



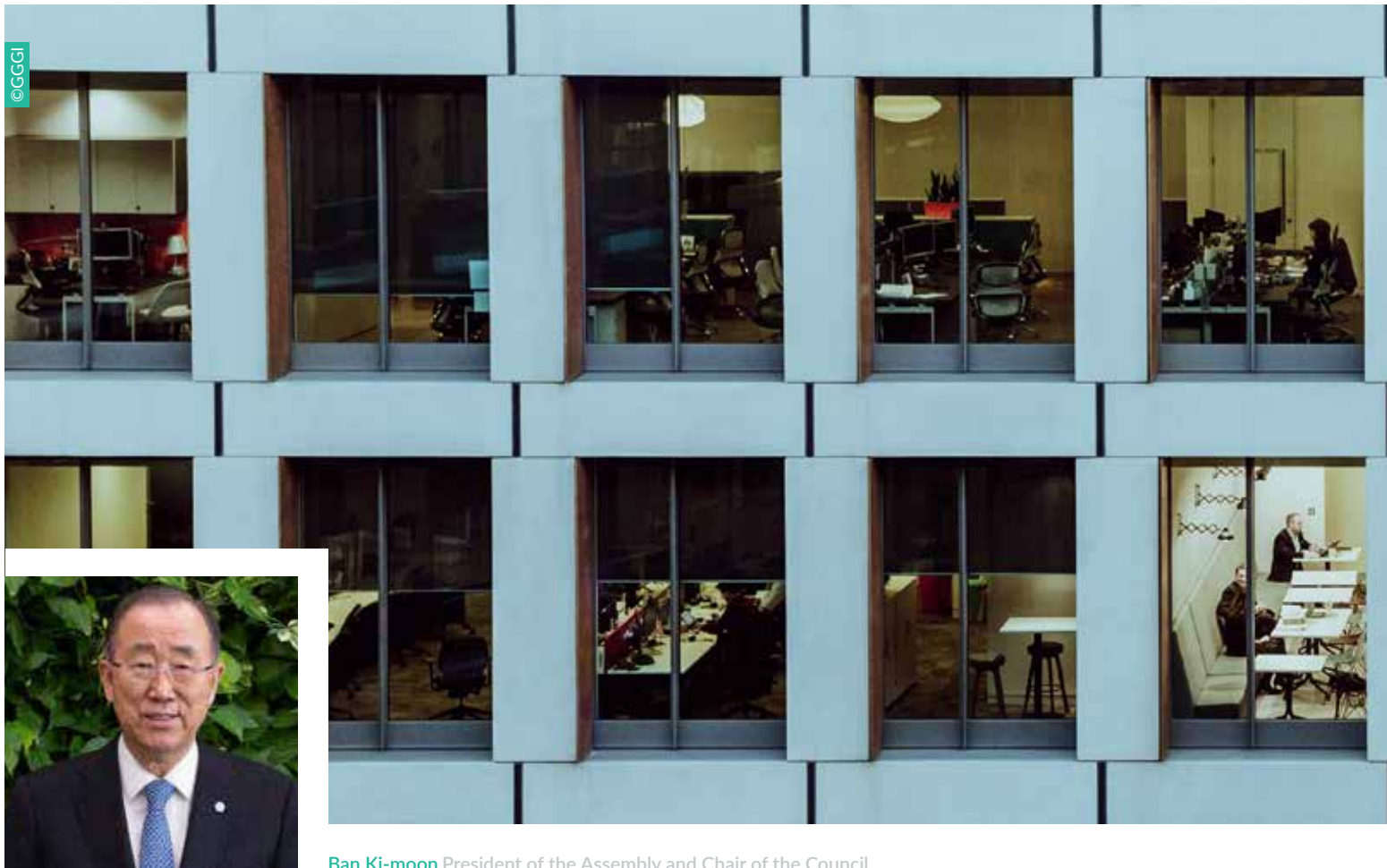
GREENING
URBAN 
PLANNING
& GROWTH

ANNUAL REPORT 2019



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Ban Ki-moon President of the Assembly and Chair of the Council

MESSAGE FROM THE PRESIDENT OF THE ASSEMBLY AND CHAIR OF THE COUNCIL

Dear Friends and Members of the Global Green Growth Institute (GGGI),

Two thousand nineteen was a critical year for the international community to take action on climate change, to demonstrate it is possible to decarbonize the economy, and to ensure that we can maintain a high standard of living in an inclusive economy that leaves no one behind. Climate impacts—such as hurricanes, floods and wildfires—are becoming an increasingly urgent reality. As many events have shown, climate change affects people everywhere, and it is the greatest challenge facing humankind. Without global action, millions of people will live in poverty and unhealthy environments, triggering increased risks of conflict and instability.

According to the Intergovernmental Panel on Climate Change, “climate-related risks to health, livelihoods, food security, water

supply, human security, and economic growth are projected to increase with the global warming of 1.5°C and increase further with 2°C.” In order to achieve the commitments of the 2015 Paris Agreement to keep the global temperature rise well below 2°C above pre-industrial levels, we must act now. Governments and businesses have an important role to play in mobilizing political will and financial resources, both of which are so urgently required for countries’ mitigation and adaptation actions. No country, either developed or developing, is immune to the effects of climate change, as we saw with the forest fires in Australia, the United States and elsewhere.

In 2019, public awareness of climate change has finally turned a corner. The young Swedish climate activist Greta



Thunberg, who became known globally for her environmental campaign, has attracted millions of youths and adults to take part in global climate strikes around the world. Thunberg has managed to mobilize her own generation to stand up and demand “climate action now” and shame adults, parents and world leaders into the same.

Last year, Europe stepped up as the largest bloc of countries committed to the net-zero target. The European Union showed commitment to achieving an ambitious climate policy and released its EU Green Deal with the aim of reaching carbon neutrality by 2050. EU countries, including France and the United Kingdom, have set the target of climate neutrality in law. Many countries, including Members of GGGI, are stepping up efforts to achieve net-zero emissions by 2050, and one of GGGI’s priorities is focusing on supporting its Members to meet their ambitious Nationally Determined Contributions (NDC) commitments.

In 2019, the Government of the Republic of Korea passed emergency measures to tackle air pollution after record pollution levels hit the country. In March, I accepted President Moon Jae-in’s request to head the National Council on Climate and Air Quality (NCCA) to combat fine dust air pollution, which has become a major health concern in Korea. The Korean government advocated for the United Nations to designate an “International Day of Clean Air for Blue Skies” as a day to raise awareness about air pollution around the world, as well as to strengthen international cooperation and efforts to reduce pollution. GGGI helped launch the Campaign for Blue Skies & NetZero 2050 in the Republic of Korea with a number of partners to raise public awareness of air pollution and climate change in the country and to build public support for the Korean government to announce a net-zero emissions target by 2050.

The Institute welcomed seven (7) new Members in 2019, namely Sri Lanka, Uzbekistan, Burkina Faso, Uganda, Angola and Ecuador, as well as the first regional organization to join GGGI – the Organisation of Eastern Caribbean States (OECS). We expect to reach a membership of forty (40) or more in 2020, with many on the path of accession including Colombia, Côte d’Ivoire and the European Union. Furthermore, GGGI now enjoys privileges and immunities as an international organization in twelve (12) countries, and the Institute is negotiating such a host country agreement with another sixteen (16) countries.

It was with great pleasure that I accepted to serve a second term as President of the Assembly and Chair of the Council during this critical time when we need to take urgent measures to tackle the climate emergency and meet our target of carbon neutrality by 2050.

Let me assure you that GGGI is committed to working with our Members to support the acceleration of their green growth transition and implement their NDCs. The Institute will continue to be a pioneer in promoting green growth and its benefits to the world, and it will be at the forefront of addressing the climate emergency for our future generations. In doing so, I look forward to a continued partnership to achieve the Sustainable Development Goals (SDGs).



Dr. Frank Rijsberman GGGI Director-General

MESSAGE FROM THE DIRECTOR-GENERAL

GGGI, like all its Members, has been significantly affected by the COVID-19 pandemic with all its country offices working remotely since March 2020 and consultation with government partners slowing down in many cases. The organization was well prepared for the pandemic, both through efforts taken to put in place online systems that support decentralized, remote working, business processes that make the organization more agile and flexible, and through successful resource mobilization that have increased GGGI's projected 2020 revenues 83% over 2017 (Pre-COVID-19).

In the uncertain world shaped by COVID-19, GGGI is in a strong position to accelerate the green transition for its 36 Members and implement its Strategy 2030 that targets to double GGGI funding to \$110M/annum, and mobilize \$16Bn for its Members and that would result in 1.6 gigaton of CO₂ emissions reductions, 2 million green jobs, sustainable services to 300 million people in green cities, protection of half a million hectares of natural capital, and increased climate resilience for 8 million people.

In 2019, the organization made significant progress on multiple fronts, to name a few: GGGI continued to mobilize green and climate finance commitments for green investment projects for its

Members reaching a cumulative \$1,6Bn; the GGGI Strategy 2030 was approved by the Council, and at the Global Green Growth Week 2019 in Seoul, GGGI's Green Growth Index was launched.

As documented in the GGGI 2019 Results Report, the new continuous project development approach under envelope funding piloted in the Work Program and Budget (WPB) 2019-20 has led to a rapid increase in the total number of projects in GGGI from 70 in 2018 to 131 in 2019. This is a direct result of the Project Idea Note (PIN) process that generates a pipeline of new, smaller projects in the country programs that use smallish amounts of core funding, often to explore new areas. The PIN process ensures that such new project development includes staff from both the country teams and the Investment and Policy Solutions Division (IPSD), and that there is a transparent review process before new projects start – and that such projects are well documented and accessible across GGGI. This report was the first time that the project management tool launched in 2019, GGGI Online, was used as the primary data source for the results report, avoiding a separate data collection exercise. In future years, we will focus on country program reports as the primary building block of the results report, replacing the project focus.



The 2019 Results Report and this Annual Report document many valuable green growth results achieved by GGGI's Members, supported by GGGI, to mention just a few examples:

- Indonesia's Province of East Kalimantan Jurisdictional Emission Reduction Program will provide incentive for protecting one of the world's largest and most biodiverse tropical rainforests and will potentially mobilize USD 110 million Result-Based Payment through the Forest Carbon Partnership Facility-Carbon Fund (FCPF-CF).
- In Cambodia, the Green Growth Plan for Phnom Penh was formally launched and 17 of its green projects are already being implemented. GGGI completed a pre-feasibility study for a Refuse-Derived-Fuel (RDF) project to address the waste management crisis the capital city is experiencing.
- In Rwanda, the government approved and launched a Green Building Minimum Compliance System.

In late 2019, the Mongolian government was one of the first to approve its revised, more ambitious NDC to the Paris Agreement, due in 2020. Supporting our Members in the preparation of more ambitious NDCs is an institutional priority for GGGI in 2020, expecting to support 20+ GGGI Members, both with our own (core) resources as well as through Climate Action Enhancement Program funded by the NDC Partnership.

In 2019, GGGI signed a record number of new earmarked project commitments, including with new donors. The first two contracts were signed with ministries in Sweden, both a Sida-supported project focused on Monitoring, Reporting and Verification (MRV) systems in Burkina Faso, and a Swedish Energy Agency supported project focused on carbon trading

under Article 6 of the Paris Agreement. The first two major contracts with the EU are being finalized for projects in Uganda and Cambodia. The relationship with the Korea International Cooperation Agency (KOICA) has also been re-developed. Currently, GGGI has ongoing KOICA-funded projects in the Pacific and Lao PDR, with a project for the Philippines in contract resolution stage and projects for KOICA funding to start in 2021 provisionally approved for Ethiopia, Uganda and Uzbekistan. The Green Climate Fund (GCF) Readiness Portfolio of projects has expanded to include 33 projects in 26 countries. GCF's work has led to \$685M worth of GCF proposals submitted on behalf of GGGI's Members and includes another 75 GCF project Concept Notes under development.

Of course, the COVID-19 pandemic is introducing a new risk for climate action in particular and for green growth in general. GGGI will also continue to work remotely as long as necessary and will continue to support its Members. In the short term, this may involve support for Members to work remotely more effectively, while we have also started to draft proposals to green the COVID-19 Recovery Packages. While we are at a very uncertain moment in history, facing immediate public health crises as well as an unprecedented economic crisis, we remain convinced that the only viable path forward is that of green growth. We believe GGGI is well prepared to weather the COVID-19 storm and continue to provide valuable support for the green transition of our Members.

A handwritten signature in black ink, appearing to read 'A. H. Sylva'.



▷ 02

ABOUT THE GLOBAL GREEN GROWTH INSTITUTE (GGGI)

- ▷ **GGGI supports 36 Members to deliver on the Sustainable Development Goals (SDGs) and the Nationally Determined Contributions (NDCs) to the Paris Agreement.**

Based in Seoul, Republic of Korea, GGGI is a treaty-based international, inter-governmental organization that supports developing country governments' transition to a model of economic growth that is environmentally sustainable and socially inclusive.

GGGI has a unique in-country presence and prominent role as a neutral, trusted advisor and strategic development partner embedded in Member and partner governments. These advisors are directly engaged with national governments in setting the strategic direction for national program development guided by a Country Planning Framework with the Government.

GGGI's operating model maximizes the potential to translate green growth strategies and policies, especially economic

policies into green investment plans, mobilizing green finance commitments needed to bolster support for low-carbon and climate-resilient economic development and strong institutional capacity development.

GGGI's expertise and experience in supporting investor engagement in emerging and developing countries to deliver the scale and quality of investment needed will be a critical component to achieve green growth and the Paris Agreement. GGGI promotes strategic partnerships and collaboration with key partners and stakeholders at the national and international levels, including the public and private sectors, regional bodies, bilateral development partners, international financial institutions, foundations, and civil society organizations.

GGGI delivers work and supports its Members and partners through a guiding framework of five core values:

W E

INTEGRITY

EXCELLENCE

TRANSFORMATIONAL

INCLUSIVE

BOLDNESS

- ▶ uphold high accountability and transparency standards;
- ▶ are objective and independent; and
- ▶ prioritize social and environmental responsibility.
- ▶ apply technical rigor;
- ▶ demonstrate thought leadership; and
- ▶ drive continuous improvement.
- ▶ aim for catalytic outcomes serving country needs;
- ▶ balance short term results with a long-term outlook; and
- ▶ leverage our outcomes through partnership.
- ▶ champion diversity;
- ▶ engage widely in decision-making; and
- ▶ provide equal opportunity.
- ▶ solve problems with optimism;
- ▶ continuously learn and adapt; and
- ▶ seek and scale up creative new solutions.

INTEGRITY



BOLDNESS



EXCELLENCE



INCLUSIVE



TRANSFORMATIONAL

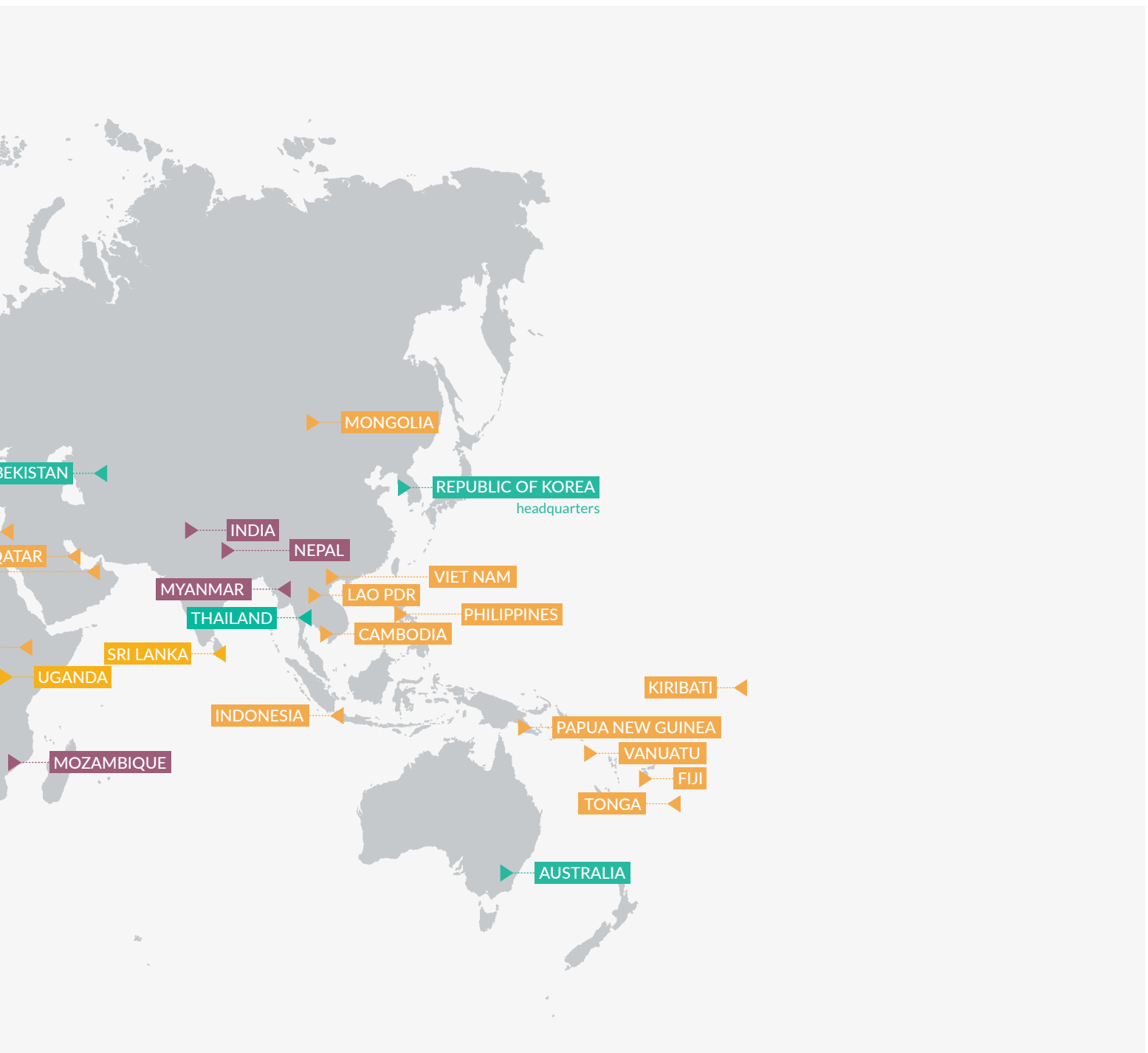


▷ 03 MEMBERS AND OPERATIONS

- ▷ Headquartered in Seoul, Republic of Korea
- ▷ 36 Members and operations in 31 countries

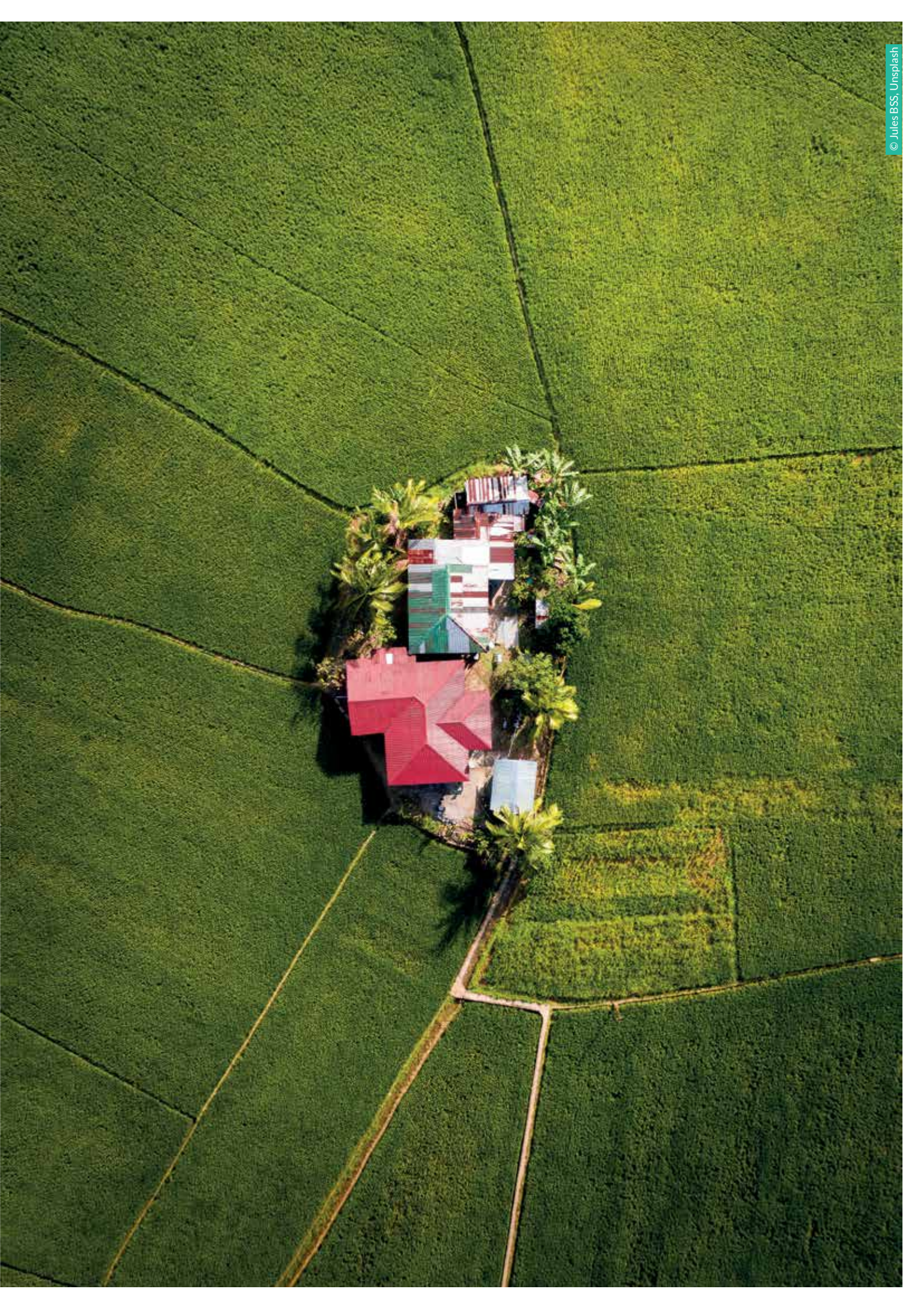
MEMBERS MEMBERS & OPERATIONS PARTNERS & OPERATIONS





04 2019 GGGI RESOURCE PARTNERS





▷ 05 2019 GGGI MILESTONES

▷ JAN 01

- GGGI signs MoU with the Korea Forest Services (KFS) to strengthen cooperation on reforestation and renewable energy.
- GGGI welcomes Sri Lanka as its 30th Member.
- Cambodia adopts wastewater system guideline developed with GGGI and GIZ.
- GGGI supports the state of Qatar to realize the Qatar National Vision.

