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MAGAZINE

KOICA

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COVER STORY
Responding to water scarcity in Kenya

THEMATIC FOCUS
Strengthening climate adaptation and resilience in Guatemala

ODA TRENDS
ESG management in the context of development cooperation

PROJECT REVIEW
Toward an integrated complaint management system in Indonesia

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Rebalancing power dynamics in international development

GREEN ODA

For the future of mankind and the planet



Looking to the future, we sow seeds of hope around the world.

Our planet continues to suffer from disease, climate change, water scarcity, and food insecurity.
As one of the top 10 global economies, Korea will contribute to a better future based on our capabilities and vision.

KOICA will cooperate with developing countries and the international community in various areas including education, health & medical services, transportation, science, technology & innovation, and energy.

KOICA was established in 1991 to support the economic and social development of developing countries. We implement Korea's Official Development Assistance (ODA) including bilateral projects, the dispatch of volunteer groups, fellowship program, multilateral projects with international organizations, civil society and private sector partnerships, disaster response, and emergency humanitarian assistance.

KOICA

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Green ODA, leading the joint climate response



Another year has hastened to a close. Looking back on 2022, we witnessed the exacerbation of global crises from climate change and natural disasters to the Russia-Ukraine War, global refugee issue, and persisting COVID-19 pandemic. Amid such situations of global crisis, it is becoming more important than ever to expand development cooperation finance, include diverse actors, and adopt an integrated approach. As we respond jointly to climate change, which threatens the very survival of mankind, green ODA (Official Development Assistance) in particular is a key topic in development cooperation.

Meanwhile, KOICA has been achieving continued growth, with its organizational budget reaching one trillion won this year. In line with the policies set forth by the government of the Republic of Korea, KOICA has steadfastly expanded the ratio of its green ODA; in 2021, the agency established the Mid-term Strategy for Climate Change Response (2021-2025) to actively support developing countries in building capacity for climate response. While climate change is attributable to the industrial activities of developed countries, its consequences are heavily impacting developing countries, reinforcing the view that developed countries need to take accountability for such damages. KOICA is therefore exploring ways to support the climate response of developing countries through ODA, and especially seeking to actively support Least Developed Countries (LDCs) and small island countries most vulnerable to the climate crisis.
Accordingly, we have spotlighted the theme of green ODA in MAGAZINE KOICA vol. 2. Our green ODA strategy goes beyond single projects to cross-cut almost the entirety of our development cooperation activities. We are actively expanding projects for the transition to low-carbon in developing countries through various methods, including support for solar energy infrastructure. In addition, KOICA is supporting the climate adaptation of citizens in developing countries and their protection from climate change-induced natural disasters through projects to restore mountains and soil in Guatemala's highlands, establish a flood alert and prediction system in Indonesia, and build a platform for geospatial air pollution information in Asia. Through partnerships with the Green Climate Fund (GCF), the Global Green Growth Institute (GGGI), and other global organizations, KOICA is also expanding best-practice projects and maximizing their impact.
Furthermore, KOICA values the importance of environmental management, which is clearly visible in its operations and management. In line with the carbon neutral policy of the government of the Republic of Korea, we established the Basic Plan for Environmental Management toward 2050 Net Zero (2021-2025) in 2021. Based on this plan, we are minimizing carbon emissions in our agency operations, expanding the low-carbon innovative ODA ecosystem, and cooperating with citizens and local organizations to implement environmental management.
Our efforts to reduce greenhouse gas emissions and strengthen climate response in developing countries have produced visible outcomes. In 2021, KOICA contributed to achieving the global carbon neutrality goal by reducing emissions through cooperative projects in climate change and environment, and expanded the proportion of green ODA projects among new projects to more than 20%. Through accreditation from the Green Climate Fund (GCF) as an implementing entity and other activities, KOICA is also making steady efforts to attract global climate funds. Our signature green ODA projects and outcomes are detailed in this second volume of MAGAZINE KOICA.
Since its establishment in 1991, KOICA has been committed to creating social value for a safe, inclusive, peaceful, and just society on a global level. Going forward, KOICA will continue to devote itself to its mission of reducing poverty, protecting human rights, and contributing to social and economic development in developing countries. KOICA also seeks to lead the domestic development cooperation ecosystem and contribute to its inclusive growth. Based on its core values of 5P (People, Peace, Prosperity, Planet, Partnership), KOICA will be at the forefront of projects for climate change response, on which hinges the common destiny of mankind.

There is still a long way to go. Because this is a path that we cannot travel alone, we will walk together with our partners. We will strive to identify multi-dimensional partnerships including triangular cooperation, solidarity with international organizations, and collaboration with private companies. We invite readers of MAGAZINE KOICA join us in our journey. Thank you.

Acting President of KOICA
Lee Yun-young
이 윤영

Turkana community sanitary environment improvement project in Kenya

Responding to water scarcity in Kenya

Turkana county of Kenya has been severely impacted by climate change-driven extreme drought. KOICA therefore sought solutions to the water shortage by interweaving four ODA projects being carried out in Turkana. Our sustainable and effective solutions are introduced in this article.

Climate crisis threatens livelihood and survival in Kenya

Located in East Africa and facing the Indian Ocean, Kenya resembles the shape of a rhinoceros horn and has hence been nicknamed the Horn of Africa. Most people earn a living from agriculture and stock farming. Affected by hyperthermal conditions, dryness, and swarms of locusts brought on by the climate crisis, however, the region has experienced unprecedented drought and famine in the past few years. Insufficient water supplies for drinking water, agriculture, and stock farming have led to a 70% decrease in crop harvest, driving the Kenyan government to declare a national emergency in September 2021.

Being the driest and lowest-income county in Kenya, Turkana sees the drought and resulting water and food shortages and grassland destruction as threats not only to the livelihood of its people but also their survival. Extreme water shortages, alongside 60-70% reductions in annual precipitation and the drying of 90% of surface water are threatening food security. They are also creating a multitude of socioeconomic problems such as competition for grassland, struggles to secure water sources for survival, exacerbated female labor for water supply procurement, and increases in diseases attributable to clean water and food shortages. What is more, Turkana is home to the Kakuma and Kalobeyei settlements for refugees from neighboring countries such as Somalia. The water shortage has aggravated competition between locals and refugees, hence triggering disputes.

KOICA thus sought to support Turkana in weathering these immediate challenges through the building of capabilities and resilience in response to the uncontrollable climate crisis and extreme drought. In this regard, KOICA interweaved the four ODA projects it had been carrying out for integrated solutions. The four projects are: the drinking water and sanitation improvement project to empower the Kenyan county of Turkana to respond to climate change (2019-2023), the Turkana community sanitary environment improvement project in Kenya (2021-2022), the integrated drought response capacity building project for refugees and displaced people in the Kalobeyei settlement (2022-2024), and the community-based integrated project for humanitarian support and development by UNHCR Kenya (2020-2023).

Scraping up groundwater to address the most urgent problem: water shortage

The most urgent and imminent challenge brought by the extreme drought was inaccessibility to clean water. KOICA, in partnership with UNICEF, launched the drinking water and sanitation improvement project to empower the Kenyan county of Turkana to respond to climate change in 2019. Loima and Central Turkana were selected as the project sites, which were the least developed farm villages struggling with extreme malnutrition and little access to drinking water and supplies.

KOICA turned its attention to groundwater, as it is relatively less influenced by climate change than surface water. Kenya undergoes rainy and dry seasons over the year, and the rains of the wet seasons are heavy enough to form seasonal rivers and cause floods. However, the country's sandy soil cannot hold sufficient amounts of water, leading to groundwater quickly drying out.

KOICA aimed to prevent the loss of groundwater by installing sand dams and underground dams in water courses and seasonal rivers and make groundwater available all year around, by building an artificial research facility to hold the groundwater. Ten sand dams will have been built by the end of 2022. The project is on track with a progress rate of over 90%. When completed, groundwater collected during the rainy season will be ready for use in the dry season for many purposes, resolving the water shortage to some degree.

The groundwater pump facilities (wells) have also been refurbished. In most areas, solar-powered pumps that run without grid connections, rather than manual-operated pumps, have been installed. The solar-powered pumps are a good fit for the project areas that feature an ample amount of sunshine, and they allow for supplying water to distant areas through pipelines. The eco-friendly power source is free from energy depletion issues and environmental pollution caused by greenhouse gas emissions. In addition, solar-powered sensors warn the users of system operation and failure, hence an advantage in maintenance. These are important merits that contribute to the sustainability of the facilities.

Thanks to these facilities, the locals who had to spend six hours daily drawing water from the river now have access to clean water in an hour. The water supply facilities are managed by the water resource users' committee, a water resource governance body in Turkana's farming areas, and each household pays 100 Kenyan shillings (~ 1 USD) monthly for facility maintenance and repairs.

"From this project, I learned about the importance of taking an integrated approach to health, nutrition, education, livelihood, and many other areas." said Wangui Njoroge, a Senior Coordinator at the KOICA Kenya Office. "This project has improved people's accessibility to water, and this in turn has led to significant improvements in their lives, including increases in school attendance, better health, reductions in malnutrition, and increased income."


Photo 1

Building toilets to reduce the polluting of water sources caused by open defecation

The project was coupled with the Turkana community sanitary environment improvement project in Kenya lauched in 2021, which considered the sanitary environment, the close interconnection between water resources and sanitation, and strong demands from the county government. Having no toilets, people had often defecated in the river or stream, causing pollution of water sources. This in turn cased locals to be exposed to waterborne pathogens such as typhoid and suffer from stomachache or diarrhea. Even worse, children and women were exposed to various threats in the process.

With this project, KOICA aimed to improve basic sanitary environments in the area, for example through toilets and hand washing facilities and the offering of sanitary education to tackle waterborne infections. The project was executed by international aid and development NGO Team & Team. First of all, project managers focused on sanitary education for the residents to reduce open defecation and improve the health environment in Turkana. For this purpose, they visited 380 homes in Lokore in 2021 and 990 homes in Lolupe in 2022.

The project managers took a community-led total sanitation (CLTS) approach to help locals understand that open defecation was a serious problem and support locals in building sanitary facilities on their own. This led to 991 toilets being built – 283 in 2021 and 708 in 2022. To ensure continued and organized sanitary education, KOICA designated a community health volunteer (CHV) for each village. The agency also organized CLTS facilitator training. To date, 23 expert facilitators and 63 community facilitators have taken this training – 10 and 13 expert facilitators in 2021, and 20 and 43 community facilitators in 2022, respectively.

Climate-smart agriculture and grassland restoration for greater resilience

The integrated drought response capacity building project for refugees and displaced people in the Kalobeyei settlement started in 2022. The key objective of this project is to build on refugees' and displaced people's resilience to the chronic disaster of drought. More concretely, it aims to improve accessibility to water in the refugee settlement and ensure food security for the refugees and locals with climate-smart agriculture and stock farming in connection with other projects ongoing in Turkana. The project operator, World Vision, is conducting project activities in Kalobeyei (including Refugee Settlement Village 3).


Photo 2

KOICA and World Vision are working together to install four standard stand pipes in Refugee Settlement Village 3. Work is ongoing to install a multipurpose water tank (10,000 liters), a kiosk, and a solar pump in the village for the displaced. The project also involves building or refurbishing three reservoirs for long-term storage of rainwater collected from seasonal rivers during the rainy season. Each reservoir will cater to 1,200 households and 9,000 heads of cattle and will include auxiliary facilities such as water stands for cattle and multipurpose water points. Each village will also organize a water resource management committee to ensure the proper management of these facilities. In addition, the committees will be offered regular training on operation and management.

Agricultural and stock farming education for adaptation to drought and climate change also forms part of the project. Soil improvement courses to prevent land devastation and agricultural water preservation courses are offered to 320 refugees and local residents. The courses also cover harvest management and stock management such as chickens and goats. Four course series will be organized annually, and the course takers will be eligible for in-kind support such as drought-resistant seeds, farming tools, and domestic animals.

Efforts are underway to restore grassland devastated by drought and create



Photo 3

new grassland. The availability of grassland to feed animals is indispensable for stock farming. Bracing for extreme drought, World Vision planted Buffel grass, a dryland plant that sprouts with only a small amount of water. The locals also organized a natural resource management committee to manage and maintain the environment built with their own hands. As an official government-registered organization, the committee will continue playing its roles even after the project. Aidah Mtende, a project participant, said, "Refugees and locals are facing the common enemy, drought. What really empowers us amidst this challenge is the fact that the whole world is working together to adapt and respond to climate change."

Meanwhile, KOICA launched the community-based integrated project for humanitarian support and development by UNHCR Kenya in 2020 as part of its efforts to ease tension between the refugees and displaced people (natives) and maintain peace in Turkana. For peaceful coexistence between the two communities, the project operator UNHCR is conducting multifaceted activities including the improvement of healthcare service accessibility for locals and the prevention of gender-based violence.

Success of the integrated approach in tackling water shortage and building cooperative systems

Together, these four individual projects encompass a range of issues in Turkana including water resources, health and sanitation, response to climate change, and coexistence between refugees and locals. KOICA's integrated approach has already produced significant outcomes.

First of all, the drinking water and sanitation improvement project to empower Turkana and respond to climate change aims to build 76 wells (water supply facilities), 52 solar-powered pumps, and 10 sand dams. By the end of the project in December 2022, 148,098 people will benefit from these facilities. Most notably, the number of school attendees increased from 97 in 2017 to 394 in 2020 as children no longer needed to travel far to draw water.

Taking the CLTS approach, the Turkana community sanitary environment improvement project in Kenya resulted in 1,370 toilets built and the proportion of households using toilets surged from 7.3% to 42%. In addition, 1,734 residents have received physiology and sanitary management education – 518 people in 2021 and 1,216 people in 2022.

The integrated drought response capacity building project for refugees and displaced people in the Kalobeyei settlement will benefit more than 36,000 people. So far, 320 people (160 refugees and 160 displaced persons) have received climate-smart agriculture and stock farming education. Throughout the project, 30 acres (approximately 123,000 m^2) of grassland will be restored, 10 acres per year.

What speaks louder than these statistics from the projects is change brought to the daily lives of the locals. Drinking water supply and sanitary education contributed to a reduction in waterborne diseases, and improved sanitary environment led to higher qualities of life. Children who used to spend more than six hours drawing water from the river returned to school, and no longer suffer from diarrhea. People are healthier, and so are animals. Recognizing these outcomes, UNICEF decided to apply these projects to Samburu County and other areas.

Another important aspect is that a cooperative system to integrate and interconnect projects of similar nature or with similar objectives has been established in this area. Team & Team and World Vision recognized each other's expertise in drinking water development and built a positive partnership to organize regular meetings and conduct joint project site monitoring. In June, KOICA, Team & Team, and World Vision had a meeting to discuss preliminary consultation for the projects, joint project site monitoring, agency-specific project site visits and progress checking, post-project consultation for future project management, and cooperation for new project development, hence identifying opportunities for the development of the entire county. The health commissioner of Kakuma Town who was present at this meeting said, "I highly appreciate the major accomplishments of the projects pursued by KOICA. I look forward to continued cooperation and stronger support to benefit more residents."

Moving forward from interweaving its own projects, KOICA plans to closely work with other donor agencies to further expand the water supply and management systems in Turkana. The agency is already discussing cooperation with the Japanese International Cooperation Agency (JICA) for the development of new projects in 2024. The two agencies have exchanged official notes to confirm JICA's expert engagement and the prospect of potential joint projects.

Amid the ever-worsening climate crisis, joint efforts may not be able to offer absolute solutions. They do, however, offer significant breakthroughs for people whose lives are at stake in the turmoil of the unprecedented climate crisis. KOICA will continue to closely cooperate with international organizations, private partners that are experts in their respective fields, and other donor organizations to actively respond to the global crisis. K

Photo 1 The project to improve drinking water sanitation in Turkana, Kenya to strengthen climate resilience, undertaken by KOICA and UNICEF

Photo 2 World Vision project site (Nalapatui Water Pan)

Photo 3 Wangui Njoroge, Senior Coordinator at the KOICA Kenya Office

Photo 4 Aidah Mtende is taking part in the integrated drought response capacity building project for refugees and displaced people in the Kalobeyei settlement



Photo 4

Yeon Jeho,
Country Director,
KOICA Pakistan Office

Climate crisis in developing countries, and our responsibility



Mr. Ali Akbar, who lives in the Sindh province of southern Pakistan, lost his mother to malaria in early October. A major flood this summer devoured most of his village; the remaining puddles and reservoirs turned into a den for mosquitos, transmitting fatal pathogens such as malaria and dengue virus. What devastated him even more was that he could not have his mother's last wish fulfilled. She had wanted to be buried side-by-side with her husband, who had died a year ago, but the graveyard remained waterlogged. Mr. Ali Akbar could do nothing but bury his mother in a hillside an hour's walk away.

This year, heavy downpours struck the middle and southern parts of Pakistan from July to September and led to unprecedented flood events. One third of a country that is roughly four times larger than the Korean Peninsula was inundated. The damage directly associated with the flood tallied up to 1,700 deaths, 33 million victims, and 40 billion dollars (56 trillion won). Though the rain stopped over a month ago, many of the affected areas remain flooded, and the resulting waterborne and mosquito-borne diseases have become another threat to flood victims. Furthermore, socioeconomic damages -- the collapse of agricultural infrastructure, the destruction of schools, hospitals and other educational and healthcare facilities, and the loss of bridges, roads, and other transportation networks -- are expected to exacerbate. Such conditions are increasing the risk of driving farmers in the affected areas toward poverty.

Pakistan is a major agricultural country. Agriculture accounts for 24% of its economy and provides jobs for 45% of the workforce. The country is the world's fifth largest producer of sugarcane and ranks seventh in wheat production, fifth in cotton production, sixth in onion production, and tenth in rice production. However, more than 500,000 head of livestock have died and a large number of seeds have been lost, meaning farmers will face challenges to their livelihoods even after the water finally recedes and the farmland becomes dry. The Pakistani government has provided each flood victim 25,000 rupees (approximately 150,000 won) in cash support, which allows the purchase of some daily necessities but does little else to alleviate the situation.

Depending on the region, amounts in precipitation were two- to five-fold compared to average years. Descriptions of a "biblical-scale flood" were by no means exaggerated. What caused this catastrophe? Among many possible sources, it is becoming increasingly difficult to deny that global warming and climate change driven by carbon emissions from human activities had a significant impact.

This summer, Pakistan and India experienced the worst heatwaves since the beginning of meteorological observations in 1901. Temperatures rose above the 50-degree Celsius line in some areas. Extreme heat was followed by extreme floods. Scientists say a one-degree rise in the average temperature leads to a 7% increase in moisture content in the air. The massive troves of moisture in the atmosphere of Pakistan had poured down as rain during the monsoon (or seasonal winds in the wet season in South Asia) season.

Another major cause of flooding was the rapid melting of glaciers in Pakistan's northern highlands, resulting in increases in river discharge. The country's north is home to glaciers, including the famous Siachen Glacier that spans a 70 km-long area. Melted water from the glaciers has been used as drinking and agricultural water for thousands of years. As the glaciers melt at increasingly higher speeds, however, Pakistan's lifeline has been turning into a nightmare.

Pakistan is home to 220 million people, or 2.75% of the global population (8 billion people), but they are accountable for only 0.3% of total carbon emissions. The U.S., with 100 million more people than Pakistan, has a 30% share in global emissions. Given this reality, growing voices in Pakistan say that developed countries such as the U.S., Europe, Japan, Korea, etc. that are more heavily accountable for climate change should offer more in assistance and contributions to support Pakistan and developing countries. The Korean government has offered 300,000 dollars in disaster response supplies as emergency humanitarian relief, with many other countries and international organizations also offering support. Notwithstanding these efforts, many highlight the need for more fundamental measures, support, and cooperation to build capacity.

Climate-related assistance is not limited to climate response and adaptation. Pakistan and other developing countries that have contributed the least to climate change are being most heavily affected by climate change-induced poverty; in this context, climate change-related support is deeply related to eradicating global poverty. Climate change-driven flood, drought, and heat are hugely detrimental to developing economies dependent on agriculture. Surges in food prices following changes in the agricultural environment are putting a heavy burden on mid- and low-income households in developing countries that spend a large part of their income on buying food.

Committed to the shared prosperity of humanity and eradication of poverty, KOICA opened an office in Pakistan in 2010 and has since been striving to contribute to enhancements in quality of life and increases in income of the Pakistani people, in addition to the capacity-strengthening of the government and its officials. The office is implementing projects on the supply of drinking water in response to climate change-induced water crises, the establishment of a solar cell module testing laboratory to facilitate renewable energy development, and improving nutrition and education for children. The office is also identifying projects to build systems and facilities necessary for flood and drought response.

Because KOICA implements grants, which entail no obligation for repayment, in developing countries, we are often on the receiving end of criticism for "giving away" resources. However, as the officialization of the term "development cooperation" instead of "aid" suggests, our activities are not one-sided in nature. Development cooperation is a joint response to global issues such as climate change and poverty, through cooperation between developing countries such as Pakistan and developed countries, the ranks of which Korea has now joined. KOICA's role, therefore, is to understand that Pakistan's issues are our issues, that Mr. Ali Akbar's trials are our trials, and to solve common problems together. Toward this goal, we ask for much support and engagement from the Korean people. K

Project to strengthen climate change adaptation and resilience in Guatemala

Revived green forest provides home for people and nature

Guatemala is home to abundant tropical rainforests and mountainous regions in Central and South America. However, forests are being destroyed rapidly due to land cultivation, increased demand for firewood, livestock farms, and the cultivation of export crops. Meanwhile, some of Guatemala's devastated forests have recently begun to turn green again following fruitful outcomes of KOICA's project, which began in 2018, to strengthen resilience for climate change adaptation in Central and Northern Guatemala.

Vicious circle of climate change and forest degradation

According to the Global Climate Risk Index of 2014, Guatemala was one of the countries that suffered the most from climate change in the past decade (1994-2013). In particular, floods, tropical storms, and landslides, which are all related to water, are also closely linked to deforestation. When lowlands are damaged due to climate events such as torrential rains, forests are cleared to make up for the damaged area and expand land for agriculture. This process causes landslides or sediment movements, and the vicious cycle that leads to the damaging of low-lying agricultural land repeats itself. Recently, water conservation forests[1] have been damaged due to excessive logging, depleting the nearby groundwater and causing secondary damage such as extended drought.

Accordingly, the Guatemalan government has been actively responding to climate change and ecosystem degradation by restoring the country's forests. From 2014 to 2030, Guatemala pledged to the international community to restore 1.2M ha (the size of 12,000 soccer fields) of forest (The Bonn Challenge)[2]; enacted the forest conservation incentive system (PROBOSQUE and PINPEP); and directed 0.5~1% of the national budget toward these goals.

In particular, the Guatemalan government strived to maximize the efficiency and effectiveness of its forest conservation incentive projects by strengthening the agroforestry[3] and business capabilities of farmers' organizations and the governance capabilities of local governments. In response, KOICA and the Food and Agriculture Organization of the United Nations (FAO) decided to carry out a project to reinforce climate change resilience with a budget of seven million USD from 2018 to 2024. In Guatemala, three provinces were selected: Alta Verapaz, Baja Verapaz, and Petén in the north-central region, where the damage remains severe due to frequent natural disasters and changes in rainfall.

