ANNUAL REPORT 2018
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Dear Friends and Members of the Global Green Growth Institute,

Two-thousand eighteen brought further stark warnings that the traditional model of development is unsustainable. Record setting temperatures, wildfires and increasing frequency and severity of extreme weather events such as droughts and floods vividly illustrated the findings of the Intergovernmental Panel on Climate Change’s Special Report on 1.5°C, that an increase in warming from the current 1°C to 1.5-2°C will significantly increase the impacts of climate change and may result in catastrophic events and irreversible systemic changes.

The good news is that solar and wind energy are becoming the cheapest form of energy in more and more countries and electric buses and cars are emerging as attractive alternatives to diesel-fueled transport, to GGGI’s fabulous, as well as emits greenhouse gases. This offers opportunities for developing countries for green growth that expands their economies without expanding emissions, while providing green jobs. Completion of the Paris Rulebook in Katowice was an important milestone towards implementation of the Paris Agreement, but climate action on the ground still needs to accelerate radically to limit warming to 2°C, let alone 1.5°C. At the same time there is an urgent need for action to adapt to climate change and combat air pollution, grow food sustainably without destroying natural capital, and deal with a host of other impacts of unsustainable economic growth that threatens future generations.

The Global Green Growth Institute continued to support its members in the transition to a green growth development pathway in 2018, with significant results at country level. Fiji completed its Low Emission Development Strategy and was only the 3rd developing country to submit a long-term strategy to the UNFCCC. Colombia and Lao PDR governments approved national green growth strategies. GGGI supported many more countries with over 88 policy advisory assignments completed in 2018, which led to 32 policies adopted by governments in 17 countries. GGGI’s work in its Member and partner countries resulted in proven investor commitments of USD 482 million for 21 investment projects in 17 countries plus a number of national financing vehicles. Over the course of Work Program and Budget 2017-18, GGGI therefore helped mobilize over USD 1 billion in green and climate finance.

GGGI is experiencing interest in membership from a growing number of countries. In 2018 Paraguay and Tonga have officially become GGGI member countries, and Sri Lanka has deposited its instrument of accession to GGGI’s Establishment Treaty, followed by Uzbekistan and Burkina Faso early in 2019. Uganda, Kuwait, Colombia, Morocco, Ecuador and Cote d’Ivoire are in the final stages of the ratification process. Another 20 countries have initiated the ratification process. GGGI also completed Host Country Agreements with Burkina Faso, Indonesia, Kiribati, Papua New Guinea and Uganda in 2018, signed a revised HCA with Ethiopia to establish its regional office in Addis Ababa, and is negotiating agreements in a further 7 countries.

GGGI’s support for its member countries was made possible by its contributing members plus a growing number of donors supporting GGGI’s work through earmarked projects. During the last biennium Hungary, Italy, Luxemburg, and the Netherlands provided financial support to GGGI for the first time, diversifying its group of donor countries. In addition, GCF became a key strategic partner for GGGI and 2018 Annual Report: Partnering to Catalyze Green Growth

GGGI received the first contracts from several United Nations organizations, further improving its financial sustainability.

In 2018 there was a sharp increase in the use of the Green Growth Knowledge Platform, the primary knowledge sharing and exchange tool of GGGI and its partners. GGGI is stepping up its evidence based green growth advocacy. Building on the success of Global Green Growth Week 2017 in Ethiopia, the Rwandan government organized a successful Africa Green Growth Forum 2018, with support from the GGGI country team in Rwanda. Senegal also organized its first Green Growth Week last year. These conferences helped move the green growth agenda forward in Africa. The government of Japan, as G20 Chair, commissioned GGGI to deliver a background paper on the potential of green growth to deliver the Paris Agreement to the G20 Climate Sustainability Working Group.

This 2018 Annual Report provides more information about the green growth accomplishments of its Member and partner countries, achieved with the support of GGGI. These results demonstrate convincingly that GGGI’s work to scale-up green growth implementation and catalyze partnerships is delivering impact to the benefit of developing countries and the global community.

Ban Ki-moon
President of the Assembly and Chair of the Council
Message from the Director-General

I have now been Director-General of GGGI for over 2 years. Since arriving in October 2016, we have implemented the organization’s Work Program and Budget (WPB) 2017-18, while at the same time building a new business model and taking the first steps to develop our next 10-year strategy.

The results delivered in 2018 and the impact that GGGI will catalyze in the decade to come are the culmination of the organization’s commitment to its green growth mission and our transformational actions to become more flexible and innovative, and capable of catalyzing inclusive, environmentally sustainable growth at scale and where it will achieve most impact.

GGGI has shifted power to country offices from Headquarters, making them our front line, our business units – where projects originate in close coordination with our Member and partner governments, and with authority to manage procurement, Human Resources, and make many other critical and timely decisions locally.

Results and impact are the measuring sticks used to evaluate our success. Instead of managing by disbursement rate and percentage of outputs delivered and KPIs achieved, GGGI has shifted focus to our 6 Strategic Outcomes in our Strategic Plan, our Corporate Results Framework, our business plans, our projects, and our impact assessment work.

GGGI has instilled flexibility and adaptability in its project cycle. We have done this by foregoing the fixing of all projects and budgets into our biennium WPBs, in favor of creating a pipeline of Resource Mobilization projects that generated USD 30 million in new commitments in 2018, and generating an internal origination and ideation pipeline of policy and investment projects. This Project Idea Note, or PIN, process has given us a solid pipeline of projects to work on across the organization, as well as a pipeline of over 85 ideas under development.

Redesigning our business processes has been critical to achieving GGGI’s 2018 results and positioning us to deliver greater impact in the next 10 years. Away from decision making processes that could take 6 weeks from the originator in a country office, require hard-copy documents and up to 15 approval sign-offs, and toward streamlined, mobile decision making that can be completed online anywhere. GGGI has essentially moved all of its business tools and platforms online.

Through these strategic and tactical actions, GGGI has implemented its new business model, or “re-built” its plane so to speak. This begs the questions where will we fly our new, nimble and more effective plane? How will GGGI’s Strategy 2030 get us to this destination? Will we be disruptors or be disrupted in the emerging sustainable development landscape where evidence-driven results are paramount, and delivering them must engage increasingly diverse and demanding stakeholders?

The answers will be made clear in the years to come, but I believe GGGI has worked hard to increase its ability to deliver impact and transformational change. The change GGGI has made these last 2 years will help our Members and partners transform their economies, support the world to avoid dramatic climate change, increase the blue skies, healthy landscapes and decent green job opportunities for people to enjoy. 2018 Annual Report: Partnering to Catalyze Green Growth

The green growth successes and results our Member and partner countries achieved in 2018, and are showcased in this Annual Report, are evidence of the impact of GGGI’s transformation and our increasing ability to lead the coming green growth transition.
About GGGI

The Global Green Growth Institute (GGGI) is a treaty-based international, inter-governmental organization established in 2012, at the Rio+20 United Nations Conference on Sustainable Development.

Founded to support and promote the mainstreaming of green growth, GGGI programs and projects target economic growth that is environmentally sustainable and socially inclusive. GGGI works across four priority areas considered to be essential to transforming national economies, including energy, water, landscapes and green cities.

GGGI envisions a resilient world achieved through strong, inclusive and sustainable green growth, and is dedicated to supporting the transition of GGGI Member countries toward a green growth model. In pursuit of these goals, GGGI works with Least Developed Countries, developing and emerging economies to design and deliver programs and services that demonstrate new pathways to pro-poor, sustainable economic growth.

GGGI supports stakeholders through the delivery of comprehensive products and services designed to assist in developing, financing and mainstreaming green growth into national economic development plans.

GGGI delivers work and supports its Member and partner countries through a guiding framework of five core values:

INTEGRITY
- We uphold high accountability and transparency standards;
- We are objective and independent;
- We prioritize social and environmental responsibility.

EXCELLENCE
- We apply technical rigor;
- We demonstrate thought leadership;
- We drive continuous improvement.

TRANSFORMATIONAL
- We aim for catalytic outcomes serving country needs;
- We balance short term results with a long-term outlook;
- We leverage our outcomes through partnership.

INCLUSIVE
- We champion diversity;
- We engage widely in decision-making;
- We provide equal opportunity.

BOLDNESS
- We solve problems with optimism;
- We continuously learn and adapt;
- We seek and scale up creative new solutions.
GGGI Members and Operations

Headquartered in Seoul, Republic of Korea, GGGI has 32 members with operations in 33 countries.

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2018 GGGI Resource Partners
2018 GGGI Milestones

January

Italy and GGGI sign funding agreement for cooperation to support Rwanda’s NDC Implementation.

February

• Mr. Ban Ki-moon, 8th Secretary-General of the United Nations, becomes President of the GGGI Assembly and Chair of the GGGI Council.
• GGGI signs MoU with the Organisation of Eastern Caribbean States (OECS) to develop and implement a regional strategy for inclusive green growth and climate smart development.
• GGGI and Netherlands signed funding agreement to accelerate consumer and market access to solar home systems (SHS) including small enterprise energy solutions for low-income, urban households in Uganda.

March

• Rwanda awarded USD 32.8 million from the Green Climate Fund to strengthen climate resilience in rural communities in northern Rwanda.
• Uganda signs Host Country Agreement with GGGI.

April

Colombia and Norway renew the Joint Declaration of Intent to halt deforestation of Colombian forests.

May

• GGGI and Grand Duchy of Luxembourg sign funding agreement to enhance climate resilience through solar power-driven access to water in Vanuatu’s outer islands.
• GGGI and AFDB sign MoU to facilitate collaboration on green growth in Africa.

June

• Mexico’s Sonora State adopts Green Growth Strategy - the first of its kinds in Mexico.
• Indonesia signs Host Country Agreement with GGGI.
• Kiribati signs Host Country Agreement with GGGI.
**July**
- GGGI signs MoU with Thailand’s Provincial Electricity Authority Company to enhance energy efficiency in Small and Medium Enterprises.
- GGGI signs MoU with World Green Economy Organization (WGEO).

**August**
- GGGI and Grand Duchy of Luxembourg sign funding agreement to support green city development in Senegal.

**September**
- GGGI organizes Leveraging Green Growth Potential in Vulnerable Countries session at the 73rd UNGA in New York City.
- Ethiopia signs Host Country Agreement for GGGI’s African Regional Office in Addis Ababa.
- GGGI and United Nations Environment Programme (UNEP) sign MoU on green growth.
- Paraguay completes its ratification of the Agreement on the Establishment of GGGI.

**October**
- Nepal launches first National Action Plan for Electric Mobility as a road map for achieving the NDC targets.
- GGGI Celebrates 6th Anniversary as an International Organization.
- GGGI and ILO sign MoU to explore linkages between green growth and decent work.
- GGGI signs MoU with the Korea International Cooperation Agency (KOICA) strengthen their green growth partnership and enhance the effectiveness of multilateral cooperation.