▷ FEB 02

- GGGI, the Korea International Cooperation Agency (KOICA) and the Pacific Islands Development Forum (PIDF) agree to implement renewable energy capacity building project in four Pacific countries.
- Australia and GGGI partner to support the Government of the Independent State of Papua New Guinea contribute to inclusive climate resilient green growth in the country's provinces.
- GGGI signs a project agreement with the Government of Vanuatu to implement Solar Water Pumping Project.

▷ MAR 03

- GGGI holds its five-day Annual Meeting 2019 in Seoul.
- GGGI and the International Renewable Energy Agency (IRENA) sign agreement to advance energy transformation and green growth.
- GGGI partners with the Tropical Forest Alliance (TFA2020) to promote a dialogue on sustainable and deforestation-free private investment.
- Uzbekistan becomes the 31st Member of GGGI.
- GGGI and the Bill and Melinda Gates Foundation sign a grant agreement to promote City-Wide Inclusive Sanitation (CWIS) through climate resilience and green growth.

▷ APR 04

- With newly signed MoUs, the GGGI Nepal team deepens support to federal ministries, local government and government-owned transport operator.
- GGGI welcomes Burkina Faso as its 32nd Member.
- GGGI and the ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE) sign MoU on green growth cooperation in West Africa.
- GGGI and the United Nations Industrial Development Organization (UNIDO) collaborate to improve waste recycling in Cambodia.
- GGGI releases guide to Green Entrepreneurship in Vanuatu, Fiji, and Kiribati.

▷ MAY 05

- GGGI establishes new office in the Caribbean.
- The GGGI Mongolia team takes part in the International New Energy Green Summit 2019, one of the biggest events for the renewable energy development of Mongolia.
- GGGI holds its Management and Program Sub-Committee meeting in Seoul.

▷ JUN 06

- The GGGI Cambodia team launches Sustainable City Plan for Phnom Penh.
- GGGI participates in the Innovate4Climate Conference 2019.
- GGGI presents at the International Drought Forum hosted by K-water to discuss the importance of tackling climate change.
- GGGI holds the Friends of GGGI event in Seoul to share its recent updates and success stories with representatives of the diplomatic corps in Seoul.

▷ JUL 07

GGGI and the Embassy of the Republic of Korea co-organize a multi-stakeholder seminar to accelerate off-grid renewable energy investment opportunities in the Philippines.

GGGI, the Food and Agriculture Organization (FAO), and the International Fund for Agricultural Development (IFAD) join efforts to support strategic planning in Kiribati's Agriculture sector.

GGGI and Papua New Guinea's Climate Change and Development Authority (CCDA) publishes the Green Growth Potential Assessment of Papua New Guinea.

▷ AUG 08

Uganda becomes the 33rd Member of GGGI.

GGGI and the Government of Kiribati sign the Country Planning Framework.

GGGI and the Government of Nepal launch the Green Sanitation Services Program.

GGGI co-organizes a high-level workshop on enhancing Ethiopia's capacity to address climate change.

▷ SEPT 09

GGGI takes part in UN General Assembly (UNGA) and Climate Week events in New York.

GGGI joined Ethiopia's Green Legacy Campaign to plant 200 million tree seedlings in a day.

GGGI and Qatar MME conduct MRV capacity development and stakeholder consultation workshop in Doha.

▷ OCT 10

Strategy 2030 adopted at GGGI's joint Assembly and Council Session.

GGGI launches its first Green Growth Index at the Global Green Growth Week 2019.

Mr. Ban Ki-moon, 8th Secretary-General of the United Nations, re-elected as President and Chair of GGGI.

GGGI and Hungary agree to set-up GGGI's European Office in the Hungarian capital.

GGGI celebrates 6th Anniversary as an international organization.

GGGI signs MoU on cooperation with the Ministry of Environment and Tourism of Mongolia.

GGGI kicks off its flagship Global Green Growth Week conference in Seoul.

▷ NOV 11

GGGI partners with H&M in Cambodia to promote sustainable garment manufacturing.

GGGI presents a business case for community-based biomass to energy in Indonesia at the Global Landscape Forum (GLF) in Luxembourg.

The Organisation of Eastern Caribbean States (OECS) joins GGGI as its 34th Member and 1st Regional Integration Member.

GGGI welcomes Angola as its 35th Member.

GGGI welcomes Ecuador as its 36th Member.

▷ DEC 12

GGGI and the Swedish Energy Agency partner to establish Article 6 activities.

Fiji and GGGI launch the Country Planning Framework 2019 – 2023.

The GGGI Cambodia team and Coca Cola Cambodia join hands to scale up plastic recycling in Battambang City.

GGGI takes part in more than 20 side events and sessions during the COP25 climate change talks in Madrid.



▷ 06

GREENING URBAN PLANNING AND GROWTH

Cities are the driving force behind national and global economies, and have a critical role to play in supporting global sustainability and climate change ambitions, as well as the realization of green growth pathways. Urban areas are increasingly seen as engines of national and global wealth but face an urgent need to address their own sustainability challenges and various adverse external impacts they have on natural resources, ecosystems, and the planet. Cities have a key role to play in the realization of Agenda 2030 as well as the climate change agenda, including the Paris Agreement, and linking renewed green city planning to climate finance provides a significant opportunity for change. In this Chapter, GGGI will focus on sharing the success stories of our work in green cities.



Recognizing the importance of cities to the global sustainability agenda and green growth transitions, GGGI has committed to working with its Members and partners to deliver inclusive, integrated urban planning, infrastructure, and mobility solutions. In 2019, GGGI achieved 115 results related to green cities, including green growth plans and policies, green investments and capacity building activities and knowledge products, across 29 projects in 13 countries. This in turn strengthened cities' efforts to grow using more renewable energy, better manage urban waste through circular economy approaches, support sustainable transportation solutions, and create new green jobs.

GGGI worked with line ministries and municipal governments to develop green city plans and frameworks in Nepal, Senegal, Rwanda, and Cambodia, as well as delivered training materials and project origination linked to climate finance and bilateral assistance in a host of other countries. In Mongolia, GGGI

supported its government partner to secure Nationally Appropriate Mitigation Action (NAMA) funds to increase energy efficiency within older, energy intensive residential buildings. In Peru and Lao PDR, GGGI supported municipal governments to develop and roll out pilot projects that tackle the growing challenge of urban waste, while at the same time creating jobs and new sources of income.

Further, during the Climate Summit at the 74th United Nations General Assembly, GGGI joined partners through the Coalition of Urban Transition to contribute to efforts under way to integrate smart, innovative, and green approaches into urban sustainability agendas to support more efficient, affordable, and effective services for all.¹

The following stories highlight a number of the impactful green city successes that GGGI's Members and partners achieved over the course of the year in collaboration with GGGI and its committed partners.

¹ Climate Emergency, Urban Opportunity: <https://urbantransitions.global/en/publication/climate-emergency-urban-opportunity/>

SUCCESS STORIES

ACCESSING CLIMATE FINANCING IS HELPING CITIES IN UGANDA, MYANMAR, AND CAMBODIA TO CUT GREENHOUSE GAS EMISSIONS AND BUILD RESILIENCE



► Cities in three of the world's least-developed countries are accessing essential climate finance as they look to build resilience to climate change and cut greenhouse gas emissions (GHGs).

Municipalities in Myanmar, Uganda, and Cambodia are benefiting from funds from the Green Climate Fund (GCF) to build capacities at the subnational and national level, including strengthening policies and designing projects in areas such as waste management and sustainable transport.

The funding secured in 2019, which totals more than USD 2 million between the three countries, will be vital in helping major urban areas to reduce emissions and become greener, healthier and more socially inclusive places to live.

These funds have been secured with help from GGGI, which is also partnering in the delivery of GCF projects in each country.

Uganda

In Uganda, Dagmar Zwebé, GGGI's Country Representative in Uganda, explains how the group is working with Kampala city authorities to attract financing from GCF with a view to implementing the Kampala Climate Change Action Strategy.

"This strategy aims to mainstream climate change response in all city services to put the city on a low carbon development path. (...) In its initial phase, the GCF readiness funds are being used toward developing concept notes, such as one for the Disposal and Treatment Component of Kampala's integrated solid Waste Management project within the framework of updating the GCF Country Programme and building of a pipeline of bankable projects," Zwebé says.

Myanmar

GGGI is doing similar work in Myanmar, developing projects in four secondary cities across the country and working directly with local and national governments, private sector actors, development partners, and community groups.

Aaron Russell, GGGI's Country Representative in Myanmar, explains: *"GCF Readiness funds are being used to assess sectoral capacities, to build political commitment, and to mobilize the necessary expertise in green urban infrastructure development*

to build a pipeline of tangible climate finance projects that have the potential to transform urbanization across Myanmar's regional capitals and growing commercial secondary cities. (...) Readiness funding will identify projects to be financed in line with the national priorities outlined in the Myanmar Sustainable Development Plan. This work will mainstream public and private sector stakeholder awareness-raising activities through training of government officials, and the nomination of a Direct Access Entity. These measures will ensure that the institutional infrastructure is in place for long-term green investment in cities."

Cambodia

In Cambodia, GGGI is helping authorities to make the transportation sector greener by identifying policy and financial incentives to shift from gasoline motorcycles, which currently dominate Cambodia's national vehicle market, to electric motorcycles.

The country has seen rapid economic growth and urbanization in recent years. Cambodia's urban population is growing at a rate of 4.4% per year, according to the World Bank. By 2030, government estimates 44% of the Cambodian population will live in cities. Accordingly, the number of vehicles and GHG emissions from the transport sector has been rising rapidly.

In 2000, the transport sector accounted for less than 3% of national GHG emissions. By 2016 emissions from the sector had increased more than six-fold.

Transitioning away from fossil fuel-powered to electric vehicles is expected to contribute to reducing GHG emissions in congested urban areas, together with significant co-benefits such as improvement in air quality, reduction of noise, and positive impacts on public health.

It should also assist the local economy, creating new jobs and cutting costs for owners. The total cost of ownership of electric motorcycles, including lifetime operating costs, is often lower than that of gasoline motorcycles.

Challenges facing Least Developing Countries

GGGI is involved in all the projects and, its country representatives say, they all offer good examples of how impactful the work of the organization, and others like it, can be in helping cities become greener.

Donovan Storey, Deputy Director and Urban Lead – Green Cities, in GGGI's Investment and Policy Solutions Division, explains that cities in less developed parts of the world can face a number of challenges in trying to access funding and implement policies and projects to make their municipalities greener.

"One of the challenges is that you have to make the case for policymakers to support a more rapid transition toward greener and more sustainable cities. This is often the hardest part of our work, but also the most rewarding. As an organization, we have to convince policymakers of the financial case – and the benefits of shifting toward greener pathways," he says.

However, once policymakers have been convinced, there are other hurdles to overcome, including addressing problems with legal environments and policy gaps, which could stop any development in its tracks.

"No country or city has ever developed solely through implementing projects. There needs to be a regulatory framework to support broader change," says Storey.

He explained that sometimes a project gets underway, only to be hastily scrapped because of missing or contrary legislation.

"The stage of helping policymakers to improve the regulatory environment or filling a policy gap is absolutely critical," emphasizes Storey.

Another challenge is attracting financing. The relatively small size of some secondary cities – only around 50,000 inhabitants in some cases – can put some finance out of reach.

"Some cities simply cannot get funding because they are not seen as bankable - they are not large enough for investors. An additional challenge is that cities need to get their finances 'in order' to be bankable, which is difficult. Smaller cities often miss having a financial framework in place, e.g. they don't have great financial records, and rarely have their own source of revenue to do any co-financing. This makes it difficult to get investment," says Storey.

This is where the work of GGGI is key.

"The project in Cambodia is a good example of how we always look to the co-benefits of any project. By doing things a bit differently you can gain multiple benefits – for example making motorbikes, a vehicle that is popular among lower income groups, both cleaner and cheaper, has a positive social impact - but also it has an effect on air quality, and more efficient use of energy."

While the three projects are at relatively similar stages, each is unique, and GGGI customizes its approach to its work in different countries and cities in helping facilitate financing from the likes of GCF and others.

"In the three countries, there are different political and economic contexts, and they work at different speeds. We need to align ourselves to these differences," Storey says

"We are lucky to have teams in countries day-in, day-out who have the understanding and experience of the local political and economic environment and how to work accordingly. As such, they are able to support change longer-term, and have a vested interest in seeing successful outcomes," Storey says.

SUCCESS STORIES

TACKLING WASTE IN CAMBODIAN CITIES



- **In 2019, a number of cities in Cambodia began delivering new waste management and sanitation projects that will benefit hundreds of thousands of inhabitants by improving health conditions and creating new, green jobs.**

The foundations of this movement go back two years when seven secondary cities set out to draft a 'Sustainable City Strategic Plan' under the leadership of the National Council for Sustainable Development and the Ministry of Interior. This enabled these municipalities to identify their main environmental issues and opportunities and develop a list of priority actions. Solid waste and wastewater management came as high priorities for most of the cities including Battambang and Kep, which triggered action on the ground.

"The development of sustainable cities in the Kingdom of Cambodia is a key policy priority," explains Minister of Environment, Say Samal. *"Cities are the center of economic activities and propel job creation and GDP growth. Cities are also the center of resource consumption, whereby energy, water and other natural resources are utilized by industries and consumers to drive economic development. The Kingdom of Cambodia has an opportunity to accelerate its growth potential further through green city development."*

Battambang, a city of 160,000 inhabitants, is currently working on improving solid waste management with a focus on plastic and organic waste recycling. As with most cities in Cambodia, waste management is a key challenge for Battambang. Strewed waste clogs up water drains and attracts vermin, while the burning of waste releases toxic gases into the air.

These sub-standard management practices are causing negative impacts on public health and the environment. They also reduce the overall livability, resilience and competitiveness of Battambang and its appeal to domestic and international tourists. The city government recognized the need to take action.

Battambang started with a plastic recycling campaign in five public secondary schools, representing close to 10,000 students and teachers. With financial support from Coca-Cola, large collection containers with educational signage have

been installed to collect a range of plastic wastes (bottles, cups, straws, and bags). The municipality will then organize collection by the private sector, with payment to the schools for the recyclable material, resulting in a win-win situation for all parties involved. The project will be of particular benefit to the schools that have no waste collection services available to them.

Battambang is also taking steps to ensure the sustainability of the project by providing formal training and more educational material with support from the private sector. The training will focus on source separation and recycling of waste, and more importantly on waste avoidance so that young people better understand the need to reduce the amount of waste generated. The school campaign will be an ongoing process, with the municipality monitoring and improving the project throughout 2020.

The municipality is now turning its attention to Battambang's markets, planning plastic source separation activities at two markets and source separation of organic waste for composting at the wholesale fruit and vegetable market.

"For a more efficient waste management system, source separation of wet and dry waste is critical. This will enable more organic waste to be processed and more recyclables to be separated from the dry waste," stated Municipal Governor, Pheng Sithy, in November, 2019. *"These initiatives will not only improve the environment, public health, and beauty of our city but will also create economic opportunities and jobs. Increasing the quantity and quality of compost would also enable our farmers to conduct more sustainable practices by using less artificial fertilizers."*

The municipality is also planning larger scale educational campaigns on waste avoidance, recycling and on the importance of following existing regulations on the management of solid waste. Finally, the municipality will work closely with other government agencies and with the private sector for more efficient and better planned waste collection, so it does not pile up in the streets.

Battambang's push to deliver green cities solutions followed a detailed GGGI analysis of the city's waste value chain, including generation, storage, collection, transport, recycling and disposal. Based on the findings, GGGI developed a set of recommendations to improve waste separation and collection, develop innovative opportunities to scale-up the local waste recycling business and create better jobs for waste pickers.

GGGI is working with local waste recycling businesses and start-ups to take advantage of these opportunities, offering the entrepreneurs coaching on business readiness, financial planning and sales' strategies so they can be in a good position to process the increased volume of recyclable material. Over time, the city's aim is to involve all schools, markets, shops, restaurants and eventually households, leading to a cleaner city and more business expansion.

"Battambang demonstrates a range of manageable and affordable public-private solutions to the waste management challenge faced by Cambodian cities," says Karolien Casaer-Diez, GGGI's Country Representative in Cambodia. *"We hope to see other municipalities follow Battambang's example and stand ready to support them in addressing the current waste crisis."*

The City of Kep, on the other hand, identified improving wastewater and sanitation on the island of Koh Thonsay as a top priority. Kep is a small coastal town along the Gulf of Thailand with a population of around 21,000 people. In recent years, Kep has made improvements to address sanitation problems, in particular along the shoreline.

However, issues remain in areas such as Koh Thonsay, an island just off the coast and a popular tourist destination attracting local and international visitors. The island's only available accommodation are bungalows concentrated on one beach at the north west side of the island. Sanitation at the bungalow area is poor, with no established wastewater or fecal sludge management system.

Kep Municipal Governor Tith Sokha expresses her concern: *"As the number of visitors increases, sanitation conditions are degrading, causing risks to the environment and human health, as well as making the island less appealing for tourists."*

To address the situation, the municipality developed a costed proposal to connect all bungalows to a decentralized wastewater treatment system (DEWATS) and included the proposal in the formal City Investment Plan which will enable it to seek government funding for implementation.

For the development of the proposal, the city partnered with GGGI to develop options for raising revenue to cover operation and maintenance costs, leveraging contributions from both the public sector and the hospitality businesses. GGGI partnered with the "Bremen Overseas Research and Development Association" (BORDA) for its specialized engineering skills to design an affordable technical solution for the island. When implemented, the project will benefit an estimated 80,000 visitors per year.

"This project could serve as a model for other coastal areas and be replicated in many other locations," says Kep Municipal Governor, Tith Sokha.

Green city solutions being rolled out in Battambang and Kep demonstrate Cambodia's commitment to take concrete action to improve environmental conditions and green economic opportunities in the country's secondary cities. It is hoped that their successes will inspire and guide other cities to follow suit.

SUCCESS STORIES

FIJI SETS AMBITIOUS TRANSPORT TARGETS



▶ As Fiji seeks to meet ambitious targets on lowering emissions, the South Pacific island nation is working to electrify its greenhouse gas (GHG) intensive transport industry.

Data from the country's Ministry of Economy shows that transport accounts for 65% of carbon emissions in Fiji.

Under its Low Emissions Development Strategy (LEDS) Fiji has committed to the electrification of its largely fossil-fuel driven land transport sector by 2030.

The Fijian Government is in the process of incorporating this vision into its revised National Energy Policy (NEP) for 2020 to ensure it encapsulates necessary emission reduction transitions needed for Fiji's transport sector.

However, the transition to electrification in the sector is in its infancy. With very few electric vehicles on the country's roads today, there are no commercial charging stations and only a few pilot charging points for carts at universities.

Government endorses GGGI study

Recognizing the need to push forward with the electrification of the sector as it aims to meet its LEDS targets and Paris Agreement commitments, the government has endorsed two

studies produced by GGGI, which look at possible transport electrification on Viti Levu island home to over 80% of Fiji's population.

The studies examined the effects on the electricity grid under various scenarios for the electrification of the transport sector and increased use of electric vehicles, including infrastructure needs, impact on government revenues, electricity generation and the national grid, as well as technology.

Once adopted, the recommendations within the studies will pave the way for concrete e-mobility actions.

GGGI forecasts that electrification of the sector can progress quickly and points to the recent success of government measures to try and promote the use of hybrid vehicles, which were exempted from import duties in 2015.

"Since then, there has been a big rise in the use of hybrid vehicles in Fiji. The way Fiji adopted hybrid vehicles is the way we envisage electric vehicles being adopted here as well, given there is an enabling environment," explains Ulaiasi Butukoro, GGGI's Program Officer in Fiji.

GGGI's studies have identified locations where charging stations could be most effectively set up to help develop infrastructure, including in wealthier suburbs where GGGI expects electric vehicles to be adopted quickly. Households could also have charging points installed with just a minimum of change to their homes.

Replacing older buses with greener ones

The government is hopeful that any electrification will extend beyond light vehicles which make up the majority of vehicles in Fiji – to larger vehicles.

Government research shows that public transport has a central role to play in Suva, Fiji's capital and home to roughly a third of the country's population. Buses are the most popular form of public transport in Suva. However, many of these buses are old and emit high levels of GHGs. This has prompted the government to adopt a national policy to replace older public transport buses with greener, more efficient vehicles.

But as Butukoro points out, while targeting the land transport sector is a way of potentially reducing Fiji's GHG emissions, the increased demand for power as the number of electric vehicles rises could present problems.

"Part of the studies involved looking at the way the extra electricity for electric vehicles would be generated. Reducing fossil fuel use in the transport sector would not necessarily result in a net reduction of emissions if less renewables are considered in the power generation mix moving forward," says Butukoro.

"The energy mix for power production in Fiji is around 50% renewable sources and 50% fossil fuel in the form of diesel. The share of renewables used to be higher, but hydro is not available as much now as it used to be, because of changing weather patterns due to climate change," he says.