Guatemala's state-run forestry incentive program is a highly effective system designed to restore damaged forests and encourage agroforestry. In particular, PROBOSQUE, a forest incentives law established in 2017, provides support ranging from $120 to $2,500 per year to farmhouses that restore forests, depending on the area and use of the forest being restored, for at least five to 10 years. However, the participation rate of farms had been significantly lower than expected, leaving the implementation rate of forest conservation subsidies in 2017 hovering just around 50%. The biggest factor behind the situation was the complicated system, in which most people have a hard time filling out the application form for forest conservation subsidies. Furthermore, only a licensed forestry instructor was able to fill out the 'Proposal for the Basic Plan for Forest


Photo 1



Photo 2

Protection', a required document, and most farmers could not afford to pay the service fee (averaging $130). Another reason was the lack of capacity of local government and forestry and civil servants. In addition, there were not enough human resources available to verify the documents throughout the process, and their expertise level in forest conservation was low.

To address this problem, KOICA actively carried out the training of forestry instructors in the region through the project to strengthen climate resilience. An education program was provided so that local government forestry officials could obtain a forest instructor license, and a forestry instructor training course was opened for the private sector. In addition, KOICA supplied equipment such as surveying equipment so that trained forest guides could smoothly conduct their work on site.

As a result, the number of farmers and farmers' associations seeking to participate in the forest restoration program increased significantly. This project aims to provide forest conservation subsidies to 6,946 target beneficiaries, who will receive a forest conservation subsidy of $3,078 per ha per year from the Guatemalan government for 10 years.

Enhancing agroforestry and business capabilities, with a focus on farmers' communities

A tribal culture had settled in the mountain villages of Guatemala according to the topography, and small farmers' associations made up of local tribesmen were exerting influence in a wide range of areas. Accordingly, the Guatemalan government deemed it important to conduct forest restoration centered on the farming community, and asked KOICA for support in strengthening the capacity of farmers' associations. KOICA thus established a forest restoration strategy, led by the farmers' associations, and provided basic competency education programs for forest restoration to members of the farmers' association from the initial stage of the project.

To increase the participation rate of farmers in agroforestry, a joint tree nursery was also built for the production of seedlings, the high price of seedlings being one reason behind farmers' reluctance to go into agroforestry. Seeds and seedlings were also provided. KOICA focused on providing seedlings with rapid growth rates and high marketability, such as coffee and cacao, to enable an increase in the income of local farmers. After planting the seedlings in the devastated land, and after the soil irrigation system was repaired and expanded, the damaged forest began to regain its greenery.

KOICA also sought to strengthen the capabilities of agricultural and forestry companies operated by farmers' associations. So far, businesses mainly sold primary raw materials, but analyses showed that secondary processed products, premium timber and other forest products from Guatemala had considerable potential in the market. KOICA thus supported the capacity strengthening of agricultural and forestry companies to process and sell timber and forest products. In addition to education on overall company operation, such as market analysis, accounting, and management, KOICA also provided planning, promotion, and product development consulting.

The results of forest restoration have started to materialize more quickly than expected. In February, an interim assessment meeting was held in Cobán, central-northern Guatemala, and KOICA announced that it had restored 4,666 ha of forest, completing restoration work on 56.8% of the target goal of 8,215 ha. Projections show that a total of 85,107 tons of greenhouse gas will be reduced through this project.

The Green Climate Fund (GCF), which highly recognized the effectiveness of this project, plans to provide a budget of $36.9 million from 2023 to 2028 to expand the project. It is notable that the project has been recognized by international organizations as a best practice and that its outcomes are making ripple effects of positive change. The project also contributes SDGs 13 (Take urgent action to combat climate change and its impacts). Going forward, KOICA plans to continue to make strides in responding to climate crises in developing countries by working with partners in various fields. K

1) Forests established for the purpose of controlling public water supply and to prevent drought and flood damage

2) A global effort to restore 150M ha of degraded and cut-over land by 2020 and 350M ha by 2030

3) The joint production of wood and crops within a forest. This can facilitate capital circulation by compensating for the shortcomings of forestry, which has a low yield due to a long period of capital rotation.

Photo 1 Restored forests in Guatemala

Photo 2 Joint tree nursery

Photo 3 Agroforestry demonstration training ground

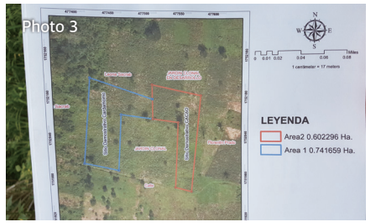


Photo 3

Choi Jae-young, Director General for Development Cooperation Support, Office for International Development Cooperation, Office for Government Policy Coordination

Thoughts on the climate change we face



Profile

Director General Choi Jae-young was born in Daegu. After graduating from Yonsei University, he has served in various government positions such as Director of the Judiciary Budget in the Budget Office, Director of the Land and Transport Budget for the Ministry of Economy and Finance, Director of Development Cooperation at the Ministry of Foreign Affairs, the Dispatched Technical Officer to the World Customs Organization, and Advisor at the Inter-American Development Bank. Since August 2021, he has been serving as the Director General of Development Cooperation Support at the International Development and Cooperation Office of the Office for Government Policy Coordination.

It is difficult to explain modern civilization without oil and coal. These two fossil fuels that emit CO2 in the course of their combustion have made human life more abundant through industrialization and economic growth, and now permeate every corner of our lives. The clothes we wear are made from naphtha that is extracted from crude oil. The foods we eat are processed, delivered and discharged while burning fuel. How about our housing? Manufacturing steel and cement, used to build our apartments and office buildings, requires ample amounts of fuel. The same applies in generating electricity and controlling indoor temperatures.

We hear news of severe climate change. Extreme weather events such as hurricanes and typhoons are becoming more frequent, while people in developing countries are suffering from severe flood and drought. Can these be seen as natural phenomena unrelated to carbon emissions?

If we are burning such an enormous amount of fossil fuels, accumulated for hundreds of millions of years, in such a short period of time, it would be odd if we do not witness any changes in nature. Reports say that half of the entire amount of CO2 that has been emitted into the atmosphere due to human activities has been released since the 1990s.

Then who is responsible for climate change? According to the journal Nature Sustainability, the top 1% of CO2 emitters account for 15% of the entire amount of CO2 released globally, while the bottom 50% are responsible for just 10% of emissions. Oxfam International, an international relief organization, has announced that the top 10% of the richest countries by income emit half of all global emissions. This means that developed countries that have experienced economic development earlier bear greater responsibility than developing countries. Recently, some have pointed to the responsibility of countries that have achieved rapid growth around smokestack industries. In terms of the absolute amount of carbon emissions or average per capita emissions, the Republic of Korea is also a major emitting country ranking within the global top 10.

If the responsibility for climate change lies with wealthier countries, the consequences are concentrated on developing countries. Pacific Island countries including Tuvalu are concerned about rises in sea level and the submerging of land due to global warming. Pakistan experienced historical monsoon rainfall in summer this year, which resulted in the flooding of 1/3 of the land and a death toll of more than a thousand. In the Sahel, Africa, the pace of global warming is 1.5 times faster compared to that in other areas. Rapid desertification and drought have caused frequent conflicts and plundering to secure pasture and water. Such political instability and conflict will render climate adaptation even more difficult.

North Korea is also facing a serious situation. According to some Korean media reports, there was a severe loss of lives after a mine near Pyongyang was flooded following torrential rains of 300-400 mm in the summer of 2022. Such damages are the result of vulnerabilities in facilities for river management and flood prevention, caused by economic difficulties.

The international community signed the Paris Climate Agreement in 2015 to limit the rise of the average global temperature to 2 degrees Celsius compared to pre-industrialization levels, and preferably to below 1.5 degrees Celsius. It will take some time to determine how effective this agreement will be in helping us rebound from the climate crisis. However, it is meaningful in that a roadmap has been created for member countries to set their own reduction and implementation goals. The UK, Japan and the EU have declared goals for carbon neutrality by 2050. Korea has also pledged a 40% reduction (compared ▸▸



▸ to 2018 levels) in greenhouse gas emissions by 2030 and the eventual achievement of carbon neutrality by 2050. At the same time, even with such declarations and pledges, greater efforts are needed to accomplish the goals of the Paris Agreement.

We also need to close the gap between the goals set forth by the agreement and the reality. According to academia, in order to maintain the rise in average temperature to below 1.5 degrees, global carbon emissions should reach their peak by 2025 and be reduced by 43% by 2030 (compared to 2019 levels). Reality, however, tells us that emissions have continued to increase until recently, and it is likely that this trend will persist. In order to achieve the agreement's goals by 2050, there should be a 95% reduction in global coal consumption, 60% reduction in oil consumption and 45% reduction in natural gas consumption compared to 2019 levels. This does not look easy to achieve. In Asia, there has been a 40% increase in energy demand for the decade between 2006 and 2016. The use of coal has increased by 3.1% on average each year. Carbon capture technology (technology to eliminate CO2 from the atmosphere) has been in the spotlight recently, although it is still in its infancy and has a long way to go towards commercialization at reasonable prices.

Another factor that renders the Paris Agreement's goals difficult lies in the "tragedy of the commons." Until now, everyone has emitted CO2 free of cost, resulting in the heating of our common atmosphere. If we apply this to the implementation process of the agreement, favorable results can be drawn from member countries as a whole even if some countries fail to reach their reduction goals as promised. To prevent this, strict monitoring and verification measures are required, but the Paris Agreement is based on voluntary contributions determined by each member state.

Another factor that makes the accomplishment of the goals difficult is the skewed distribution of costs and benefits in climate response. Because of differences in the positions of countries that may reap the benefits of climate response and those that bear the costs, climate change is inclined to be an unpopular political topic. Additionally, while the costs of carbon reduction are immediate (e.g. hike in price of electricity due to the shutdown of a thermal power plant), the results are gradual. The burden lies with the current generation, while the benefits fall on posterity. The rise of young activities such as Sweden's Greta Thunberg, who became a candidate for the Noble Peace Prize for her efforts to lead the international environmental movement, is no coincidence.

Dependency on fossil fuel has taken root in the process of post-industrialization economic prosperity. This dependency is spreading in a powerful and reckless manner, like the villain Smith in "The Matrix" movie series. When it comes to climate change, it is easier to feel confused rather than optimistic. If there is anything to comfort us, it is the fact that we were able to enjoy clear skies when our economy ground to a halt during the COVID-19 pandemic, meaning that if our efforts for emissions reductions are genuine, the Earth will respond; it is the fact that the economic development of developing countries, according to recent research, will have little impact on the accumulation of greenhouse gases. K

Ko Sung-wook, Head of Petroleum Information Department, K-Petro

Cooperation with developing countries in joint preparation for era of energy transition

At some point, global warming became a commonplace term in our daily lives, rendering us largely indifferent to news on consequent floods, heat waves, and cold waves.

The prevailing view is that the cause of global warming lies in the reckless use of fossil fuels such as petroleum. Indeed, the global temperature has risen by 1.1 degrees Celsius since the pre-industrial era of 1850, when mankind was yet to start using fossil fuels in full scale (World Meteorological Organization). Evidence points to the severity of the situation -- for example, the results of a study by the University of Leeds Centre for Polar Observation and Modelling show that approximately 28 trillion tons of ice melted in a span of 23 years from 1994 to 2017.

The focus of this article is on developing countries that are at the heart of a dilemma between economic growth and environmental protection amid global warming and our role in this regard.

Global actions to reduce greenhouse gas emissions

The most notable among global actions to reduce greenhouse gas (GHG) emissions is the United Nations Framework Convention on Climate Change (UNFCCC, 1994), and the Paris Agreement, adopted in 2016 to limit global temperature rises to below 1.5 degrees Celsius and to curb the emission of greenhouse gases, is still in effect. Korea also became a member of the UNFCCC in 1993 and in 2020 submitted its Nationally Determined Contributions (NDC) to the UNFCCC Secretariat to reduce GHG emissions by 24.4% compared to 2017 levels by 2030.

Actions for GHG reduction are the most active in the automotive industry led by advanced countries. Major car makers including General Motors of the U.S. announced a joint statement at COP26 in 2021 to gradually halt the production of vehicles with petroleum-powered internal combustion engines by 2040, which was welcomed by 31 countries including the UK, Canada, and India and hundreds of cities.

As part of the EU's climate change legislation package (Fit for 55), the EU announced in July 2021 its plan to achieve a 55% reduction in carbon emissions from new vehicles with internal combustion engines by 2030. This was followed by the Amendment: Regulation 2019/63 to set more ambitious standards for reducing the CO2 emissions of new passenger cars and light commercial vehicles, which aims to achieve 100% carbon dioxide emissions reductions by 2035, and passed in the European Parliament in June 2022.

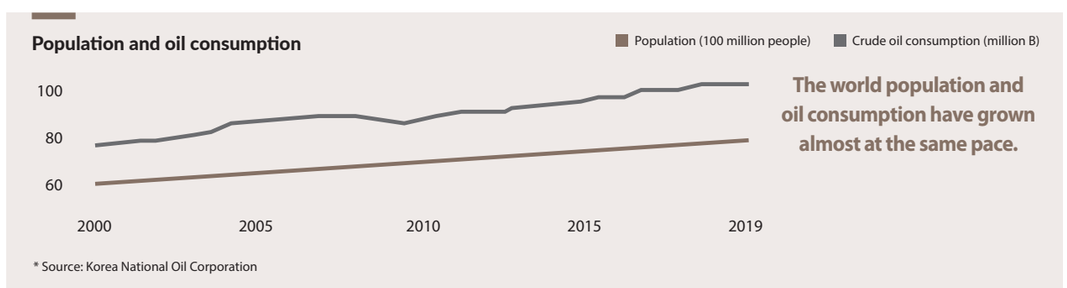
These actions taking place in every corner of the globe have led to increases in the sales of electric vehicles (EVs). According to the Korea Automobile Manufacturers Association, the global EV sales and market share have increased by 3.3 times and 4.1 times, respectively, compared to 2019.

Paradox of increases in petroleum consumption

In general, demand for oil goes hand in hand with population growth. Since 2000, global population and oil consumption have increased by 1.2% and 1.3%, respectively, annually. Based on this projection, the world population will reach 9.2 billion people, a 19% increase from 2019, coupled with a 20% increase in oil consumption, according to an excerpt from an interview with ExxonMobil CEO Darren W. Woods in 2020.

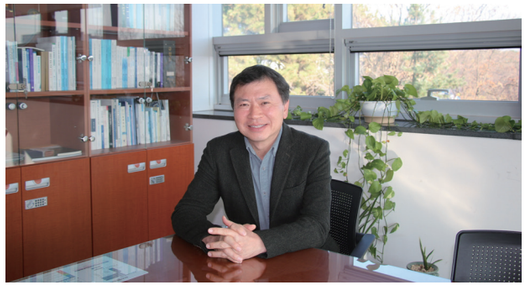
Some may find these projections discrepant from global efforts to reduce the production of internal combustion engine cars, disseminate EVs, and achieve decarbonization by, for example, using renewable energy sources.

First of all, renewable energy sources such as solar and wind power are primarily used for power generation and account for only a fraction of the total energy use (approximately 5%, OPEC world oil outlook 2020). Petroleum is mainly used in the transportation sector (approximately 60%), but there are virtually no alternatives available in aviation (7%) and shipping (6%), and EVs account for only 1% (15 million vehicles) of the vehicles running on road (approximately 1.5 billion vehicles) -- hence these projections, said Kwon Oh-Bok, the director of Korea National Oil Corporation's oil information center in a media interview.



* Source: Korea National Oil Corporation

Developing countries' economic growth-driven policies also play a role in the increase in oil demand. In the past two decades, oil demand from countries outside the Organization for Economic Cooperation and Development (OECD) have increased by 90%. Given the surges in demand from China and India and potential demand from emerging countries, these upward trends in oil consumption are likely to continue for a while.



Developing countries' oil consumption estimated from Mongolia's case

Oil consumption by developing countries is one of the leading causes of increases in global oil consumption. KOICA's ODA project managed by K-Petro (energy source quality management capacity building project for the improvement of atmospheric environment in Mongolia) may serve as a precedent for us to estimate the growth trends.

A country with nominal per-capita GDP of $4,541 and ranking 116th globally, Mongolia requires additional public transportation infrastructure, since private cars serve as the major means of transportation. Being an inland country with certain technological capabilities, the country depends on imports through railways, trucks, etc. while the mining of coal, copper, etc. accounts for more than 70% of the nation's exports. This means that Mongolia is a highly oil-dependent economy.

Even though Mongolia is an oil-producing country, it lacks technology and capital to directly produce petroleum products such as gasoline and diesel. It exports crude oil at low prices and imports fuel oils at high prices (95% from Russia), leading to a serious trade imbalance in the petroleum sector ($725,833,000 trade deficits, National Statistics Office of Mongolia). Even worse, the petroleum product imports are of poor quality. The sales of quality petroleum products (EURO 5) account for only 20% of the total sales.

Taken together, low income levels and underdeveloped social infrastructure deter the country from reducing oil consumption in the near future, and it continues to rely on the use of petroleum products. One can project the case of Mongolia to other developing countries to understand the reality.

Korea's role in the global petrochemical sector as a developed country

The international community is bound together by a common destiny in terms of climate and environment, directly and indirectly influencing each other. In this regard, developing and developed countries should work together to explore ways to jointly respond to climate change. This will require developing policies tailored to developing and developed countries in consideration of the differences in income levels and social structure, among others.

The UN Conference on Trade and Development (UNCTAD) reclassified Korea as a developed economy in July 2021, meaning that Korea should carry out its role accordingly in the international community. Given that the nation's rapid growth was in great part due to heavy and chemical industries such as the petrochemical industry – Korea is the world's sixth largest oil refinery operator -- it should take advantage of its experience in this field in playing such roles. In particular, Korea should focus on what kind of role it can play in relation to developing countries.

Given that developing countries are unlikely to find alternatives to petroleum in the near future, one significant role would be to offer support in using oil correctly and in transitioning to green fuels amid the waning oil age. Doing so would also be in line with the purpose of green ODA, i.e., development cooperation in consideration of environment and support for developing countries' efforts to reduce emissions and adapt to climate change.

What concrete methods could we devise? First, we can help introduce quality petroleum products and develop relevant laws and institutions. We might promote the necessity for introducing petroleum products that meet the latest international quality standards and support the establishment of oil quality laws and institutions similar to those of Korea and other developed countries.

Building infrastructure that can manage such activities is also essential. Petroleum products have complex chemical structures, which is why analytical capabilities and know-how matter. They require costly analytical systems such as laboratories and analytical equipment, which are often excluded from the priority agenda of developing countries. There is urgent need for support in this area.

Lastly, we need to foster human resources that can manage and maintain the abovementioned infrastructure and policies. However well-built, systems and facilities will be of no use without a skilled workforce to manage them.

Developed economies that achieved early growth driven by the petroleum industry are responsible for engaging developing countries across the globe in moving forward to these directions. The ODA project of K-Petro in Mongolia is in line with this context.

As we witness the sunset of the oil age, developed countries should pave the way for developing countries in preparing for a new era through an energy policy transformation. Korea, too, should play its role in accomplishing the mission of the times. K

Case studies on KOICA's environmental management

KOICA's journey to carbon neutrality

Amid global threats including the impacts of COVID-19 and the climate crisis, acceleration in implementing the UN SDGs and adoption of ESG[1] management are increasingly emerging as possible solutions. In line with global circumstances, the government of Korea is actively encouraging ESG management in public organizations. To respond to social demand for Environmental, Social, and Governance values, KOICA established its ESG management implementation plan (2021-2025) and basic plan for environmental management (2021-2025), and reformed its social values-based management into ESG-centered management. As we meet the post-COVID-19-era and a period of severe climate crisis, this article delves into KOICA's efforts to support climate adaptation and carbon neutrality in developing countries, and achievements in the area of environmental management.



Photo 1

Kickoff of environmental management, toward Carbon Neutrality 2050

Environment, social, and governance, the three elements of ESG management, are garnering much attention amid the climate crisis and carbon neutrality goals. In December 2020, in line with the global agenda of carbon neutrality by 2050[2], Korea announced the 2050 Carbon Neutral Strategy of the Republic of Korea and launched efforts for its implementation. Accordingly, KOICA introduced the carbon neutrality agenda in its organizational management, and established the basic plan for environmental management (2021-2025) in 2021.

One of the three directives of the basic plan for environmental management (2021-2025) is to minimize carbon emission for organizational operation. KOICA's goal is to join K-RE100[3] by 2050 by transforming 100% of its energy sources into renewable energy. To accelerate its energy transition and the minimization of carbon emissions, KOICA installed solar panels on the rooftops of its offices and established power generation facilities in December 2020. This pilot program helped secure 4.8% of the annual electricity consumption of KOICA in 2021 by generating a total of 160,000KWh of electricity. In 2022, KOICA plans to expand the installation of power generation facilities through solar panels on top of the main building and annex building.

The agency has been making multi-faceted efforts to transform our industry's high-carbon structure. To invigorate the domestic green market, KOICA has been purchasing over 80% of its necessary supplies in eco-friendly products, and offering additional points to certified environmentally conscious companies when evaluating their qualification as ODA public procurement providers. The agency is also continuing to collect pledges of compliance with environmental regulations from its project partners and strengthen the implementation of the pledges. Other efforts include the establishment of standards regarding the leasing of 100% eco-friendly vehicles, mandating the shortest routes for air travel, and selecting the most eco-friendly flights in order to reduce greenhouse gas emissions.

The reduction of greenhouse gas emissions has been one of KOICA's main goals for realizing low-carbon cities and territories. KOICA's goal is to reduce emissions by 40% by 2050 compared to the base year (2009) by reducing 2% each year. To this end, KOICA has determined areas for improvement through regular analysis and is devising detailed implementation measures. A committee on energy saving takes place twice every year in efforts for energy efficiency.

Supporting private companies, implementing carbon neutrality – creating a low-carbon, innovative ODA eco-system

The expansion of a low-carbon, innovative ODA eco-system is another directive of KOICA's environmental management. In 2021, the agency supported 10 cases of environmental technology development in private companies and their entry into the ODA ecosystem. Through the INNOPORT[4] system, KOICA also successfully incubated 8 startups. Among these, the Bluewing Motors team in particular commercialized its idea for improving air quality in Vietnam and Indonesia through the supply of high-functioning electric motorbike controllers and modules. Team Deep Visions, which developed a CCTV algorithm for analyzing fine dust density in the air and regulating littering through AI technology, successfully entered the Lao market and won the Ministerial Award from the Ministry of Trade, Industry, and Energy at the Korea Climate Management Awards.

KOICA also conducts a variety of initiatives to stimulate the circular economy and implement carbon neutrality. In its cafeteria, the agency is conducting campaigns to reduce leftover food, which resulted in a 5% decrease in food waste in 2021 compared to 2020, and offers vegetarian menus one day every week. Other efforts include the recycling of used banners into sacks and used coffee grounds into clay material for a clean and circular resource cycle.

The overseas offices of KOICA establish and implement voluntary management plans for waste recycling by taking the characteristics of each country into account. Most developing countries do not have a well-established management system for waste recycling and consume a lot of disposables. Therefore, KOICA's headquarters are reviewing ways to encourage cooperation and participation of its overseas offices, including giving year-end awards by the KOICA president to outstanding overseas offices and providing incentives when allocating the budget for office operations for the year after.

Competition for environmental management ideas, campaigns to link environmental and social contributions

KOICA also seeks to stimulate citizens' participation and regional cooperation in realizing a carbon-neutral society. For two years, KOICA hosted a competition for environmental management ideas and has been applying the best ideas in its organizational management. A campaign that links environmental and social contributions was also launched in 2022. Through this campaign, participants can participate through a mobile app to record efforts for carbon emission reduction. Upon achieving its targeted goals on the app, KOICA donated supplies to Gangwon Province, which suffered damages from flooding and isolation due to torrential rain.

In terms of locally-focused efforts for carbon neutrality, KOICA is actively promoting environmental awareness through activities in cooperation with other public organizations. In Yeongwol-gun, Gangwon Province, where the KOICA Global Human Resources Education Center is located and which is an area of vulnerable industries and abandoned land mines, KOICA is contributing to the vitalization of the local economy through the priority purchasing of products from local associations. The agency is also supporting youths through events, vocational experiences, and donation of refurbished laptops.