**November**
- Burkina Faso signs Host Country Agreement with GGGI.
- Papua New Guinea signs Host Country Agreement with GGGI.

**December**
- Fiji launches Low Emissions Development Strategy at COP24 in Katowice, Poland.
- Tonga becomes the twenty-ninth Member of GGGI.
- GGGI, UNEP DTU and Government of Thailand launch cooperation to enhance the efficiency of Thailand’s Existing MRV System for Climate Change Mitigation.
Partnering to Catalyze Green Growth

Halting the rise in global temperatures, addressing the impacts of climate change, and delivering the national development goals of countries around the world cannot be achieved by any one government, organization, or stakeholder. Multi-stakeholder partnerships are critical to driving the 2030 Agenda for Sustainable Development and meeting NDCs commitments. The transition to a model of economic growth that is green - that is climate-resilient, environmentally sustainable, and socially inclusive – can only be accomplished through strong, innovative, and catalytic partnerships.

Recognizing the importance of partnerships to deliver at greater scale and impact, GGGI has committed to identifying and engaging with partners that share its mission. In 2018, GGGI developed over 71 partnerships in the delivery of 30 projects. GGGI’s diverse partnerships count governments, financial institutions, the private sector, academics institutions in developing and developed countries, intergovernmental organizations, and global initiatives and platforms that bring together stakeholders and scale-up green growth impact.

GGGI’s development of longer-term partnerships with stakeholders benefit its Member and partner countries and the organization itself. Prioritizing delivery of work with strategic partners rather than outsourced consultancies allows GGGI to build its in-house capacity and better maintain and share knowledge gained through project implementation. GGGI growing network of partners provide Member and partner countries with increasing opportunities to leverage knowledge and capacity and mobilize climate finance to realize green investments.

In 2018, GGGI’s Member and partner countries achieved impactful green growth results. Results that can be replicated in other countries, brought to scale to increase impact, and catalyze knowledge sharing and partnership with other countries. From the launch of a national e-mobility action plan by the Nepalese government and the extension of a Norwegian-Colombian partnership to combat deforestation, to the mobilization of Green Climate Fund finance to develop green cities in Rwanda and the establishment of a national financing vehicle to increase renewables and energy access in Vanuatu, GGGI’s Member and partner countries demonstrated that growth can be green.

The following stories highlight a number of the impactful green growth successes that GGGI’s Member and partner countries achieved over the course of the year in collaboration with GGGI and its committed partners.
Cambodia

Actions toward a Green, Livable Phnom Penh

Phnom Penh has been all but overwhelmed by its rapid growth in the past twenty years. The Cambodian capital’s population has almost doubled during this time. Estimated at 1.9 million today, the city is expected to have 3 million residents by 2030.

In response to this growth, city and government officials have drawn up an ambitious plan to remake the capital a cleaner, greener, more competitive city, offering a safe and quality lifestyle to its residents by 2030.

“The development of Phnom Penh must acknowledge its environmental impacts and pay full attention to climate change. This means development must go hand in hand with environmental protection, ensuring a clean and green environment for the city,” stated H.E. Khuong Sreng, governor of Phnom Penh.

Indeed, to achieve this goal, a number of barriers will need to be overcome. Phnom Penh has no waste water treatment system. Waste from homes and commercial properties flows into drains and then, untreated, into local rivers and marshes. Water quality monitoring by the Ministry of Environment finds problems, including disease-causing coliform bacteria levels up to 100 times the allowable limits at some sites. Not surprisingly, low-lying areas of the city have high incidences of diarrheal diseases, hepatitis A, and intestinal parasites—consistent with contaminated water.

Garbage collection is also inadequate: “During the rainy season, there are frequent floods in Phnom Penh,” said GGGI Cambodia Country Representative, Karolien Caser-Diez. “Garbage in the drainage system chokes the pumps at the water pumping stations. The pumps stop working, and the drainage water floods the city.”

The rapid expansion of the use of private transport in the city has resulted in increasing traffic volumes as Phnom Penh’s infrastructure development and traffic management has been outpaced. The net result of this has been slowing traffic, congestion, increased road accidents and air pollution.
To counter these issues, the Phnom Penh Sustainable City Plan lays out a sustainable urban development model for the capital and proposes projects that will address infrastructure challenges, reduce emissions, and improve the quality of life and livelihoods for all its residents. The plan is developed as a green growth investment prioritization exercise to implement current Phnom Penh master plans in different sectors, such as land use, transport, drainage, and waste management.

Nearly 50 pilot projects are proposed under the plan, covering everything from more detailed forecasts of climate threats to installing solar street lighting and the creation of a water pollution control fund to finance environmental protection around industrial sites.

A number of these projects have already started moving forward. This includes the piloting of pedestrianized areas, a solid waste management strategy for Phnom Penh, and green building guidelines in the making.

The priority projects are intended to complement larger-scale plans for the city. For instance, there is a USD 1.7 billion scheme to build a central drainage and sewage treatment system by 2040; the Phnom Penh Sustainable City Plan includes a demonstration project for decentralized wastewater treatment in peri-urban areas that will not be served by the new sewage works.

The Global Green Growth Institute (GGGI) advised Cambodia’s National Council for Sustainable Development and Phnom Penh Capital Administration on its Sustainable City Plan and continues to work closely with these institutions as well as with the Ministry of Environment, Ministry of Public Works and Transport, Ministry of Industries and Handicraft, and private sector to find sustainable solutions to Phnom Penh’s challenges.

Karolien Casaer-Diez explained how green urban development enjoys public support. “It is often assumed that a lot of time and convincing is needed for people to believe that growth can be green. But, in Cambodia, it’s quite obvious for the citizens. For example, people can actually see that a lack of waste and waste water management is a direct threat to tourism potential. Sewage all over the road is not very attractive to tourists or residents. People can also see that flooding is affecting their assets and causing delays for commuters, which ultimately affects productivity.”

GGGI is also working with the Ministry of Interior and seven other municipal governments to design a Sustainable City Strategic Plan. “Initially, our green growth work focused on Phnom Penh. However, at GGGI, we are saying that the government needs not just one but multiple urban growth poles to release the pressure of urbanization that is most acutely felt in Phnom Penh and its surrounding region, which is already home to more than half of Cambodia’s urban residents. This is why we are working on sustainable urban development in seven other secondary cities,” Casaer said.

Cambodian officials’ actions and the government’s consistent commitment and ability to uncouple the strong economic growth—that continues to attract people and resources to Phnom Penh—from growing environmental impacts will ultimately determine if the goals of the Phnom Penh Sustainable City Plan are achieved.
In 2018, Norway extended its partnership with Colombia to halt deforestation, by renewing the Joint Declaration of Intent to ensure continued funding and technical expertise to protect some of the most valuable, life-supporting, and biodiverse forests in the world.

Norway’s renewed commitment comes at a crucial moment due to the new development challenges associated with a recent peace agreement and associated land speculation in Colombia, which has seen deforestation increase from approximately 120,000 hectares in 2013 to near 220,000 hectares in 2017.

These numbers may have been higher if Colombia had not received international support from Germany, Norway, and the United Kingdom in 2015 as part of the Amazon Vision Program. This USD 100 million program promotes a new model of development in the Colombian Amazon region and aims to address deforestation by establishing appropriate incentives for communities and sectors to protect and sustainably use the Amazon and improve Colombia’s governance and capacity to manage forests sustainably.

The Colombian Amazon region comprises an area of 45.8 million hectares that is critical in regulating the global climate and is home to diverse ecosystems and hundreds of indigenous communities. Despite covering 40% of Colombia, the region contributes only 1% to the national GDP and maintains high rates of poverty. Therefore, a program that invests to halt deforestation and provide environmentally sustainable economic alternatives to local peoples is considered an important mechanism to develop the region.

To complement at a national level the work of the Amazon Vision program, Germany, Norway, and the United Kingdom signed the Joint Declaration of Intent (JDI) to contribute close to USD 300 million in total. A key component of the JDI is a Payment for Performance mechanism that includes an ambitious package of cross-sectoral actions and strengthened self-governance of indigenous territories to reduce deforestation and promote sustainable development.

It includes two modalities of work: one that rewards Colombia for achieving policy milestones that drive cross-sectoral actions to reduce deforestation and another that directly rewards the reduction of deforestation. The complex reality of a changing land use environment, related to the peace agreement and new dynamics of land speculation, required a mechanism that was flexible and quickly adaptable to the evolving environment.
“Colombia is fully committed to increase its efforts to promote the sustainable use of forests and address deforestation drivers by transforming its cattle ranching sector, strengthening its command and control actions, and combating illegal mining, illegal logging, and illegal crops in forestry areas,” said former Colombian President Juan Manuel Santos at COP21.

“The promotion of environmentally sustainable economic alternatives is key for reducing deforestation, improving the welfare of the population, and securing a stable and durable peace.”

While Colombia and its partners recognized that this is a slow and complex process, they also identified opportunities and took steps to enhance capacity and cooperation in the near term among the national, subnational, and local bodies and agencies responsible for tackling deforestation. This was particularly necessary as deforestation rates spiked following the signing of the peace agreement.

On April 10, 2018, Colombian President Santos and Norwegian Prime Minister Erna Solberg agreed to additional near-term efforts and collaboration to address deforestation. This includes enhanced support from Norway beyond 2020 under “modality 1” of the JDI for deforestation enforcement actions and reforms. Within that extension, Norway stands ready to contribute up to USD 50 million per year until 2025, based on achieved emission reductions, and to consider extending the partnership thereafter until 2030.

The GGGI Colombia team has been an active partner since the inception of the Amazon Vision Program, supporting implementation of the JDI and the negotiation to extend that agreement beyond 2020. The key role that GGGI played has been recognized by both the Colombian and Norwegian governments, who have encouraged GGGI to expand its support to the Ministries of Agriculture and the Treasury to better service and facilitate cross-sectoral advising.

“GGGI recognized that deforestation and impacts it has on GHG emissions, provision of environmental services, and economic opportunities are critical development challenges for Colombia,” said GGGI Colombia Country Representative, Carolina Jaramillo. “Working in collaboration with government stakeholders, and international partners will drive the green growth transition Colombia is committed to taking.”

Colombia will continue to maintain and leverage its close and successful partnerships with Norway and GGGI to adapt to changing environments and complex challenges of deforestation in a developing country that is reinventing itself after decades of an internal conflict.
In 2018, the Ethiopian Ministry of Finance developed a mechanism to track and mobilize climate finance in support of Ethiopia becoming a climate-resilient and carbon-neutral middle-income country by 2030. The mechanism will serve as an important tool in the ongoing implementation of Ethiopia’s Climate Resilient Green Economy (CRGE) Strategy. The CRGE is very ambitious—expanding energy access, increasing forest cover, and reducing deforestation while improving harvests to feed a growing population and keeping pace with housing, sanitation, and green public transport in expanding cities.