The Fijian government will need to have a plan to increase the share of renewable energy to compensate for the rise in demand for electricity in order to avoid an increase in the use of fossil fuels to generate that electricity.

"If renewables are not available to meet the higher demand, then more diesel will be used," says Butukoro.

Currently, the electrification of Fiji's transport sector is in the early stages with plans for the sector's transformation being drawn up.

All eyes on the National energy policy 2020

GGGI will continue to work closely with the government in the coming years to help realize those plans. The inclusion of the studies' recommendations in the renewal of the National Energy Policy in 2020, also supported by GGGI, will be another important milestone.

"But going forward we will be working with the government as the transport sector is electrified over the next decade. We will be providing support as concrete actions specified in the LEDs strategy regarding electrification are implemented," says Butukoro.

SUCCESS STORIES

HOW A SUSTAINABLE SOLID WASTE MANAGEMENT PROJECT IS CHANGING THE CAPITAL CITY OF LAO PDR



▶ **A series of pilot projects is helping authorities in Vientiane, Lao PDR resolve some of the city's chronic problems with waste management.**

The country's government is pursuing long-term goals to ensure sustainable and green infrastructure development and has adopted national strategies to transition to green growth.

This comes as Lao PDR has seen rapid economic growth and urbanization in recent years, accompanied by growing consumption and generation of waste.

Solid waste disposal and treatment is underdeveloped with only a handful of landfill sites in the country, including one in Vientiane. There is no formal recycling system and a lack of access to proper waste treatment and disposal facilities, which mean many people simply burn, bury or dump rubbish wherever they can.

To try and combat this, in 2019, the 'Wastewater and Solid Waste Treatment Capacity Building Project for City

Environment Improvement in Laos' project in Vientiane was officially launched. The project aims to tackle some of these problems by increasing waste collection rates while promoting waste-to-resource opportunities and using organic waste as a source for bio fertilizers, among others.

"As much as 70% of households are not using the waste collection services in Vientiane. This project will help to increase the waste collection rate and reduce open dumping and burning of rubbish. We can collect more waste and convert it into a resource. It will also improve the environment as organic waste will be diverted from landfill sites," says Director General of the Vientiane City Office for Management and Services (VCOMS), Bounchanh Keosithamma.

GGGI, which has been working with local authorities on green city policies and projects, helped secure funding of USD 6.5 million for green city development projects – of which waste management is one - from the Korean government through the Korea International Cooperation Agency (KOICA).

As Shomi Kim, GGGI's Senior Green Cities Analyst in Lao PDR, explains, the project is two-fold – giving policy advice and working with city authorities to help improve and introduce legislation on waste, and also run pilot projects implementing concrete measures to try and help with waste collection, source separation and waste recovery.

“Waste recycling is a big challenge in the city. There is no municipality-led system nor collection mechanisms in place to encourage waste separation, so people often just put everything into one bag and all waste is mixed, both at businesses and homes. (...) Another big problem is the waste collection services. There are very low collection rates – around just 30% - because the collection fee is high and the service cannot reach houses in peri-urban areas of the city, people choose not to use collection services. So, this leads to illegal dumping and burning of waste,” says Kim.

With GGGI support, the Lao government has rolled out three pilot projects to help provide access to collection services for people.

GGGI is using its funding to deploy push carts and small trucks in Vientiane to collect waste, which will be able to go to areas in the city where people do not usually have any real access to collection while ensuring the separated collection of dry and wet waste.

Another project is focused on introducing organic waste recovery from businesses, such as restaurants, hotels and vegetable markets. The VCOMS service provider - will collect organic waste separately using bio-degradable bags from these businesses and then sell it on to a local bio-fertilizer firm.

The third project is aimed at increasing recycling in Vientiane. While an informal recycling sector exists where some people go door to door to collect recyclable materials, currently they do not collect glass bottles because the bottles have low financial value.

However, GGGI managed to find a firm which buys glass bottles for recycling and is planning to set up multiple glass collection points, for example in schools.

The group will also supply any extra facilities needed for the projects, such as special bins for food waste, collection containers for glass, and supply training to local influencers in collaboration with other development partners such as GIZ.

The pilot projects, which will operate in the Sikhottabong district of Vientiane, will run over the next four years. During the initial stages of the roll out, the projects will be monitored, and then in the third year, an upscaling of the most successful of those projects will be initiated. The decentralized waste collection service with a focus on source separation is expected to shift the traditional approach of “collect-and-dump” to a model of “Circular Economy” in

Vientiane as it will create more opportunities for resource recovery once it's scaled up at the city level.

Kim believes that GGGI's work, while it may require time and persistent efforts, will help make the city's waste management system more sustainable.

“What we are definitely hoping will happen is that our involvement on policy based on the lessons learned from the pilot initiatives will help solve the problem with low collection rates at scale. (...) We are one of few countries that work on the upstream side of the waste value chain to ensure the sustainable management of waste. We hope that the pilot projects will provide a good example on source separation and resource recovery to the authorities that they can adopt it for the rest of the city, and also as an example of financially sustainable schemes. (...) Our goal is also to empower the local government to independently develop and continuously implement these financially sustainable waste management systems once GGGI is no longer involved,” she says.

The city's government is very encouraged by the project, pointing out that it will help not just the local environment, but the economy as well.

“This will not just help solve serious issues with waste in the city, but it will also help create jobs. We don't know yet exactly how many jobs this will help create, but in my opinion, it will be a lot,” says Mr. Keosithamma.

Keosithamma adds: *“It could also serve as an excellent example of its kind. I think the project will be a role model and repeated in many cities across Laos.”*

GGGI says that the project, which is due to run until 2024, will see around 20,000 people gain new access to adequate waste collection services while 30 TPD of organic waste generated in the city will be recovered. It also expects to create new jobs and improved employment opportunities for informal waste pickers.

SUCCESS STORIES

MONGOLIA TAKES STEPS TO INCREASE ENERGY EFFICIENCY IN RESIDENTIAL BUILDINGS



- In 2019, Mongolia made significant progress to secure EUR 18 million for an ambitious project designed to help dramatically increase energy efficiency in residential buildings in the capital Ulaanbaatar.

Many residential buildings in Ulaanbaatar, the coldest capital city in the world, are old and made of pre-cast panels. As a result, insulation is poor and heating – almost entirely coal produced – is often turned up high to keep room temperatures warm.

Below-cost tariff levels with bills based on square-meters of space for heating means people lack an incentive to adopt better heat-conservation practices.

Residential buildings account for 40% of energy consumption in the country, more than industry and the transport sectors combined.

Moreover, a rising population and migration from the countryside to the capital mean that demand for heating is rapidly increasing, while Ulaanbaatar has some of the worst

air pollution of any city in the world. This makes clean, reliable heating services even more important.

Municipal authorities recognized residential renovation will not only save heat and improve thermal comfort and safety for residents, but also achieve reduction in greenhouse gas (GHG). General Manager of Ulaanbaatar, Mr. Gantumur Togmid, highlights *“Thermo-technical retrofitting of pre-cast buildings will reduce the energy consumption by more than 30% and additional over 9,400 households can be connected to heating supply without building a new plant.”*

In 2013, local authorities began seeking investments to help retrofit residential tower blocks. Having found little initial success, they are now hoping to move forward with their plans with assistance from the GGGI.

Realizing green growth goals

Batzaya Bayasgalan, GGGI's Green Investment Officer based in Mongolia, explains how the organization has been helping the city's authorities realize their green growth goals.

"It has been challenging for the government to progress the project and raise funding as investors saw this project as non-bankable due to low, space-based tariff," says Bayasgalan. *"So, we stepped in to support."*

In 2017, GGGI began working with the Municipality of Ulaanbaatar using its experience and expertise to help attract financing.

GGGI carried out energy audits for three residential, multi-family buildings to determine the level and areas of heat loss and designed a project that took into account feedback to alter the financing mechanism, the involvement of energy companies and issues with household contributions.

In 2019, it won initial funding of EUR 380,000 for project preparation from the Nationally Appropriate Mitigation Action (NAMA) Facility, which focuses on financing projects designed to reduce GHGs.

The Municipality of Ulaanbaatar in cooperation with GGGI is aiming to mobilize an EUR 18 million EUR grant to retrofit 375 residential building blocks. Once funds are officially in place in 2021, retrofitting should get under way fully with physical implementation likely as soon as 2022.

Transforming lives

The retrofitting is expected to transform the lives of over 136,000 residents living in these 375 residential buildings. Despite plentiful, cheap access to heating, temperatures drop down to -40 Celsius during winter in Ulaanbaatar and apartments are typically 4-6 Celsius colder than recommended room temperatures.

"In most of these buildings, it gets very cold and residents wear layers of clothing to stay warm. Some residents retrofit the external walls of their own apartments only, but partial retrofitting is of little real effect and the work has sometimes not always been done that well and there have been reported cases of problems, including fires," says Bayasgalan.

She adds that while the retrofitting will not reduce any household bills because at present heating costs are not based on consumption and heavily subsidized by the state – around USD 9 per month for a two-room apartment – it *"would mean that people would have a warmer apartment and their property value would also increase considerably."*

It may also ensure that residents in these old buildings have a more secure future living there.

"Retrofitting extends the lifespan of the buildings," explains Bayasgalan. *"Some of these buildings date back to the 1960s and are rundown and have had minimal or no renovations. Renovating the buildings and improving their structure extends their lifespan by over 30 to 50 years."*

Crucially, the project will also have an estimated direct cumulative GHG mitigation potential of 96,891 tCO₂e, as well as helping to create potentially over 1,000 new jobs through the engagement of local construction companies and manufacturers.

In 2016, Mongolia ratified its Intended Nationally Determined Contributions (INDCs) to the Paris Agreement on Climate Change and is committed to a reduction of 14% of GHG by 2030.

One of the main drivers to achieve this goal is to improve energy efficiency in production, distribution, transmission and usage and, with this in mind, the government has set a target of reducing building heat loss by 30% by 2025, and 40% by 2030.

According to findings conducted by GGGI's [Impact & Evaluation Unit](#), GGGI is well placed to potentially contribute to [GHG reductions equivalent](#) to 20% of the annual emission reductions that Mongolia aims to achieve in 2030 under its NDC.

"GGGI's inaugural [Impact Pathway Review \(IPR\)](#) for its Mongolia country program found that the organization is on a clear pathway to make an impact in Mongolia, particularly due to policy and investment work in energy efficiency between 2015 and 2019," says Warin Nitipaisalkul, IEU Manager.

Bayasgalan hopes that treating energy saving as energy generation will drive utility companies to take an alternative perspective to their operation and open the way for wider discussions about investment deferral into coal fired heat generation versus into energy efficiency.

She explains that part of the project involves introducing metering of heating use in buildings, which will demonstrate a significant impact on energy loss reduction. GGGI hopes the project will have catalytic effect on the energy market and lead to tariff reform to encourage residents to regulate their heat use. *"Metering will provide a picture of the heating supply and consumption at the building level,"* she says.

This will incentivize residents as well as authorities with policy decisions going forward. *"It's a project with lots of positives, which is why we here at GGGI are so passionate about it,"* says Bayasgalan.

SUCCESS STORIES

GGGI SUPPORTS THE MUNICIPALITY OF LIMA TO INNOVATE WITH CIRCULAR ECONOMY FOR WASTE MANAGEMENT



► In January 2019, the new municipal administration of Lima was faced with a key challenge: what to do with the problem of increasing solid waste in the ‘Cercado de Lima’, the urban core comprised of the historical area and a mixture of the city’s oldest neighborhoods.

As with most developing countries, much of the municipal solid waste produced in Peru is organic. Leftovers, food scraps and discarded fruits and vegetables exceed 19,000 tons per day throughout the country.² In the Cercado, around 60% of the solid waste managed by the municipality is organic, much of which comes from households and commercial activities from its 47 markets.³

Waste management in the Cercado area was based on a conventional waste collection system with poor segregation practices that relied on aging infrastructure. More critically, the city’s main landfills were quickly running out of space to accommodate the waste of an increasing population demanding sustainable services. Implementing a circular economy solution was paramount in the eyes of the new administration of the city, led by the new mayor Jorge Muñoz.

² Peru’s Solid Waste NAMA, 2015

³ Solid Waste Characterization Study for Cercado de Lima, 2019

Early 2019, GGGI and the Municipality of Lima decided to partner to tackle this problem and reduce organic waste in the city center by promoting waste management sustainable practices that directly benefit citizens. GGGI's expertise and international experience, through its Green Cities thematic strategy, was the perfect fit.

It was the first time for GGGI to work directly with a municipality in Peru, which proved exciting: *“working with a local government allows us to see our project's results in the short-term,”* says Paola Córdova, GGGI senior officer, who is overseeing the project from Peru's office.

The plan was to help the municipality explore options to increase the organic waste that is diverted from the waste management system through household composting, and create valuable products from the organic waste ready for disposal, such as through waste-to-energy solutions.

There are several ways to deal more effectively—and sustainably—with organic waste than dumping it in landfills. It can be converted to compost through small, simple household efforts or through city-wide collection of the organic waste that is then sent to large-scale composting facilities adjacent to landfills. Compost can then be used to fertilize house plants or public parks, or sold to provide extra income to households or revenue for the municipal solid waste system, lowering the total cost of operations to residents. Also, organic municipal solid waste can be sold to other types of composting facilities, such as the ones used by agribusiness companies that need organic raw material to elaborate the amounts of fertilizer they demand.

But organic waste also has the potential to be converted to energy through different methods. One is bio digestion. *“Biodigesters are devices that capture methane using a process much like the digestion that occurs in animals' (and peoples'!) stomachs,”* notes Córdova. Methane can then be burned for heating or cooking, or used in power generators for electricity.

The first step to explore the best options for valorization of organic waste was to review available data from past studies, as well as to understand people's attitudes towards options like waste segregation and composting, through interviews with different actors. Some respondents that are part of the Municipality's Recycling Program, but only recycle inorganics are willing to do home composting. So is as a small percentage of residents that are not in the municipal program yet. This group of current non-participants has not been addressed previously by the municipality and could be engaged for future participation. These respondents indicated they were interested in participating and that technical support was key.

GGGI then set out to test the biodigester option in partnership with Tereo, a specialized local company that installed a small pilot in the municipal plant nursery in the Barrios Altos neighborhood. The location was selected for its strategic position nearby two markets that could provide their discarded fruits and vegetables.

“To put a municipal biodigester, even a pilot one for testing, was a very innovative idea, the first experience of its kind in Peru,” says Córdova.

The plan is for this to also be an educational experience for residents of Barrios Altos who can learn about the circular economy in practice by reusing waste from their local markets. The pilot biodigester will provide key information to decide on the feasibility of scaling up these systems in the future.

Pamela Bravo, Deputy Director of Environmental Management at the Municipality of Lima, notes that GGGI has been a critical player in the project, and not only because of the organization's technical expertise.

“There were trust issues in the beginning with residents and other stakeholders being apprehensive, but GGGI's professionalism allowed all parties to understand the safety of the pilot and its benefits,” says Bravo.

Building local technical capacities was also a key part of the project. GGGI and the municipality organized a workshop in early December 2019 for the different departments that have a key role in the waste management chain. GGGI presented relevant experiences from different countries and discussed the opportunities for applying some of their lessons for Lima Cercado with the municipal technical staff.

Among the most important recommendations, GGGI pointed at strengthening the home composting program with more funds, looking for synergies with the private sector and exploring climate funding options to finance investment. GGGI's study suggests important constraints to consider, however, like the need to insert the organic waste valorization within municipal strategies and plans, the importance of creating synergies with other public institutions to increase organic waste recovery and the recognition of technologies and innovative practices of organic waste recovery.

“This is why the work of GGGI is key,” explains Bravo. *“We need to understand all of these green options to know what works best for the city to make informed decisions sooner.”*

Deputy Director Bravo concedes that this is a long-term work but stresses that GGGI is helping them build the conditions to green their waste management system. *“This work will ensure that our population has a service that takes full advantage of the opportunities that the circular economy has to offer for city's residents,”* she concludes.

SUCCESS STORIES

ELECTRIC TRICYCLES DEMONSTRATE THE FUTURE OF TRANSPORTATION IN THE PHILIPPINES



- ▶ One hundred E-Trikes worth USD 910,000 were granted to the municipalities of San Vicente and Brooke's Point in Palawan Province in 2019 as part of the Department of Energy's 'Market Transformation through the Introduction of Energy Efficient Vehicles Project', or simply the 'E-Trike Project'. The funding was provided by the Asian Development Bank (ADB).

The project aims to promote an agenda of "green city development" among urbanizing municipalities by transitioning away from the traditional fossil-fuel-based tricycles as the ubiquitous mode of transportation in the province. Officials see the project as a means of making transport more environmentally friendly as well as a way to create jobs and set a wider example for green growth.

"The e-trike units will benefit us by generating employment and improving the mobility of its residents, without the pollution and noise. It is a symbol for green growth," says James Paul S. Inawasan, the former Municipal Administrator of San Vicente, Palawan.

Transforming the transport sector

Over the last decade, the Government of the Philippines has begun transforming its transport sector and promoting the use of electric vehicles over fossil fuel-powered transport to curb GHG emissions and lower the country's carbon footprint.

Studies have shown that fossil fuel-powered tricycles account for more than two-thirds of the pollution generated by the country's entire transport sector. The Philippines' Department of Energy has said replacing these tricycles with

electric-powered ones would minimize annual carbon dioxide emissions by up to 260,000 tons.

Adopting e-trikes also has benefits for the local economy by reducing the annual demand and consumption of petroleum imports, reducing fuel costs for e-trike drivers and increasing job creation through the establishment of manufacturing companies and associated after-sales services.

An initial pilot study in 2015 with 20 locally assembled e-trikes operating in Mandaluyong, Metro Manila, also showed that drivers were able to carry more passengers and increase daily income when using e-trikes.

The E-Trike Project was made possible through a grant deal between the Department of Energy and the Asian Development Bank. This part of the deal was facilitated by GGGI, which helps the Province of Palawan realize the Palawan Climate Resilient and Green Growth policy aimed at reducing the region's dependence on fossil fuels.

To structure the deal, GGGI developed an institutional relationship with both the grant applicants, San Vicente and Brooke's Point municipalities, and the grant donors, the Department of Energy and the ADB.

Each municipality was given 50 e-trikes as a seed investment that will further drive the transport transformation envisioned by the Provincial Government of Palawan.

Juherm Kim, GGGI's Country Representative in the Philippines, says that while the introduction of a relatively small number of trikes will have a limited environmental impact, it has a much greater long-term significance.

"GGGI views that the transition to sustainable transportation requires a phased approach since transforming the sector needs a processing time while also developing enabling policy conditions, coordinating technology transfers, and dealing with stakeholders that could be adversely affected such as operators and drivers of fossil-fuel-powered tricycles. (...) Albeit small in number, introducing the trikes serves as a 'demonstration case' to test out this new technology, as one of the low-carbon options. In other words, a first step is taken," explained Kim.

"The e-trikes project could be a catalyst for other similar changes elsewhere, particularly in popular tourist spots where the transportation demand is obvious. The scheme is one which helps local trike drivers at an income level and creates more green jobs in the future, and is built on a sustainable financing model," says Kim.

He is also keen to point out how it will help locals and the municipalities' economies.

Creating green jobs

The municipalities have provided an in-kind contribution, including charging stations, which are rented to users based on a fee arrangement, which will enable local governments to provide maintenance service of the electric trikes and buy more of them, creating a revolving grant arrangement.

Meanwhile, to encourage and scale-up electric

transportation, the San Vicente Municipality now implements an ordinance granting public transportation franchises only to electric tricycles.

Aside from creating green jobs for the e-tricycle drivers, this initiative has also provided a more sustainable livelihood for drivers as, under a special financing arrangement, they can pay a daily fee over a period of four or five years and eventually own the vehicles.

"The drivers were selected according to their financial status – the poorest were given priority. The scheme will also give the municipal authorities an income, and they can reinvest that into charging points and related infrastructure. This helps create a revolving grant system and a sustainable financing model," Kim says.

With the trikes already on the streets of both municipalities, local authorities and GGGI representatives have praised the initiative.

"This achievement, made possible through our partnership with GGGI, is a key milestone as we pursue the implementation of the Provincial-level Climate Resilient Green Growth Framework in Palawan. I think it is just a start," says Ninfa B. Rubio, Provincial Planning and Development Coordinator of Palawan.

Kim says all stakeholders should be congratulated on playing their part in making the plans a reality.

"GGGI would like to support action. There are many studies on bookshelves and several talking festivals on green growth, but we all know that what's more important is to walk the talk," he says.

He adds that GGGI's previous work in the Philippines, such as the Palawan Climate Resilient and Green Growth Development Program (CRGGDP), had been responsible for the project getting off the ground.

Kim says: *"The project is just one small part of the work we're doing in the Philippines, since we are looking at other green growth sectors, such as renewable energy (i.e. solar PV) potentials seriously. We helped to get funding for it because as embedded intermediaries we were able to structure the deal between financiers and government stakeholders in this area."*

SUCCESS STORIES

GREEN BUILDINGS IN RWANDA; POSITIVELY IMPACTING THE ENVIRONMENT AND HUMAN HEALTH



Figure 1: Ongoing construction of the headquarters of I&M Bank in Kigali (Representational image of green building)



Figure 2: Compressed Stabilized Earth Block (CSEB) wall, rammed earth wall and timber roofing at Rwanda Institute for Conservation Agriculture (RICA) Campus in Bugesera, Rwanda (Representational image of green building)



Figure 3: University of Rwanda - School of Architecture and Built Environment (UR-SABE); Photo Credits: Jules Toulet (Representational image of green building)

- ▶ **The Government of Rwanda, with support from GGGI and other partners, took proactive action in 2019 and approved the Ministerial Order that outlines the Green Building Minimum Compliance System (GBMCS) along with the revised Rwanda Building Code 2019.**

In addition to reducing GHG emissions from buildings, sustainability impacts from the implementation of the GBMCS include 20-30% energy cost savings, 30-40% potable water savings, improved biodiversity and reduced heat island effect as well as promoting occupant productivity, wellbeing and accessibility when compared with a conventional building.