2021 was a landmark year in which KOICA established its ESG Management Implementation Plan (2021-2025) and the Basic Plan for Environmental Management (2021-2025), which reflects the organizational roles and policies of the government of the Republic of Korea. Based on its efforts, the agency received the ESG Management Award from the Korea Economic Daily in 2022. KOICA plans to continue enhancing its environmental management during this great transitional moment of ESG management and having active communications with various cooperative partners such as the public, communities, and companies. K

1) Acronym of 'environment', 'social', and 'governance'. This is not only an index to measure the non-financial performance of companies, but also a management philosophy that considers financial aspects and the sustainable and social impact of corporate decisions.

2) An effort to substantially lower the carbon emission to zero by minimizing emissions from human activities and increasing absorption volume in order to stop the increase of CO2 density in the atmosphere

3) The Korean version of 'RE100', a global campaign in which businesses commit to 100% renewable electricity

4) An innovative hub for development cooperation, established in March 2020, in order to nurture young social innovators and promote increased citizen participation in the realization of SDGs

Photo 1 KOICA donated 411 items together with the Seongnam association of public organizations

Photo 2 KOICA and villagers of Docheon-1-ri during an environmental cleanup campaign on World Environment Day



Photo 2

Interview with Vice Executive Director of AFoCO Jin Sunpil

AFoCO as an important partner of KOICA in forestry



Profile

Jin Sunpil has served as Vice Executive Director of AFoCO since January 2021. He has previously served as Director of Forest Aviation Headquarters at the Korea Forest Service, Central Regional Director of Korea Forest Service, and in various other forestry-related offices. Vice Executive Director Jin received his Master's Degree in Defense Management (Public Administration) at the Korea National Defense University and his Bachelor's Degree from Seoul National University, Department of Forestry.

As various efforts are being undertaken around the world to protect forests, in May, KOICA signed an agreement with the Asian Forest Cooperation Organization (AFoCO), a treaty-based intergovernmental organization, to strengthen cooperation for the protection of forests in Asia. We met with Vice Executive Director of AFoCO Jin Sunpil to discuss the organization's ongoing programs and projects as well as its future plans.

Could you briefly introduce the role and responsibility of the Asian Forest Cooperation Organization (AFoCO)?

AFoCO was officially established in April of 2018 as a treaty-based intergovernmental organization. Its establishment was led by Korea and undertaken as an extension of the 2011 Korea-ASEAN forest cooperation agreement. With countries in Asia, we share the will to create field-oriented solutions regarding global issues such as climate change, biodiversity, forest disasters including forest fires, livelihoods of mountain villagers, and sustainable forest management.

As an international organization in the forestry sector representing the Asian region, AFoCO has been conducting various ODA projects in each country. Please tell us about a few of the most remarkable achievements that have been made thus far.

Some of our most significant achievements include the project to build a proliferation center for rosewood around Siem Reap, Cambodia and the project to restore mangrove in the Thai Binh province of Vietnam. The project to build a proliferation center for rosewood is significant in that it seeks to transfer technology to produce superb seeds and seedlings of the Cambodia rosewood, an endangered species, and foster experts. The mangrove restoration project in Vietnam not only creates mangrove forests with excellent carbon absorption, but also provides technical guidelines for preserving existing forests and regenerating mangroves. The Vietnam Administration of Forest (VNFOREST) recognizes the value created from this project and the resulting technical guidelines which can be applied to other parts of Vietnam.

Deforestation and environmental issues around the world are growing increasingly severe. In your opinion, how serious are the current deforestation and environmental issues in Asia?

Southeast Asia is home to about half of the world's tropical forests, storing vast amounts of carbon, and many species found nowhere else on Earth. However, we are witnessing a trend of converting forests to agricultural land at an unprecedented rate; during the past decade, in particular, we have seen notable forest loss in countries including Indonesia, Cambodia, Myanmar, and Laos. The combined effects of deforestation and climate change present a worst-case scenario. Deforestation in the upper regions not only increases the risk of landslides and floods in low-lying areas but also reduces crop yields as the function of "green dams" deteriorates. In addition, an increase in the number of dry days due to climate change causes large-scale forest fires, driving the spread of pests and diseases, as well as desertification.

AFoCO was approved as an international organization eligible to implement ODA (Official Development Assistance) by the OECD DAC (Development Assistance Committee) in March 2021. AFoCO also joined the 27th Conference of the Parties (COP27) to the United Nations Framework Convention on Climate Change, held in November this year, as an observer. Could you explain these processes and any meaningful discussions held at this year's COP27, in relation to AFoCO's future plans?

In March 2021, at the OECD DAC Development Finance Statistics Working Group (WP-STAT) meeting, the proposal to recognize the AFoCO as an organization eligible to implement ODA was unanimously approved, which means all contributions from the AFoCO are now recognized as part of the ODA budget. For about a year, the AFoCO Secretariat, working with the Korean government, has engaged in active discussions with OECD DAC member countries. AFoCO becoming an official development assistance organization is expected to make it easier to pursue efforts to strengthen cooperation with donor countries and other organizations and to secure financial resources.

In addition, AFoCO participated in COP27 as an observer as of this year to hold various discussions on the agenda of the international community and to build various networks. The main agenda of COP27 was compensation for loss and damage, and an agreement was reached to gather a fund to support countries vulnerable to climate disasters. As for the forestry sector, the launch of a Forest and Climate Leaders' Partnership and the 'Green Gigaton Challenge' drew significant attention. In addition, other meaningful discussions were held on various subjects covering aging forests, peatlands, mangroves, and indigenous rights.

AFoCO is preparing a new program that connects the demands of member countries in the field of climate change with global climate finance and ESG activities of private companies. The key focus will be response to damage caused by climate change and forest carbon projects. In addition, we are planning to fully implement a program to restore drylands in Asia (LPA, Landscape Partnership Asia), launched in May.

What are some of the key ODA projects that AFoCO is implementing to achieve the UN Strategic Plan for Forests (2030)?

The first goal of the UN Strategic Plan for Forests (2030) is to increase forest area by 3% worldwide by 2030. Forest restoration is also a top priority for AFoCO. In particular, we are focusing on restoring forests in ecologically important areas including mangrove forests and areas damaged by large-scale forest fires. Such activities are closely related to supporting the livelihood of local residents and strengthening local governance capacities, which we are carrying out alongside forest restoration. The key is to create a sustainable and resilient forest ecosystem and mountain villages.

Korea is the only country that has succeeded in reforestation during the early phase of national development. Many developing countries may be interested in Korea's experience in afforestation and its accumulation of technological knowledge. How are Korea's success stories being utilized and shared among Asian countries?

Korea's success stories indeed contributed to successfully establishing AFoCO and to convincing member countries. High-level government officials from developing countries who have recently visited Korea to experience Korea's reforestation facilities have proposed cooperation projects in various fields, including not only forest greening but also forest fire prevention, and forest recreation. In many developing countries, forestry projects fall behind other national policy priorities, making it difficult to secure a sizeable budget. Accordingly, through ODA projects, AFoCO is supporting developing countries in the field of forestry through projects to foster field experts, with a particular emphasis on sharing Korea's experience and technology.

Could you tell us how joint response and cooperation are being implemented among Asian countries in tackling the problem of deforestation in Asia?

At AFoCO, we implement regional projects, through which countries with similar conditions or interests can work together from the early stages of a project. In the case of the project for local residents to manage forests using GIS/RS, implemented for 5 years from 2015, the Philippines, Indonesia, and Thailand implemented the project in each country while also sharing cases and finding room for improvement together, thus developing the project. The forest fire management system establishment project, which is being jointly carried out by Cambodia, Vietnam, Myanmar, and Laos since 2022, will be implemented as a cooperation project that reflects the common geological features of the Mekong region (topography, forest fire causes, forest fire extinguishing organization, etc.) and characteristics that are unique to each country.

In addition, the AFoCO holds an 'Annual Thematic Dialogue' forum every October to hold in-depth discussions on Asian forest cooperation with sector experts and professionals. In addition, a biennial ministerial-level meeting is held to develop joint response measures to address forestry issues in the Asia region.

We hear more and more about discussions emphasizing the diversification of finances in responding to climate change. Could you tell us about the AFoCO Green Partnership program which is based on cooperation with the private sector?

The AFoCO Green Partnership is a private sector cooperation platform in which various entities, including businesses, participate to contribute to the implementation and achievement of the 2030 Sustainable Development Goals as well as a number of international climate agreements. It aims to diversify finances through private investment and blended finance, and to better connect the needs of member countries with the demands of businesses.

In May, an agreement-signing ceremony was held between AFoCO and KOICA. What kind of synergy do you expect from combining AFoCO's expertise in forestry and environment and KOICA's experience in development cooperation?

We are well aware that KOICA has been working hard to expand the scale of ODA projects and create synergy by collaborating with various domestic and foreign partners in the field of climate change. One of the strengths of AFoCO is that it is able to apply expertise in the forestry sector and technologies for sustainable forest management and climate change response that have been proven in their effectiveness in a field-oriented way. If KOICA seeks to join international efforts and prioritize issues surrounding the forestry sector, AFoCO, whose secretariat office is located in Korea, can be an instrumental partner in achieving these goals.

In addition, as an international organization, AFoCO is in partnership with not only member countries, but also leading forestry sector organizations within the international community, such as the Food and Agriculture Organization (FAO), the United Nations Convention to Combat Desertification (UNCCD), and the United Nations Environment Program (UNEP), and we hope that these partnerships can create opportunities for us to participate in additional relevant international programs. Lastly, the development plans envisioned by AFoCO, such as the expansion of private sector cooperation, blended finances, and voluntary carbon market access, are expected to contribute to the implementation of KOICA's future strategy and the achievement of Korea's net zero goal.

We are reaching the end of 2022. Could you tell us about AFoCO's future direction and plans for major projects that will be implemented in 2023?

In September, AFoCO became a partner of the UN Decade on Ecosystem Restoration. One of the major plans is to operate a forest restoration project in full swing in 2023 along with the LPA (dry land restoration) program launched in May. Southeast Asian mangroves, central Asian drylands, and areas vulnerable to forest fires are targets of priority. We also plan to make the year 2023 the first year that forest carbon projects (REDD+[1], etc.) can be backed by private companies. To do so, AFoCO will serve as a platform for forest carbon businesses while seeking ways to reduce corporate risk. The third goal is to launch a forest fire response system using ICT. In addition to the ASEAN Korea Cooperation Fund project launched in 2022, preparation for the Korea-Mekong cooperation project (ICT-based forest disaster management) and FAO's AFFIRM (Integrated Forest Risk Management) project are in progress. The fourth goal is the NTFP (Non-timber Forest Products) project in which all member countries participate. We will discover and implement projects in connection with local forestry, and plan to jointly analyze each country's institutional conditions and market demand. K

1) Reducing Emissions from Deforestation and Forest Degradation Plus refers to various projects implemented in developing countries to reduce greenhouse gas emissions caused by deforestation.

Project to strengthen climate resilience capacities of rural areas in the Mimaropa region of the Philippines, with GGGI

Addressing farm poverty through climate response and value chain creation

Although a large share of the labor force in the Philippines is engaged in the farming industry, accounting for 24% of the total employed population nationwide, its agricultural economy is experiencing great difficulties in creating added value, and accounts for only about 10% of the total gross domestic product (GDP). As natural disasters such as typhoons, floods, and landslides occur repeatedly, there was a need to heighten the emergency management capabilities of most local governments in the Philippines to prevent damages to infrastructure and loss of raw materials. In addition, a surge in grain prices caused by COVID-19 and the war in Ukraine have further deteriorated the situation of Philippine farmers. In response, KOICA is carrying out a project to strengthen the climate resilience capacities of rural areas in the Mimaropa region of the Philippines.

Farming households grappled with poverty caused by climate change and lack of value chain

The location selected for the project was Oriental Mindoro State, in the Mimaropa region of the Philippines that mainly produces calamansi, bananas, and coconuts. Agriculture contributes significantly to the local economy, with 62% of the local population engaged in agriculture and fishing, and 68% of the population living in rural areas. However, the region faced economic hardships, with low agricultural productivity and a high poverty rate hovering around 23.1%.

This area is vulnerable to natural disasters and climate change as a significant number of farmhouses and residential areas are located along the coast. From 2013 to 2018, about 400,000 people were affected by typhoons, floods, and landslides that occur every year, and agricultural damage due to climate change alone reached 76 million dollars. Although continuous climate change is causing constant damage to farmhouses, farmers carried on with traditional farming methods without adequate access to technology, information and disaster management knowledge in responding to emergency situations. Damage recovery was also a lengthy process.

In addition, since the vast majority of the farm households were farming on a small scale, farmers had resorted to entering into disadvantageous business contracts, with insufficient information, negotiation tools, or knowledge on sales channels and prices. The agricultural value chain[1], which is the foundation for the cycle of production, processing, distribution, and sales of agricultural products in the region, did not function seamlessly, making it difficult to achieve stable profits from agricultural product sales. Farmers were making one-off deals selling fresh produce at low prices to middlemen. In addition, due to a lack of facilities that are resilient to climate disasters or equipped with raw material processing equipment and low-temperature warehouses, the region was grappling with a vicious cycle where most of the harvested crops had to be processed outside the island.

In the meantime, when ships could not be operated due to severe weather conditions, fresh produce that spoils very quickly was either discarded or sold at extremely low prices. Moreover, during the peak season, the selling price of agricultural products could be very low, often leaving the discouraged farmers no choice but to give up on harvesting their crops. Faced with such problems, young farmers in the region lost interest in agriculture and decided to leave the field, resulting in an overall slowdown across the agriculture market, with agricultural production and profits continuously declining.

Accordingly, KOICA, in cooperation with GGGI[2], the Global Green Growth Institute, aimed to strengthen local government policies to reduce vulnerability to climate change in the agricultural sector, nurture small and medium-sized agricultural processing businesses, and reinforce climate change adaptation and agricultural business capabilities. Thus began the project designed to enhance the agricultural value chain in underdeveloped rural areas in the Mimaropa region.

Photo 1



Strengthening the value chain by establishing agricultural processing facilities and climate vulnerability information system

The project ultimately aims to improve the climate change adaptability of underdeveloped rural areas by strengthening the agricultural value chain. To this end, KOICA started construction to establish and expand four farm processing facilities of calamansi, banana, coconut, and seaweed farming cooperatives in Oriental Mindoro. In order to improve facility accessibility and expand business opportunities for small farms, the construction of a joint agricultural product processing center, the 'Provincial Agricultural Center (PAC)', also began. In addition, solar panels were installed on the roofs of all five buildings, a first for local agriculture public organizations, laying the foundation for introducing renewable energy in rural areas in the Philippines.

The project not only facilitated the supply of facilities and equipment but also reflected the opinions of the private sector and market demand from the beginning by utilizing the expertise and network of GGGI, and by establishing a partnership with the 'Philippine Business for Social Progress (PBSP)', the largest corporate-based NGO in the Philippines. The project is expected to design long-term public business programs focused on the economy of the low-income class, contributing to creating a regional economic foundation and improving the quality of life of residents.

For example, the calamansi cooperative was able to seek opportunities to enter major markets through this project by expanding the production of calamansi juice. Seaweed cooperatives also plan to produce seaweed pasta noodles and seaweed, which are in high demand in the market, while terminating the production of cup noodles, nachos, and shampoo. With regard to the agricultural products processing center, discussions are currently underway to open digital startups and online distribution channels. Basic entrepreneurship education will be provided here so that small farmers and cooperatives can transition into becoming rural entrepreneurs.

The government of Oriental Mindoro has been operating the Climate Vulnerability Information System (CVRIS) pilot program since its launch in September 2022. This is a digital platform that can collect, manage, and analyze data related to the agricultural value chain, such as production, revenue, and sales activities of farms in 14 counties and one city that are spread out. By integrating this information with climate and natural disaster data such as floods and soil loss, the region can better prepare for natural disasters through a program that is user-friendly and easy to navigate.

Once the service is officially up and running stably, it will be possible for the local government to provide effective agricultural policy support. For example, through cooperation between the local government and with the consent of co-ops, a decision was made to relocate coconut farming co-ops, which had been located in an area vulnerable to climate disasters. The farmland was instead modified to cultivate taro, a product that is not highly affected by disaster.

Supporting sustainable development of farming households

KOICA is carrying out this project to support sustainable development in agriculture, rather than offer short-term support. Building agricultural processing facilities through local construction companies and labor force is also part of KOICA's plan that considers the long-term effect of directly contributing to economic development in the Philippines.

Furthermore, to adapt to climate change and strengthen agricultural businesses, educational and training program modules were put together for local governments and farmers. Through such efforts, KOICA is providing training programs to foster agricultural entrepreneurs. In addition, KOICA shared the results of a climate change vulnerability assessment and provided workshops and policy consulting services so that the Oriental Mindoro state government could effectively establish and implement climate change adaptation policies in the agricultural sector. As a result, 6 policy advisory reports related to the operation of 4 farm processing co-ops and a general agricultural product processing center have been submitted to the Oriental Mindoro state government.

Photo 2



The project resulted in 9,600 households from calamansi, coconut, banana, and seaweed farm processing co-ops becoming direct beneficiaries from various outcomes such as increased income through the establishment of farm processing co-ops facilities and general agricultural product processing centers. As of September 2022, a total of 1,155 beneficiaries received training to adapt to climate change and strengthen agricultural business capabilities. It is also expected to create about 500 people's local jobs. In addition, once the agricultural products processing center and four farm processing facilities are fully operated, sales of 56 million dollars are expected to be generated for 5 years after the initiation of the business.

This project's purpose encompasses far more than simply supporting agricultural facilities; it aims to nurture entrepreneurial-minded co-ops centered on low-income farms and transform them into small and medium-sized enterprises (SMEs). As a result, it is expected that the value chain of agriculture in the Philippines will ultimately facilitate innovation in many different aspects, such as promoting the local economy and enhancing the capabilities of residents. Such multifaceted efforts are expected to contribute to climate response in the region. K

1) A comprehensive process that connects production-processing and distribution-sales by linking production sites and market

2) Global Green Growth Institute, an international organization established in June 2012 to support green growth in developing countries

Photo 1 Construction site of Agricultural Product Processing Center (PAC)

Photo 2 Calamansi producer co-ops



Rachael Calleja, Senior Research Associate, Center for Global Development (CGD)

Deepening cooperation for sustainable development – barriers to cooperation and opportunities for change

Last year, the UN's 2022 Report on the Sustainable Development Goals (SDGs) issued a stark warning – in the aftermath of COVID-19, and with an ongoing climate crisis and conflict in Ukraine, the SDGs are at risk. By now, we know that COVID-19 not only led to an increase in extreme poverty, but related disruptions to health and education contributed to a decline in immunizations and put millions at risk of not returning to school. At the same time, progress against climate targets have stalled since last year's COP26, while concerns around energy security in the wake of the war in Ukraine are seemingly moving climate down the list of urgent priorities. In an era defined by cascading crises that cannot be addressed by any country working alone, now more than ever, there is a need for deeper cooperation for development to put our shared 2030 agenda back on track. Indeed, the imperative for global cooperation for development is itself formalized in the SDG agenda, with SDG 17 highlighting the importance of partnership for making progress towards our shared global development vision.

Yet so far, cooperation has been slow to materialize. New research from the Center for Global Development (CGD) shows that in response to COVID-19, an acute and shared global crisis, evidence of cooperation has been mixed. On one hand, there it is clear that international responses to COVID-19 were "global", with a wide range of countries from across income levels contributing financial and knowledge-based resources in response to development cooperation in the wake of the pandemic. On the other hand, collaboration between Southern cooperation providers or "dual" actors – that both receive and provide cooperation – and members of the Organisation for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) was limited at best. Indeed, the absence of cooperation for development between DAC and non-DAC providers highlights the reality that the imperative for cooperation has not been met with requisite action.

The "paradox" between the need for global development cooperation and the relatively siloed (and often bilateral) actions taken in response to COVID-19, raises questions about the challenges or barriers facing deeper cooperation for development, and how these challenges can be overcome. In a recent CGD survey, we asked leaders of 22 development agencies, most of which were from DAC member countries, to reflect on the barriers to deeper cooperation for development with non-DAC development partners (Figure 1). Our responses showed that leaders identified four main barriers to cooperation. The most common response identified difficulties aligning the visions, principles, and modalities of cooperation as a key challenge. In particular, respondents noted that differences in the instruments and sectors prioritized by DAC and non-DAC actors, and differing uptake of cooperation norms and principles, including around development effectiveness, often limits the scope for cooperation. In addition, respondents noted that low political appetite for cooperation, limited resources or capacity to invest in building partnerships, and differences in the legal and regulatory frameworks used across partners, remained key challenges to deeper engagement. While a next phase of this research will ask similar questions of Southern cooperation providers, these barriers largely match those identified and echoed by leaders from Indonesia, Kazakhstan, Thailand, and Turkey during conversations held at the 15th Seoul ODA Conference in September 2022.

If deeper cooperation is necessary to make progress on complex and global development challenges, but practical and political barriers to cooperation remain, a key question for consideration is how these barriers can be overcome. While we plan to explore this question further as part of research conducted in partnership with the Korea International Cooperation Agency, discussions during the 15th Seoul ODA Conference revealed some potential solutions. These included reframing development narratives to focus on the linkages between national and global interests when addressing global challenges like tackling climate change and pandemic response, working to identify deeper synergies in the interests and priorities of DAC and non-DAC providers, and creating more spaces for meaningful dialogue on issues of shared interest. Indeed, there was general agreement that creating inclusive spaces for dialogue on development cooperation was a necessary first step towards improving collaboration for development.

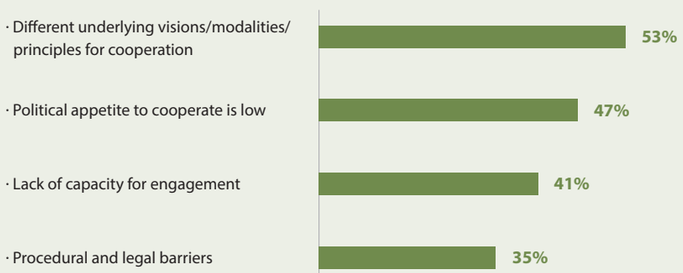
As we look ahead to the complex and global development challenges that must be tackled to achieve the SDGs, building deeper partnerships for development should be part of the solution. However, the materialization of such cooperation is not guaranteed. Concerted efforts will be needed to create the conditions for cooperation, including articulating narratives and political incentives for cooperation, overcoming practical barriers to deeper engagement, and creating more spaces and opportunities for dialogue on shared development issues. Changing the way we think, act, and engage on development will be critical to making progress on current international targets – including around climate finance, global warming, and of course, the SDGs – and to develop the actionable strategies needed to foster collaboration for global development in the years ahead. K



Profile

Rachael is a Research Fellow with the Center for Global Development's (CGD) UK and European Development Leadership programme. Prior to joining CGD, she worked as a researcher with the Overseas Development Institute and the Canadian International Development Platform. Rachael's research focuses primarily on issues of aid effectiveness, donor motivations, cooperation for development, and the strategy, management and organisation of bilateral development agencies. Rachael is a Ph.D. graduate from NPSIA where she worked on issues of aid management, structure and change. Prior to NPSIA, she obtained an M.A. in Political Science and International Development from the University of Guelph and a B.A. in History and Political Science from McMaster University. Rachael is also a Fellow at the Norman Paterson School of International Affairs, Carleton University.

What are the barriers to deeper cooperation for development?