Realizing the CRGE vision requires over USD 7.5 billion of annual investment mobilized from domestic and international sources. Furthermore, it needs strong and sustained innovation, planning, budget allocation, and coordination across ministries, including finance, water and energy, agriculture, and the environment. It further requires continuing to align work with and support from country partners as well as the World Bank, AfDB, and Green Climate Fund, among others.

The Ministry of Finance of Ethiopia is responsible for mobilizing finance from domestic and international sources and allocating it to the implementing ministries and regional states. Working to understand and imagine this enormously complicated undertaking in effective terms required the development of a climate financing expenditure tracking system. With an estimated USD 7.5 billion needed each year over 20 years, a rigorous examination and classification of the budget details were required to accurately and effectively manage the funds.

The assessment began by developing a baseline of exactly how much was currently being spent on climate-related work, combing through the national budget for expenditures dealing with mitigation and adaptation, and carefully weighting the relevance of project components and activities.

“We have tracked and assessed the climate finance allocation in the transport, forest, and urban sectors,” said Zerihun Getu, CRGE facility coordinator at Ethiopia’s Ministry of Finance and Economic Cooperation. “This work has enabled us to know how many resources have gone to these sectors from the federal government coffers and to estimate the future financial needs of the sectors.”
Once totally complete, it will be possible for government officials to understand more precisely the gap between demand and supply and to estimate and plan for future needs.

“We are aiming to cover the remaining sectors in order to get a full picture in terms of financial allocation, needs, gaps, and financing options. This exercise will ultimately lead us to putting in place an automated and economy wide climate finance tracking and projection system,” concluded Getu.

The tracked and assessed sectors were prioritized; particularly, the transport sector emissions doubled between 2014 and 2016 from 6.4 million metric tons (MT) of CO₂ equivalent (CO₂e) to 12.8 MT CO₂e. Left unchecked, those GHG emissions would reach 54.3 MT CO₂e in 2030, vastly exceeding targets under the CRGE. Despite rising transport-related emissions, the financial tracking indicates that spending on this sector has been flat.

In the important forestry sector, climate finance tracking confirms that only a tiny fraction of the national budget is directed to forestry (0.02% of recurrent expenditure and 0.29% of capital budgets), even though deforestation and degradation of forests will contribute nearly a quarter of emissions by 2025 if the unsustainable use of wood for fuel and conversion of forests to farmland continues as usual.

To date, there has been no attempt to track climate investment by the private sector or civil society. Before the tracking process began, there was no database of climate-linked spending within or across sectors. Going forward, steps will be taken to build capacity within ministries to maintain and expand this.

The Global Green Growth Institute played a strong supporting role in helping the government to develop the Sectoral Reduction Mechanism to guide integration of the CRGE across ministries. GGGI is also helping with the initiative’s financial mechanism, the CRGE Facility, including identifying fast track investments.

With an effective tracking and analysis system in place and in collaboration with committed partners, Ethiopia will be able to make the most impactful decisions to achieve its national development goals.
Fiji Continues to Lead International Climate Action with Launch of Comprehensive Low Emissions Development Strategy

Fiji has adopted a detailed development plan that could see the Pacific Island country soak up more carbon than it emits by 2050. Fiji’s Low Emissions Development Strategy was launched at the UN climate conference held in December 2018 in Katowice, Poland.

“No Pacific Island nation has ever undertaken such a thorough or comprehensive study on an economy-wide, low-carbon development strategy,” said Fiji’s Prime Minister Voreqe Bainimarama at the launch.

Every sector of the Fijian economy, from fishing and food production to transport and education, was examined for carbon emission reductions potential with a view of ensuring equitable, green, and sustainable growth.

While Fiji emits only a small amount of carbon—2.4 million tons of CO2 annually—it is very vulnerable to the impacts of climate change, especially sea level rise and ever stronger and frequent severe weather. In February 2016, Cyclone Winston killed 44 people, left many thousands homeless, devastated the country’s infrastructure, and caused damage equal to one third of Fiji’s GDP.

The Low Emission Development Strategy (LEDS) aims to support international climate action by reducing Fiji’s emissions while growing the economy and doing so in a way that benefits all sectors of society.

During the launch, the prime minister praised the Global Green Growth Institute for helping Fiji put the strategy together: “But we haven’t done this on our own. And I want to pay particular tribute to the Global Green Growth Institute for the technical expertise,” Bainimarama said.

The Ministry of Economy engaged GGGI to support the LEDS in early 2018, and a workplan was jointly developed to complete the LEDS by November 2018, including a comprehensive process for conducting stakeholder consultations, preparing economy-wide low-emission scenarios, and identifying priority policies and mitigation actions. Over a seven-month period, two national workshops, nine sector-specific consultations, and more than 50 bilateral consultations were undertaken with technical experts, other government agencies, the private sector, and civil society for the development of the Fiji LEDS.
GGGI's overall role included supporting the design of the LEDS, the stakeholder consultation process, extensive modeling and scenario development, and the compilation of the LEDS, including significant attention to the issues of environmental and social co-benefits of the LEDS, adaptation, capacity building and governance, and related issues.

The LEDS team developed four scenarios based on funding, ranging from business as usual to very high ambition. The carbon emission scenarios become progressively more ambitious depending on Fiji’s ability to secure outside international financing. The most ambitious one requires billions of dollars in international support: Fiji could reach net-zero carbon emissions by 2041 and from then on produce negative emissions, with its forests and mangroves drawing down the amount of carbon already in the atmosphere.

“We looked at everything: cooking, heating, marine transport, domestic aviation, agriculture, forestry, tourism, and the waste sector. And we looked at blue carbon—how coastal mangroves could help absorb carbon,” said Katerina Syngellakis, GGGI’s Pacific region representative.

The LEDS also encapsulates the creation of green jobs, ensuring access to affordable energy and increasing Fiji’s resilience to climate impacts while enhancing biodiversity.

“Aside from financing, the main challenges are raising awareness and building capacity. It will be a complete transformation of the economy and involves behavioral and practical changes, such as how farmers manage their farms, how architects and engineers build new buildings, how each of us travels to work,” added Syngellakis.

Schools and universities will need to focus on ecology, engineering, science, and sustainability and provide training for careers in renewable energy and other emerging technologies and sectors.

The Fiji LEDS addresses the call of Article 4, Paragraph 19 of the Paris Agreement whereby state parties are to formulate and communicate long-term greenhouse gas emission development strategies in pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

“Given the iterative nature of the Paris Agreement, climate plans like the Fiji LEDS are essential for developing enhanced Nationally Determined Contributions, or NDC,” said Nilesh Prakash, head of Climate Change & International Cooperation of the Fijian government.

The Fijian government submitted its enhanced NDC to the UNFCCC in February 2019, becoming the eleventh country, and only the third developing country to do so.
Guyana hopes to use solar power to reduce the country’s reliance on expensive imports of diesel and bunker fuel while still meeting its electricity needs. While solar power is cheaper to generate and considerably better for the environment than burning diesel, the cost of buying and installing solar panels is beyond the reach of most Guyanese businesses and property owners.

However, commitments made in 2018 to invest in a 14 MWp distributed roof-top solar project will catalyze renewable energy access for commercial and industrial companies, provide a cheaper and cleaner energy option for Guyana, and help the government reduce emissions and reach its 100% renewable energy target.

Situated on the northeastern coast of South America, just north of the equator, Guyana experiences an average of 12 hours of daylight all year round. The country and its population of just 785,000 regularly enjoy sunny conditions, making Guyana ideal for solar energy.

“We have a lot of capacity for solar, and many public buildings, including schools, have solar photovoltaic panels,” said Sandra Britton, renewable energy liaison officer in Guyana’s Department of Environment.

The Global Green Growth Institute (GGGI) has initiated the Urban Sector Solar Energy Program (USSEP) to accelerate private sector participation in scaling up renewable energy in Guyana, provide hands-on policy and technical support to the government, and remove existing market and regulatory barriers. As part of the program, a pipeline of solar projects has been developed to displace captive diesel generation with cheaper and cleaner renewable energy, with the aim of transitioning away from fossil fuels.

About 85% of Guyana’s electrical power generation is from imported fossil fuels, with renewables mainly including biomass and very small percentage of solar. Currently, 82% of the population is connected to the national grid.

However, the country’s electrical grid is fragile, with frequent power outages. It is uncertain, therefore, how much renewable energy the grid could handle. The existing regulatory connection cap for 100 kW of distributed generation discourages investment in solar by private companies. Guyana also does not have feed-in tariffs for renewables—a premium price paid for pollution-free energy. As a result, companies that do have solar and put their excess electricity onto the grid are not compensated for the energy they provide.
Many Guyanese companies are off-grid, generating their own electricity by using diesel or bunker fuel-powered generators. According to Muharrem Askin, a senior energy engineer with GGGI, there is an estimated 70–120 MW of diesel self-generation in Guyana. Much of the commercial and manufacturing sector is either off the network, completely relying on expensive and polluting self-generation, or use the grid as back-up. There is about 20–25 MW of feasible solar installations targeting these customers over the next few years.

While electricity production from solar is essentially cost-free, there are considerable upfront costs to import solar panels and install them. Further, there is little domestic finance in Guyana to overcome these initial transition costs.

“Guyana is a great place for solar, and while there are a number of companies excited by the possibility of dramatically lowering their energy costs, a lack of local experience and access to finance are barriers,” said Charlotte Camille Chow, an investment officer with GGGI. “That is why the leasing model was very attractive to most of the companies.”

The solar pipeline initiative engages local businesses and the industry and informs them about the potential of solar energy and the long-term cost savings that it can help deliver. After identifying interested companies, GGGI took steps to assess their solar potential through site visits. Additionally, due diligence for potential solar developers was completed.

This culminated in selecting one local company, together with an international solar developer, for project implementation. The parties signed a commitment letter to work with GGGI to locate international financing using a lease-to-own model. The project involves an investment of between USD 15–19 million and will have a 14-megawatt generating capacity, which represents just over 6% of Guyana’s total electricity generation capacity.

The solar pipeline initiative also supports Guyana’s climate actions. The country has an ambitious emissions reduction target under the Paris Agreement. While the 14 MWp project is an important first step, it will also bring technical know-how and raise awareness of clean energy in Guyana. Moreover, GGGI aims to develop utility scale projects to increase the installed renewable power with its Scaling Renewable Energy Program (SREP) in 2019. Within the scope of the program, the government of Guyana will also receive support for a secure grid integration and the management of funds from the Green Climate Fund.