The GBMCS provides a baseline for mainstreaming green buildings in Rwanda and the system has helped raise awareness on the benefits of green buildings and construction practices in Rwanda and across the continent.

The built environment has a vital role to play in providing solutions to the global climate challenge. Green city development is uniquely positioned to address numerous sustainability issues, ranging from greener buildings to electrifying public transport. Globally, **the building and construction sector accounted for 36% of final energy use and 39% of energy and process-related carbon dioxide (CO₂) emissions in 2018**. In Africa, the building sector accounted for 61% of final energy use and 32% of energy-related carbon dioxide (CO₂) emissions in 2018.

Recent estimates indicate Rwanda's building sector, though small in terms of emissions at present at just under 1 MtCO₂e in 2012 is set to grow to over 6 MtCO₂e by 2050 under a Business As Usual (BAU) scenario. This rise will be the result of an increase in the number of building and associated energy consumption in the form of lighting, air conditioning and electronic appliances. Rwanda has set an urbanization target of 35% by 2024, up from 18.4% in 2016. Substantial numbers of buildings and other infrastructure will be needed to support this rapid urbanization and it will be necessary to implement a long-term plan for urban areas to ensure that they are inclusive, low-carbon, and resource efficient.

Action is being taken at every level of society to deliver climate resilient and sustainable green urban growth. One of these actions is taking place at the micro level inside the four walls of what are known as "green buildings". Recognizing the importance of regulating building, Rwanda embarked on the development of GBMCS. This initiative was led by the Rwanda Housing Authority (RHA) with the support from its partners, including GGGI, the Building Construction Authority (BCA) Singapore and the Rwanda Green Building Organization (RwGBO).

The RHA Director General, Eng. Eric Serubibi, says *"Rwanda Green Building Minimum Compliance System, as an Annex to the revised Rwanda Building Code 2019, provides a direction for new large-scale public buildings and major refurbishments to design, construct and operate based on green building principles and green technologies to promote resource-efficient practices in Rwanda's building sector that aims to preserve the environment. (...) The green building minimum compliance system aligns with Rwanda's Vision 2050; international sustainable development commitments, and national strategies to make Rwanda a developed low-carbon green economy by 2050. As Rwanda Housing Authority (RHA) we believe that the green building minimum compliance system is a step in the right direction and together with partners and stakeholders we are working towards raising awareness and building capacity for a smooth implementation,"* he adds.

The GBMCS will support Rwanda's ambition to reduce GHG emissions from the building and construction sector, starting with new large-scale public buildings and major refurbishments. Rwanda is the first country in Africa to mandate the GBMCS through its revised building codes and is expected to trigger decarbonization and resource efficiency throughout the building construction value chain.

GGGI supported the RHA and partners in formulating and drafting the GBMCS, by conducting stakeholder consultations, and providing technical support for the awareness and capacity building programs. This flagship policy will form the cornerstone to Rwanda's response to decreasing emissions in public buildings – and obtaining some of the estimated 3 MtCO₂e potential reductions within the building sector by 2050. Similarly, GGGI supported the RHA in the elaboration of the revised ministerial orders for urban planning and building construction which provided a legal framework to enforce the GBMCS.

In addition, GGGI developed an excel-based GBMCS implementation tool to support building professionals in complying with the requirements of the System and support the building permitting process and inspection officers to assess the level of compliance of the building project with the GBMCS.

Inhee Chung, GGGI's Country Representative in Rwanda, says, *"GGGI in Rwanda is excited to be supporting the Government of Rwanda in rolling out the GBMCS to all stakeholders across the country. Although we are starting with greening new public buildings, we expect it will be a matter of time before green construction practices will become the new norm in Rwanda. (...) We are also pleased to work with forward-looking developers that see the value in applying the GBMCS in their real estate projects, especially in Kigali. GGGI plans to support the greening of the existing building stock which has a huge GHG reduction potential,"* she added.

The GBMCS would be applicable for new, large-scale commercial buildings, public buildings, assembly buildings, health facilities and educational buildings. New large-scale commercial and public buildings shall achieve 60 points out of the 190 points available to comply with the requirement of the GBMCS.

Green buildings have become increasingly popular and important as more occupants look for spaces that are good for both people and the environment. Going forward, the RHA, with the support from stakeholders, will conduct public awareness campaigns, training programs for architects, engineers, building inspectors, developers, contractors, students and other stakeholders to ensure that the GBMCS is successfully disseminated and implemented.



▷ 07

GGGI'S STRATEGIC FRAMEWORK AND WORK PROGRAM BUDGET (WPB) 2019-2020

STRATEGIC FRAMEWORK

GGGI's implementation of the Refreshed Strategy 2015-2020 has continued through 2019 via the delivery of the WPB 2019-2020. In doing so, it reinforces GGGI's mandate to support the transformation of its Members and partners toward a green growth development pathway.

The Refreshed Strategy sets out GGGI's strategic direction until the end of 2020, when GGGI will make the transition to the new Strategy 2030. It focuses GGGI's programmatic interventions on six Strategic Outcomes (SOs), which represent the target impact areas where GGGI will make direct and indirect contributions to supporting its Members and partners deliver on their NDCs and SDGs.

The six SOs are:

- i. Green House Gas (GHG) emission reduction;
- ii. Creation of green jobs;
- iii. Increased access to sustainable services such as clean affordable energy, sustainable public transport, improved sanitation and sustainable waste management;
- iv. Improved air quality;
- v. Adequate supply of ecosystem services;
- vi. Enhanced adaptation to climate change.

In order to deliver the SOs at the higher and long-term impact level, GGGI's programs and projects are designed to contribute to three target Intermediate Outcome (IOs) areas, which are:

- i. IO1: Strengthening national and sub-national green growth planning, and regulatory frameworks;
- ii. IO2: Catalyzing increased flows of green investments;
- iii. IO3: Multi-directional knowledge sharing and capacity building.

GGGI's programs are designed to deliver one or more of these three IOs under four core thematic areas, which are:

- i. Sustainable energy;
- ii. Sustainable landscapes;
- iii. Water and sanitation;
- iv. Green cities.

GGGI's programs and projects are delivered within the four thematic areas at the activities, outputs, outcomes and impact levels. These programmatic results, which are reported annually through the End of Year (EOY) projects results reports, are measured against the Corporate Results Framework (CRF) 2019-2020, and then aggregated and presented in the annual results report.

GGGI has a unique in-country presence and prominent role as a neutral, trusted advisor and strategic development partner embedded in Member and partner governments. This special arrangement or positioning sets GGGI apart from other international development and environmental development partners that collectively serve the agenda of green growth and conservation.

GGGI serves the role of an enabler and facilitator of Members' transition into a low-carbon green economy, providing policy advice and technical support in the development of green growth plans, policies and regulations, mobilization of green investments, implementation of green growth projects, and development of local capacities and knowledge sharing.

GGGI's value chain cuts a wide swathe from green impact assessment, to strategy and planning, to financing and implementation and knowledge sharing. By linking policy and implementation along the value chain, GGGI supports its Members to develop and implement green growth plans and strategies adopted by governments, translated into green investment plans and financing vehicles aligned with national priorities and supported by knowledge sharing and best practices, and finally, on the right side – the design, financing and implementation of green growth projects.

GGGI's Value Chain



OVERVIEW OF THE WORK PROGRAM BUDGET 2019-2020

The WPB 2019-2020 is the main programming and budgeting tool for implementing GGGI's strategies outlined in the Refreshed Strategic Plan 2015-2020. The WPB 2019-2020 in 2019 sets out what GGGI intended to achieve through its country and global programs and non-programmatic activities.

The actual budget spending under the WPB 2019-2020 was USD 47 million in 2019, funded by a mix of 69% core funding and 31% earmarked funding. GGGI spent USD 27 million or 58% on country programs. The balance of 42% was spent on global programs and HQ based divisions.

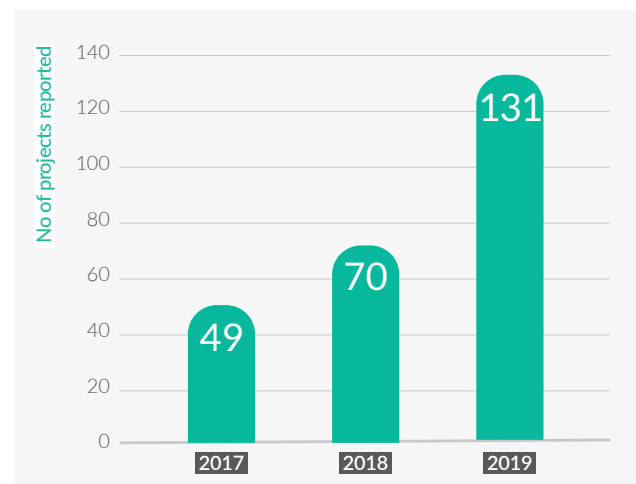
The WPB 2019-2020 was the first WPB to be developed and implemented under the new envelope budgeting method. Unlike previously, where GGGI implemented a program/project based budget, which saw the development and approval of fully developed programs/project proposals and their budgets at the start, the envelope method saw the allocation of budget envelopes to each country comprising a mix of core and indicative earmarked funding. Countries then developed their projects through the Project Cycle Management (PCM) 2 and PCM 3 process, for implementation during the biennium budget period.

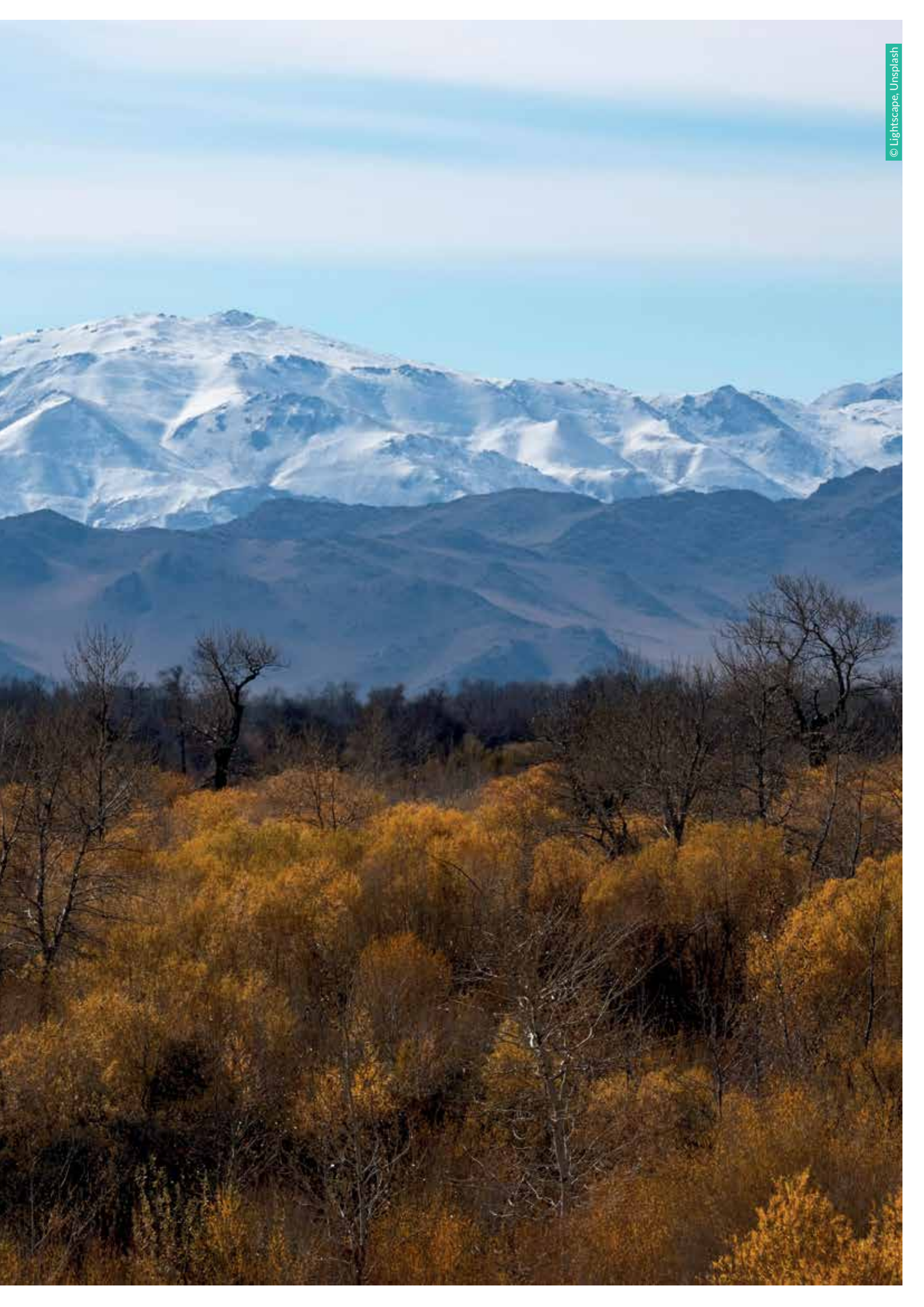
In 2019, the End-of-Year (EOY) results reporting process covered a total of 131 projects, compared to 70 in 2018, and 49 in 2017. This represents a significant increase of 87% and 167% in the number of projects reported in 2019, compared to 2018 and 2017 respectively. The graph shows the increase

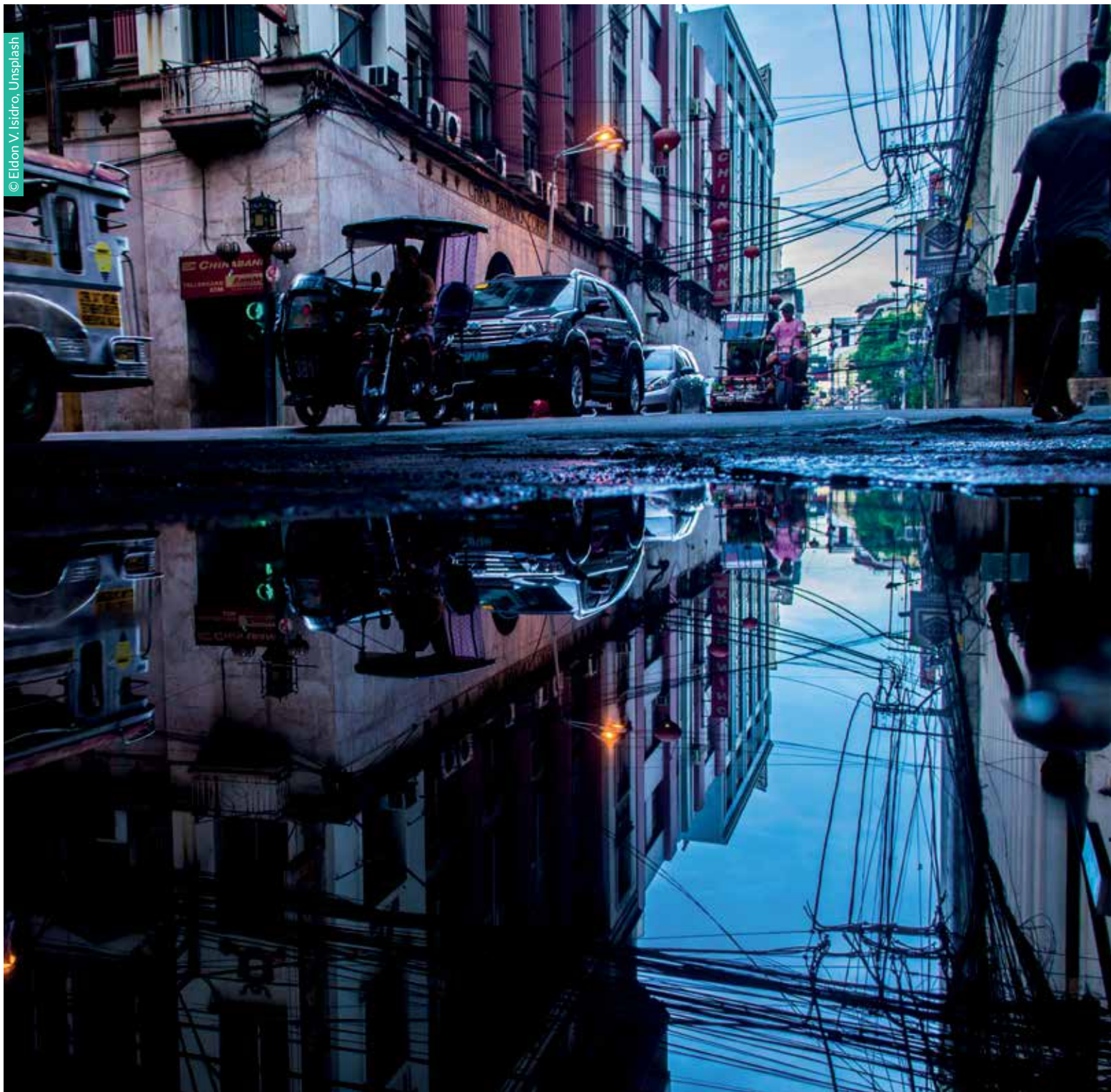
in the number of reported projects over the three-year period, 2017-2019.

The notable increase in the number of projects implemented and reported in 2019, compared to previous years, is a significant development and administrative burden. This sharp increase in the number of GGGI's projects is attributed to the envelope budget approach that was introduced in the WPB 2019-2020, and particularly the PIN process which led to the formulation of a larger number of smaller-sized projects than usual.

Number of projects reported in the annual results reports, 2017-2019



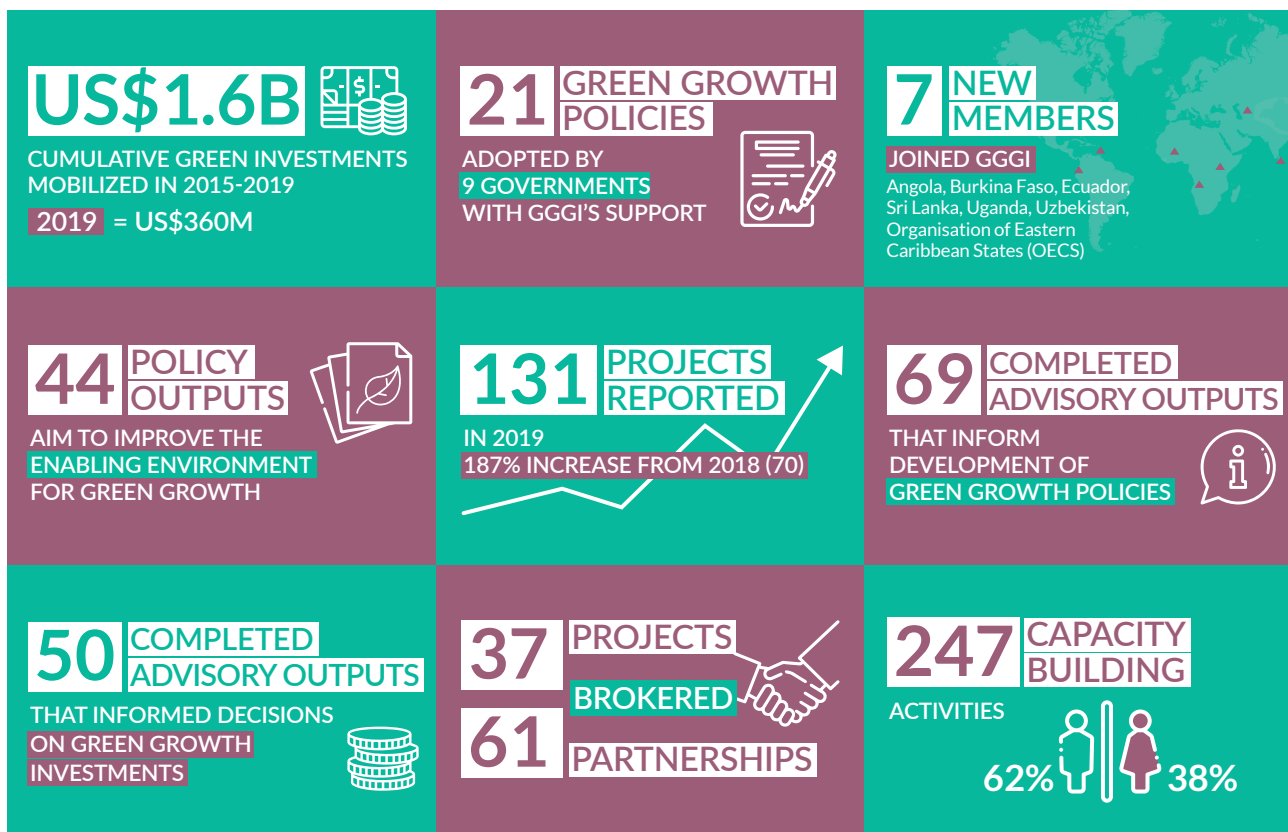




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CORPORATE RESULTS FRAMEWORK

2019 Results at a Glance



GGGI reports its corporate results annually to demonstrate the delivery of its country and global programs in the WPB 2019-2020 and to be transparent and accountable for its results and activities to donors, Members and key stakeholders.

In 2019, GGGI delivered a solid performance through the implementation of the WPB 2019-2020. GGGI completed 69 advisory outputs that informed the development of green growth policies, 50 advisory outputs that informed decisions on green growth investments, and 21 adopted policies that will have transformative green growth impacts. GGGI increased its total cumulative green investments catalyzed since 2015 to USD 1.6 billion from USD 1.3 billion in 2018. This was the result of 23 green investment commitments totaling USD 360 million that were catalyzed in 14 countries. GGGI also expanded its membership by 7 in 2019, gaining 6 new Member countries: Angola, Burkina Faso, Ecuador, Sri Lanka, Uganda, Uzbekistan, and its first regional integration member, the Organisation of Eastern Caribbean States (OECS). The growth of GGGI's membership is testimony of its increasing recognition and value as a trusted embedded partner to Member governments in the international space of promoting green growth.