※ Figure based on responses from 22 development agencies (14 from bilateral development actors, 4 from multilateral agencies, and 4 from development finance institutes) and reports responses to open text questions that were coded by CGD staff.

Interview with DMC (Dongmin Industry Cooperative) Korea Director Kang Won-chul

Building social enterprise model for resource circulation in Indonesia

"Dongmin Industry Cooperative (DMC Korea) and KOICA's IBS (Inclusive Business Solutions) program shared the common goal of creating profit by addressing social issues. That's why we joined the IBS program, and over the past three years we established a social enterprise model for resource circulation in Indonesia to tackle the country's plastic waste problem. Through the model, we created more than 400 jobs directly and indirectly."

Director of DMC Korea Kang Won-chul shared his thoughts with KOICA upon the successful completion of the project to strengthen capacity for resource circulation technology through a plastic recycling center in Indonesia in June 2022. DMC Korea, or Dongmin Industry Cooperative was established in 2013. The company is the leader in agricultural plastic recycling in Korea, handling almost 60% of bale silage waste[1] produced in the country. Recognized for its contributions to the development of the bale silage resource cycling ecosystem, DMC Korea won the Prime Minister's Award for resource circulation. KOICA sat down with Director Kang to discuss the industry-leading company's venture into Indonesia's plastic waste field, the project's journey, and lessons learned.


Photo 1


Photo 2

Seizing opportunity for collaboration with KOICA in Indonesia

Kang first visited Indonesia in January 2018 through personal ties with a former work colleague Edi Purwanto, with whom Kang had worked 15 years ago and who was now leading DMC Korea's Indonesian wing, DMC PLASTIK INDONESIA.

"It was not until I landed in Indonesia that I began to learn about KOICA's projects and support. At the end of 2018, I attended a startup camp organized by the KOTRA Surabaya office, where I met people from many different backgrounds and learned about KOICA's IBS program."

KOICA's Inclusive Business Solution (IBS) program is a strategic partnership-based program that aims to achieve the common goals of addressing social development issues in developing countries and meeting Korean enterprises' business needs through an inclusive business value chain that includes low-income groups. As Director Kang had been contemplating the establishment of a plastic recycling plant in Indonesia, the IBS program's vision was an eye-opening incentive. Of the 8.3 billion tons of mostly disposable plastics produced annually in Indonesia, 6.3 billion tons ended up as waste. Only 9% of the waste was recycled, primarily due to low awareness and a lack of relevant technologies. A significant portion of the plastic waste was discharged to the seas and led to serious environmental problems. According to a study by an international research team published in *Science*, Indonesia had released 480,000 – 1,290,000 tons of plastic waste into the waters in 2010, accounting for 10.1% of the global marine garbage, second to China.

"Indonesia's plastic recycling industry remained in the infant stages. I saw the potential to add value through advancement, upscaling, and specialization, thereby positioning the field as a green industry befitting the 21st century. DMC Korea had 13 patents across the lifecycle of plastic recycling and boasted superior technologies and thorough quality control. I had no doubt that the cooperation with KOICA would go well."

KOICA, too, found DMC Korea's world-leading technology in recycling and Indonesia's superior human resources and geographical conditions ideal in building a plastic recycling business ecosystem. Thus, KOICA joined hands with DMC Korea to launch the project to strengthen capacity in resource circulation technology through a plastic recycling center in Indonesia (2019-2022).

From production line development to building a resource circulation ecosystem

The first task was building production lines to process plastic waste. The company aimed to build six lines in two plants during the project. The first plant with two lines went into operation in the first year. While KOICA and DMC faced many challenges in the expansion of the production line, one major difficulty was the complicated administrative process.

"We spent six months going through a land use permit process with the government official in charge. At the final stages, we had a meeting and revisited the official with required documents in the following week, but then received the news that he had fallen ill and passed away. We then had to restart the six-month process."

The project also involved training area-specific specialists in pretreatment, extrusion, melting, and wastewater treatment. The key to plastic recycling is sourcing materials with uniform physical properties in quantity, finding the most efficient way to melt them, and filtering them. Specialized training programs with particular focus on each stage of recycling, for example pretreatment, extrusion, melting, and wastewater treatment, were offered to more than 450 people annually, and more than 30 course-takers were directly hired by the company.

KOICA and DMC Korea continued putting forth efforts to build networks with local governments, citizens, and collection service providers in Indonesia to establish the plastic recycling ecosystem. Locals in the project site, Tulungagung, were offered resourcification training including on types of plastics, how to separate them for recycling, and on information on the waste bank. To build a foundation for the resource cycling industry, networking events for stakeholders in resource cycling were organized annually, for example the INDONESIA RECYCLING NETWORK 2021. In addition, plastic waste collection and transport services, local governments, upcycling businesses, and environmental NGOs were invited to recycling seminars.

"We searched for every single domestic waste dumpsite in Indonesia. And we met many different stakeholders including Bank Sampah (waste bank), scrappers, local governments' waste processing sites, the Malang government's environmental ministry, Surabaya Green and Clean, and waste startups. Without these endeavors, we would not have been able to ensure stable processing of plastic waste from the communities in our plants. We were also able to contribute to job creation in the region."

3,478 tons of plastic waste processed, more than 400 jobs created

In the past three years, the project in Tulungagung aimed to foster core technical workforce by offering process-specific capacity building courses, establish a stable production system, and ultimately build and disseminate a model for quality job creation and production. With this project, DMC Korea trained 1,398 technicians with area-specific skill sets and built six production lines. The company hired 94 local residents and indirectly contributed to the employment of 329 people. Another important achievement from this project was to establish a workers cooperative and DMC PLASTIK INDONESIA as DMC Korea's Indonesian operation to develop a sustainable management model.

"For us, the most important outcomes were technicians with process-specific skill sets. Externally, we met with many different stakeholders to securely land in the Indonesian resource cycling ecosystem. As the leader of the company, I find it most rewarding that we created jobs for those who needed one and got them a stable income source."

In the past three years, they have processed 3,478 tons of plastic waste to produce 2,622 tons of high-quality recycled pallets. "DMC Korea's success owes to technology management. We continue to focus on quality to keep supporting DMC PLASTIK INDONESIA in playing leading roles in the high-value-added resource cycling business," said Kang.

This project is an exemplary case of KOICA's IBS program that interweaved a Korean enterprise's technology and know-how with a development cooperation project. There are growing interests in environmental, social, and governance (ESG) management both locally and internationally, while approaches to public-private partnership to boost the effectiveness of development cooperation and meet business demands are attracting attention. KOICA will continue working with professional business partners to explore inclusive business models to contribute to the sustainable development of both developing countries and businesses. K

1) Film used to bale forage.

Photo 1 Resource circulation network event

Photo 2 Resource circulation network event

Photo 3 DMC Korea Director Kang Won-chul (fourth from right) and staff from DMC PLASTIK INDONESIA


Photo 3

Wastewater and waste treatment capacity strengthening project to improve urban environment in Laos

Laos develops sustainable green cities to overcome pollution

Lao People's Democratic Republic (Laos) is a country with a low population density that is also undergoing one of the fastest rates of urbanization. The solid waste and wastewater issue had not been a serious problem historically. However, due to the country's rapid urbanization and growing urban populations following high levels of economic growth in recent years, Laos has started to face various issues in environmental pollution and poor hygiene facilities. In particular, there is a growing need to establish new systems and measures regarding solid waste and wastewater, which directly impact the urban environment and citizens' health.

Accordingly, the development of sustainable green cities has become a priority of the government of Laos, as environmental issues grow increasingly severe along with rapid urbanization. Laos became a member country of the Global Green Growth Institute in 2017 and has been pushing forward with its plans for green growth and green cities together with GGGI[1]. Upon identifying wastewater and solid waste treatment as an urgent issue following discussions with the Ministry of Public Work and Transports of Laos, KOICA and GGGI jointly initiated in 2019 a project for wastewater and solid waste treatment capacity building to improve urban environments in Laos.

Establishing development plans for green cities in Vientiane and Pakse

The objective of this project is to establish green cities in major cities including Vientiane, the nation's capital, and Pakse, in the Champasak province, by building management facilities for solid waste and strengthening related capacities in Vientiane, and building wastewater treatment facilities and strengthening related capacities in Pakse.

With strong commitment to green growth and the development of green cities, the Laos government sought to enhance its knowledge, experience, and relevant infrastructure. This became KOICA's focus from the early stages as it developed a pilot project and proceeded with infrastructure building as well as supporting policymaking and implementation plans for green cities. While closely working with the Ministry of Public Work and Transports and local authorities, KOICA identified pending tasks and priorities, and drew up developmental policies and implementation plans by stage. At the same time, KOICA sought to enhance ownership through capability-building workshops on green city development for relevant government officials in the two cities.

KOICA also drafted two proposals for projects connected to the Green Climate Fund (GCF) regarding green growth in Vientiane and Pakse. The proposals include capacity strengthening through GCF funds and the establishment of large-scale infrastructure.

The green city development policy and its implementation plan consider the needs of government officials in related fields in Vientiane and Pakse and their capacity strengthening as priority tasks. This policy and its implementation plan in Vientiane and Pakse are expected to contribute to the green development of the two cities in addition to the capacity-strengthening project for waste management and wastewater treatment.

Expanding waste recycling opportunities in Vientiane by strengthening waste management capacities and conducting pilot projects

Waste management is one of the most important agenda items in the development of a green city. Proper waste treatment not only has a direct impact on citizens' health and living standards, but also contributes to economic development. Most developing countries face a range of issues due to inefficient management resulting from insufficient public services and infrastructure.

In Vientiane, the waste collection rate remains low despite rising rates in trash generation each year. This is due to various reasons, such as the high price of collection, low access to services, and a lack of regulations. Much of the collected waste ends up in landfills without sorting. Some 70% of the waste is not collected, but rather illegally buried or incinerated, leading to environmental pollution.

To resolve these solid waste issues in Vientiane, KOICA decided to: (1) establish management strategies for solid waste and build capacities; (2) establish facilities for waste recycling; and (3) implement pilot projects.

Regarding the management of solid waste, KOICA established a 10-year strategy in solid waste management with full consideration of the growing volume of waste in Vientiane. This strategy is significant in that it stipulated and mainstreamed the use of waste as a resource. In addition, KOICA conducted a South-South cooperation knowledge-sharing program to enhance capacities of government officials in major departments. As part of the program, the officials visited India and Pakistan to learn about successful cases of waste management and share the best practices of Laos.

Simultaneously, KOICA started working on the establishment of pilot facilities for waste treatment. In March 2022, the Integrated Resource Recovery Center was completed as the nation's first waste recycling facility. This was a meaningful milestone as it maximized the performance of waste recycling by collecting organic waste from project sites and turning it into fertilizers at the recovery center. The high quality of the fertilizers created from the recovery center drew attention from high-level officials in the government, and they are expected to be utilized for current agricultural activities in the country.

The Pilot Project of Distributed Collection Services was first implemented to enhance access to waste collection services by increasing the number of waste collection points. In 2021, five distributed collection points were installed for 1,600 households in three villages that were difficult for large waste collection trucks to access. The plan was to expand more such distributed collection points. Also, four electric mini-trucks were provided to reach places inaccessible by large waste-collecting vehicles.

In the three villages where the pilot project was launched, citizens also made efforts to promote waste classification through recycling. Bins for food waste and general garbage were provided and awareness campaigns were conducted. As a result of constant monitoring, the rate of accurate waste recycling by residents has been rising. Among the waste, organic waste is transferred to the Integrated Resources Recovery Center, while others go to landfills.

In 2020, KOICA started the Pilot Project on the Waste Recycling Value Chain and another pilot project called Waste Bank in order to analyze the status of local waste management and the value chain, and improve the rate of waste recycling. Thanks to the active participation of 10 local schools with their students, the Waste Bank has successfully collected about 16.5 tons of recyclable waste over the last two years while contributing to awareness-enhancement among students. Based on this success, the Waste Bank has now been expanded to 60 schools and is expected to further enhance the value chain of waste recycling.

Pakse, protecting the Mekong River by improving wastewater treatment facilities

Pakse is located in Champasak province, which is an economic powerhouse of southern Laos. Despite being a major city, Pakse did not have a central wastewater system or wastewater treatment facilities. Insufficient budgets to establish and improve facilities had resulted in untreated or partially treated wastewater being discharged directly into the river. Once the wastewater is discharged, it flows into the Mekong River, located less than 500 meters from the water supply of the city. This has become an imminent threat to the health and hygiene of locals. Also, there was frequent leakage due to the poor level of wastewater treatment in each household. The flooded river during the rainy season impacted not only the city's drainage system but the village's environment, which can threaten residents' health.

To resolve such issues, the project suggested including the improvement of urban hygiene strategies at the national level, establishing wastewater management strategies in Pakse, and establishing scattered wastewater and manure sludge treatment facilities. Previously, the government of Laos had already established the Urban Wastewater Strategy and Investment Plan (2015-2030). KOICA decided to add more details related to hygiene and health to the existing strategy in discussion with relevant government departments. This led to the establishment of a new strategy called the National Urban Hygiene Development Strategy (2022-2030), which has helped the country improve vulnerabilities in wastewa-



Photo 1



ter-related hygiene.

While supporting strategy development at the national level, KOICA has also established necessary strategies and regulations regarding wastewater and manure sludge management in Pakse. That includes the development of (1) a wastewater management strategy and (2) management regulations of manure sludge and wastewater in Pakse by considering local circumstances.

In particular, the management regulations of manure sludge and wastewater were first established in Laos. This was made based on the local conditions of wastewater management, which provides institutional grounds in order to properly operate future distributed wastewater treatment facilities and manure sludge treatment.

In addition, programs were conducted such as the capacity-building workshop for central and local government officials in the field of wastewater management and a South-South cooperation knowledge-sharing program for best practices within Laos. KOICA set the goal of hosting the second knowledge-sharing program in the second half of 2022 with the objective of learning best practices from Indonesia.

Furthermore, KOICA is planning to establish pilot facilities for distributed wastewater treatment facilities and manure sludge treatment facilities through discussions with stakeholders of wastewater treatment in Pakse City and other parts of Champasak. One distributed facility is designed to be connected to 250 to 300 households to share a joint septic tank. Thanks to its benefits of the smaller volume of the initial investment and the inexpensive maintenance fee, it is an ideal type of wastewater treatment that is more suitable for developing countries. The facilities are scheduled to be completed after 9 months of construction after its groundbreaking in the 4th quarter of 2022. Simultaneously, there will be a treatment facility for manure sludge, which can cover 25 tons a day. Twenty-five tons a day can cover the entire discharge of Pakse City.

Other projects of KOICA in the same context of the project include the response to COVID-19 by supporting the establishment of hygiene-focused facilities. As a result, there is now a total of 42 handwashing stations in Vientiane and Pakse, as well support with masks and hand sanitizers.

Upon completion of this project in 2024, the cities are expected to experience significantly improved capability to manage green city policies. Some environmental and health risks are expected to be reduced, such as the inappropriate management of solid wastes and wastewater. In particular, this project is expected to play a greater role as a best practice for cities in Laos that face similar issues with green development, pilot projects, and relevant infrastructure. Once the project is completed, there will be possible options to expand the same project model to other major cities after reviewing expandability and ripple effects.

This project has a direct impact on the accomplishment of the UN's Sustainable Development Goals (SDGs) number 6 (Clean Water and Sanitation for All), Number 11 (Sustainable Cities and Communities), and Number 12 (Responsible Consumption and Production). While many developing countries are going through rapid industrialization and environmental issues at the same time, KOICA hopes this project can serve as a milestone. KOICA will also continue to respond to the climate crisis as well as support developing countries strengthen their capabilities to manage environmental and pollution issues by utilizing advanced technologies and knowhow from various countries. K

1) The Global Green Growth Institute is an international organization that supports the green growth of developing countries since its establishment in June 2010 as a non-profit foundation in Korea. It has become recognized as an official international organization through the UN Sustainable Development Summit (Rio+20) on June 20, 2012.

Photo 1 Completion ceremony of IRRC in Laos

Interview with AtA Michele Sumilas of USAID

Rebalancing power dynamics in international development

Assistant to the Administrator Michele Sumilas explains the agency's internal reforms to strengthen global partnerships aimed at encouraging a more equitable system between donors and partners

On September 14, the Ministry of Foreign Affairs of the Republic of Korea and the U.S. Agency for International Development (USAID) renewed a Memorandum of Understanding (MOU) for our future work together in development cooperation.

On the occasion, KOICA met with Assistant to the Administrator (AtA) Michele Sumilas of USAID's Bureau for Policy, Planning and Learning, who shared USAID's vision and goals for the coming years, and the role of the KOICA-USAID partnership in today's world of simultaneous crises.

In particular, AtA Sumilas outlined USAID's emphasis on localization as a means to foster a more equitable system between donors and partners in international development and humanitarian assistance. Under this direction, USAID has reformed its Risk Appetite Statement and is releasing a new Acquisition and Assistance Strategy to substantially enhance and expand locally-led development.

USAID is also focused on the areas of global health security, global food security, climate adaptation and resilience, and ensuring access to water. In addition, USAID is increasing its efforts to strengthen equitable partnerships based on mutual trust and respect, including with KOICA, to support partner organizations and identify common aspirations.

How does USAID currently define its role in the global development landscape?

As one of the largest bilateral development organizations, USAID's goal is to provide resources that will allow humanitarian and international development efforts to save lives, reduce poverty, strengthen democratic governance, and help people progress beyond assistance.

Administrator Samantha Power has laid out a vision where we aim to work closely with local partners, civil society partners, businesses, and philanthropies to help local communities address and solve their own development challenges.

Photo 1



What are some of the key initiatives that USAID is focusing on in the coming years, especially in today's global development landscape characterized by multiple and interlinked crises?

We are currently facing simultaneous complex crises, and it's putting a very big strain on the international system. Our focus will be on addressing global health security, COVID-19 and its impacts, and how we can prevent future pandemics. We're also looking at mitigating the impacts of climate change with a specific focus on adaptation and resilience.

We're looking to support efforts that prevent conflict and support peacebuilding, and also to reinforce democracy to address corruption and uphold human rights.

Finally, we're looking at how we can support and increase, internally, our diversity, equity, and inclusion work and, externally, on shifting the global power dynamic between donors and partners, as well as enhancing and expanding locally-led development as part of our agenda. Our internal and external efforts reinforce each other and will position the Agency to achieve some of the most complex and overlapping challenges of our generation.

We are also very focused, as we have been over multiple administrations, on the global food security situation -- with a specific focus on the Sahel and the Horn of Africa -- further exacerbated by Russia's unprovoked invasion of Ukraine, which is disrupting food and fertilizer production and shipments. U.S. Secretary of State Antony Blinken has released a Roadmap for Global Food Security, and we are working together with other departments and partners to address this issue.

Could you elaborate a little bit more on your climate-related initiatives?
Sure. President Biden made this a priority very early in his administration, releasing a whole-of-government effort to address climate change. It's very clear that we cannot secure sustainable, inclusive development without addressing climate change both domestically and internationally. We have ambitious targets for decarbonization and building increased resilience. We have a new climate strategy for the entire government and the United States has committed to halve our emissions by 2030, reach net zero by 2050, and quadruple our international climate finance to 11.4 billion dollars by 2024. These are very ambitious targets but we also are very excited about them.

President Biden has also launched a plan to conserve global forests which outlines how we will end deforestation and restore an additional two hundred million hectares of forests. USAID is a key player in this effort in terms of the international focus; our leadership has defined our agency as a climate agency. We're mainstreaming climate change into all of our programs, and we recently released a new climate strategy which focuses on mobilizing over 150 billion dollars in public and private climate finance by 2030 to address adaptation and clean energy needs.

I understand that localization is a key policy and a strategic direction for USAID, which you are pursuing not only within the agency but also promoting globally through policy dialogue with other donor agencies as well. What is the essence of USAID's localization policy and how it is being implemented?
We are very committed to building a more equitable international development and humanitarian assistance system by changing the power dynamics to address imbalances between donors and partners -- by elevating local voices and working through local community-based partnerships. We've been reassessing how we engage with our partners and putting in place several new ways of working.

To begin, we're looking at our policies and programs. We have updated our Risk Appetite Statement to better clarify the level and type of risk the Agency is willing to accept in our work, including with local organizations. We're also releasing a new Acquisition and Assistance Strategy that empowers staff to use a variety of award types to more effectively partner with a diverse range of local actors.

We have set two targets. One is that by 2025, a quarter of our obligations will go to local organizations. And by 2030, we have a goal that 50 percent of USAID activities will put local actors in the lead as we design, implement, and evaluate our programs.

These are very ambitious targets. But our point is that we expect our missions around the world to work differently.

We will continue our work with international NGOs and multilateral organizations, but also prioritize local partners which can include the local business sector, faith-based organizations, and other community-serving organizations.

Basically, our localization effort is strengthened and is embedded in our inclusive development approach, which seeks to ensure that all people, including those who have been marginalized or underrepresented in the past can participate in the planning, shaping, and executing of development initiatives from which their own communities will benefit.

We have two mantras, "Do no harm" and "Nothing about us without us." We need to be talking every day to our local partners and understand that they have the best answers. There's a lot of work to do; this is a very ambitious agenda but we believe it is possible. We're working with other donors to lay out a set of principles that we can all abide by.

How is USAID's current localization agenda differentiated from the past?
USAID has been pursuing and sharpening its localized assistance for many years. In the Obama Administration we called it USAID Forward, where we had a target that 30 percent of our funding would go to local partners. In the Trump Administration, we launched the New Partnerships Initiative, which was an opportunity to reach new partners and create platforms for enriched dialogues and collaboration.

What we think is different now is that, in the past, the focus has been about counting the number of new partners, counting dollars going to the ground. That is still very much a part of this initiative. But the other part is that we're changing the way we, our USAID staff, work. We're instituting new training programs about how to seek feedback from local communities, and we're encouraging the use of more flexible assistance awards to help local partners access USAID funds. Many times, it is our statutes and regulations that make it difficult for local partners to engage. It's not that they can't, it's that we have so many requirements.

And finally, we're also addressing risk management issues and concerns around corruption. We use the word corruption to mean everything from "Have you submitted a time sheet or a tax receipt?" to a large scale stealing of funds. We're trying to differentiate standards on what really is corruption, and what are maybe misunderstandings that require some new processes to better understand.



What is USAID's direction for partnerships with its fellow donor agencies?
USAID has always had strong partnerships with its fellow donor agencies. In our administration we are prioritizing finding common solutions and common directions. For that reason, we've recommitted to the Sustainable Development Goals (SDGs) and to the global community to let everyone know that we remain very engaged.

We are very excited about the long-standing relationship we've had with KOICA, and today we signed a renewed MOU (with the Ministry of Foreign Affairs) which was based on six years of already good global development cooperation, so that we can together foster freedom, prosperity, security, and good development outcomes.

We will be looking at doing various programs together whether it is combating climate change in the Pacific Islands or looking at cybersecurity across the world, and will develop a work plan in the coming days. We look forward to doing that.

What significance do you think the Korea-US and the KOICA-USAID partnership have in the development cooperation landscape?
We have had a very long-standing relationship, and are proud to support Korea as it emerges on the world stage as a development leader. This is another chapter in our ongoing relationship and we're looking forward to having an equitable partnership with Korea in the development space. We are seeking ways where we can collaborate and support efforts that Korea has put on the table, as well as work collaboratively.

Recently, we had our first collaborative swap of resources where KOICA provided resources to support projects in the Philippines. This reflects our mutual trust and respect for each other, and it is an important new chapter for the global community and for Korea. K

Photo 1 Assistant to the Administrator Michele Sumilas of USAID's Bureau for Policy, Planning and Learning

Dr. Diah Natalisa, Deputy Minister for Public Services at the Ministry of Administrative and Bureaucratic Reform

LAPOR grows as efficient e-government system in Indonesia

Following her participation in KOICA's e-government training program, Dr. Diah Natalisa, Deputy Minister for Public Services at the Ministry of Administrative and Bureaucratic Reform, remarked that she was "greatly inspired" by the Korean government's public system. "I am excited to return to Indonesia and apply the knowledge and findings."