Momentum for solar power in Guyana is growing and needs to continue as considerable oil and gas reserves were only recently discovered off Guyana’s shores. Production may begin as soon as 2020, so Guyana and its delivery partner will have to move quickly to build on early successes in demonstrating to the private sector that solar is a clean, low-cost way to meet much of Guyana’s electricity needs.
Indonesia

Realizing East Kalimantan’s Green Vision through Localized Forest Management

Two-thirds of Indonesia’s East Kalimantan province is covered by forests. These forests play a vital role in the storage of carbon and advancement of biodiversity as well as providing forest communities with homes and livelihoods. The management of Indonesia’s forests has become steadily decentralized in recent decades in an effort to enhance economic outputs and reduce deforestation. East Kalimantan’s new Forest Management Unit Centre intends to strengthen local authorities’ ability to profit economically while protecting forests from threats, such as illegal logging, land encroachment, and fires.

Most of Indonesia’s forests are “production forests” in which extractive economic activities are permitted. According to the country’s Ministry of Environment and Forestry, limited law enforcement capacity and other weaknesses in forest management have led to degradation—from mining and illegal logging to the establishment of new plantations on forested land. The view of forests as a source of timber-based economic returns is too limited, and a more holistic management of forest landscape is needed to capture and safeguard the value of their ecosystem services.

The Indonesian government perceives the establishment and strengthening of localized forest management units (FMUs) as critical to gaining more effective and sustainable management. Fully operational the FMUs work as public service agencies that attract and manage investment and development in forests. Most of the units are business-oriented, seeking investment from private license holders, state-owned enterprises, or communities themselves; some take protection of forests as their primary function, prioritizing investment in ecosystem services and promoting the sustainable use of forest products, such as rattan, bamboo, gum, agarwood, honey, and medicinal plants.

Additionally, FMUs involve local communities in the sustainable management of forests. Community members can become active participants in the governance of the resources, including the monitoring and reporting of forest inventories and prevention of illegal logging.

East Kalimantan’s new Forest Management Unit (FMU) Centre will backstop and strengthen the work of FMUs throughout the province. In 2018, the center began delivering trainings designed to build up the capacity of FMUs in long-term forest management planning, develop and apply strategic plans, and incorporate emission reductions in economic activities in forests. To date, there are nine FMUs—from a total of twenty-one FMUs in this province—that have already finalized their long-term plans, covering the management of 3,854,704 hectares of forests, from a total of 8,157,019 hectares.
“These trainings and workshops are expected to improve the capacity of FMUs to plan and formulate business plans and manage the forest in a sustainable manner, contributing to emission reductions,” said Duratma Momo, an official with the East Kalimantan Forestry Office, at the first workshop held at the FMU Centre.

The opening of the FMU Centre is a primary example of the green growth and low-carbon development that Indonesia’s Ministry of National Development Planning has been stimulating over the past five years. Stronger community engagement is expected to improve management and governance as well as preserve and restore the sustainable, ecologically-sound productivity of forest resources.

The Global Green Growth Institute has been supporting the government in setting up the provincial FMU Centre and helped design forest management plans for East Kalimantan. The process has now been replicated in Central Kalimantan.

“Indonesian officials have a vision to make East Kalimantan a green province by 2045. GGGI is adding its experience and expertise here, at the provincial level, to enhance skills and capacity to deal with challenges and achieve the green vision,” said Benjamin Tular, Forest and Land Use Lead at GGGI Indonesia.

Since 2013, GGGI in Indonesia has been partnering and working closely with the Ministry of National Development Planning as its focal point, mainstreaming green growth and low-carbon development into the country’s national—as well as regional—development plans.

In 2018, GGGI began facilitating the preparation of the National Medium-Term Development Plan 2020–2024, as part of ongoing support under the joint Government of Indonesia–GGGI Green Growth Program. This support includes an advisory role in the strategic process of the nation-wide rationalization of forest land designation, which will assist Indonesia in working to enhance landscape-based planning.

The establishment and strengthening of FMUs will significantly enhance the capacity to implement this planning. GGGI will continue to support national and regional governments to ensure the development and sustainability of FMU operations under the umbrella of green growth and low-carbon development as well as the endeavor to improve Indonesia’s forest governance.

East Kalimantan’s FMU Centre intends to continue its capacity-building workshops, enabling more of the province’s forest management units to fully take up their roles in regulating forest use, providing business services to local communities, and helping sustain the forests that 80–95 million Indonesians rely on for their livelihoods.

“We are also working with the FMUs on ideas and plans for protecting forests as part of sustainable landscapes in which the ecosystem services provided by the forests will be recognized and managed and thus help sustain businesses in other sectors,” adds Tular.
Sonora State Adopts Landmark Green Growth Strategy

The economy of northern Mexican state Sonora currently relies on mining as an important sector, but the state's government has adopted a green growth strategy to introduce innovations that will reduce environmental impacts and transition the state to more sustainable, inclusive growth and prosperity.

Sonora is the largest Mexican producer of gold, copper, molybdenum, graphite, and wollastonite: nearly 6,000 mining concessions occupy 5.5 million hectares—29% of the state’s territory. This natural resource extraction comes at a high environmental cost.

Power for mining—as well as high energy demand for heating and cooling in Sonora’s dry climate—comes largely from 224 fossil fuel-based generation plants. The latest available data showed that the state released 23 million tons of CO₂ into the atmosphere, with energy (33%), transport (28%), agriculture and livestock (16%), and industry (10%) as the main sources of emissions.

To address these challenges, the Sonora State Green Growth Strategy was adopted in 2018. Developed by the Global Green Growth Institute at the Mexican government’s request and with regular civil society participation, the Green Growth Strategy (GGS) is the first of its kind in Mexico.

The strategy aims to build an innovative, resilient, low-carbon economy by working across a range of strategic areas, including renewable energy, energy efficiency, sustainable mobility, water management, and sustainable rural and urban development.

“The strategy aims to develop new engines of development,” said Luis Carlos Romo, executive commissioner of Sonora’s Commission for Ecology and Sustainable Development.
“The main thing is to improve the quality of life of the people of Sonora, to strengthen social inclusion, and reduce environmental impacts.”

An important component of the Sonora GGS has been governance mechanisms; to support implementation of the Green Growth Strategy, the state of Sonora created a Green Growth Cabinet, engaging the state ministers of agriculture, social development, economy and infrastructure, and urban development. Furthermore, the state launched a Building Efficiency Accelerator program, with the aim of introducing new technologies to build more efficiently and reduce energy waste.

In the energy sector, the Green Growth Strategy aims to transition to a 35% clean energy supply by 2024 and 43% by 2030. Still in the pipeline are a pre-feasibility study for the production of biogas from agro-industrial waste and another study of pathways to deep decarbonization by 2050.

More recently, in 2019, Sonora expects to receive between USD 568,000 and 1.13 million in technical assistance from the C40 Cities Finance Facility to develop a clean, efficient multimodal transport system in Sonora’s state capital, Hermosillo.

These new institutional structures and ongoing projects represent important achievements, but the implementation of the strategy still faces significant challenges.

“...There are obstacles to obtaining financing from development banks or foreign governments. The private sector must be more involved in the strategy. More institutional coordination is also needed. We see a great opportunity for the strategy to be fulfilled; we don’t want a plan that remains on paper,” said Pablo Martinez, GGGI’s Mexico country representative.

If the state of Sonora can continue to successfully attract funding for its Green Growth Strategy, it is well on its way to fulfilling its pledge to reduce its greenhouse gas (GHG) emissions and drive economic, inclusive growth through the development of new, innovative green industries.
Mongolia

Raising Green Growth Awareness among Youth in Mongolia

In 2018, a collection of short animated videos brought Mongolia’s green growth plans directly to new audiences and advocated for environmentally-friendly policies and practices.

Mongolia faces a number of ecological challenges. The country has a high dependence on fossil fuels for electricity, heating, cooking, and transportation. Moreover, water scarcity and land degradation (nearly three-quarters of the country is at some stage of desertification) are driving an exodus from rural areas into urban centers. In cities like the capital, Ulaanbaatar, local authorities are wrestling to adequately provide sanitation and decrease dramatic air pollution.

However, Mongolia has a vision for a green, sustainable future. The Sustainable Development Vision 2030 (SDV) and National Green Development Policy (NGDP), as well as related sectoral laws and programs, map out this greener future. The government aims to invest 2% of its GDP in green development and generate 14% percent of its electricity from renewable sources by 2030, as compared with a business-as-usual scenario. The NGDP also targets better energy efficiency, aiming to achieve a 40% reduction in wasteful heat loss from buildings.

Successfully hitting these targets will bring clear co-benefits in the forms of better air quality and public health as well as increased productivity. As often is the case, raising awareness and participation by the general population—and civil servants throughout the government—are vital to achieving these goals.

Sixty percent of the country’s population is younger than 35 years old. To reach this tech-savvy audience in an engaging and accessible way, the Ministry of Environment and Tourism, together with other government institutions, commissioned a series of short animated videos that appeal to children and young adults, who can in turn educate older generations about the importance of a green lifestyle.

The 19 videos produced so far cover topics such as saving energy and water, waste recycling, and preventing air pollution. They have been viewed on Facebook, Twitter, and YouTube more than 800,000 times and shared approximately 30,000 times—more than 70% of Mongolians are active social media users.
Uranchimeg Tserendorj, head of the Green Technology and Investment Department at the Ministry of Environment and Tourism, says her office, in association with Ulaanbaatar City Environment Department, is using the videos to support ecological training in schools. In 2018, they reached 1,990 students in 20 secondary schools and 90 eco clubs.

The ministry has also organized public screenings in the capital city while other government ministries and agencies have hosted showings for their staff. As a result, all ministries are now actively contributing their inputs to green growth actions. Further, a recent monitoring exercise by the ministry revealed that public awareness of the NGDP is much higher.

"Collaboration amongst key ministries was very poor in the past. Other ministries thought the National Green Development Policy was none of their business," said Tserendorj. "We attribute the increased level of awareness to the videos which were enjoyed by members of the public and government employees."

The Global Green Growth Institute played a leading role in preparing and producing the videos for the government, as part of its longstanding support to Mongolia in promoting the mainstreaming of green growth among government institutions and the general public.

"Targeting leaders and citizens of tomorrow and youth as a social force for change will help pave the way for a greener future and ensure decision-makers of tomorrow have the knowledge and skills to take action," said GGGI’s Country Representative in Mongolia, Romain Brillie.

Seven of the videos also have English subtitles to make them accessible beyond Mongolia’s borders. Tserendorj hopes that other countries around the world can adopt similar strategies to raise awareness about green development.