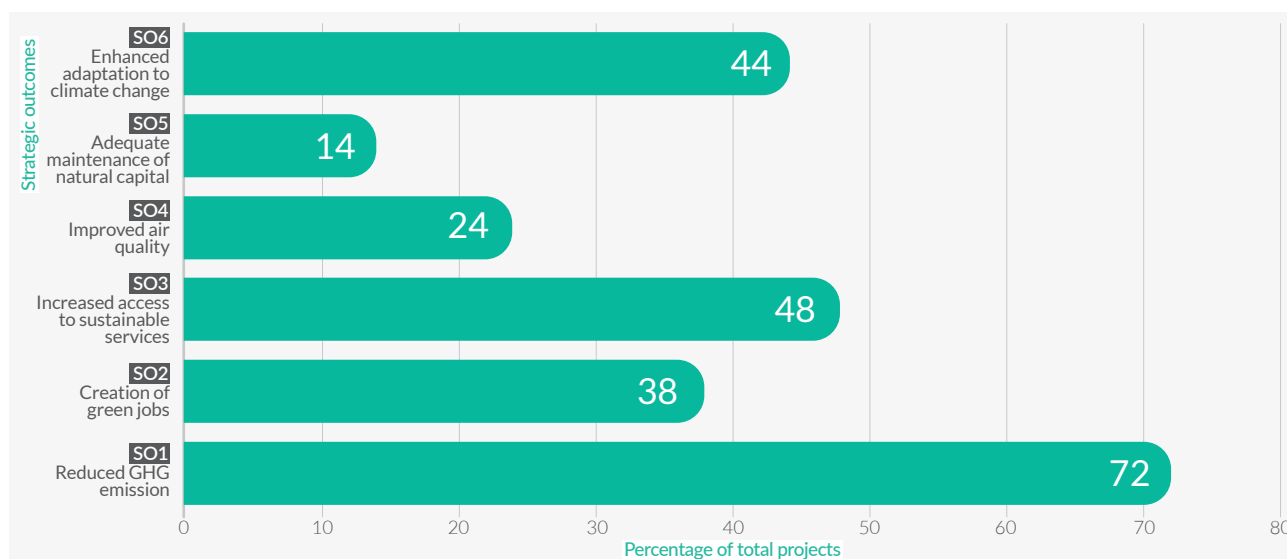
GGGI was active in the delivery of 247 capacity building activities mainly in the form of workshops, seminars, training events and study tours. Around 10,500 participants, including

government officials, benefited from knowledge and skills development and knowledge transfers which enhanced Members' and partners' capacity to develop and implement green growth policies and plans, green investments and projects. This work was supplemented by 90 knowledge products and services delivered by GGGI in various forms, including publications, toolkits, methodologies and knowledge sharing with the aim of advancing the global green growth agenda and global and national actions. Furthermore, 30 projects reported addressing the various elements of social inclusion including poverty reduction, social safeguards and gender.

Alignment of 2019 projects with Strategic Outcomes and SDGs

The 131 projects that GGGI implemented in 2019 reflect the priorities of its Members and partners and their commitments to deliver on their NDCs and SDGs. Accordingly, the alignment of the 131 projects to the six SOs and the SDGs are presented below. The graph below reflects the percentage of total projects that GGGI is delivering under each of the six SOs. GGGI's projects have the strongest alignment with SO1 on GHG reductions at 72%. Projects are least aligned with SO4 on supply of ecosystem services at 14%.

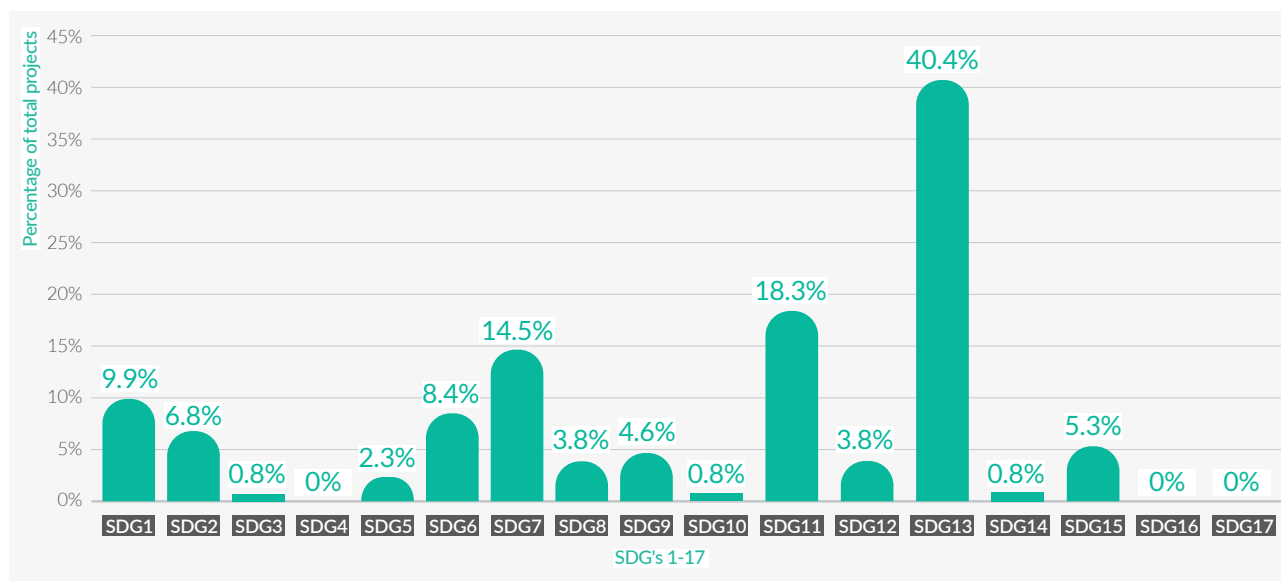
Alignment of 2019 projects to SOs 1-6



GGGI supports its Members and partners to deliver on their SDG commitments. The graph below shows the alignment of GGGI’s 131 projects with the SDGs. GGGI’s projects have the strongest

alignment with SDG 13 on climate action at 40%, followed by SDG 11 on sustainable cities and communities at 18%, and SDG 7 on affordable and clean energy is also strong at 14.5%.

Alignment of 2019 projects with SDGs 1-17



Key Results Delivered in 2019

Intermediate Outcome 1: developing green growth and national policy frameworks

An initial step in transforming economies toward a green growth economic development model, is to have governments adopt and implement the right policies. This is a focus of the assistance and support that GGGI offers to its Members and partners to establish green growth plans and policies at the national, sub-national and sectoral levels of government usually following an initial green growth diagnosis and impact assessment.

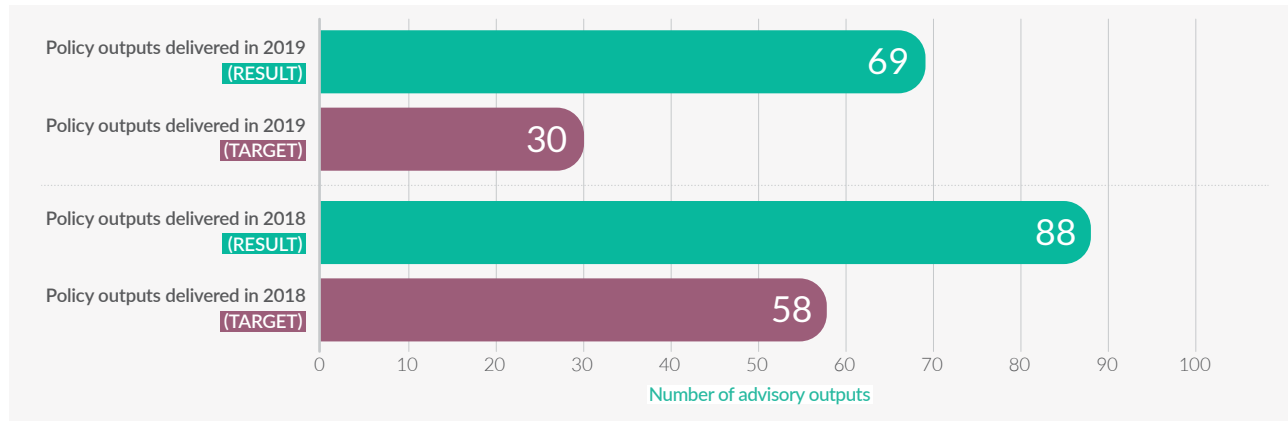
GGGI achieved a solid performance under Intermediate Outcome 1 (IO1) in 2019 during the first year of the WPB

2019-2020 when most projects have a two-year timeline and are planned for completion in 2020. GGGI delivered 69 advisory outputs that informed the development of government green growth policies with GGGI’s support against a target of 30. These 69 advisory outputs were accrued in 24 countries. The types of advisory outputs include green growth assessments, NDC Action Plans, climate change plans, strategic plans, green jobs assessment, development plans, and technical reports. These advisory outputs, once adopted, will have a direct impact on the decisions and policy actions of GGGI’s Members and partners to advance their green growth agenda and goals toward projects development, investment financing and implementation. GGGI also facilitated and supported the

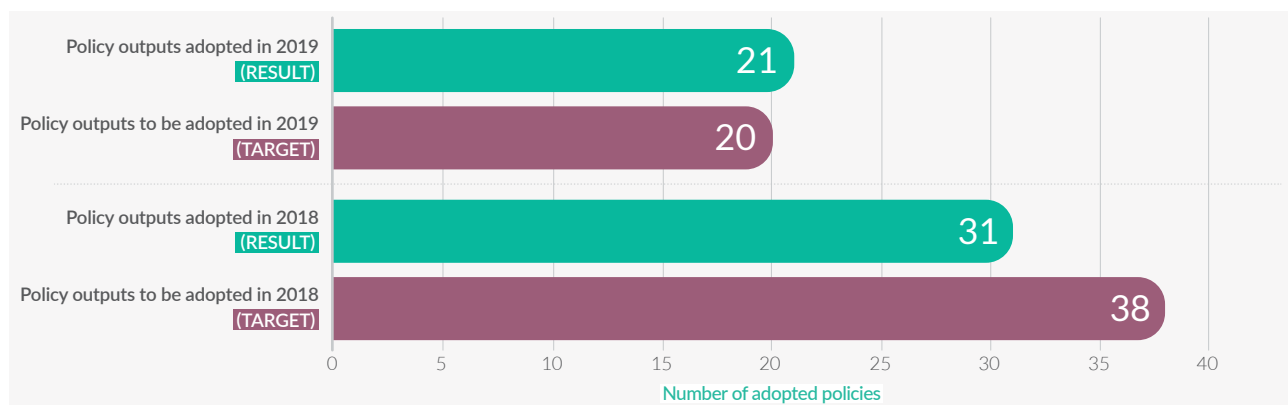
adoption of 21 green growth policies in 9 countries against a target of 20 (see below the Figure on the number of green growth policies adopted by Governments). These countries and

the number of policies they adopted include: Burkina Faso (1), Cambodia (1), Colombia (5), India (2), Indonesia (2), Mongolia (1), Rwanda (5), the UAE (2) and Vanuatu (2).

Number of completed advisory outputs that inform the development of green growth policies



Number of green growth policies adopted by Governments



Additional results achieved under IO1 include:

- A balanced scorecard was used to measure the extent to which the 21 adopted green growth policies were likely to lead to transformational change (in the countries concerned) under four criteria, including the alignment of the policy to the four elements of green growth, namely: economic growth, poverty reduction, environmental sustainability and social inclusion. These were resources allocated for its implementation, arrangements for its implementation and does not relate to specific actions or investments. Out of a random sample of 8 countries, the average score was 3.5 out of a maximum score of 4. This result indicates that the adopted policies are likely to have a strong transformational impact for the countries concerned.
- A balanced scorecard was used to measure the extent to which the 21 adopted policies are aligned with the four elements of green growth under four criteria including whether an adopted policy supports economic growth, poverty reduction, environmental sustainability or climate action and social inclusion including gender. Out of a random sample of 8 countries, the average score was 3.9 out of a maximum score of 4. This result indicates that the adopted policies are strongly aligned with green growth and will

directly progress GGGI's Members' and partners' green growth ambitions and transformation.

Intermediate Outcome 2: Catalyzing Green Growth Investments

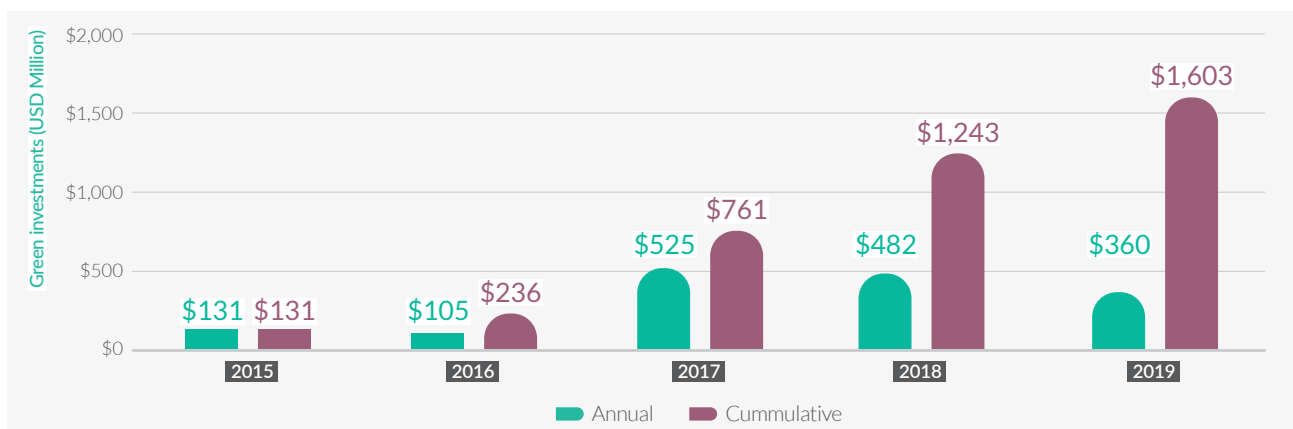
GGGI works directly with its Members and partners under Intermediate Outcome 2 (IO2) to help design and implement programs to assist in catalyzing financing for green growth in national development plans. GGGI's work focuses primarily on developing National Financing Vehicles (NFVs) to mobilize investment funds, bankable projects, investment proposals, designing de-risking mitigation instruments, and enabling policies and legislation. These activities will ultimately increase public and private sector capital flows toward the development of green investment projects that will enhance the transformation of GGGI's Members and partners.

Under WPB 2019-2020, GGGI has continued to prioritize the shift in its focus toward accelerating green investment activities on the 'right side' of its value chain. In pursuance of this goal, GGGI management has set very ambitious targets for green growth investments since 2017, when GGGI had a strong result of USD 525 million with a clear intention to accelerate the transition of its Members and partners toward a green growth pathway.

While it seemed challenging at the beginning, at the end of 2019, GGGI had successfully catalyzed a total cumulative green investment of USD 1.6 billion since 2015, up from USD 1.2 billion in 2018. This increase was the result of the USD 360 million in total green investment commitments mobilized in 2019, from 23 projects in 14 countries, of which 71% was funded by the public sector, and 29% by the private sector. Moreover, two-thirds of the green investment work evaluated by IEU was found to have moved from “commitment” to “agreement/disbursement” stages. The private sector has committed to raise USD 391 million (73%) of the total investments.

“The evaluation confirms that GGGI’s GIS work fills a quite specific niche and is well appreciated by our partners.” says Director-General, Frank Rijsberman. *“It concludes that our early exit point is well chosen and that almost all the projects for which GGGI has mobilized green and climate finance are indeed moving forward to implementation. This is a very strong endorsement of our overall approach with some helpful recommendations for further improvement.”* Although the 2019 result was below the annual CRF target of USD 600 million, it has continued to build upon the growing scale of cumulative green investments that GGGI has catalyzed since 2015.

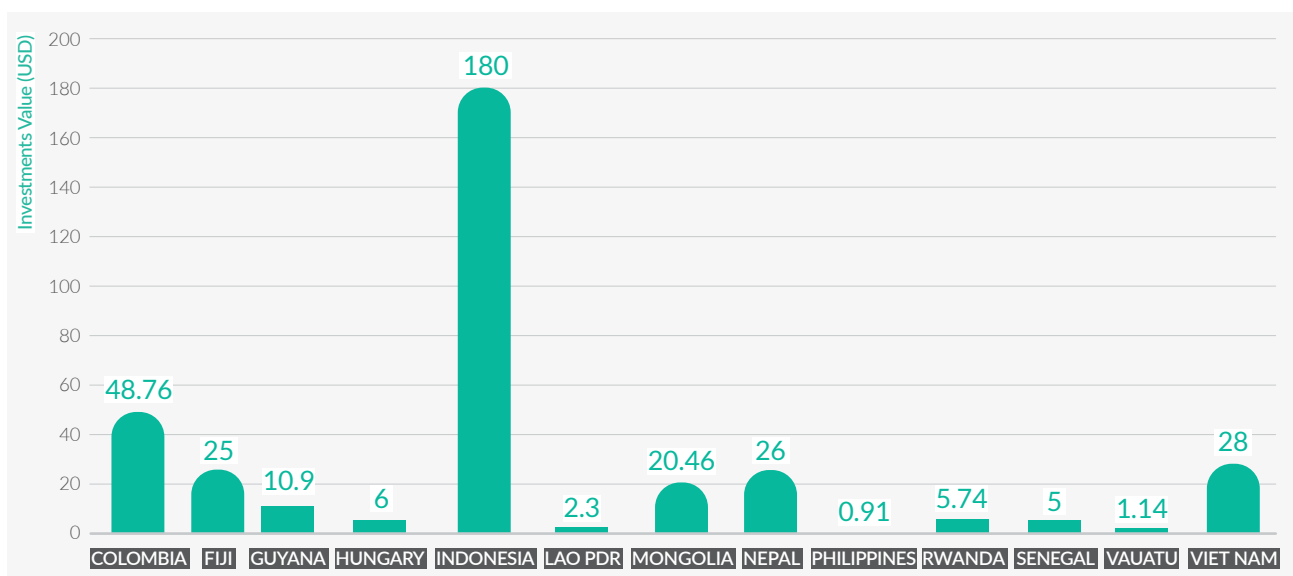
2019 annual total cumulative green investments mobilized, 2015-2019



In 2019, the largest single investment project is Indonesia, accounting for USD 180 million or 49% of the total, followed by Colombia at USD 49 million or 13%. The balance is spread among the remaining 11 countries. The underlying difference in the green investment result in 2019 compared to 2017, and 2018, is that the two latter years consisted of very large

single investment projects each which accounted for 52% and 64% of the totals, respectively, and a bundle of medium size investments. These single projects alone spiked the results achieved in those two years supplemented by the medium sized ones. In comparison, the majority of the investments in 2019 were small size projects valued at below USD 10 million.

2019 Total Green Investment Commitments by Countries



GGGI has not been able to meet the annual investment targets in 2018 and 2019, in part because it is taking more time than expected to deliver projects through to financial commitment, and because the Institute is increasing the number of countries with investment projects and the number of projects. The number of countries with completed investment deals have grown to 24, and GGGI has completed more deal now with 60 deals in total catalyzed since 2015 (but they are mainly small size deals). GGGI has to date developed a very healthy and growing green investment pipeline which is currently valued at around USD 1 billion. Following these initial deals and with the present investment pipeline, the Institute expects to see larger size deals in the future. In addition, GGGI was attempting to do investment projects in too many areas which led to high costs of acquiring the necessary expertise, and very limited efficiencies of scale. For that reason, GGGI has introduced a limited number of programmatic solutions. The organization expects to see a larger number of similar investment projects related to specific, more narrowly defined, programmatic solutions, resulting in more efficiencies.

Additional 2019 results under IO2 include:

- GGGI also achieved 50 completed advisory outputs that informed decisions on green growth investments exceeding its target of 25. These advisory outputs included NFVs, bankable projects and investment proposals. The NFVs are essential financing mechanisms established with GGGI's support in its Members and partners to catalyze and channel green finance, grants and other forms of equity to designated green growth projects. Bankable projects are projects with sufficient cash flow to cover all project related costs as well as a reasonable rate of return for investors. Investment proposals are usually developed for an investment opportunity to attract potential investors.
- GGGI delivered 44 completed outputs that aim to improve the enabling environment for green investments against a target of 10. These outputs, which include de-risking instruments, enabling regulations and tax incentives, aim to remove inherent market imperfections that are barriers to investment.
- GGGI, in its GCF Readiness work, supports Members and partners as a delivery partner to access climate finance from GCF. Climate finance plays a vital role in accelerating the implementation of their NDCs and SDGs. To date, over 20 countries have requested GGGI to act as a Readiness delivery partner. GGGI's teams on the ground have supported 20 of its government partners to access over USD 15 million in GCF approved Readiness funding and submitted over USD 9 million in Readiness proposals. Countries that GGGI have assisted include Lao PDR, Mongolia, Rwanda, Thailand and Vanuatu.