The Deputy Minister visited the Anti-Corruption and Civil Rights Commissions of Korea during her participation in the training program on the citizen-centered online petition and civil complaint handling system of Indonesia, called LAPOR[1)], from September 18 to 24. The training program is part of the KOICA-UNDP partnership for capacity building on an integrated national complaint-handling system. Deputy Minister Natalisa detailed the progress of LAPOR and its development into a new communication channel for the Indonesian government.

LAPOR, growing into an important complaint-handling system in Indonesia

"LAPOR has become one of the most important petition and civil complaint handling systems in Indonesia. In the early stages, only 41 organizations were connected to LAPOR, whereas it is now connected to 663 entities. Within this single integrated system, all petitions and complaints are collected and delivered to relevant organizations that are authorized to resolve the issues. That means that LAPOR has significantly enhanced both efficiency in administration and citizens' convenience in using public services."

The introduction of an online petition and civil complaint handling system can contribute to efficiency in administration, and integrity and transparency in government, which in turn leads to the enhancement of democracy and economic development. In 2012, the Indonesian government established LAPOR as an online system to handle petitions and civil complaints with the aim of preventing and eradicating corruption. Initially, LAPOR faced difficulties in its operations due to a lack of relevant policies and insufficient resources; the rate of responses to complaints lagged at 25%.

Together with the UNDP, KOICA is providing support of 5.2 million USD from 2019 to 2023 to establish and strengthen the capacity of the integrated complaint handling system, based on the Korean citizen petition handling system. The core of the project is to integrate the government's scattered petition and complaint collection systems into LAPOR. To that end, KOICA transferred its experience and knowhow in establishing and operating the Korean petition and complaint handling system, e-People. To establish an integrated management system for collecting petition and civil complaints, KOICA first established a mid-to-long-term master plan and accordingly devised policy consulting plans. At the same time, KOICA continues to provide local training for 490 government officials to enhance capabilities in the central and local governments. Other programs that KOICA include a workshop to enhance awareness among civil servants and a promotional campaign among the public.

Deputy Minister Natalisa highly noted the improvements. "This project helped us successfully improve the overall system in public services. We are particularly satisfied with the significant improvements in the quality of the petition and complaint management system." The deputy minister also added, "The government of Indonesia is now able to offer better public services by providing opportunities for citizens to actively participate in system monitoring thanks to the improved LAPOR. Such efforts will continue to enhance the welfare level of the nation and allow us to improve the reliability of government systems."



Photo 1



Photo 2

Invitational training resumed after COVID-19, participants offer positive feedback

In 2022, KOICA resumed some of its invitational trainings that had been suspended for three years due to COVID-19. All three scheduled trainings for policymakers, ICT managers and operational managers were hosted as planned. The Deputy Minister said, "These trainings enabled us to learn how to create an ideal petition and civil complaint handling systems and what efforts are being made by the central government of Korea."

The training for ICT and operational managers was held for 14 days between August 14 and 27, targeting those who work in the field of system development and operation as well as working-level civil servants. Participants acquired the operational knowhow and relevant techniques in operating the petition and civil complaint handling system through lectures and visits to relevant organizations. The training for policymakers was hosted for 7 days between September 18 and 24. Director-level policymakers from Indonesian local governments visited Korea to have exchange opportunities with their counterparts in Korea. By visiting the Government Community Service Center and other organizations that deal efficiently with civil complaints (e.g. Seoul Metropolitan Government), participants had first-hand experience on rendering civil services and improving government reliability.

In particular, participants provided positive feedback while visiting organizations related to petition and civil complaint handling. KOICA confirmed high interest and demand for on-site visits, and accordingly reflected these requests in this year's in-person program. Deputy Minister Natalisa was especially inspired upon visiting the Ministry of Interior and Safety and the Anti-Corruption and Civil Rights Commissions of Korea.

"During my visit to the Ministry of the Interior and Safety, I was impressed by the maturity level of the Korean government system. At the Anti-Corruption and Civil Rights Commission, I observed how the complaint management system in Korea is striving to expand the participation of local communities. I am excited to apply the knowledge I gained from the visit when I return to Indonesia."

Transferring operational knowledge, enhancing speed of complaint management

The project in Indonesia has been yielding positive results. The Deputy Minister shared statistics, which indicated that the number of complaints rose by 24.7% from 123,560 in 2018 before the project to 164,143 in 2021. The handling rate increased from 71% in 2018 to 84.9% in 2021. The pace of LAPOR's processing in dealing with such petitions and civil complaints had previously been 14 days in 2018, which has been reduced by half (6.3 days) in 2021. The number of users also rose from 790,000 to 1.39 million, showing a 75% hike. According to Deputy Minister Natalisa, Indonesia's efforts to enhance its information system and capacity building for organizations are still ongoing. She also added that the government is giving awards by selecting organizations with outstanding civil services as an incentive tool.

LAPOR has also been an effective communication channel in the course of tackling COVID-19 issues. The Deputy Minister said, "Amid COVID-19, LAPOR has become a communication tool that can inform citizens on the issues facing their local communities." The government of Indonesia is effectively accelerating its processes in dealing with COVID-19-related inquiries through LAPOR and actively utilizing the system to announce preventive measures to citizens. The government has also executed various measures to shorten the process of petition and civil complaint filing regarding COVID-19 and has also issued guidelines to develop relevant systems.

Regarding Indonesia's national plan to realize digital government, the Deputy Minister said, "Regarding our efforts in digital government, we are currently building a public service portal, which in the future is expected to be the entrance for all government services. As Deputy Minister for Public Service, I feel it is very important to learn as much as possible from countries such as Korea, which have advanced e-government services. Such knowledge sharing will allow us to realize high-quality public services based on information in addition to complaint handling. I hope the cooperation between Indonesia and Korea will continue fruitfully."

KOICA hopes to contribute to the transparency and openness of the Indonesian government by 2023, the final year of the project. KOICA plans to continue expanding its anti-corruption and integrity activities in its ODA projects, with the aim of promoting government transparency in developing countries and supporting the realization of sustainable development and mature democracy. K

1) Layanan Asdpirasi dan Pengaduan Online Rakyat (citizen-centered online petition and civil complaint handling system of Indonesia)


Photo 3

Photo 1 Dr. Diah Natalisa, Deputy Minister for Public Services at the Ministry of Administrative and Bureaucratic Reform

Photo 2 Introductory video of LAPOR played at Manggarai Station

Photo 3 Dr. Diah Natalisa, Deputy Minister for Public Services at the Ministry of Administrative and Bureaucratic Reform


Photo 1

Project to support establishment of Vietnam-Korea Institute of Science and Technology (VKIST)

Toward future of science and technology in Vietnam

As an emerging country in ASEAN with great potential, Vietnam enjoys ample growth opportunities and engages in a variety of active exchanges with Korea. Vietnam's competitive labor costs and abundant natural resources have attracted foreign investors and largely driven economic development. Meanwhile, the fact that most sectors are confined to primary and secondary industries such as agriculture and manufacturing can be a limiting factor for development. In response, the Vietnamese government recognized the need for R&D in science and technology to transition into an industrial economy that can create high value-added. Accordingly, in 2012, the Vietnamese government made an official request to Korea for support in establishing the Vietnam-Korea Institute of Science and Technology which was modeled after the Korea Institute of Science and Technology (KIST). This project was implemented as an official development assistance (ODA) project involving the joint efforts of KOICA and the Korea Institute of Science and Technology (KIST) and their expertise.

Boosting science and technology infrastructure for Vietnam's industrial development

Vietnam's science and technology infrastructure had seen much room for improvement. There was an insufficient number of specialized institutions capable of independently conducting quality research and developing scientific and technological manpower systematically. VAST (The Vietnam Academy of Science and Technology), a national institution in the field of science and technology in Vietnam, in its previous form lacked the capability to utilize research to meet technological demands. The conditions in academia also required enhancements. The Vietnamese government invested in research and development infrastructure in only a small number of large universities, leaving most of the less prestigious universities significantly outdated and underequipped, and still using equipment and facilities from the 1960s and 1970s.

Such shortcomings in infrastructure had created obstacles to the expansion of science technology to applied technology. The number of international patent applications in Vietnam was 11 as of 2011, relatively lower than that of neighboring countries such as Malaysia, Singapore, Thailand, and the Philippines. As of 2007, 52 papers from Vietnam National University were published in internationally prestigious journals, and 44 papers by VAST, a national science and technology institution. This reflected a difference compared with the University of the Philippines, which published 220. There was thus untapped potential in the utilization of science and technology talent in Vietnam, and a need for an international perspective and initiative in the area.

To enhance Vietnam's science and technology capabilities, a new approach was needed, including the establishment of a new R&D structure and securing of a pool of excellent scientific talent. Accordingly, the Vietnamese government has made it a key national task to break away from the primary industry-centered economic structure and lay out a foundation for Vietnam's potential and capability to become a thriving, advanced economy. In pursuit of this goal, the Vietnamese government sent an official request to Korea, seeking support in establishing a national science and technology institution similar to KIST, the Korean institution for science and technology that has significantly contributed to national economic development. Accordingly, in 2014, KOICA signed a public cooperation agreement with KIST and initiated a project designed to transfer Korea's science and technology capabilities to Vietnam through a budget of 35 million dollars for a total of 9 years from 2014 to 2022.

Vietnam's first eco-friendly, state-of-the-art science and technology research institution is born

The main goal of the VKIST (Vietnam-Korea Institute of Science and Technology) project is to establish research facilities and infrastructure on par with that of KIST. During this process, Hoa Lac High-Tech Park, one of the largest science and technology innovation complexes near Hanoi, was selected as VKIST's main building. Hoa Lac Hi-Tech Park has excellent transportation options to and from Hanoi, and is an area rich in science and technology manpower with Hanoi National University located adjacent to the park.

After four years of construction, VKIST is now open and equipped with facilities including three research buildings, one main building, a central machinery building, a wastewater treatment plant, and hazardous materials storage, sitting on a site of 231,404 square meters. Research equipment, experiment equipment, and digital equipment necessary for cutting-edge science and technology research were all added to complete the state-of-the-art research institution that boasts a total of 592 pieces and 179 types of research equipment.


Photo 2

The research center building was built to reflect an eco-friendly design from the beginning of the construction process. This was an important result of efforts to respond to climate change and to reflect the future direction of science and technology. In particular, Vietnam has been ranked as one of the countries most vulnerable to climate change due to greenhouse gas emissions. In preparation for natural disasters, the lower floor of the laboratory used pilotis, a form of support used to lift a building above the ground, leaving room for a motorcycle parking lot. As a result, VKIST received the first green building certification (G-SEED) in the overseas ODA field and has been recognized as the sole eco-friendly, cutting-edge research facility in Vietnam.

Consulting services were provided for an effective and smooth process to transfer KIST's operational know-how. KIST established an action plan as part of its mid-to long-term development plan for VKIST operation and provided general consulting on the overall operation of the institute, including institute regulations, personnel management, financial management, and administration. A great deal of effort was put into establishing a business model specifically customized for VKIST to reflect the unique characteristics of Vietnam, through seminars joined by field experts.

KOICA has put its utmost efforts into strengthening the capabilities of science and technology professionals by dispatching science and technology experts to Vietnasm and inviting VKIST teams to Korea for training. In collaboration with the Ministry of Science and Technology of Vietnam, qualified trainees were selected and received 7-day short-term training on science and technology policy, administrative management, and technology commercialization, as well as 60-day mid-term training for research practice and research management.

A degree program was also set up to foster masters and doctorate-level science and technology research personnel in an effort to strengthen Vietnam's research capabilities. The program was supported by the International R&D Academy (IRDA) operated by KIST to educate master's and doctoral level students, contributing to nurturing research professionals at VKIST from the early stages of the project. In addition, to establish a stable and efficient operation system, local employees were trained on a wide range of topics including research equipment and computer system operation, and construction management, etc. The students who received hands-on training that was conducted locally were placed in available positions immediately after VKIST opened.

Acquiring patents through fourth industry-centered joint research, enhancing VKIST's competitiveness

A pilot joint research was also conducted with KIST so that talented employees of VKIST could learn about KIST's know-how and raise the competitiveness of VKIST. A pilot study was also conducted based on customized research which selected topics tailored to the characteristics of Vietnam, industry demand, and the 4th industry sector that would help Vietnam to overcome the detrimental effects of the COVID-19 pandemic. As of November 2022, 36 doctoral-level researchers are carrying out research at VKIST.

Last year, the institution won more than 10 external research projects, including studies on electric vehicle motors, bird flu diagnostic sensors, infant face recognition, and technology development. As a result of joint research with KIST, an application for a patent on research for the production of skin lightening composition containing Gac extract, a natural plant in Vietnam, was made at KIST in November of 2021. The study is currently in the process of applying for the Vietnamese patent. Research on the development of 11KW electric motors to meet demand in the electric vehicle market passed the pilot performance test in Korea and Vietnam with flying colors, and will be followed by research on the commercialization of the technology.

Such specialized research in the 4th industry sector customized to the characteristics of Vietnam is an important factor that shows how VKIST is differentiating itself from other leading research institutes and boosting competitiveness. This is due to the fact that most research conducted by other research institutes in Vietnam, such as VAST, are still dwelling on subjects focused on primary and secondary industries. With KIST's support, VKIST was able to achieve a 67% increase in the number of research requests made from outside VKIST in 2021 compared to the previous year.

VKIST, Vietnam's growth engine for future industries

VKIST plans to focus on R&D with the goal of developing new materials and IT-BT convergence technologies that can respond to the 4th industrial revolution. As a result, the development of science and technology that can be applied to future flagship industries will help Vietnam's industries grow together and create an opportunity to attract foreign investment. Furthermore, VKIST is expected to contribute to strengthening technology transfer and business cooperation between companies as a base for science and technology exchange and cooperation between Korea and Vietnam.

In 1966, when KIST was established, Korea was struggling to overcome the aftermath of war approximately 10 years after the outbreak of the Korean War, which ended with the armistice agreement. At the time of the Korea-U.S. summit in 1965, the Korean government prioritized the development of science and technology to fuel industrial development. It thus requested support from the U.S. in establishing a science and technology research institute, upon dispatching troops to Vietnam.

This request was accepted, and KIST was established the following year, contributing significantly to laying the groundwork for Korea's industrialization and science and technology development. Korea, which used to have a per capita income of fewer than 100 dollars, has grown into a developed economy with a per capita income of over 30,000 dollars. KOICA hopes that VKIST will be a successful model in Vietnam, a country which shares many similarities with Korea. VKIST will go beyond Korea-Vietnam cooperation, growing into a hub for Korea-ASEAN cooperation.

KOICA has maintained a close cooperative relationship with Vietnam as a partner country since the opening of the KOICA Vietnam Office in 1994. With the goal of promoting exchanges and bilateral cooperation between the two countries, KOICA will continue to provide constant support in Vietnam's journey as a modern, industrialized country. K

Photo 1 View of VKIST Building

Photo 2 Experiments conducted at the Vietnam-Korea Institute of Science and Technology

Implementing the Health for All (HEFA) Program in Limpio Municipality

Strengthening primary healthcare in Paraguay

Primary healthcare refers to the entry-level, community-based health system. This includes a patient's visit to a neighborhood clinic for examination and treatment, and the identification and management of patients with chronic diseases or organization of health education programs by community health centers. In this context, primary healthcare forms a cornerstone for national health. Paraguay was in need of improvements to its primary healthcare system, experiencing persistent problems such as overcrowding in higher-level hospitals and poor management of chronic diseases. These were attributable to underdeveloped facilities and equipment at public health centers and the lack of medical service capabilities to retrieve patients' health information in detail. To deliver quality primary healthcare and develop a micro-network of regional healthcare in Paraguay, KOICA decided to provide support of 14.43 million dollars through the Health For All (HEFA) project to form and consolidate a healthcare network and strengthen primary healthcare in the Limpio Municipality, Central Department, Paraguay in 2016.

Lack of primary healthcare institutions and patient management capabilities in Paraguay

From 2008 to 2010, KOICA carried out the childhood and maternal mortality reduction project in three regions surrounding Asuncion, Central Department, Paraguay and contributed to improving child and maternal health in Paraguay. Under this project, the agency provided three regional hospitals – Limpio Hospital, Cabiata Hospital, and Villa Elisa Hospital – with improved facilities and equipment to help them raise the quality of their healthcare services.

After this project, however, they faced overcrowding as patients flocked to hospitals in possession of quality healthcare systems. Public health centers and branches being the primary contact point with community healthcare only had limited facilities and equipment, resulting in patients in these regions being concentrated in the select hospitals.

The poor functioning of the primary healthcare system also meant ill-organized treatment for and management of patients with non-communicable diseases. Hypertension, diabetes, obesity, and other chronic, non-communicable diseases require careful management by the state as they lead to increases in population mortality. However, Paraguay, lacking medication and medical staff, could not fully respond to these diseases. Indeed, data from the World Health Organization showed that cardiovascular disease and diabetes accounted for almost 40% of all deaths in Paraguay. Medical expenses associated with these chronic diseases would further aggravate without improving the primary healthcare system.

Against this backdrop, KOICA selected Limpio Municipality, which was experiencing surges in population driven by overpopulation in the nation's capital Asuncion. The objectives of this project were to build on the capabilities of primary healthcare institutions and redefine the roles and functions of Limpio Hospital as a tertiary hospital, thereby bringing effective changes to how locals use healthcare facilities.

Building and refurbishing 20 public health centers and running 24/7 delivery rooms in Limpio: Preparedness for emergency situations

There were seven public health centers and nine branches in Limpio Municipality, but Limpio Hospital still remained the first choice for most patients. In addition to the obstetrics & gynecology and pediatric departments that had benefited from the childhood and maternal mortality reduction project completed in 2010, other disciplines such as internal medicine and surgery were experiencing surges in patients, leading to extreme overcrowding in Limpio Hospital. The number of patients far exceeded the hospital's infrastructural and equipment capacity, and the institution faced difficulties in providing quality healthcare services.

To reinforce primary healthcare institutions and build a proper healthcare service delivery system, KOICA supported the building of 17 public health centers and



Photo 1

refurbished three public health centers in Limpio Municipality. For the development of the healthcare service delivery system, the agency designed a network of 20 public health centers where the municipality would be divided into four areas, and in each area an amplified public health center would oversee four standard public health centers. Under this system, four amplified public health centers and 16 standard public health centers were constructed in Limpio.

Distributed throughout the municipality, the standard public health centers have examination rooms and vaccination rooms for basic care and vaccination. As higher-order healthcare service providers, the four amplified public health centers were built in consideration of multiple factors including distance from Limpio Hospital and the residential areas of vulnerable groups. Their services cover those unavailable at standard public health centers, including delivery and dentistry. They also have a clinical laboratory and examination rooms and feature delivery rooms open 24/7. In addition, they operate an emergency room hotline that ensures streamlined transfer to Limpio Hospital's emergency room and offer chronic disease prevention programs that provide care for patients with hypertension and diabetes. KOICA also donated bicycles to these public health centers to facilitate outcalls for people living in a distance or with limited mobility to better prevent non-communicable diseases.

Efforts were also made to further expand Limpio Hospital. A newly built two-story wing has children's and adults' emergency rooms on the first floor and seven pediatric care units on the second floor. The building also has an emergency operating room, consultation rooms, and examination rooms. Standing next to the new wing, the existing maternity ward underwent exterior and interior refurbishment, and the clinical lab was remodeled as part of the hospital's functional expansion. On request from the Ministry of Public Health and Social Welfare of Paraguay, hospital equipment and facilities were also expanded. This helped the hospital overcome overcrowding and dedicate itself to its original role of looking after seriously ill patients who cannot be treated in public health centers, and to provide well-timed healthcare services.



Photo 2

Non-communicable disease management programs, human capacity building, and performance management to improve the quality of healthcare services

The key aim of this project was to fundamentally strengthen the region's primary healthcare, rather than merely expanding the functionality of the public health centers and hospitals. For the 260,000 citizens in Limpio, KOICA pursued a range of programs including the development of a non-communicable disease (NCD) registration program and capacity building for healthcare institutions and the Ministry of Public Health and Social Welfare.

Developed inhouse by the project executing organization, the NCD registration program does not require internet access. The program contains patients' general information (name, gender, date of birth, competent public health center) and health information (date examined, blood pressure, NDC details, BMI), allowing the identification of patients with hypertension and diabetes in the region for treatment and management.

With this program, KOICA established the basis for preventing and managing NCDs in Limpio. Furthermore, the four amplified public health centers offer NCD prevention programs and social prescription programs designed to curb the morbidity of chronic diseases, including dietary therapies, weight control, and workout tips.

Capacity building programs for healthcare professionals were also developed. A Master's program in public health was opened for doctors, nurses, midwives, and health ministry officials, and Paraguay's first public health textbook was published. Also, a community hygienist course was prepared for community workers to provide basic patient care and run community health promotion and disease prevention programs, thereby raising the level of healthcare services to residents' satisfaction. To learn from advanced countries' and neighboring countries' experience in healthcare system development and facilitate networking, an international forum for the strengthening of primary healthcare-centered health systems was organized in cooperation with Brazil, Peru, Spain, and Korea.

Moving forward from residents' health improvement and management, the 20 public health centers organized local committees for the improvement of the quality of residents' lives. They actively engage in committee activities to take the initiative in the development of their communities in various aspects including health, education, security, and hygiene. Limpio Municipality established health promoting school and healthy city plans, under which the municipal office, police, fire brigade, and community organizations delivered drinking water to communities and developed vocational training programs for low-income classes. The municipality obtained a healthy city certification from the Ministry of Public Health and Social Welfare and is pursuing the WHO's healthy city and health promoting school certification.

From strengthening primary healthcare to setting an exemplary model for Paraguay's health system

Because visible outcomes require time, follow-up management is essential. In this regard, KOICA worked with PAHO Paraguay that has ample experience in regional healthcare system development and the project executing organization to build a robust performance management system. This will ensure organized performance management by, for example, satisfaction surveys of local residents and comparative analysis of the quality of primary healthcare before and after the project.

KOICA aspires to successfully build a micro healthcare delivery system (MICRORED) in Paraguay under this project and present a model for the Paraguayan government to replicate and expand. The successful completion of this project will lead to improved awareness of public healthcare services and greater accessibility, earning residents' trust in primary healthcare institutions. Going beyond the strengthening of primary healthcare in Paraguay, KOICA will also contribute to building healthcare systems tailored to local contexts and strengthening the health ministry's human capacity building. K

Photo 1 Completion of Limpio Hospital

Photo 2 Opening ceremony for an amplified-type public health center in Paraguay

Project to improve management capacity and establish civil aviation training center in Cambodia

Nurturing aviation professionals, fortifying aviation safety in Cambodia

The travel and tourism industry is a significant part of the gross domestic product (GDP) of Cambodia. Until COVID-19, the country had experienced notable yearly increases in the number of passengers that pass through its international airports. Alongside this growth in tourism, Cambodia was experiencing difficulties in ensuring aviation safety and capacity, as evidenced in the evaluation conducted by the Universal Safety Oversight Audit Program (USOAP) of the International Civil Aviation Organization (ICA) which yielded below global average results in all categories of international standards compliance. In an effort to support the Cambodian government, KOICA established the Cambodia Civil Aviation Training Center at Phnom Penh International Airport in Cambodia in 2017 to provide physical and human resources to enhance Cambodia's aviation sector and its safety.