"This project has been a success in raising awareness, and we are happy to continue working with GGGI in advocating for the importance of securing Mongolia’s green growth future," said Tserendorj.
In 2018, Nepal took great steps to roll out Kathmandu’s first fleet of electric buses and drive the way toward cleaner, greener public transport.

Twelve-year-old Ubhisha Khatri—a fifth-grade student in the Nepali capital—gives reasons for wanting to ride an electric bus to school: “There is no smoke when the electric bus runs, and I do not have to wear a mask every day.” She is one of the millions of public transport users across Nepal who struggle through dust, soot, and black smoke on their daily commute.

Across Nepal’s cities, air pollution is causing serious health issues, with pollutants from fossil fuel-powered vehicles being a major contributor to poor air quality.

“Electric mobility will allow us to reduce local air pollutants,” said Bishwa Nath Oli, secretary at the Ministry of Forests and Environment.

Nepal’s new electric buses will help the government fulfill its commitment under the country’s Nationally Determined Contribution, which sets targets for air quality and electric vehicle adoption. A collaborative effort by the Ministry of Forests and Environment, Ministry of Physical Infrastructure and Transport, and Global Green Growth Institute (GGGI) led to the launching of Nepal’s first National Action Plan for Electric Mobility—a road map for achieving the NDC targets. The National Action Plan, which recommended the establishment of a fund, unit, and program for electric mobility, was launched by Prime Minister K.P. Sharma Oli.

“Greenhouse gas emissions in Nepal are closely correlated with the transport sector,” said Oli. “As the number of vehicles in Nepal increases, so do our GHG emissions. Therefore, switching to electric transport is a key component of our Nationally Determined Contribution (to the Paris Agreement), as it allows us to reduce GHG emissions in that sector.”

Sajha Yatayat, Nepal’s largest public bus operator, is in the process of procuring and deploying electric buses and, over the long-term, greening its entire fleet and operations. The inaugural buses expected for 2019 will be the first of an eventual fleet of 71 electric buses that the operator plans to roll out over the next five years.
The business decision Sajha Yatayat made to begin transitioning its fleet was backstopped by a GGGI feasibility study that mapped the financial, technical, and operational viability of deploying electric buses on the operator’s existing routes.

“Sajha Yatayat has long set the standard for bus operators here,” stated Rowan Fraser, GGGI’s country representative in Nepal. “Going electric is an excellent next step for them. If we can manage the higher upfront costs, then the operational, strategic, and financial benefits are considerable. Going electric also contributes to a range of Sustainable Development Goals.”

Bhushan Tuladhar, Sajha Yatayat’s executive director, said the buses are not only a step toward providing the country with pollution-free, sustainable travel but also a milestone in the paradigm shift to cleaner energy.

“At this point, most of our own energy production is hydropower. So, by shifting to electric vehicles, we can not only use the clean energy that we produce but also save as much as 80% on fuel costs. So, it’s win-win,” explained Tuladhar.

However, Nepal does not currently subsidize clean energy, which is a challenge for business owners as well as investors.

“We are lobbying the government to sell us surplus power—especially power produced at night—at a subsidized rate. We are also urging the government to invest the money collected as pollution tax from fossil fuel users into electric transport. If this can be done, the cost of transportation would come down significantly,” Tuladhar added.

Beyond providing policy advisory services at the federal level, such as developing the National Action Plan for Electric Mobility, GGGI in Nepal is also supporting investment. The institute is working with Sajha Yatayat to specify, procure, and deploy electric buses and establish charging regimes.

“We are now asking GGGI to monitor and study vehicle performance and assess the tendering policy of our neighbors. For example, India is demanding that 60% of equipment in a clean transport project be bought from local businesses. In Nepal, we can’t ask that. So, what is the implication of a tender such as this for us? We are asking GGGI to help us find that and more,” said Tuladhar.
Public entities in Peru have strengthened their eco-efficiency practices with the coordinated application of various measures and the development of a culture of environmental management that seeks to produce goods and services with fewer resources and less environmental impacts.

“This set of practices has saved more than USD 19 million since the approval of eco-efficiency measures by the Peruvian government in 2009,” said Roxana Díaz, the eco-efficiency management advisor of the Ministry of the Environment (MINAM), which is in charge of a special program to improve co-efficiency.

Between 2017 and 2018, this program, the Eco-efficient Public Institutions (EcoIP) initiative, was rolled out by MINAM, with support from the Global Green Growth Institute (GGGI), to 41 institutions seeking to improve their environmental and economic performance in terms of the development of their activities.

The objective of EcoIP is to provide technical assistance to public institutions by developing the capacity of the eco-efficiency managers in the General Administration Office of each institution, so that they can undertake practices that improve the use of water, energy, paper, fuel, and solid waste.

“The EcoIP initiative is based on a diagnostic exercise undertaken in 2015 that revealed opportunities for the optimal application of Peruvian regulations for eco-efficiency,” said GGGI Peru Country Representative in Peru, Aaron Drayer.

GGGI’s initial assistance to MINAM was in support of the fulfillment of Goal 57 of the Competitiveness Agenda 2014–2018 by the Ministry of Economy and Finance, which established that 30% of public institutions implement eco-efficiency programs in order to reduce their natural resource consumption.

“It is a very interesting initiative, considering that one in 10 workers are public servants in Peru and that the public sector is one of the largest consumers of natural resources,” noted Drayer. “This initiative allows visibility for public sector practices and the thousands of people involved in this effort to improve their performance.”

Peru has a framework of eco-efficiency measures for the public sector that are aimed at improved environmental management of public resources to promote sustainable development.
MINAM, with the collaboration of GGGI through EcoIP, has sought to strengthen the existing institutional framework, equip public servants with skills to sustain the new process, and instill a culture for the efficient use of water, energy, fuel, paper, and solid waste management.

Within the framework of EcoIP, MINAM describes an eco-efficient public institution as one that provides a quality public service by efficiently using its resources, reducing its environmental impacts, and maintaining adequate conditions for personnel. It is an entity that achieves a balance between its environmental management and the economic profitability of the institution.

GGGI supported the initial implementation of EcoIP by helping the MINAM team identify critical project needs, such as the involvement of senior management, the allocation of personnel, budget, and time.

EcoIP has seen positive results over the past two years, including the development of capacities in public servants from different sectors, including ministries, universities, and autonomous entities.

Success has been such that, in 2018, EcoIP was scaled up to a regional level, starting with the Regional Government of San Martin, initiating the decentralization phase that will continue in 2019 in other provinces.

"My assessment of the process is positive. We have built a replicable program and improved capacities, achieving the target of 50% of the public institutions involved in achieving the goal of being recognized as eco-efficient entities," said Díaz.

The data to date confirms that the methodology is replicable and mitigates the challenge of high rotation among public servants. It also helps enhance the reach of the program, thanks to the model established with the first 41 public entities of the more than 2,000 existing in the country.

From this standardized methodology, consumption is reported annually as a baseline. This information is collected through a virtual platform of the MINAM, where all public institutions report the consumption of their resources, allowing the identification of measures that may correct inappropriate practices.

One successful example of the EcoIP rollout is in the National Agricultural University of La Molina, where the university’s Office for Environmental Management (OGA) has led the dissemination of an eco-efficient culture that includes auditing and management of solid waste among teachers, students, and administrative workers. The OGA has installed 32 eco-efficient areas and 10 waste segregation stations for appropriate waste disposal.

"It was necessary to train the staff regarding the proper use of eco-efficient disposal sites as well as substituting paper for digital documents and the reduction of water and electric power consumption," explained environmental engineer Carlos Llanos, who directs the OGA.

The OGA has expressed its satisfaction to be part of EcoIP, with actions—such as site visits, the development of appropriate signage, and positive internal competitions—having involved 20% of the offices to promote sustainable development on campus.
Philippines

Sustaining Climate Resilience and Inclusive Green Growth in Palawan Province: A Community-Based Approach

In 2018, the Provincial Government of Palawan in the Philippines launched the New Banua Institute for Resilience and Green Growth (NBIRGG) as an innovative mechanism to institutionalize climate resilience and inclusive green growth. To achieve this, the institute plans to cultivate knowledge on the sustainable use of natural resources and climate adaptation among the marginalized and vulnerable people in the province, particularly its Indigenous People (IP).

The NBIRGG initiative was born out of the Climate Resilient and Green Growth (CRGG) Planning Project implemented by the Palawan provincial government in partnership with the Global Green Growth Institute (GGGI) and Climate Change Commission (CCC) of the Philippines.

With more than 7,600 islands, the Philippines is considered among the countries most vulnerable to climate change impacts. Such vulnerability is further heightened by the persistent concern of poverty among the remote and displaced communities in the rural areas, where poverty incidence significantly exceeds the national estimate of 21.6%.

This national context is mirrored in Palawan, the largest province in the Philippines and home to almost one million people, as it contends with pockets of extreme poverty, particularly among the IP communities that account for almost 50% of the provincial population. The provincial government estimates that the poverty incidence among the IP communities exceeds 50%, given their lack of access to stable sources of livelihood, which are largely derived from the use of natural resources.

The province recognizes the critical relationship between “poverty and human contributions to environmental degradation and climate change impacts” as the absence of a more sustainable means of income for the IP communities leaves them with very little recourse but to extract as much as they can from the environment. The goal, therefore, is to ensure that Palawan’s marginalized and vulnerable communities are not left behind in the economic growth of Palawan and that gains toward poverty reduction and climate resilience are achieved by the year 2022 through focused community-based interventions.

To help accomplish this, the NBIRGG aims to prioritize government and non-government assistance for marginalized communities, train communities on crafts and productive competencies that will allow them to pursue alternative livelihood activities while preserving the environment, and establish potential commercial linkages for community products and local skills to encourage income growth.
The initiative will champion climate resilience and inclusive, pro-poor Green Growth in the province by facilitating climate resilience: promoting green growth multi-stakeholder dialogues and studies in partnership with national and local institutions, preserving and nurturing traditional knowledge through intra and intertribal activities and knowledge exchange programs, and serving as a channel through which marginalized communities can more effectively participate in local governance.

According to Ninfa Rubio, Provincial Planning and Development coordinator of Palawan, “The NBIRGG will facilitate the provision of financial support—such as grants from government and non-government partners and non-financial support that includes skills training and local product development for the target communities—to encourage the formation of grassroots entrepreneurs and community-based livelihood activities.”

Among others, these support interventions include organizing IP communities into People’s Organizations so that they gain the legal personality to transact with external partners, skills training to promote traditional crafts and develop new products, the introduction of climate-smart agriculture practices, the provision of seed capital to encourage entrepreneurship, and bridging linkages with other development organizations.

For a broader reach, NBIRGG Learning Centers will be established in strategic locations in the province to ensure that the IP communities from the 23 municipalities can easily access the services of the institute. To institutionalize and support the preliminary activities of the NBIRGG, the provincial government has appropriated the necessary budget in its 2019 Annual Investment Program to cover the conduct of initial training workshops for pilot IP communities.