Update on the status of green investment commitments catalyzed in 2017 and 2018

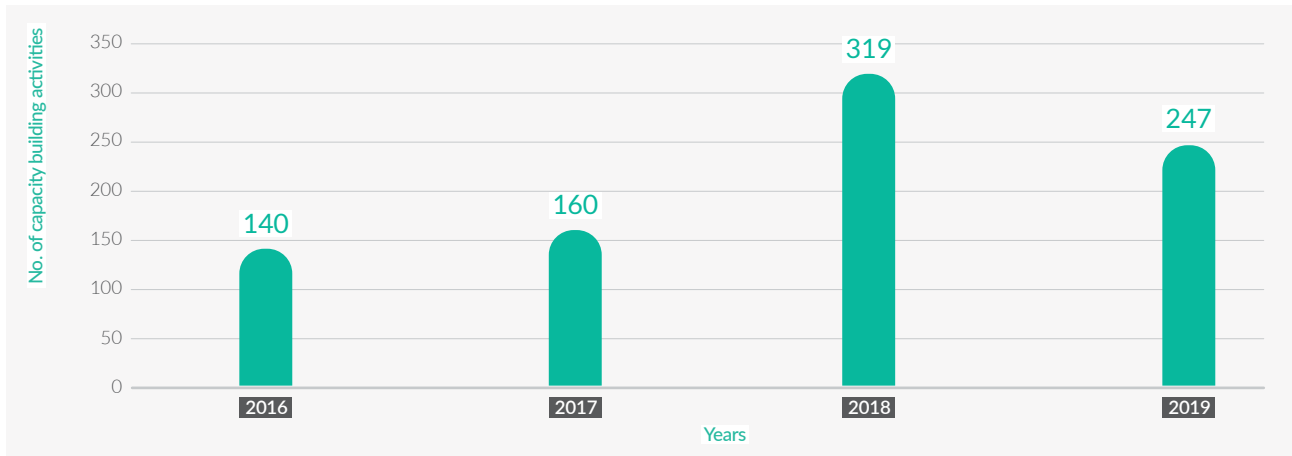
GGGI now tracks the progress and status of the green investment commitments catalyzed with GGGI's support in previous years since 2017. These include all except one of the 10 green investment projects, totaling USD 525 million reported in 2017, and the 21 green investment projects totaling USD 482 million reported in 2018. Out of the 10 2017 projects, the USD 1.0 million Costa Rica Environmental Ban Foundation – FUNBAM project was cancelled due to the change in the policy priorities of the new Costa Rica Government in 2019. The other 9 projects are still ongoing, but none has been completed. Out of the 21 projects in 2018, all except the Sonora Green Bond are still active and progressing in various stages including design, securing funding and disbursements with two projects in Rwanda and Mongolia reaching the construction stage. The Sonora Green Bond initiative was cancelled due to the current low borrowing capacity and high debt obligations of the Government of the State of Sonora.

Intermediate Outcome 3: multi-country knowledge sharing and capacity building

Intermediate Outcome 3 (IO3) underscores the importance of both knowledge development and sharing, and capacity building to advancing the global green growth agenda and regional and national action of Members and partners. GGGI's theory of change in relation to IO3 is that sharing of knowledge, lessons and experience through capacity building, institutional relationships and partnerships and knowledge networks will drive learning, understanding, reduce knowledge gaps and ultimately spur action on green growth. This highlights GGGI's strategic role as a broker of green growth knowledge and learning between countries.

In 2019, GGGI delivered 247 capacity building activities for its Members and partners, benefiting a total of 15,000 participants, including government officials and partner and stakeholder representatives. Examples of capacity building activities include training events, workshops, seminars, study tours and on the job mentoring. Based on the evaluation feedback, the participants benefited from knowledge and skills development and transfers which enhanced GGGI's Members' and partners' capacity to develop green growth policies, investments and project implementation. Ultimately, this will help GGGI's Members and partners to develop and sustain their capacities to manage their own green growth transformation in a sustainable manner.

Number of capacity building activities delivered in 2019



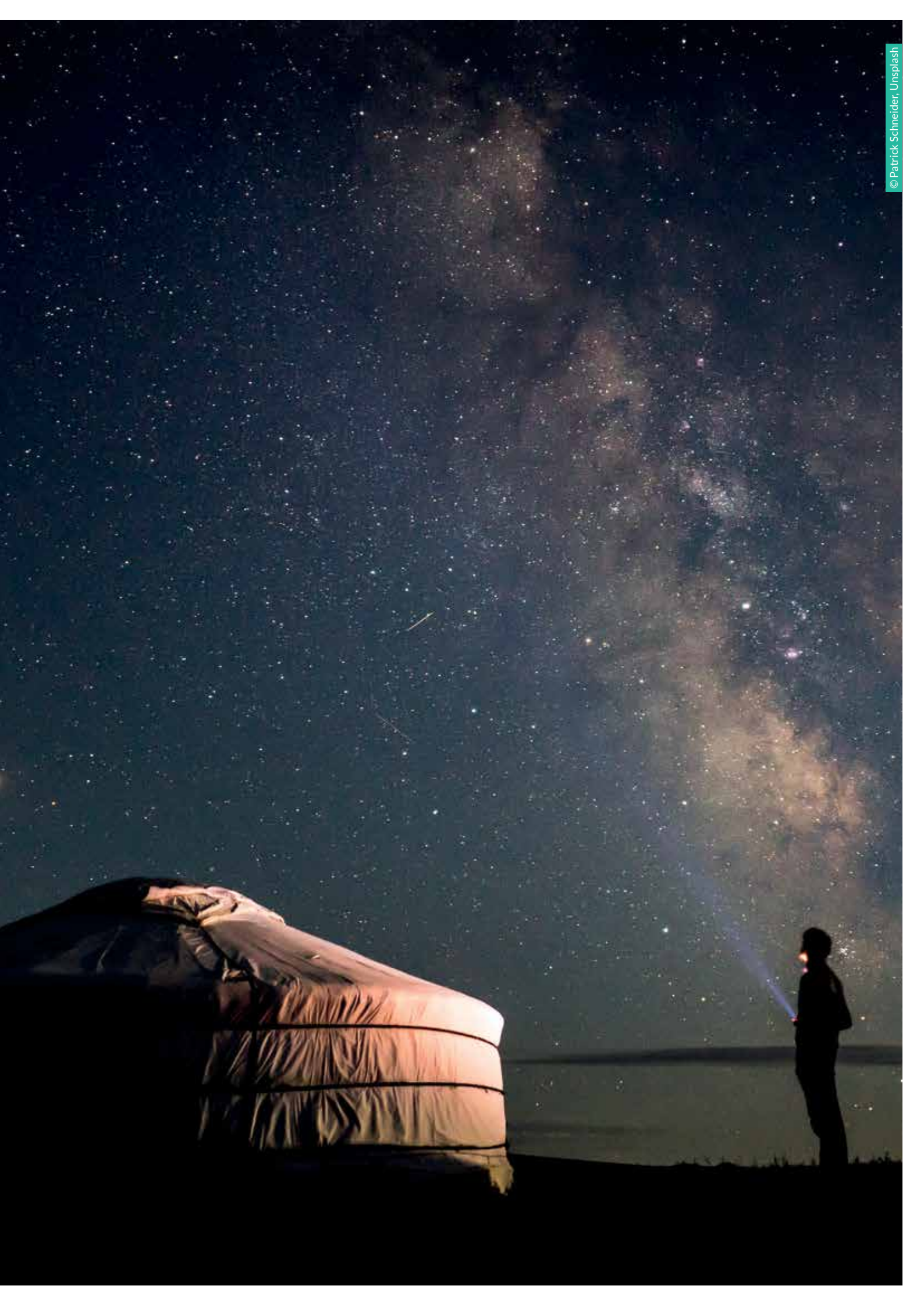
The primary purpose of knowledge development and sharing is to build the capacity of partner governments and local agents to support the development and implementation of green growth policies and investments. In 2019, GGGI delivered 90 knowledge products against a target of 70. Examples of knowledge products delivered include publications (such as the GGGI Strategic Outcomes Technical Guideline and the Green Growth Index, training modules, toolkits, methodologies and collaboration on global knowledge platforms like the Green Growth Knowledge Platform (GGKP).

Additional results under IO3:

- Approximately 29% of all capacity building activities shared experiences and lessons from other countries.
- GGGI's business model encourages the delivery of programs and projects on a platform of partnerships with stakeholders other than its government counterparts. In 2019, 37 projects brokered 61 partnerships.
- The extent to which GGGI's capacity building activities have directly strengthened its Members and partners to develop and implement green growth policies and investments was measured using a 5-point balanced scorecard with an average score of 5.5 against a maximum score of 10. The five criteria include skills and knowledge relevance and gain, use of knowledge gained, alignment with country objectives in WPB, and inclusion of government and public sector officials.

- A 6-point balanced scorecard was used to measure the extent to which knowledge products produced and disseminated by GGGI are aligned with the four elements of green growth and have a quality impact. The average balance scorecard assessment for all countries was 5.5 out of a maximum score of 6.
- Out of the 21 green growth policies adopted and 23 green investments catalyzed, 13 of these actually benefited from shared experiences and lessons from other countries.

In addition, GGGI now tracks the number of GGGI's projects that have addressed the social inclusion elements of green growth including poverty reduction, social safeguards and gender. In 2019, 30 projects reported to have addressed these elements in their design and implementation, aiming to provide broader development benefits to their target population.





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MAXIMIZING ORGANIZATIONAL EFFECTIVENESS AND EFFICIENCY

As an organization, GGGI has grown in size and its scale of outputs which has required a shift in its staff and financial resources increasingly in-country (particularly out of HQ and into LDCs) and spending more on program delivery. With this underlying objective, GGGI's ongoing efforts to improve its financial stability and strengthen its business processes are geared to enhance its performance, effectiveness, governance and brand.

BALANCE BETWEEN LDCs AND MICs AND PROGRAM ALLOCATIONS

To enhance its presence in the LDCs that are GGGI's Members, GGGI has established 2020 targets to allocate 42% of core country program budget to Members LDCs (see table below). In 2019, core funding to LDCs was 51%, compared to 49% in 2018, already exceeding the 2020 target. Similarly, GGGI has established 2020 targets to allocate 87% of the core budget to Member LDCs and MICs

combined. In 2019, core funding to Members LDCs and MICs increased to 80%, from 77% in 2018, but is still 7% below 2020 target. Similarly, GGGI in 2019 allocated 84% of its core budget to vulnerable countries which include LDCs, Land Locked Developing Countries (LLDCs) and Small Island Developing States (SIDS) already well exceeding the 2020 target of 60%.

2019 Allocation for LDCs and MICs

	2018	2019	2020 (Target)
% of core budget allocated to LDCs	49%	51%	50%
% of core budget allocated to MICs	28%	29%	50%
% of core budget allocated to LDCs and MICs combined	77%	80%	87%
% of core budget allocated to vulnerable countries (UNOHRLLS definition)	N/A	84%	60%

BUSINESS PROCESS IMPROVEMENTS

GGGI has taken concerted efforts to improve its business processes through the iGROW business reform. This is both in response to the 2015 Joint Donor Review, but it is also fundamentally necessary to provide corporate support for improved delivery of programmatic and operational priorities and strengthen transparency and integrity. The aim is to ensure our business model is geared toward the delivery of our IOs and SO impacts, enabling the organization to be more nimble and flexible, making GGGI a great place to work. In

2019, some of the major actions taken include the review and strengthening of the PCM process, including the finalization of the new PCM 4 Manual on project implementation and management, effective use of GGGI Online, particularly for project management, increased engagement in the use of the CRM system for resource mobilization, adaptation of GGGI's business travel policies, greater flexibility in budget allocation and better management of its financial resources.

ENHANCING EFFICIENCY

Implementation of the WPB in 2019 reflected a commitment to efficiency of internal support functions, particularly performance of human resources management, legal, finance, and facilities services in line with the reform agenda. GGGI is further strengthening the foundation for a country-based operation business model and ability to respond to the needs of its partners, by empowering staff in the field and those closer to the clients, to make necessary decisions on GGGI operations. An example of this reform is to move the responsibility and accountability for GGGI's resource mobilization to its country offices.

To track performance of enhancing efficiency, GGGI has established 2020 targets for percentage of spending on management and administration and non-programmatic activities (see table below). The results for 2019 have showed a decrease in the percentage of total budget spending on management and administration from 15% in 2018 to 12% in 2019. Similarly, the percentage of total budget spent on non-programmatic activities decreased from 22% in 2018 to 20% in 2019, exceeding the 2020 target by 10%.

2018 Management & Administration and Non-Programmatic Budget Allocations

	2018	2019	2020 (Target)
% of total budget on management and administration	15%	12%	17%
% of total budget spent non-programmatic activities	22%	20%	30%

STRENGTHENING OUR EVALUATION EFFORTS

GGGI undertakes evaluations of its work through its Impact & Evaluation Unit (IEU). In line with GGGI's [Annual Evaluation Workplan 2019](#), IEU focused on: (a) delivering country and thematic evaluations; (b) introducing and piloting Impact Pathway Review (IPR) as a tool for assessing and demonstrating impact; (c) delivering M&E services in response to program needs. In the first half of 2019, IEU finalized and published two evaluation reports on the Peru Country Program and Green City Strategies. IEU also commenced a new thematic evaluation on the topic of Green Investment Services. In addition, IEU also developed an improved methodology for evaluating country programs, called Impact Pathway Reviews (IPR), and piloted the new approach on GGGI's Mongolia Country Program between April and October 2019. The IPR sought to combine improved program logic mapping and visual presentation

methods and integrate the 'Green Growth Evidence Base' work initiated in previous years, to create more easily digestible, credible and usable products for key decision making audiences. Based on the results of the pilot, IPRs will be undertaken on 4 additional country programs and also mainstreamed into GGGI's programming systems in 2020. Finally, IEU also delivered M&E services in response to country program needs. Over 40 requests for support were met by IEU during 2019, covering: development of logframes and drafting text for earmarked proposals; reviewing proposals for core funding; supporting project implementation; and supporting M&E-related procurements and recruitments.

For more on individual evaluation products, visit: <https://gggi.org/results-evaluation/evaluations>.

STRENGTHENING OUR FUNDING BASE

Since 2013, GGGI has relied primarily on core contributions to fund its operating income. However, since 2015, core contributions have decreased, while earmarked contributions have increased. In response to this trend, GGGI has taken decisive and prudent steps to change its business model to be able to attract sufficient earmarked funding. The business process reforms (iGROW) is aimed at transforming GGGI's operating business and funding models with the objective of reducing its reliance on core contributions and increase, correspondingly, the share of earmarked funding in its funding model. The iGrow reforms also aim to move GGGI from a

contracting management agency toward a greater in-house capacity to implement projects, maximizing the technical services for GGGI's Members and partners provided by its staff.

To respond to this challenge, GGGI is focused, through collaboration among its Seoul headquarters and country offices, to identify potential earmarked funding sources to meet GGGI's programmatic priorities going forward. The primary goal of these efforts is to increase resources to respond to the needs of its Members and partners and to add value by catalyzing additional resources for them to provide green growth support.

RISK MANAGEMENT

GGGI proactively manages its risks related to the organization and reputation, operational program and portfolio, finance, legal, information technology and data, human resources, and work environment. In 2017, GGGI adopted a Risk Management Framework (RMF), which consolidated GGGI's risk awareness and risk management culture, established a risk registry and mitigation measures, and provided a monitoring framework for risk management. The Director-General oversees implementation of the RMF and reports every six months to the GGGI Management and Program Sub-Committee (MPSC) and publicly to the Council in the Annual Report. This involves the Council's review and provision of advice on the appropriateness of the risk assessment, effectiveness, and adequacy of risk mitigation and management.

The RMF is monitored by the GGGI Management Team through the Risk Management Matrix. The matrix is a tool for internal consultation and assessment of risks with indications of the priority rating using traffic-light color-coding. It includes risk mitigation measures, which, in turn, are implemented through daily operations by assigned accountable staff. In a situation where risks that would impact GGGI significantly escalate to a high likelihood of occurrence, the Management Team would support the Director-General to identify options for reducing the probability of risk from occurring and the impact on the organization.

In May 2019, both the RMF document as well as the matrix were reviewed by the Management Team and below key updates were reported the MPSC Members in the July MPSC session:

- **Financial Management & Operations:** While GGGI implemented a growing portfolio of earmarked projects and developed online-business tools to support resource mobilization such as Customer Relationship Management (CRM), it is important to note that the core resources still remain critical for the organization.
- **Operational Program and Portfolio Management:** GGGI added a risk on Environmental and Social Safeguard (ESS) - GGGI program failing to meet ESS standards due to weak project design, implementation, inadequate resources or

lack of capacity, may lead to eroding Members, partners and public trust and GGGI's reputation.

- **Working Environment:** GGGI added a risk on Security for Country Offices - security situation in country(ies) not properly taken into account in the planning and implementation of GGGI's operations, resulting into failure to deliver commitments to donors and Members, and posing threats to the safety and security of personnel and loss or damage to assets.
- **Human Resources:** Reduced likelihood of the risk on appeals against HR administration decisions and disciplinary matters due to increasing efforts to provide channels for informal conflict resolutions such as appointing Ombudsperson, Respectful Workplace Advisors and recent membership to ILO Administrative Tribunal.

In November 2019, the GGGI Management Team reviewed both the RMF and the matrix for the second time in the year. The main conclusion was that risks to the organization in terms of operational program and portfolio management, financial, legal and human resources were assessed to be at satisfactory levels overall, and that adequate measures were being implemented to sufficiently manage and reduce GGGI's risks. GGGI noted additional mitigation measures for risk on foreign exchange from donor contributions and also noted that both likelihood and impact levels of risk on safety of staff assignment in countries without Host Country Agreements are lower due to implementation of the approved country programming criteria which will eliminate the situation in the future.

GGGI plans to implement the RMF in all country and regional offices in 2020. The rationale for the roll out being that whilst most of the risks identified in the RMF are common across all regions and offices, there may be some additional risks which are either regional or country specific. The intention of the roll out is, therefore, to identify additional regional or country specific risks and to ensure that adequate mitigation strategies are in place. GGGI will update the roll out to MPSC Members as part of the next update of the RMF scheduled for the MPSC session in July 2020.





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EMPOWERING OUR PEOPLE

A people-centered approach to lead organizational change

At GGGI, we believe that our people are our biggest strength.

Our approach and policies are people-centered in order to make GGGI a nimble organization and a great place to work.

We're supporting everyone in realizing their full potential by:

- Putting upskilling, conflict resolution, health and wellbeing at the center of our culture.
- Nurturing an environment of social connection, diversity and inclusion.
- Investing in the technology, tools, systems and performance management.

We're committed to embracing our **VALUES**

We are
TRANSFORMATIONAL

We value
BOLDNESS

We have
EXCELLENCE

We are
INCLUSIVE

We have
INTEGRITY

Our people

As part of its organizational transformation, GGGI aims to create an agile, mobile, and responsive workforce which maximizes knowledge and experience sharing across divisions, departments, programs and countries and builds synergies across our program portfolio.

To attract and retain the right talents, strategic staffing exercises were conducted to identify future gaps in skills set against operational plans. Throughout this strategic planning period, we rationalized internal and external recruitments, empowered managers, consolidated and redeployed staff to amplify our capabilities to achieve cost-effective allocation of in-house expertise across and within divisions.

Today, staff at GGGI have an appropriate mix of skills and experience to meet the demands of the organization, and at the same time, ensure that we retain the flexibility to address changing priorities and demands over time.

We also now have greater in-house and country team capacity, with a number of people with particular expertise for instance in green project management, finance, energy, sustainable landscape, green cities, water and sanitation. We support projects with existing staff, but, in the absence of in-house capacity, we rely on expert consultants. These experts are carefully chosen based on a rigorous procurement process and retained on a long-term basis to ensure continuity and commitment.

Having in-country presence with a client-oriented workforce is a key determining factor in effective engagement of country stakeholders. As a result, the number of staff posted in country teams gradually increased over the years. More positions were established and filled in country operations. Several staff originally based at the headquarters have been permanently transferred to the country offices. We currently have staff embedded in our government ministries of Finance, Environment, Agriculture, Water and Sanitation, Ministry of Urbanism, Housing and Public Hygiene, to name a few.

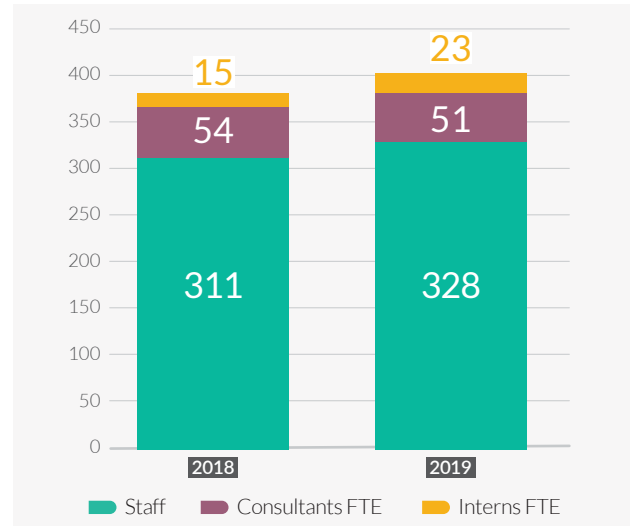
Developing capability for performance

At GGGI, we are investing in our people so that they have the right skills and are supported by a healthy workplace culture that is inclusive and collaborative. Many talent management initiatives took place in 2019 to attract, grow and retain our people.

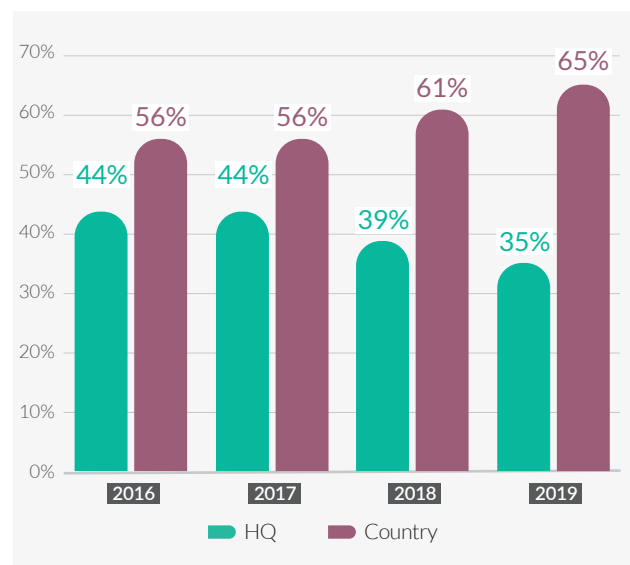
GGGI benefits from an *increasingly diverse* and young global workforce dynamic. For this reason, greater emphasis was placed on staff development to upgrade existing capacity and provide staff members with the opportunity to learn and grow.