Room for breakthrough in Cambodia's aviation industry

KOICA identified three major issues in the Cambodian aviation field during in the early stages of project implementation. First was the absence of national aviation institutions that could train field professionals and conduct safety management training. Until the project, Cambodia's aviation professionals had received relevant training overseas in neighboring countries such as Thailand and Vietnam; all 18 pilots of Angkor Air, Cambodia's national airline, had been Vietnamese nationals.

Secondly, there was an insufficiency in technical aviation training programs, which posed risks to adequate preparation processes for safety. While meticulous procedures regarding even the most minor of aircraft defects are crucial in terms of aviation safety, Cambodia had previously scored a grade of 4.5 (below the world average of 6.37) in the aviation safety assessment conducted by the International Civil Aviation Organization.

Finally, room for improvement existed in airport infrastructure. 80% of foreign visitors to Cambodia arrive at the country for the purpose of tourism, making tourism in Cambodia an important sector of the economy. Before COVID-19, the annual number of passengers using Cambodia's international airports had been steadily increasing from 5,076,730 in 2013 to 10 million in 2018. Somewhat disparate from the expanding tourism industry, however, the quality of air service had been at a standstill. Out of a total of 11 airports in Cambodia, only 3 were in regular operation due to lack of budget and operational know-how. Accordingly, there was great need to establish adequate airport infrastructure and improve the quality of air service.

The Cambodian government thus selected aviation sector development as a priority sector, according to a strategic plan to develop tourism (2012-2020). By 2020, the goal was to receive more than 7 million foreign tourists annually, achieving an annual tourism revenue of up to 5 billion USD, while creating 8 million jobs in tourism. Upon request from the Cambodian government, Korea thus embarked on a project to set up a training center that can nurture field professionals and support the building of aviation-related technical infrastructure. Korea had possessed expertise in the area, previously receiving the highest score in the evaluation results of the Universal Safety Oversight Audit Program (USOAP) conducted by the International Civil Aviation Organization (ICAO). KOICA thus set out to cooperate with the Cambodian government in reaching its goal by contributing to the strengthening of civil aviation capacities and thus further bolstering the country's booming tourism sector.

Enabling autonomy in training through establishment of civil aviation training center

As part of this effort, in 2017, a Civil Aviation Training Center (CATC) was established at Phnom Penh International Airport with a budget of 10.1 million USD. This institution provides comprehensive training courses for field professionals to strengthen aviation capabilities, air traffic control, air navigation safety facilities, aviation security, airport safety, and airport operation. Training equipment such as simulators (mock



Photo 1

training devices) mimicking the layout of the Cambodia International airport were installed to allow effective and engaging training.

KOICA provided additional support through practice equipment needed at the air navigation facility, general supplies for the training center, and through experts dispatched to Cambodia to offer professional advice on the operation of the training center. The agency also cooperated to create valuable opportunities for Cambodia to develop its own curriculum and nurture local instructors. As part of an invitational training program, trainees were invited to Korea to learn about air traffic control, air navigation safety facilities, aviation safety and security, and airport operation. Even during periods of COVID-19-induced tourism slumps, the Civil Aviation Training Center continued its professional training programs on aviation safety for airport staff.

As a result, the level of autonomy in aviation training, which had only been 19.6% before the establishment of the center, jumped to 65.7% in 2017, and has continued to rise, reaching 67.7% in 2018. The employment rate of train-to-hire also increased from 88.14% in 2017 to 92.57% in 2019. This suggests that the aviation sector in Cambodia has successfully secured both physical and human resources for independently-led growth in the future.

The Civil Aviation Training Center aims to go beyond ensuring autonomy in the aviation sector and spread quality


Photo 2


Photo 3

training practices to neighboring countries that face similar situations in the industry. Before the establishment of the Civil Aviation Training Center, Thailand had been a training destination for Southeast Asian countries such as Laos and Myanmar. The center aims to attract aviation trainees to Cambodia as well by offering high-quality training.

Training center elevated to national institute with degree programs

One of the most important achievements of the Civil Aviation Training Center is the creation of an environment in which Cambodia can independently develop its aviation sector, through the establishment of training facilities and training courses and the securing of professional instructors. An added benefit was reduced costs in aviation human resource training due to the provision of training programs at home. High satisfaction among trainees was another fruitful outcome. One trainee who completed the training course at the Civil Aviation Training Center was able to obtain an airplane controller's license upon taking the 4-month ATC training course, without any prior knowledge in the aviation field. The trainee has returned to the Cambodian Aviation Authority (State Secretariat for Civil Aviation) and is passing on field know-how and lessons learned to colleagues.

Following significant achievements, the Civil Aviation Training Center was elevated to the National Institute of Civil Aviation (NICA). The upgraded status of the training center was a milestone in the development of Cambodia's aviation industry, rendering long-term education and the obtaining of degrees possible in the aviation sector. While the Civil Aviation Training Center had offered short-term training of 1 to 2 weeks, the National Institute of Civil Aviation now offers a variety of training courses through short-term, mid-term, and long-term programs. This also means that a path has been opened for high-school students who seek to enter the aviation industry as professionals after graduation.

Such improvements are expected to contribute to Cambodia's aviation management capacities in the long run. The three international airports (Phnom Penh, Siem Reap, and Sihanoukville) that are currently operating in Cambodia require additional manpower for management, while two additional international airports (Phnom Penh New Airport and Sihanoukville New Airport) are currently under construction. The institute is expected to alleviate manpower shortage in the aviation field by producing trainees who complete the curriculum of the National Institute of Civil Aviation for employment in the field after graduation. KOICA will continue to support follow-up management and country-specific training so that the institute can play a greater role in contributing to Cambodia's aviation field. To this end, KOICA is also preparing to participate in the 'Instructor Capability Building Project for Cambodia's Aviation Industry 2024-2026.'

Being Korea's first ODA project in the aviation sector, this project has been significant for the country and KOICA as well. Through the project's favorable outcomes, KOICA plans to continue to support developing countries with human resource development and training programs in strengthening the aviation industry. K

Photo 1 Cambodia Aviation Training Center that has been upgraded to the National Aviation Training Institute as of February 2022

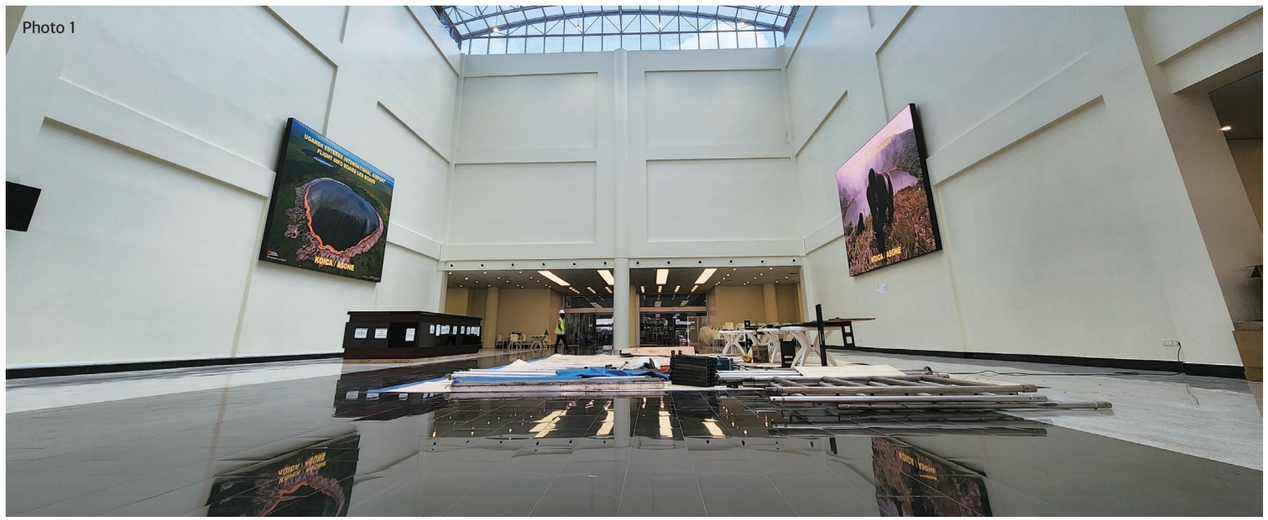
Photo 2 Students take a class at the Cambodia Civil Aviation Training Center

Photo 3 Trainees at the civil aviation training center of Cambodia participate in a control simulator class

Bolstering the airport system in Uganda

From handwritten operations to state-of-the-art system: Transforming Entebbe International Airport

On September 22, KOICA held a closing ceremony for the project to improve the system of the Uganda Entebbe International Airport System (2014-2022/USD 9.5 million) at the airport, located in the southwest of Kampala, the capital of Uganda. It was a celebration of the successful establishment of a world-class airport management system at Uganda's gateway airport, the result of hard work carried out for the past nine years. This article looks into KOICA's efforts to support Uganda in rising to an air logistics hub in the East Africa region. Efforts included airport system automation and support to transform the airport from an institution that relied on handwritten flight records to one with an efficient tech system.


Photo 1

Beginning of the largest airport support project

Uganda is a landlocked country astride the equator, about 800 km inland from the Indian Ocean. It shares borders with six countries, including Kenya, South Sudan, and DR Congo. Being a landlocked country, it relies heavily on land and air transportation, as maritime trade is not a possible option. Demand for air transportation is rapidly increasing due to the recent expansion of international exchange and trade volumes, but the level of Uganda's infrastructure had ranked 111th out of 148 countries at the national level of infrastructure and 107th out of 148 countries at the level of air transportation infrastructure.[1)]

The Ugandan government acknowledged the importance of air transportation for its own economic development and established a mid-to long-term master plan to foster Entebbe International Airport, an international airport, into an air logistics hub in East Africa. Entebbe International Airport handles 99% of all air transport in Uganda, and since its establishment in 2007, the average number of passengers annually has increased by 12.21%. Meanwhile, performance of the airport's operations was insufficient in a number of areas such as flight information, aircraft take-off and landing information, and passenger and cargo information. In addition, such processes were conducted manually, causing numerous errors and delays in airline information management. In addition, most of the preventive inspections, maintenance, failure detection and restoration of facilities were also performed manually, making it difficult to properly inspect and respond promptly when problems arose.

During the Korea-Uganda summit held in May 2013, Uganda, facing difficulties in securing financial resources and critically needed investment and systematic improvement as a whole, requested that Korea, a country with aviation safety technology, support the improvement of the Entebbe International Airport system. Accordingly, KOICA established project plans focusing on high-priority tasks identified through the two preliminary feasibility studies, etc., and since 2016, KOICA has put its utmost efforts into implementing the project. This is the largest airport project KOICA has participated in with approximately $9.5 million in support over 7 years.

Airport that once managed flight information manually transforms into hub equipped with automated system

The Uganda Aviation Authority, which had been aware of the inefficiencies and limitations of manual work processing, requested KOICA's support for the establishment of an airport operational database system (AODB)[2)] to computerize flight information. AODB manages key airport information necessary for airport operations, such as daily flight schedules, and plays a key part in the integration and automation of airport operation information.

In response to the request from Uganda, KOICA put its efforts into establishing AODB since 2015 by digitizing the airport's flight information including flight permits and management. Through this, it has dramatically improved work efficiency and accuracy across a wide range of airport operations, such as baggage belt operation, wildlife risk management, and flight information input management through mobile apps. Such efforts rendered it possible to operate and manage airport data in real-time through automation and systemization, breaking away from the inefficient manual work process. In addition, KOICA established a computerized maintenance management system (CMMS)[3)], where a centralized system manages information maintenance. As a result, it is now possible to monitor facilities, communication networks, servers, electrical facilities, air conditioners, etc. in real-time, while being able to promptly respond to problems by utilizing automated preventive inspection for major equipment.

In order to increase the airport's stability, the Aeronautical Message Handling System (AMHS)[4)] was also established, allowing for automatic reports and shared international airline information in real-time. Automation of aviation information management is an essential factor that facilitates the smooth exchange of aviation information among neighboring countries as well as aviation safety. Entebbe International Airport was unable to automate the system required by the International Civil Aviation Organization (ICAO) due to insufficient budget and technology, and further improvement was advised during the 2008 ICAO Aviation Safety Assessment. In addition to the establishment of AMHS, the air traffic management (ATM) flight procedure was completely reorganized into a navigation flight that is next-generation and performance-based and meets international standards.

KOICA also established the Technical Operation Control Center (TOCC), an airport operation information control tower. Through this, it is possible to monitor the airport's operation status in real-time, allowing for swift responses in cases of emergency and/or failures. Operational safety has also been greatly improved by connecting monitoring devices to key locations on the air side for take-off, landing of aircraft to eliminate control blind spots, and 24-hour monitoring from the control tower. In addition, a total of 100 state-of-the-art security cameras were installed throughout the airport to strengthen airport security. Inside the new passenger terminal of Entebbe International Airport, which will open fully in 2023, a large LED screen and a movable kiosk have been installed so that all passengers using the airport can check flight information displayed by the system supported by KOICA in real-time.

In addition, KOICA has conducted training to continuously develop Uganda's aviation industry and help Uganda to strengthen its own operational capabilities to run new systems. A total of 69 people in 10 fields were invited to receive training, contributing to the enhancement of airport management capabilities. Furthermore, ICT experts and airport operation professionals were sent to Uganda to provide world-class professional training.

Uganda's Entebbe International Airport leaps toward global standards with 100% automated aviation information service

The purpose of this project was to secure the safety of aircraft operation by establishing an adequate system and improving facilities at Entebbe International Airport in Uganda, and to transfer airport operation know-how and technology through invitational training and expert dispatch programs.

The results of this project are significant. About 80% of preventive inspection of airport core facilities at Entebbe International Airport is now undertaken through an automated system, and 14 aviation information services have been automated. All blind spot issues of ground control were resolved, and the rate of performance-based navigation implementation in line with the standards of the International Civil Aviation Organization (ICAO) exceeded the original target of 70%, achieving 134%. The standardization rate of flight stop charts also achieved a remarkable 146%, well exceeding the original goal of 90%. The outcome is particularly meaningful in that it has improved airport operation efficiency, increased safety, and secured sustainability by introducing advanced air traffic systems and processes that comply with international standards.

Uganda expects Entebbe International Airport to take a major leap forward to becoming a world-class airport through this project. In addition, it plans to develop the airport as an airport hub in East Africa to meet increasing demand in the air transportation sector. In addition, economic ripple effects are expected to significantly impact related industries.

Close cooperation between Korea and Uganda for the development of Uganda's aviation industry have successfully borne fruitful outcomes as a first of its kind. For the past 7 years, Korea Airports Corporation, an airport management organization, together with leading ICT and airport management companies such as Woorizen (CMMS) and NavKorea (ATM), has been providing cutting-edge airport management solutions. International development cooperation serves as a springboard for partner countries to take great leaps forward while unlocking untapped opportunities, which can also offer Korean companies experience in overseas markets. Through the system established during this project, Entebbe International Airport will continue to grow, and KOICA will continue to search for opportunities for all by engaging in various forms of public-private partnership projects. K

1) The Global Competitiveness Report 2013-2014/ World Economic Forum

2) Airport Operational Database System

3) Computerized Maintenance Management System

4) Aeronautical Message Handling System

Photo 1 LED monitor screens installed inside the Uganda Entebbe International Airport

Photo 2 Movable kiosk installed inside Uganda Entebbe International Airport



Photo 2

Photo 1



Project for rice value chain development in Senegal

Decade of efforts for food security in Senegal

As an aftermath of the Russia-Ukraine War, the surge in food prices has driven many countries to adopt a protectionist stance exemplified by the controlling of food exports. This in turn has further aggravated chronic food shortages in developing countries, resulting in severe hunger problems. Against this backdrop, KOICA and Senegal have together been putting in efforts for the past 10 years to develop a rice value chain[1] to promote food production and distribution in the West African country.

West Africa's largest rice consumer Senegal, heavily dependent on imports

Rice is a staple source of meals in Senegal, resulting in the country being the largest consumer of the grain in West Africa. An average Senegalese citizen consumes 110 kg of rice every year as of 2020-2022, almost double the amount of the average rice consumption in Korea, 56.9 kg (2021). However, rice production yields remained low due to underdeveloped agricultural technologies, in addition to drought, other climate events, and soil salinization. Consequently, Senegal had to spend a large budget to import more than half of its annual rice consumption from foreign countries.

Severely prone to international rice price fluctuations, Senegal set rice autonomy as a top national priority when it faced the 2008 international food crisis. In particular, the country focused on improving rice productivity through active support in the Senegal River Valley, the largest rice producer in the country, to expand irrigation facilities; the results, however, were mediocre at the time. In 2014, the Senegalese government proposed a joint project with Korea to lessen the import of rice from foreign countries and achieve greater self-sufficiency in food.

Upon shared concerns and goals, KOICA and Senegal launched on a joint project to vitalize the rice production industry in the West African country. KOICA sought to address the overall flow of agricultural products, i.e., the agricultural value chain, for the sustainable development of agriculture in Senegal. Because the project site, Podor in Stain Louis Region, required infrastructure for production, KOICA first carried out the agricultural productivity improvement project (2014-2019, USD 3 million) to support the Senegalese Institute of Agricultural Research (ISRA: Institut Sénégalais de Recherches Agricoles) in developing rice breeding and cultivation technologies and building a robust framework to distribute quality seeds. This was followed by the agri-tech school capacity building project (2014-2018, USD 3 million) to support the Initiation Center for Professional Agriculture (CIPA: Centre d'initiation professionnelle Agricole) in building training facilities including an agricultural machinery practice center and in developing long-term training curricula as a means to drive nation's agricultural development.

In 2016, KOICA launched the Sustainable, Inclusive Rice Value Chain Development Project in Podor, Senegal (2016-2022, USD 8.5 million) to reinforce the rice value chain in Senegal by organically interweaving outcomes from the agricultural productivity improvement project and the agri-tech school capacity building project. Given that the development of the rice value chain remained in the initial stages, the focal point of the project was on regional agricultural unions to improve productivity and quality and build foundations for production.

Rice value chain as the key to food self-sufficiency

With the Sustainable, Inclusive Rice Value Chain Development Project ("Phase 1 Project"), KOICA aimed to support and reform agricultural unions as the pivot points of the rice value chain. Strengthening agricultural unions was essential to engage in bulk transactions with major buyers and in order to be able to have some influence on grain pricing. The existing unions required an upscaling in terms of operating capabilities in order to maximize their role and function. KOICA reorganized an existing agricultural union, newly organized two unions, and launched a unified governing body[2].

As part of agricultural leadership training, 742 union members were offered productivity training courses to learn farming techniques. Most farmers in Podor required additional learning on rice cultivation and relevant techniques, and the quality of rice grown needed improvement. Also, there were no warehouses to store the harvests, meaning the rice was exposed to conditions detrimental to its quality and price competitiveness. KOICA thus provided support for advanced farming techniques that could lead to greater productivity -- for example how to manage water resources and soil, how to cultivate rice, and how to manage quality. Union members also took training on rice distribution.

A pilot farm was also created to cultivate the improved rice variety produced from the agricultural productivity improvement project. KOICA worked with the project execution organization (Rural Development Administration National Institute of Crop Science) to develop the ISRIZ series, a high-yield crop suitable for the local soil based on Korea's Tongil variety. From the series, five seeds that showed excellent adaptability to the project site environment were chosen to be planted in a 54-hectare farmland for seed spreading.

The development of a new farmland that is 602 hectares wide and equipped with extended irrigation facilities will be completed in 2022. Also anticipated is the completion of the construction of three grain warehouses for rice quality management and excess grain sales, two village halls, and an agricultural union center. Tractors and small rice polishers for efficient rice production, vehicles for transportation, and office supplies were also included in the packages delivered under this project.

Rice productivity improved by 38%, leading to a 38% increase in 1,175 households' income

The Phase 1 Project contributed to improving the region's rice productivity and increasing household income by identifying and tackling issues in each stage of the rice value chain of seed production, cultivation, post-harvest management, and distribution. The productivity of rice farming in Senegal increased by 38%, and the income of 1,175 households in the project site also increased by 38%.

Another important achievement is the organized operation and management of agricultural unions that cater for joint purchases, joint sales, and instructions. The agricultural unions established by KOICA take on multiple roles including negotiating with distributors to ensure profits for the union members, managing land and irrigation facilities to improve rice productivity, lending farming funds, and organizing group purchases of inputs to rice production. These efforts contribute to farmers' income, the quality of their lives, and ultimately the nation's food security.

Farmers' capacity building served as foundations for the sustainable development of agriculture in Senegal. In 2021, 793 people took part in the agricultural union training, and 973 people took the rice farming capacity building course. Also, KOICA worked with CIPA to offer training to six young farmers selected by the three unions.

Currently the Project for the 2nd Phase Rice Value Chain Development in the Senegal River Valley (2020-2026, USD 11 million) is ongoing. While the Phase 1 Project focused on building foundations for rice production, the Phase 2 Project puts an emphasis on the post-harvest management stage in the rice value chain, for example building a rice processing center. It also involves USD 600,000 microfinancing for farmers who lack capital to buy seeds or fertilizers. With this program, they will be able to borrow money to purchase agricultural supplies with the condition of in-kind repayment (rice harvest) in a year, which will mark the completion of the rice value chain.

Abou Sy, 62, a farmer in Thiangaye, said, "KOICA provided us with agricultural machines and lifecycle training for rice cultivation that covered both the theoretical and practical sides of farming, which really helped us learn the farming techniques. Thanks to this project, the village's rice production surged from 3-4 tons per hectare to 6-7 tons per hectare."

One fundamental measure for food security is to produce and distribute sufficient amounts of food locally. However, many developing countries are struggling with challenges in food self-sufficiency due to the lack of farming techniques, insufficient distribution networks, and natural disasters, among others. Through decade-long endeavors to build a robust rice value chain, Senegal and KOICA have together navigated solutions to food security amid multiple challenges.

KOICA's rural development projects are also ongoing in many developing countries around the world including The Gambia and Guinea. The agency will start a new agricultural project (project for rice value chain development with an integrated approach in Kolda Region, 2023-2028, USD 114.5 million) to stretch the reach of its agricultural projects from the nation's north to south. Under this project, synergies are anticipated from cooperation with KOPIA[3] by taking advantage of its expertise and experience in a project to disseminate a new rice variety in the southern Senegal region (2021-2023). KOICA also plans to build rice breeding hubs in West Africa, for example its farmland development project site in countries such as The Gambia and Guinea and propagate a high-yield and salinity tolerant seed (ISRIZ 7) in southern Senegal and adjunct countries (The Gambia, Guinea, Guinea-Bissau, etc.).

KOICA will continue to launch projects for building sustainable food systems in developing countries, upon the firm belief that the fundamental solution to food issues in developing countries is to establish a value chain for food production and distribution. K

Photo 2



1) Connections between producers and markets through production, harvest/management, distribution, etc.

2) Coalitions of farmers for rice production and sales activities (negotiations with distributors, group purchases of inputs to rice production, etc.) to improve rice productivity.

3) Rural Development Administration

Photo 1 Seed breeding in the Thile-Thiangaye Seed Production Farm

Photo 2 Irrigation facility built as part of the Sustainable, Inclusive Rice Value Chain Development Project

Project to support maternal and child health environment in Mugu District of Nepal

Safe childbirth for all women

According to statistics released by the Ministry of Health and Population of Nepal, the maternal mortality ratio is at 229 maternal deaths per 100,000 live births throughout the country as of 2018. While all women have the right to access services and facilities for safe childbirth, many women in Nepal deliver children at home in part due to insufficient healthcare infrastructure. In remote areas, it is difficult to access prenatal and postnatal care systems, resulting in many women being unable to receive proper obstetric care upon pregnancy. Accordingly, from 2013 to 2021, KOICA provided support amounting to 5.4 million dollars to carry out the project to improve the maternal and child health environment in Nepal's Mugu District, one of the country's most mountainous rural areas.