Strategically, Governor Jose Ch. Alvarez of Palawan envisions that “These NBIRGG Learning Centers will provide equal opportunities for impoverished communities to benefit from the economic growth and help them break away from the inter-generational cycle of pervasive poverty.”

In the longer run, the province hopes that the NBIRGG platform will serve as a model for inclusive, green economic growth and community-based programs that other local government units in the Philippines can replicate.

Jin Young Kim, representing GGGI, noted that “Most of the IP communities in Palawan live from hand to mouth and practice unsustainable use of natural resources that negatively impacts on the environment. With the NBIRGG providing the appropriate tools and training, the IP communities will have better chances of improving their lives while working with the government in safeguarding the environment.”

The establishment of the NBIRGG is among the key outcomes of the CRGG Project, which serves as a sustainability platform to ensure that identified climate adaptation measures, project lessons, and recommendations are implemented and cascaded from the provincial level down to the municipal and community levels, with the provincial government now leading the process and exercising ownership.
In March 2018, the Government of Rwanda received a grant of USD 32.8 million from the Green Climate Fund to strengthen climate resilience in rural communities in northern Rwanda. This was just the latest example of the Rwanda Green Fund demonstrating its capacity and leadership in mobilizing finance for green growth and climate action.

Since it was established in 2012, the Rwanda Green Fund (FONERWA) has mobilized more than USD 150 million to support the implementation of Rwanda's Green Growth and Climate Resilience Strategy. Through this long-term strategy, Rwanda aims to become a developed low-carbon economy by 2050. This will be achieved through implementing 14 programs of actions to address the most important areas, including expanding and diversifying energy sources, encouraging efficiency and green technology across all sectors of the economy, and promoting sustainable land management.

Achieving this ambition calls for sound policy, integrated development planning, and adequate finance. The growing capacity and success of FONERWA in mobilizing climate finance demonstrates Rwanda’s commitment to a green growth pathway that underpins socio-economic transformation.

“We established the Rwanda Green Fund to be the vehicle through which resources for climate and environment change initiatives are mobilized and invested,” said Rwanda’s Minister of Environment, Vincent Biruta.

“The fund has seen a positive return on these investments, and with the support of our development partners, the fund has mobilized more than USD 150 million for strategic green growth.”

Rwanda’s green growth ambitions are driven by a commitment to put the environment at the heart of the country’s socio-economic transformation. Some of the major environmental challenges the country faces include the impacts of climate change (such as droughts, floods, landslides, and increased disaster risks) as well as land use management. Rwanda is also addressing the high dependency on biomass fuel for cooking as well as air pollution, resulting mainly from wood and charcoal burning and the transport sector.

To address these challenges and achieve its development goals at all levels requires strategic technical and financial support. FONERWA is a promising example of how to deliver exactly this kind of support.

To date, FONERWA has committed approximately USD 50 million to 35 projects to promote green investments, expand access to off-grid clean energy, prevent soil erosion and land degradation, and protect watersheds and water catchments. Tens of thousands of hectares of farmland and forest have been protected, and securing these natural resources has avoided the equivalent of 18,000 tons of CO₂ emissions. In addition, more than 140,000 green jobs have been created—most of which for youth and women—supporting sustainable livelihoods development.

FONERWA’s success has been made possible thanks to the commitment of the Government of Rwanda and the support of
partners, including the United Nations Development Programme, the UK’s Department for International Development, German Cooperation through KfW, the Climate Development Knowledge Network, the Green Climate Fund, the World Bank, Climate Investment Funds, the Swedish International Development Cooperation Agency, and the Global Green Growth Institute (GGGI), among others.

GGGI has supported FONERWA through capacity development and the elaboration of a multi-year business and sustainability plan. GGGI has also assisted the fund to prepare a number of successful funding proposals. One of these, a USD 4.4 million contribution from the Swedish International Development Cooperation Agency, will finance a project to engage and raise awareness among civil society about Rwanda’s green growth transition.

GGGI supported FONERWA to obtain the USD 32.8 million grant from the Green Climate Fund (GCF) in support of increasing the resilience of vulnerable communities to climate change in northern Rwanda. This project is expected to benefit some 531,400 community residents and mitigate approximately 273.7k tons of CO	extsubscript{2} equivalent.

In 2018, GGGI also supported Rwanda, through the Rwanda Environment Management Authority, to receive a Readiness grant of USD 600,000 from the GCF to support the implementation of key climate change frameworks, including the country’s Green Growth and Climate Resilient Strategy.

“The collaboration between the Government of Rwanda and GGGI to provide technical support for FONERWA is a great example of moving from policies to project design and facilitating green investments,” said Okechukwu Daniel Ogbonnaya, acting country representative of GGGI Rwanda. “GGGI is pleased with the lessons and knowledge this partnership has generated. It will not only serve our work in Rwanda but around the globe as well.”

FONERWA’s success provides lessons that may be useful to other developing countries, according to Winifred Ngangure, head of Investment Promotion at the Rwanda Development Board: “You don’t need to have the largest market to promote investment in key areas such as green growth. Rather, it requires a long-term vision, clear targets, a plan for attracting investments, and a regulatory framework that encourages innovation.”

The CEO of FONERWA, Hubert Ruzibiza, sees the fund as a dynamic source of funding and technical support that contributes meaningfully to achieving the country’s development targets: “We aim to be a solution for Rwanda’s environmental development challenges. Our role is to mobilize climate finance, support Rwandans to adapt to climate change, and promote green growth through investments that drive transformational change. Our goal is clear: we want to be a dynamic resource facility that provides targeted financial and technical support and contributes to Rwanda’s vision of becoming a low-carbon and climate-resilient economy by 2050.”
Rapid urbanization threatens to overwhelm city infrastructure across Senegal. In response, the Green Secondary Cities Development Program provides city managers and residents alike with ways to overcome these challenges and build sustainable, prosperous futures.

Urbanization has risen sharply in Senegal in recent years. The proportion of urban dwellers rose from 23% in the 1960s to 43% in 2013. Recent studies estimate that Senegal’s urban population will account for 60% of the total population by 2030.

This growth has created problems as city infrastructure—particularly in the capital, Dakar, home to a quarter of Senegal’s population—struggles to cope with challenges related to the water supply, waste management, transport, access to energy, sanitation, and decent and affordable housing. The problems faced by Dakar and other established urban centers become even more acute for secondary cities, where slums comprise as much as 30% of municipal areas.

Although the Senegalese government has developed the National Social and Economic Development Strategy (SNDES) and Emerging Senegal Plan (PSE) to guide overall national development, the lack of a “green context” in strategies for urban development has slowed progress.

Since 2017, the government has been developing the Green Secondary Cities Development Program with support from the Global Green Growth Institute (GGGI). The program aims to improve conditions in 25 secondary cities that suffer from a severe lack of infrastructure and jobs by advocating for energy efficiency, use of renewable energies, sustainable land management, environmentally-friendly transport, and waste recovery. Successful implementation of the program will improve living conditions for inhabitants while creating jobs and alleviating poverty.
“There are many dysfunctions in current city management; e.g., in the management of housing and water as well as others. There must be a green approach to the management of cities,” said Ale Badara Sy, GGGI’s Green City Development specialist in Senegal. “The Green Secondary City Development Program is an integrated approach based on dialogue and consultation in order to develop compact, resilient and low-carbon cities that consume less space, less energy, less water, less natural resources, and produce less waste.”

This program aims to provide cities with strategic planning tools focused on green growth in order to strengthen territorial resilience, develop climate governance capacities, and mobilize resources for financing bankable projects. Ultimately, the cities will each have a Green City Development Strategy and Green City Action Plan.

With the support of various stakeholders and local authorities, pilot cities have been chosen for the initial implementation phase of the program. Projects have already started in Kolda, Tivaouane, and the newly-built urban area of Diamniadio, which sits on the outskirts of Dakar.

In Tivaouane, the Green City Development Strategy is based on the principles of sustainable development for the city’s influence beyond the country’s borders while consolidating its religious functions.

In Kolda, the Green City Action Plan focuses on the strategic priorities of housing, transport, solid waste, and sanitation and indicates the need for structural urban policies to develop an intermunicipal system and boost the city’s economy.

At the Diamniadio level, the strategy aims to support urban real estate developers in integrating the concept of green buildings to promote energy efficiency and renewable energy in housing.

A key component of the Green Secondary Cities Development Program is the Human Waste Recycling and Valorization Business Model project. This project promotes the creation of sustainable public-private partnerships to develop solutions for the management of domestic wastewater (Tivaouane), plastics waste (Touba), and waste from electronic and electric equipment (Dakar).

Further, the Development of Local Entrepreneurship in Sustainable Valorization (Waste-to-Energy and Agricultural) and the Fecal Sludge Management Service Delivery project being piloted in the secondary city of Tivaouane aim to strengthen integrated waste management across Senegal.

GGGI has played a central role in obtaining commitments and funding from local stakeholders to implement the projects. With strong local interest in the pilot projects and the government keen to remain committed to green city development, the Green Secondary Cities Development Program is set to expand.

“This second phase scales up the Green Secondary Cities Development Program and adds ten more cities. We hope to have projects set up in five of those cities soon,” said Sy.

“But, ultimately, to be successful, the government and the population have to change their behavior in terms of their approach to the cities themselves and the environment. If they do not, the health of the population and the economy of the cities will be affected.”

Additionally, the implementation of this extension phase of the Green Secondary Cities Development Program will aim to strengthen citizen participation and stimulate behavior change in city residents through the creation of a Green City Young Volunteers Network in each city.
In 2018, Thailand’s Provincial Electricity Authority (PEA), a state-owned electricity utility, secured USD 20 million in investments to improve the energy efficiency of the country’s small and medium enterprises (SMEs). With a total market size for energy efficiency measures in SMEs estimated at approximately USD 380 million, this initial inflow of investment demonstrates the potential of climate action in Thailand.

Indeed, Thai SMEs face particular challenges because of their scale of operations. Due to size factors, SMEs are often incapable of getting the finance needed to invest and implement in energy efficiency measures themselves.

“When SMEs look for finance, the banks do not believe there is a business case for a loan because they are too small, they don’t have manpower, and don’t have the knowledge,” said Khan Ram Indra, GGGI’s Thailand country representative. “So, what GGGI does is try to come up with a simplified but innovative business model where these companies do not pay any collateral and yet can have access to finance.”

The Thai government has been very supportive of GGGI’s efforts to develop a robust and innovative business model that helps SMEs to access finance. “GGGI has brought strong technical expertise and business rigor to this cooperation,” said Mr. Lertchai Kaewwichian, assistant governor, Provincial Electricity Authority. “GGGI has been extremely supportive to
the PEA in designing the optimized energy efficiency program through which the advanced energy efficiency measures have been deployed.”