The approach to developing the knowledge, *skills* or experience of our people demanded that we first understand the gap between what they are able to do and what you want them to be able to do in the future. In order to do so, an

Number of Staff, Consultant FTE and Intern FTE



Hq vs Countries



Number of Nationalities and average age - all resources

	2016	2017	2018	2019
Nationalities	63	68	71	74
Average Age	42	40	38	36

organization-wide training needs analysis was carried out in consultation with all stakeholders, including individual staff via surveys. This led to a new learning and development program for implementation in 2020 that takes into account the needs of individuals and teams coupled by incentives such as rewards for completing a project management certification.

A comprehensive talent management approach was also introduced starting with a revamped onboarding process, the introduction of HR dashboard with Microsoft Power Business Intelligence and a number of new learning and development programs centered around emerging leadership and mentoring, including GGGI’s first leadership program, a global mentoring program and monthly webinars for training and continuous professional development for all staff.

Social connection – online and offline – is highly valued at GGGI. Our people are supported by a healthy workplace culture that is inclusive and collaborative with a strong flexible working policy for all and initiatives for health & wellbeing sessions, as well as, regular staff social activities throughout the year. We’ve also installed new technology such as SharePoint, along with Yammer and other internal tools to ensure cost effective connectivity and collaboration among staff members, creating virtual knowledge communities and effective communication system in the organization.

We have also created a more favorable organizational mobility environment whereby we upscaled the international staff rotation scheme and provided opportunities for short and long-term special assignments for both national and international staff at the headquarters and across countries of operations. We’ve also created pathways for career advancement for national staff in Korea and in country offices.

In terms of gender balance, we are committed to social responsibility principles in ensuring workforce diversity and gender balance. While efforts are required to recruit more women at the senior level, GGGI has maintained a gender balance across the organization, and the data does not show a gender salary gap.

	2016	2017	2018	2019
Men	54%	51%	52%	52%
Women	46%	49%	48%	48%

Staff engagement

Overall, the 2019 results are very positive with a strong participation from staff (over 75%) and 83% of all employees stated that they are proud to work for GGGI. The overall favorable engagement score has steadily increased from 48% in the 2016 survey to 63% in the 2019 survey - a very significant 15% increase. There has also been steady improvement over the last three years in the organization’s confidence and managers, collaboration & communication, and work & life balance. The results were widely shared with all staff and the Staff Council, and the Management Team organized wide consultations with the Heads of Unit and the Staff Council to help with the development of an action by targeted focus areas, and follow-up on action plans.

Employee relations

Maintaining healthy employee relations at GGGI is considered important. We believe that staff members should feel positive about their identity, their job as well as about being a part of a great organization.

In our day-to-day modus operandi, staff are well-informed of organization policies, procedures and decisions through internal communication channels. We strive to provide compensation and benefits paid fairly based on talents, skills and competencies. Staff are also rewarded and appreciated for the well-done job or for achieving/over-meeting their targets. Further, performance management at GGGI has been strengthened. Managers and staff have now a software solution that allows for giving and receiving feedback year-round. The 360-degree feedback has been reintroduced and now covers all managers as part of the annual performance review.

Conflict resolution is also at the core of our concerns. Since 2018, we have improved our informal and formal conflict resolution mechanisms to foster a healthy and safe work environment with a gender, division and geographically balanced network of Global Respectful Workplace Advisors. A new Ombudsman was hired to help staff, support the Global Respectful Workplace Advisors and produce regular reports on systemic issues causing conflict in the workplace. The staff rules were revised to strengthen informal conflict resolution and to establish appeals mechanisms based on international standards, with the possibility for staff to appeal administrative decisions before the International Labour Organization Administrative Tribunal (ILOAT) since 30 October 2019. Mid-year, GGGI joined the Ethics Network for Multilateral Organizations (ENMO) as a standing member and established a focal point for ethics in the HR department to advise staff on code of conduct related issues.

Staff Council

The GGGI Staff Council is a group of nine (9) staff elected by peers. Their main role is to represent and advocate the views of staff on matters related to working conditions and welfare to Management. During 2019, the Staff Council worked constructively with Management and other units on a range of matters, to help identify relevant issues and, where possible, contribute to changes in organizational policies and practices. Key activities included:

- Surveying the implications of Host Country Agreement status for country operations and staff and recommending actions to mitigate identified risks
- Providing recommendations on the use of 360 feedback in GGGI’s staff performance management systems
- Facilitating communication between Management and staff on key decisions regarding GGGI’s budget for 2020
- Providing feedback and suggestions on other topics including onboarding, learning and development, gender and diversity, performance improvement and the annual GGGI staff engagement survey

Country Offices - Latin America & the Caribbean	Government Ministries/Offices
Caribbean	OECS Commission Secretariat
Colombia	National Planning Department Ministry of Environment and Sustainable Development FINAGRO IDEAM Ministry of Mines and Energy Ministry of Finance Ministry of Agriculture and Rural Development
Mexico	Secretariat of Environment and Natural Resources Secretariat of Foreign Affairs Secretariat of Finance and Public Credit
Peru	Ministry of Environment Ministry of Economy and Finance Ministry of Foreign Affairs

Country Offices - Pacific	Government Ministries/Offices
Fiji	Ministry of Economy Regional Pacific NDC Hub at the Pacific Community (SPC)
Kiribati	Ministry of Environment, Lands and Agricultural Development (MELAD)
Papua New Guinea	Climate Change and Development Authority (CCDA) Provincial offices – Enga province, Milne province, New Ireland
Vanuatu	Department of Energy, Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Energy, Environment and Disaster Management Department of Water Resources, in the Ministry of Lands and Mineral Resources

Country Offices - Asia	Government Ministries/Offices
Cambodia	Ministry of Environment Ministry of Interior Phnom Penh Capital Administrative
Indonesia	Ministry of Development Planning (Bappenas) Ministry of Environment and Forestry Ministry of Finance Ministry of Energy and Mineral Resources Coordinating Ministry of Economic Affairs Bappeda (Agency for Regional Development) Central Kalimantan Bappeda (Agency for Regional Development) East Kalimantan PT Sarana Multi Infrastruktur (PT SMI)
Lao PDR	Ministry of Planning and Investment (MPI) Ministry of Natural Resources and Environment (MONRE) Ministry of Public Works and Transport (MPWT) City of Vientiane 1 office in Pakse, Champasak Province in Department of Public Works and Transport
Mongolia	Energy Regulatory Commission
Myanmar	Environmental Conservation Department, MONREC
Nepal	Ministry of Forests and Environment
Philippines	Department of Trade and Industry Provincial Government of Oriental Mindoro
Sri Lanka	Ministry of Environment and Wildlife Resources
Thailand	Office of Natural Resources and Environmental Policy and Planning (ONEP) Ministry of Natural Resources and Environment.
Viet Nam	Ministry of Planning and Investment

Country Offices - Africa & the Middle East	Government Ministries/Offices
Burkina Faso	Ministry of Environment Green Economy and Climate Change Ministry of Urbanism and Housing Ministry of Agriculture & Hydraulic Infrastructures Ministry of Energy Ministry of Trade, Industry & Handicraft Ministry of Water & Sanitation Prime Minister's Office
Côte d'Ivoire	Ministry of Environment and Sustainable Development Ministry of Economy and Finance
Ethiopia	Environment, Forest and Climate Change Commission (EFCCC) Ministry of Finance (MoF) Ministry of Agriculture (MoA) the Ministry of Water Irrigation and Electricity (MoWIE) Ministry of Industry (MOI) Industrial Parks Development Corporation of Ethiopia (IPDC)
Hungary	Ministry of Innovation and Technology
Jordan	Ministry of Environment Ministry of Planning and International Cooperation Cities and Villages Development Bank
UAE	Ministry Of Climate Change and Environment
Morocco	The Secretary of State for Sustainable Development
Mozambique	Ministry of Land and Environment (MITA) Ministry of Finance (MEF) Ministry of Natural Resources and Energy (MIREME)
Rwanda	Ministry of Infrastructure (MININFRA) Ministry of Environment (MoE) Ministry of Local Government (MINALOC) Ministry of Finance and Economic Planning (MINECOFIN) Rwanda Social Security Board (RSSB) Ministry of Lands and Forestry (MINILAF) Ministry of Agriculture and Animal Resources (MINAGRI)
Senegal	Ministry of Environment and Sustainable Development Ministry of Water and Sanitation Ministry of Urbanism, Housing and Public Hygiene Ministry of Energy
Uganda	Ministry of Finance, Planning and Economic Development, Ministry of Lands, Housing and Urban Development Ministry of Energy and Mineral Development, Ministry of Water and Environment, National Planning Authority Kampala Capital City Authority Ministry of Local Government: Uganda Free Zones Authority Uganda Investment Authority Ministry of Trade Cooperatives and Industry National Environment Management Authority Uganda Development Bank Lts Makerere University





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SUMMARY OF FINANCIAL STATEMENTS

OVERVIEW

In 2019, GGGI recorded a net operating surplus of USD 1.2 million with total revenue of USD 47.8 million and expenditures of USD 46.6 million. These are set out on the next page compared to 2018 and 2017.

	2019 Actual USD'000	2018 Actual USD'000	2017 Actual USD'000
Core contribution	32,724	24,151	23,157
Earmarked	14,850	11,259	6,864
Investment Income/Finance costs	213	350	576
Total income	47,787	35,760	30,597
Expenditures	46,598	49,679	44,117
Surplus/(Deficit)	1,189	(13,919)	(13,520)

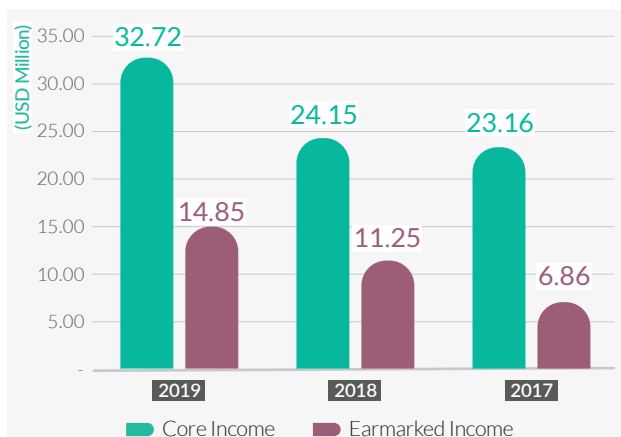
Audit opinion

GGGI received an unqualified audit opinion on its 2019 Financial Statements from its external auditors PwC. The complete audited financial statements can be found on the 2019 Annual Report website: <http://report.gggi.org/2019/>

Operating income

GGGI's operating income increased by USD 12.1 million, or 34%, to USD 47.5 million in 2019. This comprised of an increase of USD 8.5 million, or 35%, in core funding and USD 3.5 million, or 32% in earmarked funding.

Operating Income



Treasury Management

GGGI's treasury management is governed by the mandate provided by Council to the Director-General through its financial regulations.

Investment Management

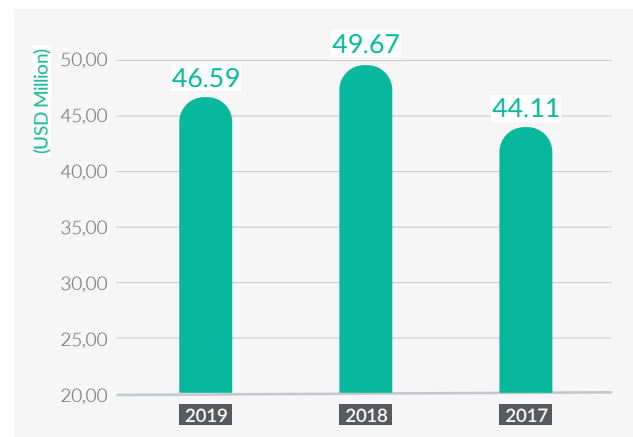
Since early 2015, to ensure the stability of cashflow, GGGI has established the working capital guidelines, investment guidelines, investment criteria and the establishment of investment committee. The overarching objectives of GGGI's investment management activities are to ensure:

- GGGI holds sufficient liquid resources to enable it to meet all probable cash flow needs to meet its normal and predictable obligations;
- The principal value of GGGI's liquid resources is adequately

Operating expenditures

GGGI's operating expenses decreased by USD 3 million, or 6% from USD 49.6 million in 2018 to USD 46.6 million in 2019. The decrease is predominantly driven by 1) reduction in outsourcing costs by USD 1.7 million, or 22% where the outsourced work is sourced to GGGI's technical staff in house; and 2) reduction in travel costs by USD 1.4 million through organizing of conferences and meetings via video conferencing and skype facilities. These cost savings are achieved despite GGGI increasing its projects from 70 in 2018 to 131 in 2019 and expanding its programs to two new countries, Sri Lanka and Tonga, and one new region, the Caribbean.

Operating Expenditures



protected while GGGI is able to earn a stable and reasonable return;

- The currency composition of GGGI's resources is managed to reduce the risk of currency translation adjustments that could lead to adverse changes in GGGI's available resources; and
- In evaluating the risks arising from GGGI's investment management activities, the possible non-financial consequences (reputational) will be considered in addition to the potential financial losses.

During 2019, GGGI invested⁴ up to a maximum USD 28.5 million (including USD 10 million working capital reserves) and managed to recognize an investment return of USD 0.26 million, an increase of USD 0.01 million from USD 0.25 million reported in 2018 due to favorable deposit rates in 2019.

⁴ Term Deposit and Money Market Deposit Account.

Foreign Exchange Management

GGGI uses USD dollars as its functional and reporting currency. GGGI receives its contributions in various currencies and to minimize the foreign exchange exposure, GGGI converts its contributions receivable in other currencies immediately to USD upon the receipt of contribution.

For the year ended 31 December 2019, due to an increase in earmarked contributions in various currencies, GGGI recorded a net foreign exchange loss of USD 0.06 million compared to a net loss of USD 0.11 million in 2018.

Working capital

The Council in its 5th session approved the establishment of a working capital reserve. This was to reduce GGGI's vulnerability to variability in the timing of the core contributions, maintain program continuity, reduce reputational risk and safeguard the organization as going

concern by ensuring continuity of operations in the event of short-term liquidity problems pending receipt of non-restricted contributions.

In its 9th meeting in July 2019, the Management Program Sub-Committee endorsed management's proposal to the Council for an increase of the working capital from USD 10 million to USD 15 million. Subsequently, on 2 October 2019, the Council approved the increase in working capital to USD 15 million.

Retained Surplus

In 2019, GGGI recorded a net surplus of over USD 1.2 million compared to a net operating deficit of USD 13.9 million in 2018.

Reserves

Total reserves at the end of 2019 were USD 18.6 million (2018: USD 17.4 million) comprising USD 15 million in working capital and USD 3.6 million in retained surplus.

GGGI reserves at 31 December 2019

	Working Capital	Retained Surplus US\$.000	Total
Balance at 1 January 2019	10,000	7,393	17,393
Transfer from retained surplus to working capital	5,000	(5,000)	-
2019 operating surplus		1,189	1,189
Balance at 31 December 2019	15,000	3,582	18,582

Reserve Days

Reserve days is a financial ratio used by many organizations operating in the not for profit sector. It is a measure of the amount of reserves expressed in days of expenditure. It is calculated by dividing the amount of reserves by annual expenditures and multiplying by 365. It is an indication of an organization's ability to absorb longer term revenue reductions and support organizational growth as well as providing working capital.

While it is clear that reserves are required for an organization to finance its operations, there is no universal standard as to what the required level should be. A commonly used reserve day goal is 3-6 months of expenses i.e. 90 – 180 days of operating expenditures. GGGI's reserve days at the 31 December 2019 were 146 days (2018: 128 days).

Cash Balances/Liquidity Ratio

GGGI had a total of USD 31.2 million in cash and short term investments at 31 December 2019. An additional financial ratio used to monitor the financial health of an organization is the liquidity ratio. This is used to measure the ability of an organization to meet its cash requirements in terms of days of expenditure. It is a measure of the ability of an organization to pre-finance and operate in the short term when Funder contributions get delayed.

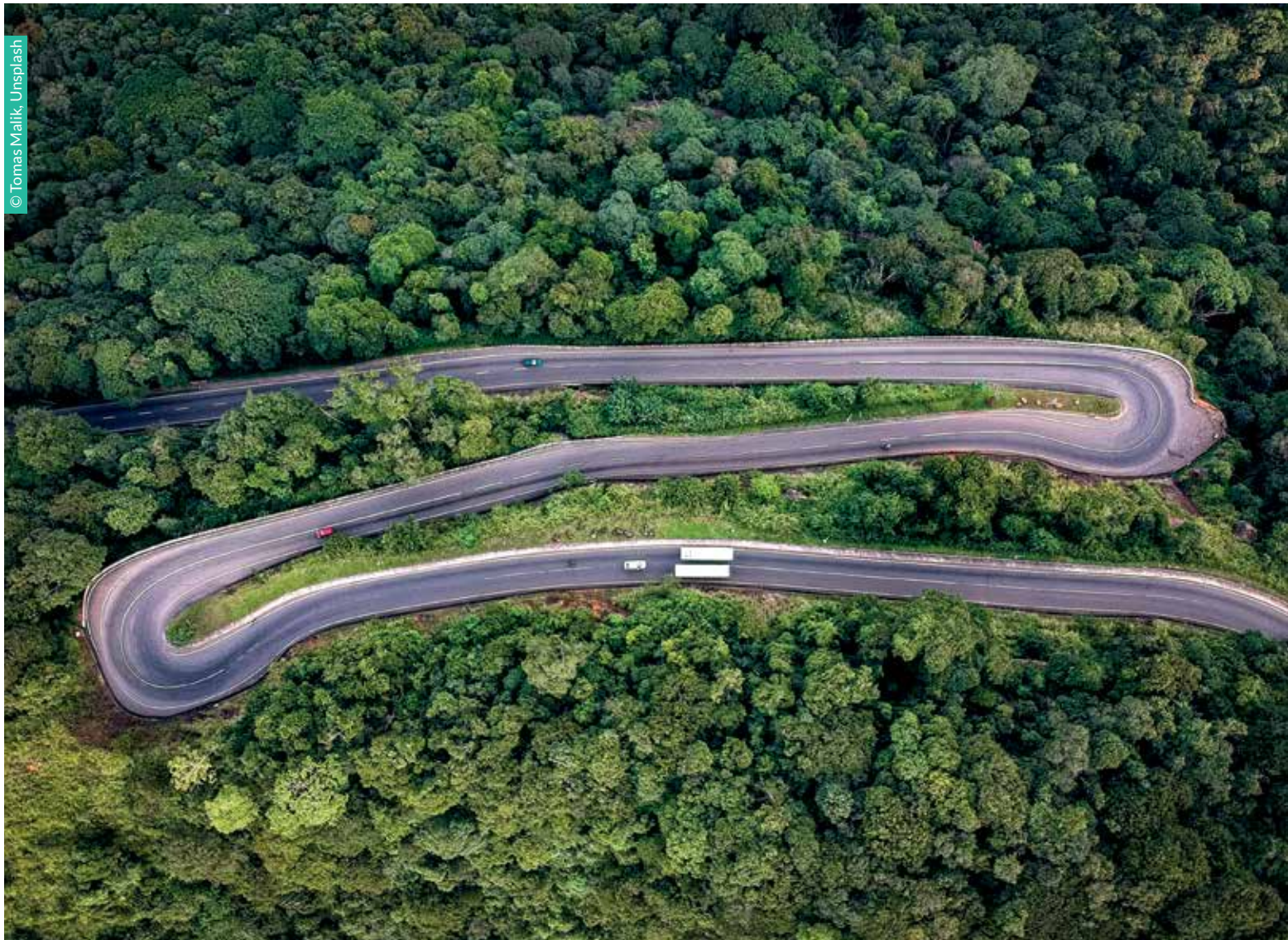
The ratio is calculated by dividing total cash holding by total expenditures multiplied by 365 days. A liquidity ratio in the range of 120 – 180 days is considered to be adequate. GGGI's liquidity ratio at 31 December 2019 was 245 days (2018: 211 days).

Cash & Bank at 31 December 2019		
	31-December-19 US\$'000	31-December-18 US\$'000
Cash in Bank	16,057	18,601
Short term investment	15,175	10,162
Total	31,232	28,763

Conclusion

Overall, GGGI's financial position at 31 December 2019 remains strong.





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GREENING GGGI

In 2019, GGGI significantly reduced its carbon emission by continuing to drive an organization-wide cooperation for green operations. Throughout the year, various green office initiatives, awareness campaigns, and outreach activities were actively promoted by GGGI offices worldwide to achieve sustainable operations and continued to encourage individual greening efforts as well as engaging and influencing GGGI partners and communities to promote a green culture.

Key accomplishments for 2019 include the launch of [“Greening GGGI” webpage](#), which highlights GGGI’s greening efforts and initiatives throughout the years, and the Green Office Month, a month-long campaign in its third year with second edition of the online magazine [GREENISM](#), showcasing the World Environment Day event and organization-wide eco-competition, along with showcases of environmental sustainability efforts by GGGI offices across the globe. Many of GGGI country offices actively engaged with GGGI partners in countries, collaborating to promote

sustainability efforts. The Global Green Growth Week 2019 also showcased GGGI’s efforts to promote green culture by hosting a more environmentally sustainable event to be benchmarked by its partners.

[Air Travel and Facility Operations](#)

In 2019, GGGI continued its efforts to measure and reduce its carbon emissions. Using the Greenhouse Gas Protocol methodology, GGGI evaluated its carbon emissions from Air Travel and Facility Operations in offices worldwide.