Enhancing medical infrastructure through new maternal and child health unit

The targeted Mugu district, located in Karnali Province in Nepal, is a remote area with a relatively low UN Human Development Index (HDI)[1]. Difficulties in accessing a healthcare system led to mothers in the region giving birth in non-medical facilities. Only 56.5% of pregnant mothers residing in Mugu district gave birth in hospitals, indicating that one in two mothers give birth in an environment without the presence of healthcare professionals.

The low percentage of births in medical facilities in Mugu district was attributable to difficulties in accessing high-quality healthcare facilities, proper medical equipment, and a low level of public awareness on the importance of healthcare. The Mugu District Hospital is the only general hospital in the region and receives about 86,000 patients annually, as of 2020. Meanwhile, the facility was in need of updated medical equipment and capacity-strengthening for its medical staff.

It was critical to establish medical facilities that mothers could easily access. Accordingly, KOICA embarked on its plans to improve the hospital infrastructure of the Mugu district by first tearing down three existing buildings and constructing a two-story ward centered on maternal and child health.

The new building consists of an inpatient ward (delivery room, operating room, hospitalization room) and an outpatient ward (emergency room, gynecology, pediatrics) where pregnant women can receive adequate prenatal or postnatal treatment or give birth. In addition, KOICA provided about 20 items of medical equipment necessary for adequate childbirth and newborn healthcare services, such as oxygen generators, X-ray imaging devices, and blood and urine test analyzers. The government is determined to spare no support necessary to train medical staff of district hospitals and to help enhance the capacity of healthcare operation professionals. As a result, the Mugu district hospital was rejuvenated to become a healthcare facility that delivers comprehensive high-quality medical services in Karnali province, in which Mugu district is located.

Small steps toward big changes: Making health clinics cleaner and safer

KOICA's efforts also included the improvement of maternal and child health services through support for local public health clinics, where small-scale birthing centers were set up. In remote mountainous regions such as the Mugu district, many pregnant women simply do not have access to a district hospital; long travel distances and the income level of residents render hospital visits particularly difficult.

Until now, there were few public health clinics as alternatives to regional hospitals, but such facilities possessed limited medicine, medical equipment, or medical professionals. Maternity facilities were in need of additional heating equipment, spaces with privacy, water and electricity facilities, and toilets and toilet accessories in order to ensure a suitable and safe environment for birthing mothers.

For these reasons, many pregnant women in Mugu district had chosen to give birth at home, leading to heightened risk factors related to the maternal mortality rate. In fact, the main causes of maternal death in Nepal were postpartum hemorrhage and sepsis, both of which were caused by inadequate postpartum care. In terms of infant mortality, infection and hypothermia were the main causes of death for infants under 2 months of age, and pneumonia, diarrhea, measles, and malnutrition were the main causes of death for children between 2 months and 5 years of age. All of these causes were assessed as illnesses that can be easily treated and cured with proper care at medical facilities.

To tackle this issue, KOICA carried out renovation work to enhance sanitary facilities (water, toilets, electricity) for six public health centers in Mugu district, which are located within 8 hours from the district hospital. In addition, medical equipment and supplies along with medicine were provided to improve the condition of maternal and child healthcare in the region.

KOICA also provided medical professional capacity-building training in public health clinics. Mugu district hospital and public health clinic staff attended field trips to visit areas with well-established medical infrastructure while participating in workshops together with health experts on a regular basis. Furthermore, through activities such as regular monitoring of the use of public health centers, KOICA successfully provided training programs on health data management and medical resources management, contributing to strengthening the management and capacity of healthcare institutions.

Public awareness rises, more and more patients foray to the enhanced medical facilities

Through enhanced medical facilities, this project aimed to truly impact and benefit mothers and children. Accordingly, from 2018 to 2020, KOICA collaborated with UNICEF to carry out a campaign to raise residents' awareness on maternal and child health.

In the Nepalese caste system, some faced a lack of adequate health care due to a prevalent gap between groups. Gender inequality had often left women less educated and with low health literacy, resulting in infrequent visits to medical facilities or barriers to adequate knowledge on breastfeeding or child healthcare.

To ensure that women could learn the significance of hospital visits, it was necessary to provide residents with health education to improve health literacy. As part of such efforts, KOICA provided training on topics such as maternal and child health, environmental hygiene, and local health and environment. In addition, KOICA supported the education of female health volunteers and women's health associations. Upon completion of the training, the trainees participated in health environment improvement activities for each village while visiting pregnant and breastfeeding women of underprivileged groups to share information such as at-home health knowledge or how to access healthcare services. Furthermore, through local radio advertising, health education campaign messages were continuously delivered to increase health literacy and encourage people toward healthy behavior.



Photo 1

Change that starts within the local community contributes to 80.3% of the medical facility delivery rate

What makes this project and its achievement meaningful was the change observed among residents of the local community. KOICA strived to improve medical facilities and conducted maternal and child health and gender awareness training, resulting in improved awareness on gender discrimination, childbirth and childrearing. KOICA's project encouraged husbands and parents-in-law to become more health literate through training on gender equality and maternal and child health, improving gender discriminatory issues within households. After this project, the rate of fathers who participated in and completed maternal and child health training in the Mugu district reached a whopping 84%.

Changes in health awareness are also proved by statistics showing the number of people using local medical facilities. The rate of medical facility childbirth delivery in Mugu district had been at 56.5% until the kick-off of the project, and jumped to 80.3% post-implementation.

Meanwhile, the construction of a new medical building at Mugu District Hospital contributed not only to improving the maternal and child healthcare system but also to enhancing the local medical infrastructure overall. In fact, during the COVID-19 pandemic, the Mugu district has used the hospital as an isolation center to provide COVID-19 vaccination and treatment and as a medical facility to manage patients with fever. Furthermore, it has played a pivotal role in preventing the spread of infectious diseases in the community through efforts such as infection control training for healthcare workers, temporary research support for COVID-19, and contact tracing for COVID-19. In October 2021, a bus crash that occurred near the hospital resulted in 28 casualties, and the enhanced medical and healthcare system helped the medical process for the victims run smoothly.

KOICA hopes that the improved infrastructure and awareness of residents in Mugu district will sustainably contribute to improving health care services and reducing maternal mortality in the region. The project could serve as a launching pad for enhancements in the healthcare system nationwide, contributing to a safe environment for childbirth and in lowering the maternal mortality rate in Nepal. K



Photo 2

1) Numerical value that the United Nations Development Program (UNDP) evaluates the level of advancement of each country based on literacy rate, average life expectancy, and real national income per capita.

Photo 1 KOICA and Mugu district officials are looking around the district hospital

Photo 2 Panorama view of Mugu District Hospital, Nepal

Photo 1



Project to establish special school for hearing impaired students in Marka, Jordan

Tailoring education for people with hearing impairments

According to the World Federation of the Deaf, there are 70 million people with hearing impairments globally, and more than 80% of them live in developing countries. In the West Asian country of Jordan, 13% of the population, or 1.1 million people, live with disabilities, and 8.4% have hearing impairments. The lack of financing and infrastructure can hinder people with disabilities in accessing proper education. Accordingly, KOICA launched a project to build a school for students with hearing impairments in Jordan to support their growth and autonomy by through the provision of adequate education.

Specialized educational environment required for people with disabilities

People with hearing impairments who receive the necessary education in early years develop communication skills using methods to express thoughts through lip movements and facial expressions or sign language. Students with hearing impairments in Jordan had been in need of such special education and tools.

Upon stipulating in its constitution that all citizens have the right to education, the government of Jordan began providing special education in the 1960s. At the same time, there remained room for enhancement regarding awareness on disabilities and government support. Insufficient finances and the fact that most special schools for students with hearing impairments leased spaces in expensive private-owned buildings meant that fewer resources could be directed to enhancing the educational environment. Initially, there were 13 special schools for students with hearing impairments in Jordan, teaching 800 students.

The curriculum also needed to be adapted to students' needs. The schools had no in-house audiology experts to provide precise diagnoses, and teachers were not professionally trained at length in education for people with disabilities, receiving 2-3 months of sign language training before being put into the field. While school curriculums included both sign language and oral method, it was difficult to provide systematic, well-structured education specialized for students with hearing impairments.

Meanwhile, those unable to enter specialized schools attended regular schools and took classes with students without disabilities without the support of any additional equipment or facilities. Students with hearing impairments were thus exposed to disadvantages in learning compared to fellow students. As a result, they often faced obstacles in finding quality jobs after graduation.

Building a special school tailored to students with hearing impairments

Through this project, KOICA aimed to provide students with hearing impairments with a quality learning environment tailored to their needs and improve the quality of special education by supporting capacity-building of hearing impairment experts. A pre-project survey of the special education sector in Jordan revealed a prominent problem: the lack of curricula and environments built in consideration of the characteristics of students with hearing impairments. Thus, KOICA planned this project to build a special school for students with hearing impairments in the municipality of Marka near Jordan's capital city Amman.

The Marka School for Hearing Impaired Students accommodates 430 students with hearing impairments from kindergarten to lower secondary levels. Being true to its role to cater for students with disabilities, it has special rooms including a hearing test room, an auditory training room, and a language training room. A disability diagnostic test program was developed to provide precise diagnosis on hearing impairments. To maximize the effectiveness of the education, 14 types of auditory training material for students with different types and degrees of hearing impairment, 33 types of educational material, 99 furniture items, and two buses were offered.

Efforts were also made to support the capacity-building of special education teachers. KOICA dispatched a leading special education expert from Korea to Jordan to develop teaching materials and a curriculum for students with hearing impairments in the local language. To help Jordanian teachers maximize their capacities, a local training program covering 21 topics in four areas including education for the hearing impaired and special education techniques was organized for officials of the Ministry of Education and special teachers for students with hearing impairments. Some 245 teachers participated to gain skills in providing proper education and develop teaching materials for special needs students.

KOICA signs MOU with the Higher Council for the Rights of Persons with Disabilities for continued follow-up measures

After the completion of this project, KOICA signed a memorandum of understanding (MOU) with the Higher Council for the Rights of Persons with Disabilities for follow-up management, which aims to ensure continued provision of quality education. Under the MOU, the agency plans to conduct basic research on education for students with hearing impairments and build on the foundations for sign language education in Jordan. Such efforts will enable the provision of unified materials and guidelines to all schools for students with hearing impairments in Jordan.

As part of endeavors for follow-up management, seven experts in special education and hearing impairment from Korea visited Jordan to lead a local training session for 65 special needs teachers. The topics covered included the proper use of specialized devices for the hearing impaired, utilizing teaching material, and sign language teaching capability building.

Also, parents of children with hearing impairments were offered a session to discuss challenges they face in raising children with disabilities and explore solutions together. The training session and parents' meeting were attended by 100 elementary and secondary teachers and parents of children with disabilities to deepen their understanding of hearing impairments and polish their skills in teaching, supporting, and guiding.

Improving the lives of people with disabilities through quality education

This project had great significance in that Korea's advanced special education system was transferred to Jordan, thereby supporting the development of special education and improving the quality of the lives of people with disabilities in Jordan. In particular, building a decent special school for students with hearing impairments in Marka contributed to improving Jordan's special education environment and the quality of special education. Indeed, 1,067 students have benefited from the special education since 2017. Currently the Marka School for Hearing Impaired Students has 50 teachers teaching 166 students. The school is recognized for its cutting-edge facilities and advanced curriculum not only in Jordan but also all across the region.

Providing special education to students with hearing impairments through this project will also greatly contribute to improving the quality of the lives of people with disabilities. Upon receiving adequate and relevant education during schoolyears, people with disabilities actively participate in society and economic activities.

The Marka School for Hearing Impaired Students will also serve as an exemplary model for special schools for students with hearing impairments in Jordan. The dissemination of this model will contribute to spreading Korea's special education curriculum and to better understanding the needs of people with disabilities in Jordan. KOICA will continue putting forth efforts to improve people's awareness on disabilities and enhance environments for people with disabilities in developing countries. K

Photo 2



Photo 3



Photo 1 A teacher leading the class in sign language at the Marka School for Hearing Impaired Students

Photo 2 Marka School for Hearing Impaired Students in Jordan

Photo 3 A child learns the oral method

Indonesian AID's environment and climate initiatives and strategies



Climate change has an extensive impact on people's lives because it affects the quality and quantity of water, habitats, forests, health, agricultural land, and coastal ecosystems.

As an archipelagic country, Indonesia is prone to the impact of climate change. Indonesia has taken some actions to tackle environmental and climate issues at the national and international levels. According to the European Commission's JRC Science for Policy Report titled "CO2 emissions of all world countries", Indonesia is acknowledged as a country that has successfully reduced its emissions in 2021 compared to 2019. Indonesia had lower emissions during the global pandemic and has successfully managed to prevent any substantial haze-causing fires over the three years of the pandemic (2020-2022).

Indonesia is committed to supporting collective efforts to achieve the Sustainable Development Goals (SDGs) target on climate change. One of the implementations of the commitment is through the provision of grants, which includes technical assistance or capacity building.

In 2023, Indonesian AID will provide grants on capacity building for disaster risk reduction and climate change adaptation for the member countries of the Caribbean Community (CARICOM) and the Central American Integration System (SICA). This capacity building is conducted by a State Technology Institute based on Indonesia's experience dealing with disaster and climate change. Indonesian AID will also provide grants for fisheries training for several countries in the Pacific region as an effort to increase capacity in fisheries management, which is expected to be a part of climate change effect reduction on fisheries. Meanwhile, as part of the reduction of the use of fossil energy, Indonesian AID, with other stakeholders in Indonesia, is planning to introduce the use of renewable energy to other regions, such as the Pacific and Africa regions. This introduction is based on Indonesian experience and will be conducted in the form of capacity building and the development of renewable energy infrastructures such as solar power and micro hydropower.

In addition, as part of creating an environmental life, Indonesian AID, in preparing and designing a project, especially related to an infrastructure project, will consider the application of ecological environment in project design. For example, in preparing an education infrastructure project in one targeted beneficiary country, Indonesian AID planning team put several input in creating ecological environment infrastructure that will maximize the use of eco friendly architecture and reduce the impact to environment that will contribute to reduce effect of climate change. Indonesian AID is also preparing a waste management project which will support the recipient in appropriately managing the produced waste so that the recipient could contribute to creating an environmental life around its people. These projects that Indonesian AID prepares and will implement in 2023 will be the effort and contribution from Indonesian AID for climate change mitigation and creating environmental life. If these projects can be successfully completed in 2023, the design and lessons learned from the projects will be implemented in other projects designed and planned by Indonesian AID.

Indonesian AID realizes the efforts to fight climate must be conducted in cooperation with other stakeholders in Indonesia and other bilateral and multilateral development partners. As a newcomer in international development, Indonesian AID is open to collaboration with other development partners, such as KOICA, to support the existing programs or jointly develop new programs from scratch in the efforts to deal with climate change and the environment. This collaboration and synergy are needed to achieve faster development targets related to climate change and fulfill the mandate given to Indonesia AID. This collaboration and synergy are also a quick way to develop Indonesian AID's capacity for delivering its service for contributing to achieving international development targets. K



Written



Tormarbulang L. Tobing

Indonesian Agency for International Development (Indonesian AID) was established in October 2019 and formally began its operation in January 2020. At the initial stage of its operation, Tormabulang L. Tobing was assigned both as acting Director for Finance and Public Affairs and acting Director of Investment and Grant Extension until February 2021. On February 2021, Tormarbulang L. Tobing was appointed as Chief Executive Officer. Since then, He is fully responsible to navigate the operations of Indonesian AID as a new development partner. He received his Master of Business Administration from University of Birmingham, UK.

Edited



Yovan Rizaldy

Yovan Rizaldy is the Division Chief for Fund Planning of Indonesian AID starting from 2021. From 2020 to July 2022, Yovan Rizaldy was acting Division Chief for Investment Initiation and Analysis. As Division Chief for Fund Planning, he is responsible for preparing the grant extension proposal, the grant extension plan document, the grant budget allocation proposal, and preparing the formulation for grant policy and policy direction of Indonesian AID Steering Committee. He is also in charge of monitoring and evaluation.
He received his Master of Science in International Political Economy, Nanyang Technological University, Singapore.



Maruliana Sitanggang

Starting from November 2021, Maruliana Sitanggang is assigned to Indonesian AID as an Investment Initiation and Analysis Division Specialist. She is responsible for preparing the long-term, medium, annual, and short investment policies and plans.
She graduated with her Bachelor's in management from the University of Indonesia in 2013.

Environmental, Social, Governance in the context of development cooperation and KOICA

ESG, common ground for sustainable development

Amid unprecedented crises arising from COVID-19 and delays in efforts to achieve the Sustainable Development Goals (SDGs), it is estimated that some 2.5 trillion USD in additional finances are needed to overcome global challenges. Accordingly, there is growing social demand for the practice of ESG (Environmental, Social, Governance) management and taking on of corporate social responsibilities.

Korea is also accelerating its efforts to introduce ESG in various aspects of the society in order to achieve the national goal of 2050 Carbon Neutrality and to transition into an inclusive and fair economy. Obligations of ESG disclosure have been systemically incorporated into public organizations, while ESG criteria have been included in management evaluation. This article delves into the government's ESG management mandates for domestic public organizations as well as ESG practices required for development cooperation projects.

Definitions of ESG by organization

Name of organization	Definition of ESG
IFC	Factors that companies and their investors consider in decision-making regarding risks, impacts, and opportunities related to environment, society, and governance
OECD	An approach that considers environment, society, and governance factors in decisions related to resource allocation and risk, with the goal of achieving sustainable, long-term financial outcomes
Robeco	Tools used to evaluate companies and governments on how well they are applying and practicing sustainability
Korea Exchange (KRX)	A concept that encompasses factors related to environment, society, and governance that can affect capabilities to execute corporate strategies and enhance a corporation's value
KPMG Economic Research Institute	Non-financial performance in environment, corporate social responsibilities, and governance in order to achieve sustainability in corporate management

Source: (Issues in Development, Vol. 74) ESG in the Perspective of Development Cooperation

ESG, a philosophy for sustainable development

While the role of companies in the post-industrialization era was to maximize profits for shareholders, severe side effects such as climate change, air pollution, wealth gap, and discrimination occurred in the process. As corporate social responsibility began to be increasingly emphasized, the United Nations Global Compact (UNGC) was established in 2000 to encourage companies to adopt sustainable management. Since then, the UN has been spreading and promoting a culture of ESG by proposing the Principles of Responsible Investment (PRI) in 2006 and involving numerous global investment firms.

ESG stands for environmental, social, and governance, indicating non-financial values that should be considered by companies in addition to financial elements. Upon aggregating the variety of definitions, we can define ESG as a philosophy underlying investment and management. At the same time, it also acts as an index to measure companies' non-financial performance, which considers corporate sustainability and social impact, as well as financial aspects including financial statements, capital flow, and the decisions of investors.

ESG is being increasingly emphasized and adopted by various organizations. Globally, there currently exist over 600 organizations that evaluate ESG and review corporate ESG activities based on significant criteria, give grades, and disclose the results. At the same time, evaluations for the same company may diverge widely based on the evaluating organization due to difficulties in establishing a unified index for evaluation. Korea has sought to minimize confusion through evaluation guidelines announced by the Korea Exchange (KRX) and the Ministry of Trade, Industry, and Energy.

KOICA's preemptive adoption of ESG criteria, integration of International Organization for Standardization (ISO) management systems

Among public organizations in Korea, KOICA has preemptively adopted ESG management and established the KOICA ESG Management Implementation Strategy in 2021. As a leading organization in development cooperation that realizes global values, KOICA defines its ESG management as decision-making that considers various stakeholders in order to enhance organizational sus-

Structure of KOICA's ESG management strategy

Organizational vision	A leading global development cooperation organization that realizes global values and mutual prosperity		
Strategic goal	Achievement of top-tier ESG management in public sector		
Strategic direction	**Environmental** Strengthening carbon neutral management	**Social** Advancing management based on social values	**Governance** Realizing ethical management and legal compliance, innovative management
Strategic tasks (11)	1.1. Support carbon neutrality and the improvement of climate resilience in developing countries 1.2. Implement environmental management that contributes to Carbon Neutrality by 2050	2.1. Global safety management 2.2. Expand development cooperation based on human rights 2.3. Create jobs in development cooperation 2.4. Strengthen social contributions to the community 2.5. Expand mutual growth of small-and-medium ventures 2.6. Fair HR management and hiring	3.1. Management based on ethical and legal compliance 3.2. Expand communications with the people 3.3. Realize responsible management by enhancing the roles of the Board of Directors

Source: KOICA



tainability and the sustainability of the global environment and society.

KOICA's ESG management directions are the following:

(1) Environmental management for carbon neutrality in both Korea and partner countries and climate response, expanding green/climate response ODA to strengthen climate resilience

(2) Sustainable management by enhancing social values related to the development cooperation field through job creation, human rights protection, local development, shared growth, ensuring safety

(3) Transparent and accountable governance through strengthened communication among stakeholders, expanding trust-based relationships and cooperative governance, and realizing integrity and anti-corruption.

The agency has reaped numerous meaningful achievements in terms of governance. KOICA is the first ODA organization in Korea to be recognized for operating according to the ISO37301 (Compliance management system) and ISO37001 (Anti-bribery management system) of the International Organization for Standardization (ISO). KOICA has also been selected as an outstanding organization in its provision of public data for three consecutive years, and continues its efforts to strengthen data-related management.

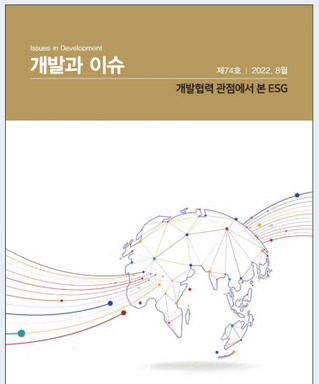
ESG in development cooperation: Expanding environment-focused, private sector partnerships

KOICA is striving to consider ESG in the implementation of its projects as well as in organizational management. Other donor organizations such as the United States Agency for International Development (USAID) are emphasizing the role of the private sector by supporting the linkage of corporate ESG activities or initiatives with the introduction of ESG management into local businesses in developing countries. Such links contribute to reductions in carbon emissions, protection of workers' rights, job creation among socially vulnerable groups, and the establishment of transparent and sound governance. One key example is Green Invest Asia (GIA), a blended finance platform that connects investors seeking to invest in sustainable agriculture and forestry in Southeast Asia and small and medium enterprises (SMEs).

The Japan International Cooperation Agency (JICA) established the Guidelines for Environmental and Social Considerations (ESC Guidelines) that screen and evaluate environmental and social impacts. JICA places emphasis on environment and is pursuing partnership projects with the Green Climate Fund (GCF). Examples include the project for community-based landscape management to enhance climate resilience and reduce deforestation in Timor-Leste, and the project for strengthening climate resilience and establishing a safe island in the Maldives, both approved in 2021.

As the agency expands its environment-related projects, KOICA is supporting the adoption and implementation of ESG management among Korean companies through public-private partnership models. As a GCF-accredited organization, KOICA is bolstering its climate change adaptation and mitigation projects, in addition to carbon neutrality projects, in developing countries, and is also considering environmental and social impacts through the application of Implementation Guidelines on Environmental and Social Safeguards. For example, KOICA carried out a project to restore a 4,311ha forest in three areas in Northern and Central Guatemala, 15 the size of the Yeouido district in Korea. As a result, the project is expected to reduce greenhouse gas emissions by 44,196 tons.