Although the concept of energy-efficient investment is not entirely new, using it to specifically support SME owners is a unique idea. “We conducted [an] energy audit of SMEs to highlight inefficient energy practices and to advocate business models that could help them become more competitive and sustainable by reducing utility bills, increasing productivity, and boosting morale and safety of the labor force while decreasing their carbon footprint,” explained Gulshan Vashistha, an investment specialist with GGGI.

The program also aims to reduce greenhouse gas emissions, which is a key priority for the Thai government. A country considered to be facing some of the greatest climate change risks in the world, Thailand’s economic growth has nevertheless steadily prioritized the energy-intensive industrial sectors in recent decades. Rising energy intensity has consequently increased emissions, particularly in Bangkok, which maintains some of the highest per capita CO₂ emissions levels.

Yet, Thailand is committed to addressing the climate risks and carbon emissions through appropriate adaptation and mitigation measures. Thailand’s INDC prioritizes adaptation efforts and commits to a 20–25% GHG emissions reduction by 2030. To do so, Thailand is focusing on energy which, together with transport, is responsible for more than 70% of its GHG emissions.

To build green and low-carbon cities, Thailand recognized the need for cross-sector actions that integrate green buildings and renewable energy supply, sustainable transport, and efficient water and waste management.

The Thailand SME Energy Efficiency program aims to help achieve these targets through supporting SMEs to grow efficiently and sustainably.

“For Thailand, this is a new approach—the first ever SME program. We already have reached a milestone by attracting an investment of USD 20 million. So, in the future, if all goes well, this could be a game changer for the entire region,” noted Ram Indra in highlighting the success of the program to date and its potential to be replicated in other countries.
Assessing Climate Risks as a Key Step toward Resilience in the UAE

The United Arab Emirates (UAE) has been achieving economic success, overcoming the challenges of a harsh desert environment with scarce water resources and less arable land. However, the increasing impacts of climate change may impede progress and thus require proactive approaches to enhance resilience while tapping potential opportunities.

In response to this challenge, the UAE developed the National Climate Change Plan through the support of the Global Green Growth Institute (GGGI). One of the plan’s main pillars is an adaptation program that aims to conduct climate risks assessments in key sectors as the basis for implementing adaptation measures. To make this happen, the Ministry of Climate Change and Environment (MOCCAE) collaborated with GGGI to assess climate risks in four areas: health, energy, infrastructure, and environment. In the long term, there will be more sectors covered.

The risk assessment completed in 2018 revealed the priority risks for the UAE. Heat stress affects the productivity and safety of outdoor laborers, especially during the peak of summer when the temperature reaches as high as 50°C. Extreme heat also leads to the deterioration of power facilities, energy efficiency losses, and reduced power output. Climate change causes damage to coastal/offshore facilities, increased infrastructure maintenance costs, loss of business opportunities, and reduced reliability of the transport infrastructure. The UAE’s natural environment also faces high risks, mainly related to coral bleaching and loss of wetlands.

Knowing the risks is the first step toward action, and the UAE is now beefing up efforts to address the risks through adaptation. “We are already feeling the impacts of climate change in all aspects of our lives. Given the current projections, such impacts will continue to grow in intensity and frequency, and adaptation is the only viable response strategy,” said Fahed Mohamed Al Hammadi, MOCCAE’s acting assistant undersecretary of the Green Development & Climate Change Sector.

The assessment involved a review of available and accessible references about the identified risks and climate trends. Stakeholders from multiple sectors and levels of government also participated in a series of consultation workshops and bilateral meetings to discuss and prioritize the risks. Furthermore, the process engaged local and international experts to ensure technical rigor of the risk analysis. Tomoo Machiba, MOCCAE’s principal sustainability policy advisor, explained, “The risk assessment process used an evidence-based, participatory, and expert-guided approach to adaptation planning, drawing from international best practices.”

The timely completion of the climate risk assessment marks the continued partnership of the UAE and GGGI. The UAE is one of the founding members of GGGI, and GGGI’s UAE office has since served as a regional capacity building hub and provider of technical assistance to the government.
Since 2011, GGGI has helped mainstream the policy and institutional framework for green growth in the UAE by assisting with the development of the National Green Growth Strategy, Green Agenda, and the Climate Plan. GGGI has also delivered numerous knowledge-sharing and capacity development workshops for students and young professionals from the Middle East and Africa.

As part of the implementation of the Climate Plan, the UAE’s climate risk assessment is another pioneering initiative in the Gulf region, setting an example for other hydrocarbon economies. Climate risk assessment is still a nascent exercise in the Gulf, where there is high exposure and vulnerability to rising temperature and extreme climate events. The UAE’s experience can serve as a model to its neighbor countries in carrying out an anticipatory response to climate change.

Furthermore, Qais Bader Al Suwaidi, assistant expert from MOCCAE, noted, “While identifying the risks has already set the momentum toward action, the analysis also takes the next step forward by proposing potential adaptation measures that are tailored to the local context because climate change is a global problem with local solutions.” The next phases of the adaptation program include the analysis, prioritization, and implementation of the proposed measures.

“The assessment builds the foundation for the development of adaptation road maps, which includes concrete activities, targets, and adaptation metrics that leverage public and private efforts,” said Rusyan Jill Mamiit, GGGI green growth data analyst. It will determine the UAE’s further commitment to the Paris Agreement and 2030 Agenda in line with its long-term strategy to prepare for the post-oil era.

“By channeling its oil revenues toward green investments, such as renewable energy and climate-smart industries,” said Chiden Balmes, GGGI senior policy officer, “the UAE demonstrates how a hydrocarbon economy can gradually transition toward a sustainable climate-resilient growth model.”

Looking ahead, the UAE aims to integrate the risk assessment results in many areas of development policy. While the country faces a race against time, its green agenda is certainly in motion and could be an example of adoption by many.
Vanuatu relies heavily on imported fuel for power, with 71% of its electricity generated from fossil fuels. Less-than-ideal energy security combined with considerable electricity access limitations—almost 90% of people living in rural areas are not connected to the grid—has adversely impacted Vanuatu’s social and economic development.

The government has identified energy security and energy access as top priorities and has determined that renewable energy is the best way to achieve them. The recently updated National Energy Road Map (NERM) aims to deliver 100% electricity access throughout Vanuatu, relying entirely on renewable energy sources. The roadmap envisions a 14% reduction in energy use through increased efficiency.

The NERM is an explicitly green growth approach, linking the island state’s growth in key productive sectors with opportunities in the renewable energy sector.

However, like many other developing countries in the Pacific, Vanuatu cannot finance major development and infrastructure projects from public sources alone and has had difficulty attracting sufficient private sector interest.

To address this, the Global Green Growth Institute—which developed parts of the NERM, covering energy efficiency and green growth—has helped create the National Green Energy Fund (NGEF) to mobilize finance for investment. The NGEF aims to overcome barriers, such as a lack of access to credit and short-term loans, limited ability of the private sector to self-finance, shortage of information on bankable projects, and lack of a consolidated and dedicated domestic fund to support clean energy projects across Vanuatu.

Hellen Tom Wilson, finance manager at the Department for Energy at Vanuatu’s Ministry for Climate Change, explained, “Vanuatu developed the National Green Energy Fund to overcome those barriers to financing development projects.”

The NGEF will help to boost household energy access while also providing a pathway to local businesses to invest in clean, climate-resilient energy and help rural communities.
Antony Garae, director of the Department for Energy at Vanuatu’s Ministry for Climate Change, said, “The fund has some specific aims, and those are to help provide electricity access to communities which are not connected to a stable electricity supply and also to help provide access to and utilize renewable energy resources.”

An estimated 30% of households and public institutions in Vanuatu are connected to the electricity grid, but this network covers only parts of four of the country’s 65 inhabited islands. In rural areas, 85–90% of people have no access to electricity at all.

GGGI Senior Program officer in Vanuatu, Paul Kaun, added, “Connecting these communities to a stable power supply would improve their quality of life and help raise levels of economic activity. People would be able to have, for instance, cooling services for produce which would help with food preservation and transport—for example, getting fish from islands to urban centers.”

Kaun continued, “People could also be economically active for longer. At the moment, when the sun goes down, it’s dark, and people in these communities can’t really do much as there is no light. It would also help to provide greater access to schools and hospitals.”

The government of Vanuatu has already appealed to local and international financial institutions to contribute to the NGEF, which has been operationalized. To begin with, it will act as a lending facility to subsidize projects, mainly in renewable energy and rural electrification. The NGEF will play a central role in helping ensure renewable energy access and energy efficiency across a range of key sectors, including water, agriculture, fisheries, and tourism.

Meeting the ambitious NERM target of 100% electricity access across Vanuatu will hinge on the success of the NGEF to mobilize finance. “The aim an ambitious one, but if the financing is there, we can do it,” said Garae.
Vanuatu’s economy has experienced strong growth in recent years, largely driven by a rebounding development in the local tourism industry after experiencing the devastating impacts of Cyclone Pam in 2015. However, the high national dependence on imported fossil fuels, coupled with low energy security and access rates, are posing a serious impediment to this growing industry.

Consequently, an innovative scheme using solar power to run freezers at rural off-grid tourist bungalows has been introduced as a means to overcome this obstacle and generate wider benefits.

This pilot project—devised by the Vanuatu government, in collaboration with the Global Green Growth Institute (GGGI)—has seen the installation of solar-powered freezers in ten tourist bungalows in rural areas on the islands of Santo, Tanna, Pele, Maskelynes, and Nguna.

The procurement and installation of the photovoltaic systems and freezers were financed by the German Ministry for Economic Cooperation and Development and carried out by a local supplier in 2017—a move that itself helped local businesses—with a grant from the government allowing them to be provided to bungalow owners free of charge.
Follow-up checks soon after the project’s implementation showed the installations had brought positive results. Bungalow owners reported increased income and new jobs being created locally.

“It’s really helped them,” said Antony Garae, director of the Department of Energy at the Ministry of Climate Change in Vanuatu. “Bungalow owners responded positively to the project, saying their revenues had increased and they had more time to spend doing other economically active things.”

GGGI Senior Program Officer in Vanuatu, Paul Kaun, added, “They’ve been able to do new business, such as renting out freezer space to others overnight or selling frozen produce to people in the local community.”

It has also helped free up time for tourist bungalow operators to run their businesses. For instance, owners no longer have to spend a whole morning fishing for guests’ meals or head into large urban areas to buy produce, as they can now store food in their freezers. Some were also able to hire additional workers as a result of the increased income.

“Tourism is very important to Vanuatu. We’re almost dependent on it, really, as it accounts for, directly and indirectly, 60% of GDP,” said Mr. Garae. “To preserve it for the long-term, tourism in Vanuatu has to be run and approached sustainably.”