2019 Carbon Emission Overview			2019	2018	2017	2016	2015	2014	2013
Air Travel	Total Carbon Emission from Air Travel (tCO ₂)		990	1,493	1,611	1,407	705	669	793
	Total Number of Flights		1,307	1,794	1,620	1,254	1,544	1,595	1,409
	Class of travel	PREMIUM	204	425	380	306	737	497	583
ECONOMY		1,103	1,369	1,240	948	812	1,098	816	
Facilities	Total Carbon Emission from Facilities (tCO ₂)		238	372	312	221	239	189	N/A
	Emission from Seoul HQ		73	249	208	206	168	149	N/A
	Emission from Songdo Office		36	36	37	15	71	40	N/A
	Emission from Country Offices		128	88	66	N/A	N/A	N/A	N/A
Total Carbon Emission (tCO ₂)			1,228	1,865	1,923	1,628	944	858	793
Total Number of Personnel			328	353	348	327	260	N/A	N/A
Total Carbon Emission Per Capita (tCO ₂) - Air Travel			3.02	4.23	4.63	4.30	2.71	N/A	N/A
Total Carbon Emission Per Capita (tCO ₂) - Facilities			0.72	1.05	0.90	0.68	0.92	N/A	N/A
Total Carbon Emission Per Capita (tCO ₂)			3.74	5.28	5.53	4.98	3.63	N/A	N/A

Share of Total Emissions	2019	2018	2017	2016	2015	2014	2013
Air Travel	81%	80%	84%	86%	75%	78%	100%
Facilities	19%	20%	16%	14%	25%	22%	0%
Other Travel	-	-	-	-	-	-	-

In 2019, GGGI emitted total of 1,228 tons of CO₂ (tCO₂), decreasing its total emission by 34.2% compared to the previous year. Air Travel and Facility Operations emissions stood at 990 and 238 tons, respectively. Air Travel emissions decreased 33.7% from the previous year primarily due to a significant decrease in the total number of flights undertaken by GGGI staff. Facilities' emissions also decreased 36.0%, with a significant drop (70.7%) in emissions at Seoul HQ,

contributing to GGGI's efforts to achieve a greener operation by creating a LEED certified office environment in 2018.

Per Capita Carbon Emissions

Compared to results from the UN Greening the Blue Report 2019, GGGI has achieved lower tCO₂ per personnel emission average than the average emission figures from other United Nations organizations in 2019.

Comparison with UN Entities	Per Capita Emissions (tCO ₂ /personnel)	Share of Total Emissions (%)		
		Air Travel	Facilities	Other Travel
GGGI (2019)	3.74	81%	19%	0%
UNFCCC (2019)	6.20	96%	1%	3%
UNOPS (2019)	4.10	45%	23%	33%
UNHQ (2019)	4.60	63%	2%	35%
World Bank (2019)	12.20	67%	2%	31%
UN System Overall (2019)	7.00	42%	12%	46%

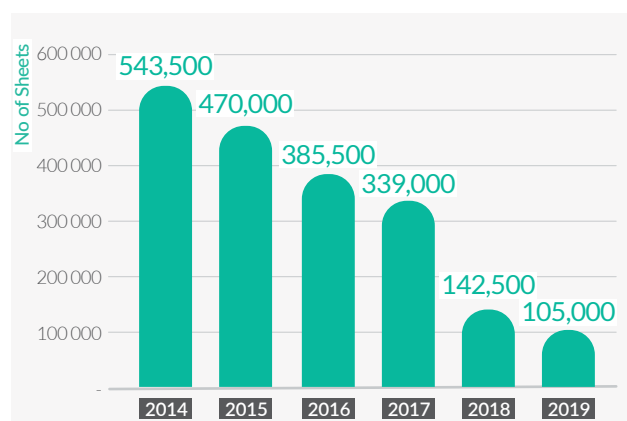
Additional Efforts to Reduce

Since 2014, GGGI HQ has been measuring and monitoring its paper consumption. As indicated in the below graph, GGGI HQ continued to reduce its paper consumption each year, effectively reducing the annual consumption by 80.7% compared to when it first started measuring and began its efforts to reduce paper usage in 2014.

Looking Ahead

GGGI will practice what it preaches to become the greenest possible organization it can be. This includes, but is not limited to, targeting to become a zero-carbon organization by 2050 or earlier. As a significant milestone to this ambition GGGI targets to reduce its greenhouse gas emission per employee by 40% in 2030 over a 2015 baseline, both through targeting green office operations and lowering emissions caused by GGGI's travel.

Annual Paper Consumption at Seoul HQ





▷ ANNEXES

ANNEX 1.

CORPORATE RESULTS FRAMEWORK

GGGI CORPORATE RESULTS FRAMEWORK (CRF): 2019-2020			
Impact	GGGI countries move towards a model of green growth that simultaneously achieves poverty reduction, social inclusion, environmental sustainability and economic growth		
Strategic Outcomes (SOs)	SO1 GHG emissions reduction		
	1.1 GHG emissions reduction from business as usual (MtCO ₂ e)		
	SO2 Creation of green jobs		
	2.1 Number of green jobs created (millions)		
	SO3 Increased access to sustainable services		
	3.1 Access to clean affordable energy		
	3.2 Access to improved sanitation		
	3.3 Access to sustainable waste management		
	3.4 Access to sustainable public transport		
	3.11 4 (millions of people who gained access to each service)		
	SO4 Improved air quality		
	4.1 Number of days above 'Orange' Air Quality (in major cities)		
	SO5 Adequate supply of ecosystem services ensured		
	5.1 Area of deforestation avoided and/or reforested (million-ha)		
SO6 Enhance adaptation to climate change			
6.1 Number of people supported to cope with climate change (millions)			
Interim Indicator	Proportion of projects which report a material contribution to each Strategic Outcome		
Intermediate Outcomes (IOs)	IO1. Strengthened national, sub-national and local green growth planning, financing and institutional frameworks	IO2. Increased green growth investment flows which enable partner governments to implement green growth policies	IO3. Improved multi-directional knowledge sharing and learning to empower local and external agents necessary to drive green growth processes in partner governments
Indicators	1.1 Number of green growth policies adopted by governments with GGGI's support. Target (2017): 1 Result (2017): 17 Target (2018): 38 Target (2019): 20 Target (2020): 20	2.1 Total volume of green growth financing catalyzed with GGGI's support, disaggregated by public and private investment. Target (2017): USD 64m Result (2017): USD 525m Target (2018): USD 500m Target (2019): USD 600m Target (2020): USD 700m	3.1 Extent to which GGGI's capacity development activities have directly strengthened partner countries' capacity to develop and implement green growth policies and investments. To be assessed on a 5-point scale balanced scorecard with a maximum score of 10. Target (2019): 6+ Target (2020): 6+
	1.2 Extent to which green growth policies adopted by governments are likely to lead to transformational change. To be assessed on a 4-point scale balanced scorecard with a maximum score of 4. Target (2019): 2+ Target (2020): 2+	2.2 Number of instances where member countries successfully gain new access to financing sources (e.g. GCF Fund) with GGGI's support. Target (2017): 4 Result (2017): 5 Target (2018): 4 Target (2019): 5 Target (2020): 5	3.2 Number of green growth policies adopted, or investments made that benefitted from shared experiences and lessons from other countries. Tracked
	1.3 Extent to which green growth policies adopted by governments are aligned with the four elements of green growth. To be assessed on a 4-point balanced scorecard with a maximum score of 4. Target (2019): 2+ Target (2020): 2+	2.3 Extent to which green growth investments supported by GGGI are aligned with the four elements of green growth. To be assessed on a 4-point balanced scorecard with a maximum score of 4. Target (2019): 2+ Target (2020): 2+	3.3 Extent to which knowledge products produced and disseminated by GGGI are aligned with the four elements of green growth and have a quality impact, assessed on a 6-point balanced scorecard with a maximum score of 6. Target (2019): 3+ Target (2020): 3+

Outputs	1. Demand driven technical advisory, knowledge development and private sector solutions offered on the ground for pro-poor and environmentally sustainable green growth interventions		2. Inclusive green growth plans, strategies and investment plans are converted into implementable actions		3. Support provided in creating an enabling environment for public and private sector investment in green growth		4. Global institutional relationships, partnerships and knowledge networks formed and leveraged		5. Capacity building activities to support green growth implementation and knowledge products generated to contribute to international discussion on green growth and support GGGI operations				
Indicators	1.1 Number of completed advisory outputs that inform the development of government green growth policies. Target (2017): 33 Result (2017): 21 Target (2018): 58 Target (2019): 30 Target (2020): 30		2.1 Number of completed advisory outputs that inform decisions on green growth investments. Target (2017):12 Result (2017): 9 Target (2018): 48 Target (2019): 25 Target (2020): 25		3.1 Number of completed advisory outputs that aim to improve the enabling environment for green growth investments. Target (2017): 6 Result (2017): 10 Target (2018): 14 Target (2019): 10 Target (2020): 10		4.1 Proportion of capacity development activities that share experiences and lessons from GGGI countries. Target (2017): 55% Result (2017): 37% Target (2018): 55% Target (2019): 55% Target (2020): 55%		5.1 Number of knowledge products to improve understanding of green growth and support GGGI operations. Target (2017): 20 Result (2017): 60 Target (2018): 65 Target (2019): 70 Target (2020):70				
							4.2 Number of new countries joining GGGI as members. Target (2017): 1 Target (2018): 2 Target (2019): 2 Target (2020): 2				5.2 Number of capacity building activities that align with IO1 and IO2. Tracked		
							4.3 Number of projects where country needs are being met through a range of partnerships brokered by GGGI. Target (2017): 17 Target (2018): 6 Target (2019): 10 Target (2020): 10						
Cross-cutting Output	6. All new projects implemented by GGGI have adequately identified and addressed SPRSI elements in their design in support of social safeguards, poverty reduction and social inclusion, including gender.												
	6.1 Number of new projects implemented by GGGI that have identified and addressed one or more SPRSI elements relating to social safeguards, poverty reduction and social inclusion including gender. Tracked												
Business Management Outputs	7. Better value for money – maximizing institutional effectiveness and efficiency												
Indicators	Economy		Efficiency		Equity		Effectiveness						
	7.1 - % of total budget spent on non-programmatic activities, calculated as a share of total resources (core contributions and earmarked funding)		7.2 - % of budget disbursed		7.3 - % of budget allocated to LDCs		7.4 - % of budget allocated to member LDCs & MICs combined		7.5 - % of budget allocated to Vulnerable Countries (UNOHRLLS definition)		7.6 – Effective and timely communication of results		7.7 – Increase in GGGI core and earmarked funding
	Baseline (2014): 36% Result (2017): 22% Target (2020): 21% Target (2023): 15%		Baseline (2017): 82% Target (2019): 100% Target (2020): 100%		Baseline (2014): 14% of core budget allocated to LDCs. Target (2020): minimum of 50%		Baseline (2014): 57% of core budget allocated to Member LDCs and MICs combined. Target (2020): minimum of 87%		Target (annual): Minimum of 60% of core budget allocated to Vulnerable Countries		Target (annual): GGGI Annual Report outlining progress against WPB and CRF is published no later than end of June each year.		Baseline (2014): USD 29.8m in core funding and USD 12.1 million in earmarked funding. Target (2020): USD 26m in core funding and USD 22m in earmarked funding.

ANNEX 2.

LIST OF PROJECT RESULTS REPORTS

The following 131 projects were implemented in 2019. A project level results report has been developed for each of these projects.			
	Program	Name of Project	Project Code
1	Burkina Faso	Green growth governance - Long-term capacity-building to support climate change dev. Initiatives	BF02
2	Burkina Faso	Supporting Sustainable Landscape and scaling up of Ecovillages development model	BF03
3	Burkina Faso	Green cities guideline formulation	BF04
4	Cambodia	Cambodia solid waste	KH05
5	Cambodia	Cambodia waste water and sanitation	KH07
6	Cambodia	Waste to Energy in Phnom Penh	KH09
7	Cambodia	Facilitating ESCO investments in Cambodian SMEs	KH10
8	Cambodia	Green City Capacity Development	KH12
9	Cambodia	Business Case and Policy Assessment for Electric Mobility	KH11
10	Caribbean	Support for OECS policy analysis on energy resilience	CAR02
11	China	China-Korea-Japan Trilateral Collaboration on Green Growth	CN2
12	China	China for Others	CN3
13	China	Research Study on Climate Finance Opportunities in South-South and North-South-South context	CN04
14	Colombia	Colombia – GGGI Green Growth Project (2017-2019)	CO2
15	Colombia	Scaling up Green Growth Policy implementation and investments via capacity building	CO04
16	Ethiopia	Cooperation with IMELS in the field of climate change vulnerability, mitigation and adaptation	ET3
17	Ethiopia	PS-Ethiopia-Ethiopian Climate Insurance Acceleration Fund (ECIAF)	ET4
18	Ethiopia	Ethiopia GCF readiness: 'Building the Project/Program development, coordination and delivery capacity of the NIE and strengthening Ethiopia's engagement with the GCF'	ET5
19	Ethiopia	Business Case for Solar PV (Energy) Investment at the Adama Industrial Park	ET08
20	Ethiopia	Development of a Roadmap for "Greening the Industrial Parks" in Ethiopia	ET09
21	Ethiopia	Sustainable Industrial WW Sludge Management at the Ethiopian Industrial Parks	ET10
22	Ethiopia	Introducing climate-smart irrigated wheat systems in the Ethiopian lowlands	ET11
23	Ethiopia	Large Scale Commercial Agriculture Strategy	ET12
24	Ethiopia	Support The Forest Sector Transformation Unit, Environment, Forest And Climate Change Commission	ET13
25	Fiji	Evidence-based policies for the sustainable use of energy resources in the Asia-Pacific Region	FJ04
26	Fiji	Secondment to Fiji Development Bank for support with GCF projects	FJ05
27	Fiji	Fiji - Supporting the Implementation of the Green Growth Framework for Fiji - Phase 2	FJ1
28	Fiji	Pacific Regional KOICA Project	PAC01
29	Fiji	Pacific Regional Support for Green Growth and NDC Implementation	PR1
30	Fiji	Enhancing Access to Climate Finance in Fiji	FJ07
31	Green Investment Services Global Program	WGEO - Smart City Investment Project	GIS02
32	Green Investment Services Global Program	Article 6 Sectoral Approach and Enabling Environment	GIS03
33	Guyana	Enhancing Guyana's Access to GCF to Transition to Renewable Energy	GY02
34	Guyana	Guyana NDC progress and MRV	GY04
35	Hungary	Hungary-Balkan regional multi donor trust fund	HU1
36	Hungary	Hungary Bilateral Climate Financing scheme	HU02
37	India	Greening Rural Housing in India through PMAY-G	IN05

38	India	Greening of commodity value chains	IN08
39	India	India - Green Growth through INDC	IN1
40	India	PS-India-Climate-resilient and gender inclusive MGNREGA based on Mission Water Conservation	IN2
41	Indonesia	Indonesia Green Growth Program Phase II	ID1
42	Indonesia	GCF - Indonesia	ID3
43	Jordan	NGGP Action Planning	JO2
44	Jordan	Jordan GCF Readiness Program 2018-2019	JO3
45	Kiribati	Development of an Agricultural Strategy as an Addendum to Kiribati's National Development Plan	KI02
46	Kiribati	Kiribati - Green and Climate Resilient Island Development	KI1
47	Lao PDR	Business Case for Electric Vehicle Dissemination in Vientiane, Lao PDR	LA04
48	Lao PDR	Preparatory work for the KOICA project on wastewater and solid waste management	LA05
49	Lao PDR	Technical support to prepare a solar auction in Lao PDR	LA06
50	Lao PDR	Readiness support to enhance green finance in the areas of green cities in Lao PDR	LA2
51	Lao PDR	Green Growth Mainstreaming	LA07
52	Lao PDR	WW + SW Treatment Capacity Building Project for City Env Improvement in Lao PDR	LA09
53	Lao PDR	Waste Energy Recover Program at Industrial Facilities	LA11
54	Mexico	Scaling up policy and investment for gender inclusive, subnational green growth in Mexico	MX05
55	Mexico	Support Ministry of Finance to access green funds	MX06
56	Mexico	Readiness Support for Mexico	MX07
57	Mongolia	Promoting Energy Efficiency and ESCO development in Mongolia	MN04
58	Mongolia	Mongolia Renewable Energy Absorption Project	MN05
59	Mongolia	Low Carbon Heat only boilers in Public Buildings in Mongolia	MN06
60	Mongolia	Sectoral Analysis for NDC Update 2020 - Agriculture and IPPU	MN08
61	Mongolia	Mongolia Green Finance Corporation	MN13
62	Mongolia	TTR Phase II-Development of Guideline for Standard Offer Program	MN15
63	Morocco	Establishment of a National Financing Vehicle and capacity building program in Morocco	MA02
64	Mozambique	Support GoM on reviewing and updating Green Economy Action Plan for 2020-2025	MZ03
65	Myanmar	Mangrove Restoration Program in Myanmar	MM03
66	Myanmar	Development of MRV Capacity Building Program	MM04
67	Myanmar	Rice-Husk-To-Power Leasing Finance Facility (RH2P)	MM10
68	Myanmar	Distributed Ledger Technology Powered Improved Cookstoves Finance Facility (DLTICS)	MM11
69	Myanmar	Readiness Support for Developing Myanmar's Green Cities Investment Plans	MM09
70	Nepal	Electric Mobility Program, Phase II	NP03
71	Nepal	Green Sanitation Services Program, Phase I	NP06
72	Peru	Mitigating Deforestation in Peru through Land Use Formalization	PE05
73	Peru	Facilitating investment to restore and protect priority natural ecosystems leading to improved water security for 10 million people in Lima	PE06
74	Peru	Support for Design and Implementation of Peru's Freight Vehicle Scrapping Program	PE07
75	Peru	Municipality of Lima's Organic Waste Valorization Program	PE09
76	Philippines	Bataan 50MW Solar Farm Project	PH10
77	Philippines	Greening MSMEs and promoting green-preneurship	PH13
78	PNG	Readiness Support to Strengthen PNG's Engagement with the GCF	PG1
79	PNG	Supporting improved policy settings	PG2
80	PNG	Papua New Guinea Capacity Building on Climate Change Project Identification and Development	PG3
81	PNG	Climate Resilient Green Growth in PNG	PG07
82	PNG	Greening 1000 telecommunication towers for PNG - a fuel switch project	PG04
83	Qatar	Qatar Green Growth Program-Scoping	QA1
84	Rwanda	Inclusive Green Urban Development (IGUD)	RW07
85	Rwanda	Green Investment Advisory and Support (GIAS)	RW08

86	Rwanda	Green Infrastructure Planning and Delivery (GIPD)	RW09
87	Rwanda	Readiness Support to implement Green City Development Projects in Rwanda's Secondary Cities	RW5
88	Rwanda	IMELS - GGGI Contribution Agreement	RW4
89	Rwanda	IMELS-GGGI Contribution Agreement - Phase 2	RW15
90	Senegal	Green Secondary Cities Wastewater, Plastic Waste and WEEE Management: Innovative Business Model	SN2
91	Senegal	National Finance Vehicle in Senegal: the Renewable and Energy Efficiency Fund	SN05
92	Senegal	Promoting city-wide inclusive sanitation through the Climate Resilience and Green Growth agenda (Senegal)	SN06
93	Senegal	Support to CNCAS for GCF pipeline development as DAE	SN07
94	Senegal	Solar PV electricity for agricultural development	SN08
95	Senegal	Senegal Green building readiness program	SN09
96	SPRSI Global Program	Nordic Development Fund Training Agreement	SPRSI01
97	Sri Lanka	Scoping and program development	LK01
98	Thailand	E-waste collection and recycling in Udon Thani, Thailand	TH5
99	Thailand	Transitioning to Green and Smart City: Case Study of AMATA	TH6
100	Thailand	Advancing Thailand's Access to GCF	TH7
101	Thailand	Initiative for Climate Action Transparency (ICAT)-MRV systems especially for industry and buildings	TH08
102	Global	Development of GHGs Monitoring, Reporting and Verification (MRV)	MRV1
103	Global	GGPM	TL1
104	Global	GGPA	TL2
105	Global	Green Growth Knowledge Platform	TL3
106	Global	Green Growth Web Platform Expansion	TL4
107	Global	Strategic Outcomes	TL6
108	Global	Climate Diplomacy	TL8
109	Global	Renewable Energy Transitions	TL9
110	Global	Electric and Sustainable Mobility	TL10
111	Global	State of Green Growth Report & Campaign	TL12
112	Global	Macro-Economic Analysis	TL13
113	Global	GGKP Annual Conference 2019	TL14
114	Global	Support for the Research Plan-G20 Background Paper "Green Growth to Achieve the Paris Agreement"	TL15
115	UAE	UAE National Climate Adaptation Program	AE03
116	UAE	UAE National Air Emissions Monitoring Project	AE04
117	UAE	Strengthening Green Talent and Workforce	AE06
118	Uganda	Sustainable Energy-Water Solution for Med-Large Irrigation of Commercial Farming	UG3
119	Uganda	Catalyzing the Solar Home Systems (SHS) market to benefit low-income, urban households in two second	UG4
120	Uganda	Increasing Solid Waste Diversion and Recycling in Kampala	UG07
121	Uganda	Readiness Support to strengthen Uganda's engagement with the GCF	UG13
122	Uganda	Uganda Green Investment Facility	UG16
123	Uganda	Greening the National Development Plan (NDP) III	UG18
124	Vanuatu	Phase 3 of Support to the Vanuatu National Green Energy Fund: Operationalising investment and Exit Strategy	VU04
125	Vanuatu	Enhancing resilience to climate change through solar power driven access to water in rural areas of Vanuatu	VU3
126	Vanuatu	Mobilizing the Vanuatu Private Sector Towards Climate Change Action	VU07
127	Vanuatu	Vanuatu - Mobilizing Finance for Green Energy Projects in Vanuatu	VU1
128	Vietnam	Viet Nam Distributed Solar - Solar Rooftop Leasing Finance Facility	VN04
129	Viet Nam	Transitioning to a new model of urban development in Viet Nam	VN05
130	Viet Nam	Promoting Greenovation through SMEs and start-ups in Viet Nam	VN06
131	Viet Nam	Vietnam Urban Green Growth Action, Phase II	VN3



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