KOICA's public-private partnerships, which seek to at once contribute to the development of partner countries while meeting the business needs of corporations, was reformed into a KOICA-corporate platform initiative model in 2022. KOICA is also expanding cooperation with social ventures in partner countries, thereby diversifying its project models. In 2021, KOICA newly established a Blended Finance Solution (BFS) model, building upon projects involving ESG management and impact investment. The agency plans to continue fully considering ESG aspects in its management and projects going forward. K



This content has been edited based on Volume 74 of Issues in Development: ESG in the Perspective of Development Cooperation published by KOICA. For further information on the research, please refer to the KOICA ODA Library at https://lib.koica.go.kr/.



Yoon Sang-pil, Research Professor, Korea University Graduate School of Information Security

Advent of Twin Transformation era and global role of Korea



Profile

Yoon Sang-pil graduated from Kwangwoon University Law Department (IT Law Major) in 2016 and earned his Master's degree in engineering (Information Security) from Korea University Graduate School of Information Security in 2018 before he pursued and received his Ph.D. in engineering (Information Security) from Korea University Graduate School of Information Security in 2021. Now he is a Research Professor at Korea University Graduate School of Information Security.

In 1982, American futurist John Naisbitt published a book of projections for the future titled Megatrends: Ten New Directions Transforming Our Lives. Having correctly predicted 40 years ago the advent of the information society and decentralization, this book became a bestseller with its prophetic aspects proven over time. Today, the term "megatrend" is used to describe the directionality of mid- and long-term changes anticipated in many different disciplines.

The megatrends of our times became clearly visible with the outbreak of COVID-19 at the end of 2019. To overcome the pandemic, the whole world dove into competition for "digital transformation." Another trend that accompanied was "green transformation." Under the Paris Agreement, countries need to participate in climate action and review implementation every five years. Digital and green transformation together constitute "Twin Transformation." The question is how to sustainably implement these two trends. Digital transformation, ultimately being based on physical infrastructure, inevitably gives rise to environmental issues. Data centers are a case in point. Following rapid digital transformation, the number of data centers around the world has surged by 50% in the past five years[1]. They account for around one percent of the global power consumption, or 200 – 250 TWh[2], which is equivalent to the countrywide power consumption of Malaysia or Indonesia. At the same time, digital transformation does not only inflict negative effects on the environment; it reduces physical consumption and more precisely measures and manages energy resources through data. According to the World Economic Forum, the adoption of digital technologies has resulted in a 4-10% reduction in carbon emissions in the energy, materials, and mobility sectors, while widespread digital transformation can cut carbon emissions by 20% by 2050[3].

Given these impacts, Twin Transformation is at the heart of humanity's shared development, and likely to take place as a key global agenda item. It is in line with the international community's universal values in that it aims to protect the environment while pursuing digital innovation in all areas including technology, economy, education, healthcare, and public services. It is necessary to realize digital transformation that considers the environment, and actionable tasks that improve the environment through digital technology. In 2020, Korea unveiled the Korean New Deal Strategy that revolves around digital transformation and green transformation. In line with this strategy, the Committee for International Development Cooperation established the Green New Deal ODA promotion strategy in 2021 and the science and ICT ODA promotion strategy in 2022. In exploring ways to ensure the coexistence of the two strategies, Korea can identify a core strategy to solidify its global standing. Green technologies should be combined with digital ODA. Conventional ODA projects that build physical foundations and drive social innovation should also embrace digital and green elements.

In early 2021, Korea joined the ranks of developed countries. From a least developed country that received assistance from the international community, we transitioned into an ICT powerhouse recognized in the world and into a donor country in a short period of time. Behind this transformation lies not only national growth powered by cooperation between the government and citizens, but also active efforts to contribute to the international community through a long-term outlook. As a developed country, Korea needs to be able to present an exemplary case by taking on ambitious and experimental innovations. Twin Transformation that encompasses digital transformation and green projects could be tried out as a principle of ODA. Through this comprehensive agenda, Korea could attempt to take initiative in the regional order. This is something that we can excel at based on our experience of overcoming crises through a group-oriented mindset. Amid the dynamic stirring of the world order, let us be one step ahead by leading mankind's green digital innovation. K

1) Kim Jeongmin, "Rapid growth of the data center market: key drivers and prospects", KOSCOM Report, 2021.

2) Eric masanet, et al., "Recalibrating global data center energy-use estimates", Science 367(2481), 2020.

3) WEF, "Digital solutions can reduce global emissions by up to 20%. Here's how." 2022.05.23.

Latest news from KOICA

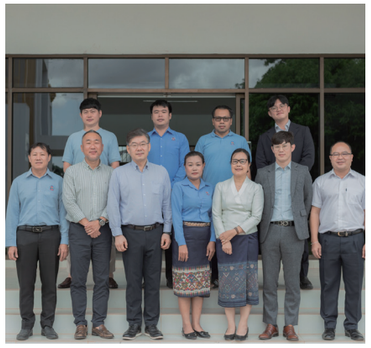
KOICA NEWS

KOICA strived to cooperate toward common goals with partners at home and abroad throughout the past month. A Korea-Kazakhstan-Kyrgyzstan triangular cooperation seminar was successfully held in Kyrgyzstan, while a joint conference was held by KOICA, the Ministry of Environment, and the Korea Meteorological Administration in Laos on measures to connect and converge ODA projects related to the climate crisis. In Peru and Ecuador, the agency established a basis for scientific investigation by transferring digital forensic techniques to local prosecutors and police, together with the digital investigation department of the Supreme Prosecutors' Office of Korea. In Rwanda, the YouthConnekt Africa Summit, hosted jointly with Rwanda's Ministry of Youth and Culture and UNDP, was completed to success.

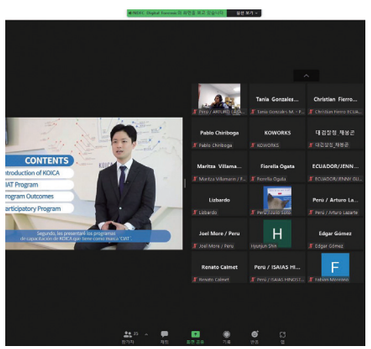
OCTOBER



KOICA-KazAID joint seminar on triangular cooperation in e-government
On September 29, KOICA hosted a joint seminar with KazAid on digital transformation in the e-government field in Bishkek, Kyrgyzstan. Some 60 participants attended, including government officials and other stakeholders in the e-government sector from Korea, Kazakhstan, and Kyrgyzstan. During the panel discussion, KOICA presented measures to support the government's digital platform, while Kazakhstan gave a briefing of improvements in its public services. Kyrgyzstan shared lessons learned from its experience with KOICA's ongoing e-government project. In November 2021, KOICA had signed a Memorandum of Understanding with KazAID, a new donor organization, with this seminar marking the first joint program since the signing. KOICA plans to continue strengthening its partnership with KazAID in South-South and triangular cooperation.



Expanding inter-governmental cooperation in ODA with Laos
On September 6, KOICA, the Ministry of Environment, and the Meteorological Administration of Korea held a conference with the Ministry of Natural Resources and Environment of Laos to discuss the linkages and convergence of ODA projects. In 2021, the parties created a joint working-level task force to enhance ODA efficiency and prevent repetition in climate ODA projects in Laos. Participants included officials from the Department of Meteorology and Hydrology of Laos, and team members of the ODA task force formed by KOICA, the Ministry of Environment, and the Korea Meteorological Administration. During the seminar, KOICA suggested measures to converge projects including jointly establishing a comprehensive control room, sharing capacity-building programs, and supporting inter-departmental training. The three ministries of Korea agreed to converge and link ODA projects from all government bodies to reduce weather-related disasters and enhance responsiveness in Laos.



Transferring digital forensic methods to Peru and Ecuador with the Supreme Prosecutors' Office of Korea
KOICA held multinational training projects online and offline to transfer Korea's digital forensic techniques in collaboration with the Department of Digital Investigation at the Supreme Prosecutors' Office of the Republic of Korea for 11 days between September 20 and 30. This training was designed to advance the Peruvian government's scientific investigation methods for digital cutting-edge crimes, strengthen the cooperative system in international investigation, and establish institutional grounds for scientific investigation. Participants included a total of 20 officials from the prosecutor's office and the national police agency in Peru and Ecuador (10 from each country). Trainees were able to learn Korea's digital forensics tools and cutting-edge crime investigation methods. On October 6, a seminar took place to promote and share the results of the training. Sixty participants from the Prosecutors Office of Peru joined the seminar.



2022 Joint drill of the Korea Disaster Relief Team (KDRT)
KOICA hosted the 2022 joint drill of the Korea Disaster Relief Team (KDRT) at the Daegu National 119 Rescue Headquarters between October 12 and 14. Some 60 participants came from KOICA, the Ministry of Foreign Affairs, Ministry of National Defense, Ministry of Health and Welfare, National Fire Agency, National 119 Rescue Headquarters, National Medical Center, Korea Foundation for International Healthcare and private medical institutes. In-person training, previously suspended due to COVID-19, took place this year in a large-scale drill that linked scenario-based training for disaster, military aircraft loading training, and on-site training for the first time. The training presented an opportunity to restructure the cooperation between the KDRT and relevant departments and organizations and strengthen the rapid response of rescue teams in case of emergencies. Meanwhile, the KDRT's medical team has been recognized for its capabilities at the global level, being accredited as the 34th emergency medical team (EMT) of the World Health Organization (WHO) in June 2021.



YouthConnekt Africa Summit for a resilient Africa and youth
KOICA hosted the YouthConnekt Africa Summit in Kigali, Rwanda, on October 13-15. This seminar aimed to promote the resilience of African youth as part of a joint product with the Ministry of Youth and Culture of Rwanda and the UN Development Program (UNDP). Under the theme of accelerating investments for resilient youth and a resilient Africa, the summit hosted various VIPs, including President Paul Kagame of Rwanda, Deputy President Geoffrey Rigathi Gachagua of Kenya, and 30 other high-level officials from around Africa. Panel discussions took place on various topics including African agriculture and measures to innovatively finance youth-led companies. Some 10,000 participants including business leaders, academia, and youth attended.



KOICA launches team for mutual growth, supports overseas market entry of SMEs
At the KOICA Global Training Center in Seoul on October 21, the launching ceremony of KOICA's mutual growth promotion team and the opening ceremony of the center to support ODA-related companies' overseas market entry took place. The center aims to support Korean companies that wish to enter the overseas ODA market, which amounts to approximately 220 trillion won. The team for mutual growth consists of 12 current team leaders or directors at KOICA with over 20 years of experience in ODA projects. The group will focus on supporting technology for development cooperation, the collection of corporate complaints, first-hand development and consulting for companies' overseas market entry, and the enhancement of basic capabilities for SMEs. On the same day, the support center for ODA companies' overseas market entries opened on the 1st floor of the building of the KOICA Global Training Center in Seoul. This support center will be used for corporate consulting and training for those companies that are interested in an overseas ODA market entry.



Laos, Vietnam, and Cambodia hold seminar to share knowledge in ASEAN region
KOICA offices in Laos, Vietnam, and Cambodia hosted the 1st Laos-Vietnam-Cambodia seminar for knowledge sharing on September 16 in a multi-location virtual format connecting Phnom Penh, Hanoi, and Vientiane. A total of 300 people including government officials participated from ministries that had previously been a part of KOICA's global training projects. Group and individual presentations were given on development issues requiring joint efforts in the region, which led to discussions regarding climate change-induced disaster response, measures to raise the rate of women's matriculation at universities, suggestions for adopting e-government services. KOICA has offered training programs for a total of 90,000 trainees as of 2021. To enhance the efficiency of its training program, KOICA has been hosting knowledge-sharing seminars and trainee alumni gatherings. KOICA plans to support the findings of the seminar toward trilateral joint research and project identification.

In November, KOICA was able to reap outcomes of development cooperation projects carried out through the year, and communicated with various partners. The 2022 KOICA Communication Week was held, including the 17th Korea Overseas Volunteer Awards, followed by the 2022 Creative Technology Solution (CTS) performance sharing ceremony. In addition, efforts to enforce ethical management continued through the implementation of the 7th integrity ombudsman to enhance institutional integrity and the signing of an MOU with the Korea Airports Corporation for audit service exchanges in the public sector. Such efforts were recognized as KOICA became the first ODA organization in Korea to adopt integrated ISO standards for compliance management and anti-corruption systems for two consecutive years.

NOVEMBER



KOICA appoints 7th integrity ombudsman for fair and transparent overseas aid
On November 3rd, KOICA selected 5 members of the 7th integrity ombudsman and held an appointment ceremony at the KOICA Headquarters located in Sujeong-gu, Seongnam, Gyeonggi-do, as part of its efforts to improve the organization's integrity. The integrity ombudsman is an independent external auditor who monitors and advises KOICA on its overseas projects. The ombudsman monitors whether there are any unreasonable systems or practices during the process of implementing KOICA's projects while detecting any corruption activities conducted by executives and employees. KOICA established the 1st integrity ombudsman system in 2011 and has actively collected the opinions of the ombudsman members to improve KOICA's ethical management. The 7th KOICA integrity ombudsman group, appointed on this day, consists of five private experts from various backgrounds, including government ministries, civic groups, and academia (Mr. Kim An-tae, a member of the National Committee's Integrity Education Support Group, Dr. Lee Keun-Gwan, a professor at Seoul National University, Dr. Yu Jeong-ae, a professor at Sungkyunkwan University professor, Dr. Yoon Tae-beom, a professor at Korea National Open University, Ms. Cho Young-sook, Director of the International Solidarity Center of Korean Women's Association). The 7th ombudsman group will work with KOICA until October 2024.



Filippo Grandi, Commissioner of UNHCR, visits KOICA to discuss ways to strengthen cooperation
On November 11, Filippo Grandi, the Commissioner of the United Nations High Commissioner for Refugees (UNHCR), visited the KOICA headquarters and discussed with KOICA President Sohn Hyuk-sang ways to strengthen the partnership between the two organizations. On this day, the two discussed the Korean government's strategy for cooperation with international organizations and agreed that such a strategy should be reflected in KOICA's identification of new projects for the year 2024. In addition, the two organizations decided to consider increasing the number of KOICA Multilateral Cooperation Officers (KMCO) who are sent to UNHCR to help young Koreans build experience in the field of development cooperation. KMCO (KOICA Multilateral Cooperation Officer) is a talent dispatch program carried out by KOICA to strengthen networks with international organizations and foster global talent in the field of development cooperation. There are currently 46 KMCO members from Korea that are working at various international organizations. KOICA plans to strengthen development cooperation by strategically utilizing the expertise earned from UNHCR focusing on refugee support.



KOICA and Korea Airports Corporation sign agreement for audit service exchange in public sector
KOICA has embarked on cooperation with the Korea Airports Corporation (KAC), the only public corporation in Korea that runs an organization dedicated to auditing subsidiary entities, in an effort to strengthen KOICA's audit capabilities and improve transparency in anti-corruption and integrity. To this end, on November 14, at the head office of the Korea Airports Corporation located in Gangseo-gu, Seoul, an Audit Service Exchange Agreement was signed for the purpose of strengthening the internal auditing process and enhancing anti-corruption integrity of both organizations. The signing ceremony was attended by Mr. Ha Hong-soon, an auditor at KOIA and Ms. Park Young-seon, an auditor at the Korea Airports Corporation as well as others. Under this agreement, the two organizations will prioritize cooperation such as ▲sharing audit techniques for each agency's specialized areas, such as overseas projects and internal control systems of overseas offices ▲mutual information and know-how sharing related to auditing. In addition, based on the progress of the cooperation that has been made, cross-audits will be conducted by supporting audit personnel in the specialized field for each entity, and cooperation will be greatly expanded through workshops and working-level meetings to strengthen audit expertise.



2022 KOICA Communication Week takes place to share outcomes of development cooperation
The 2022 KOICA Communication Week, one of KOICA's major events to share and communicate with the public outcomes of development coopeartion achieved over the year, was held in hybrid format from November 16 to 18 at the KOICA headquarters in Seongnam, Gyeonggi-do. This year, under the theme 'Turning COVID-19 into opportunity', the event was held to commend the hard work of partners who devotedly participated in development cooperation projects despite disruptions caused by the pandemic, and to award them by recognizing their excellent achievements. On the first day, KOICA's revised mid- to long-term management goals were introduced, in addition to Korean companies' success stories in development cooperation projects and KOICA's market entry support center. On the second day, a series of meetings were held to share the results of the 'Vietnam-Korea Institute of Science and Technology (VKIST) Establishment Support Project' as well as the outcome of return programs. On the last day of the event, the '17th Korea Overseas Volunteer Awards Ceremony' was held, where awards were given to six members who devoted themselves to volunteering in various parts of the world.



The 17th Korea Overseas Volunteer Awards
The 17th Korea Overseas Volunteer Awards Ceremony was held on November 18 at the KOICA headquarters in Seongnam, Gyeonggi-do. At the awards ceremony hosted by the Ministry of Foreign Affairs, KOICA, and the Korea Development Cooperation Private Council, six winners were selected for their dedicated volunteer work amid the difficulties of COVID-19. This year's Presidential Commendation was awarded to Kim Eun-seok, deputy director of World Vision, who successfully led medical and health projects focusing on the eradication of infectious diseases in Peru, Uganda, and Malawi. The Prime Minister's Commendation was awarded to Kim Choong-hoe, director of the Rural Development Administration, who served as director of the Overseas Agricultural Technology Development Project Center in Kenya and Ghana, and Lee Jong-wan, CEO of Vision Care, who supported 2,905 eye-opening surgeries for local patients while carrying out blindness relief activities in Morocco. In addition, ▲ the Minister of Foreign Affairs Commendation (CEO Sang-min Choi) ▲ Korea International Cooperation Agency Chairman's Commendation (Volunteer Jang Chang-hyeon) ▲ Korea Development Cooperation Private Council Association President's Commendation (Education Without Borders Secretary General Kim Eun-ah) were also among the award recipients.



Earning integrated certification for compliance management, anti-corruption system for 2 consecutive years
In November 2022, KOICA obtained an international standard certification for the second year in a row while being rated 'compliant' in compliance management system (ISO37301) and anti-bribery management system (ISO37001) certifications, after obtaining an integrated international certification for the compliance management system (ISO37301) and the anti-bribery management system (ISO37001) the first time in 2021. Earning the certification for the second time in a row this year is meaningful recognition that KOICA is systematically controlling the risks of internal corruption and establishing a compliance management system that meets the global standard. KOICA has continued various activities to stably establish a compliance management, and anti-corruption system within the organization, such as reforming the ethical compliance management system and conducting relevant training to enhance the compliance capabilities of all its employees. As one of the leading development cooperation organizations that represent Korea, KOICA plans to continue to put its utmost efforts into stabilizing and improving the organization's compliance management system.



2022 Creative Technology Solution (CTS) outcome-sharing ceremony, joined by startups
KOICA held the 2022 Creative Technology Solution (CTS) outcome sharing ceremony on November 22, where fruitful outcomes of startups' participation in development cooperation projects were discussed among participants. The event was held at the IVEX studio in Gwangmyeong city, Gyeonggi-do. The event discussed ways to solve social problems facing developing countries through the development of technology by start-ups, promoted the KOICA CTS program which opens the door to overseas market entry and expands opportunities to attract investment. The event also provided a valuable opportunity to introduce a number of best cases, such as the 'Kaii Company', which developed the oral care platform 'Dentii', and 'Symbiosis', which transfers 3D printer operation technology so that customized prosthetic hands may be produced locally. Further examples also included companies using cloud technology. A total of 200 people attended this year's performance-sharing event, including officials from MYSC, an impact investment company, and employees of domestic startups and venture companies.

Wrapping up another year, KOICA is preparing for new breakthroughs and progress in 2023. On November 4, KOICA and UNDP signed an agreement regarding the development of Green Climate Fund (GCF) projects to enhance their expertise. On November 30, President Sohn Hyuk-sang paid a courtesy call to President Julius Maada Bio of Sierra Leone to discuss development measures and ask for support for Korea's bid to host the World Expo 2030 Busan. In addition, on December 5, KOICA and USAID agreed on a work plan for sustainable development in developing countries.

DECEMBER



KOICA and UNDP sign agreement on GCF projects

On November 4, KOICA and the United Nations Development Programme (UNDP) signed an agreement to jointly develop Green Climate Fund (GCF) projects. Under this agreement, KOICA has forged a partnership with the UNDP to develop GCF projects for three years starting in November of 2022 and exchange implementation know-how surrounding UNDP's GCF projects through workshops. KOICA was approved as a GCF- accredited entity in 2021, giving KOICA an invaluable opportunity to support global efforts in carbon neutrality through GCF funds and promote climate resilience projects for countries vulnerable to climate change. Meanwhile, there had been difficulties in becoming acquainted with the regulatory standards and guidelines in all fields of the GCF and in launching projects due to the insufficient number of climate ODA experts utilizing international funds in Korea. KOICA expects that this agreement with the UNDP, which carries out the largest number of projects among GCF-accredited entities, will serve as an opportunity to further strengthen expertise in ODA projects that utilize international financial resources in the climate sector.



Meeting President Julius Maada Bio of Sierra Leone to discuss development cooperation and seek support for World Expo 2030 Busan

On November 30, President of KOICA Sohn Hyuk-sang paid a courtesy call to President Julius Maada Bio of Sierra Leone in Freetown, Sierra Leone, to discuss the strengthening of development cooperation between Korea and Sierra Leone. During this visit, made on the occasion of the 60th anniversary of diplomatic ties between the two countries, President Sohn Hyuk-sang and Minister of Foreign Affairs David J. Francis of Sierra Leone signed an MOU on development cooperation between the two countries, while KOICA also requested support for Korea's bid for the World Expo 2030 Busan. President Julius Maada Bio expressed his gratitude for the strong bilateral relationship that has continued over six decades and said, "We hope to learn from Korea's development know-how in the field of human resource development, healthcare, food security, and education." The president also remarked on cooperation toward Korea's bid for the World Expo 2030 Busan. Additionally, an MOU was signed between KOICA and the Ministry of Planning and Economic Development of Sierra Leone on December 1 on the future direction of KOICA's new development cooperation project set to begin in 2023.



Work plan with USAID in 11 areas including climate change, digital and health

KOICA and the U.S. Agency for International Development (USAID) are embarking on a joint Work Plan for sustainable development in developing countries. President Sohn Hyuk-sang of KOICA met with USAID Administrator Samantha Power at the USAID headquarters in Washington, D.C.
on December 5. The two sides agreed on a Work Plan (2023-2025) for cooperation on 27 tasks in 11 areas in developing countries around the world, including in the Indo-Pacific region, Africa, and Latin America. This is in line with the South Korean government's New Indo-Pacific Strategy and is a mutual agreement pledged by the two agencies to address global challenges including climate change, global health, and food security. The Work Plan includes joint projects and the sharing of outcomes in common fields such as the digital economy, in which Korea possesses strengths, human rights, rule of law, civil society, and cooperation with civil society and the private sector.



KOICA overseas volunteers hold recruitment briefing for second half of 2022

On December 7, KOICA held a hybrid webinar for the KOICA overseas volunteer recruitment briefing for the second half of 2022. The briefing session was to share the status and outcomes of overseas volunteer work, which resumed this year following the end of most COVID-19 related restrictions. KOICA will first select general volunteers in the first half of next year in two rounds (159th and 160th). Volunteer areas include ▲public administration ▲health/medical ▲education ▲agriculture, forestry, and fisheries ▲technology, environment, and energy. Focusing on 48 occupations, about 200 new members will be recruited first, and in the second half of next year, about 300 members will be selected, centering on project volunteer groups and NGO volunteer groups. Any Korean citizen between the age of 19 and 65 who have completed COVID-19 vaccinations and has no underlying disease can apply for KOICA overseas volunteering.



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