 |
| Status | Closed / Approved in 2015 |
| Program Goal | The program aimed to establish efficient national solid waste management in Kazakhstan by reforming tariff structures, promoting recycling innovations, and strengthening public–private partnerships. Activities included workshops, study tours, and technical studies. Outcomes featured a policy note, |

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| | project documents, and capacity-building efforts, providing a strategic roadmap for sustainable nationwide implementation. |
| Key Result | Organized workshops and study tours that enabled Kazakh officials to learn from Korea's solid waste management practices. Produced policy notes on financing, cost recovery mechanisms, and tariff structures tailored to Kazakhstan's context. Developed technical recommendations on recycling and treatment technologies adapted from Korean models. Supported preparation for the Kazakhstan SWM lending project, including institutional and infrastructure components, thereby embedding international best practices into national waste management reforms. |

**K61 Scaling up Implementation of Vietnam's Green Growth Priorities**

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| Grant Title | Scaling up Implementation of Vietnam's Green Growth Priorities |
| Region | East Asia & Pacific |
| Countries | Vietnam |
| Sector | Environment |
| Program Year | Year 3 |
| Amount | $780,100 |
| Status | Closed / Approved in 2015 |
| Program Goal | The program aims to accelerate Vietnam's transition toward a low-carbon, climate-resilient, and resource-efficient economy by strengthening the policy foundation for green growth. It supports the Government in operationalizing its climate change and green growth agendas through technical analysis, investment planning, and multi-sector coordination. By improving policy design, identifying sector-specific and cross-sector opportunities, and establishing transparent monitoring systems, the program seeks to harmonize economic development with environmental sustainability and climate resilience. |
| Key Result | Developed targeted technical notes, policy inputs, and analytical studies that advanced reforms on GHG reduction, energy efficiency, waste management, air quality, and industrial greening. Facilitated multi-stakeholder consultations and international knowledge exchange to align national reforms with global best practices. Established annual reporting protocols and a transparent monitoring system to track progress of the Post-2015 Climate Change and Green Growth Response Support Program. Identified priority investment opportunities for air quality management, waste recycling, and |

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| | eco-industrial zones, strengthening the pipeline for future green growth financing. Built cross-sector governance platforms and enhanced institutional capacity to integrate climate and green growth considerations across Vietnam's policy and planning processes. |

**K60 West Africa Fishery Partnership for Competitiveness and Sustainability**

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| Grant Title | West Africa Fishery Partnership for Competitiveness and Sustainability |
| Region | Africa |
| Countries | West African Regions |
| Sector | Environment |
| Program Year | Year 3 |
| Amount | $670,000 |
| Status | Closed / Approved in 2015 |
| Program Goal | The program promoted food security and economic growth in West Africa through sustainable fisheries management. It advanced ICT-based monitoring, piloted surveillance technologies, and strengthened governance via stakeholder consultations and international knowledge exchange. Outcomes shaped World Bank operations and extended influence on Indonesia, the Pacific Islands, and the Eastern Pacific. |
| Key Result | Developed technical notes, studies, and policy recommendations to guide climate change and green growth reforms. Organized consultations and knowledge-sharing events that incorporated international best practices. Produced annual reports and reporting protocols that enhanced transparency and monitoring of the Post-2015 CC-GG Response Support Program. Identified investment opportunities in air quality management, waste recycling, and eco-industrial zones, equipping the government with tools to integrate green growth into sectoral and national development strategies. |

**K1 West Africa Fishery Partnership for Competitiveness and Sustainability**

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| Grant Title | Decision Making Under Uncertainty |
| Region | Global |
| Countries | Global |
| Sector | Environment |
| Program Year | Year 1 |
| Amount | $1,150,000 |
| Status | Closed / Approved in 2013 |

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However, it does not represent the work of the WBG, nor do the view or perspectives expressed herein reflect those of the WBG KGGTF.

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| Program Goal | The program aims to advance the use of Robust Decision Making (RDM) as a practical methodology to help countries plan resilient, cost-effective investments under deep uncertainty. By applying RDM to climate-sensitive water resource decisions, the program seeks to strengthen long-term planning against unpredictable climate, economic, and demographic conditions. Ultimately, it intends to equip governments and utilities with tools to identify robust strategies, prioritize data needs, and make smarter investments that remain effective across a wide range of future scenarios. |
| Key Result | Applied qualitative RDM methods to support Peru's water utility (SEDAPAL) in stress-testing investment plans and identifying major uncertainties shaping long-term water decisions. Piloted and validated new decision-support tools that help utilities evaluate strategies despite limited data, laying groundwork for future quantitative modeling. Enhanced institutional readiness for uncertainty-informed planning by clarifying where improved data, modeling, and scenario analysis would yield the highest value. Strengthened global learning by demonstrating how RDM can be applied to real-world water challenges, building on earlier Korea-supported work in Ho Chi Minh City and informing future KGGTF-related investment programs. |

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