The project has also had a major impact on the wider community. Bungalow owners are offering new services to their neighbors, including sales of ice cream and cold drinks.

One of the project’s key goals has been to promote gender inclusion, aiming to boost the skills and involvement of women. Accordingly, to participate in the program and receive solar-powered freezers, tourist bungalow operations had to include female family members. Women were given training on the use and maintenance of the freezers in an effort to empower them to take leading roles in the running of the bungalows. Many of them now meet once a week to discuss their work and other matters.

Tourism is important for us because it is the only source of income we have,” said Loren John, manager of Island Breeze Bungalows on Nguna Island and one of the beneficiaries of the project. “The savings we have been able to make from the freezer have been really helpful. For instance, after a recent cyclone, we still need to fix the roof, and we can use [the savings] for that.”

Following the success of the project, interest in the freezers among other local bungalow owners has soared.

The government of Vanuatu and GGGI are looking to scale up the project in the future as part of wider efforts to promote sustainable economic growth in the country under Vanuatu’s National Energy Road Map, which aims to see renewable energy provide 25% of energy for rural bungalows by 2020, and 65% by 2030.
Viet Nam's economy is one of the fastest growing in Southeast Asia, driving ever greater demand for electricity—much of which comes from coal. However, biomass energy production has enormous potential to meet future electricity needs without increasing carbon emissions. To explore the potential of biomass energy, the Vietnamese government has set guidelines for the development of provincial biomass energy master plans. The Global Green Growth Institute (GGGI) has supported Soc Trang province to develop its provincial Master Plan for Biomass Energy which has now been adopted.

“Development of biomass energy is an appropriate choice for Vietnam, especially for Soc Trang province. The biomass energy project creates a reliable source of energy that positively affects jobs. This is to contribute to the improvement of living standards and poverty reduction for the local population,” said Vo Van Chieu, director of Soc Trang’s Department of Industry and Trade.

Developed with the support of GGGI, through a process that involved a series of field studies and consultation workshops with Soc Trang officials, the master plan found that as much as 68 megawatts (MW) of energy could potentially be generated using sugarcane waste, called bagasse. The master plan also identified five potential biomass energy projects that could generate this electricity with an investment of approximately USD 43 million.

Bagasse is the fibrous matter that remains after sugarcane stalks are crushed to extract juices. The pulpy residue left after the juice extraction is burnt in furnaces to produce steam for electric power generation. This electricity is not only enough to power the sugar mill itself but can also be added to the local electrical grid.

In 2017, 34.2% of Viet Nam’s electricity was produced by coal. This is expected to increase to 56% by 2030 in order to support the country’s energy needs, including food processing, textile manufacturing, machine building, mining, steel production, and mobile phone manufacturing. Some 26 new coal power plants have been planned in Viet Nam, but, recently, the government has suggested that renewable energy could dramatically cut the number of future coal plants needed.
“It’s a fallacy to think coal is the best option for Viet Nam to generate energy,” said GGGI Country Representative in Viet Nam, Adam Ward.

GGGI’s support for the master plan included assessing the potential of biomass energy sources in the province, identifying the economic and environmental value of renewable energy adoption, and guiding investment and construction to exploit available biomass energy sources. Further, the plan will enable the development of local biomass waste to energy projects and encourage financing from private investors, thus allowing Sóc Trăng to realize its biomass energy potential and reach its target for renewable energy.

Renewable energy sources—like wind, solar, and biomass—are already cheaper than coal in several countries, and prices for renewables are falling every year. Viet Nam has a huge potential for utilizing these and improving the energy efficiency of major power users like cement production.

Electricity production by the sugar industry in Sóc Trăng province—and Viet Nam generally—is highly promising, but feed-in tariffs for the energy they produce are too low. A feed-in tariff is a premium price paid for energy fed into the grid. In Viet Nam, it’s 5.8 cents per kilowatt hour for biomass and 9.35 cents for solar. At 5.8 cents, it isn’t profitable to invest in biomass, and only a few sugar mills in Viet Nam have done so. In comparison, the Thai sugar industry receives 13 cents for biomass.

Feed-in tariffs are also featured prominently in a new report on the potential of Viet Nam’s sugar industry to generate 737 MW of electricity. This could reduce the country’s carbon emissions by 2.7 million tons per year and create more than 2,100 new green jobs, according to the Sweetening the Deal for Biomass Energy report by GGGI and GIZ. Viet Nam’s total carbon emissions were estimated to be 235 million tons in 2017.

Further, if rice straw and rice husks are added to the fuel mix, sugar mills can produce energy during off season, when they don’t have bagasse to burn. Farmers would also obtain extra income from selling agricultural waste they would normally burn. This improves air quality, bringing health benefits as well as reducing carbon emissions.

“Biomass is really a win-win for Viet Nam,” Ward said.
GGGI’s Strategic Framework and WPB 2017-2018

Strategic Framework

The Refreshed Strategic Plan 2015-2020, approved by GGGI’s Council in 2017, provides the strategic and policy framework for GGGI’s programmatic work to support Member and partner countries transition toward a green growth pathway and serves as a statement of intent to GGGI’s stakeholders.

It includes six new Strategic Outcomes (SOs) of direct relevance to the national development goals of Member and partner countries and their commitments to National Determined Contributions (NDCs) and Strategic Development Goals (SDGs). These SOs represent the high level and longer-term impacts of GGGI’s programs and projects in supporting the transformation of member and partner countries. They are:

- **SO1** Green House Gas (GHG) emission reduction
- **SO2** Creation of green jobs
- **SO3** Increased access to sustainable services such as clean affordable energy, sustainable public transport, improved sanitation and sustainable waste management.
- **SO4** Improved air quality
- **SO5** Adequate supply of ecosystem services
- **SO6** Enhanced adaptation to climate change

The six SOs are supported by three Intermediate Outcomes (IOs) which define the three broad areas of GGGI’s interventions. They are:

1. IO 1: Strengthening national and sub-national green growth planning, financial and institutional frameworks.
2. IO 2: Catalyzing increased flows of green investments.
3. IO 3: Multi-directional knowledge sharing and learning and capacity building.

GGGI’s programs and projects are delivered within the above focal areas at the activities, outputs, outcomes and impact levels. GGGI has direct control and influence over the results at the activities and output levels. However, it has less control and exclusive influence over results at the higher outcome and impact levels which can be attributed to many other factors including GGGI’s interventions. The project results at the output, outcome and impact levels are reported annually through the End of Year (EOY) projects results reports, and then aggregated and measured against the Refreshed Corporate Results Framework 2015-2020 (see Annex 1).

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

1. Sustainable energy.
2. Sustainable landscapes.
3. Water and sanitation.
4. Green cities.
Overview of Work Program Budget 2017-2018

In 2018, GGGI continued to deliver on strategic outcomes and policy priorities set out in its Refreshed Strategic Plan 2015-2020 and Work Program and Budget (WPB) 2017-2018. The WPB is the main tool for delivering the strategic goals of GGGI to affect the transformational change of its Member and partner countries. Over the course of the year, GGGI continued to strengthen the integration of its business units to enable and enhance impact of on the ground delivery. Since 2017, GGGI has shifted strategic focus toward the ‘right side’ of its Value Chain (see below) with the clear intention to accelerate the implementation of green growth projects and transformational change in Member and partner countries, and ensure greater visibility of green growth outcomes and impacts.

GGGI’s Value Chain

The WPB is GGGI’s main programmatic and budget planning document. It outlines the organization’s proposed programmatic and non-programmatic activities, as well as the budget associated with this, over 2-year periods. GGGI’s second WPB 2017-2018 was approved in September 2016 to operationalize the Strategic Plan 2015-2020 and sets out what GGGI intends to achieve through its country projects and programs, global programs, and non-programmatic activities, to enable operations.

A TOTAL OF 70 PROJECTS WERE IMPLEMENTED BY GGGI IN 2018

These 70 projects were designed and implemented following GGGI’s Project Cycle Management (PCM) process and Value Chain. EOY project reports were submitted at the end of the year by country and global teams for the 70 projects, and a Project Result Report was produced for each project as part of GGGI’s results reporting requirements (see Annex 2).
GGGI’s corporate results are reported annually at the end of every year to measure Work Program Budget (WPB) results and achievements against GGGI’s corporate targets as set out in the Refreshed Corporate Results Framework (CRF) 2015-2020 (see Annex 1) and the delivery of GGGI’s Refreshed Strategic Plan 2015-2020. The purpose is twofold: first to demonstrate the impact of GGGI’s support in the transformation of Member and partner countries toward a green growth pathway; and second, to be transparent and account for GGGI’s activities and results to donors and key stakeholders.

Two-thousand eighteen marked the second year of the WPB 2017-2018. The reporting of GGGI’s 2018 results covers programmatic, business management and financial outcomes and outputs. A total of 70 projects were delivered in year two of WPB 2017-2018. With a total budget of USD 49.9 million in 2018, GGGI spent USD 30.7 million or 61% on country programs. The balance of 39% of the budget was spent on global programs and HQ-based divisions and staff which support and enable the country and global programs and projects.

Overall, GGGI performed strongly in 2018 turning out a number of significant results including 88 completed advisory outputs that inform the development of green growth policies, 48 advisory outputs that inform decisions on green growth investments and 32 adopted policies that will have transformative green growth impacts on Member and partner countries. GGGI successfully catalyzed 21 green investment projects in 17 countries with a total value of USD 482 million. This amount when combined with the USD 525 million that GGGI catalyzed in 2017, resulted in a combined value of USD 1 billion, 47% of which was contributed by the private sector and 53% by the public sector including governments, donors and multilateral agencies. GGGI also implemented 319 capacity building activities that strengthens institutional capacity of public sector and private sector agencies to plan and implement green growth policies and catalyzing green investments.
Alignment of projects with Strategic Outcomes and SDGs

The 70 projects that GGGI implemented in 2018 were based on the demands and priorities of Member and partner countries as outlined in their respective Country Planning Frameworks (CPF) and Country Business Plans (CBPs). The alignment of these projects with the GGGI Strategic Outcomes (SOs) and SDGs are presented below. They indicate the strategic relevance of these project interventions in closely supporting the delivery of Member and partner countries SDGs and NDCs commitments. GGGI projects are most closely aligned with SO1 on GHG emission reductions with 96% alignment. Projects are least aligned with SO6 on climate adaptation at 14%. On the other hand, GGGI’s 70 projects have the most alignment with SDG 13 on climate action (74%) followed by SDG 7 on affordable and clean energy (66%).
GGGI partner countries transition towards green economic growth model

1. Strengthened national, sub-national, local green growth planning, financing, and institutional frameworks
2. Increased green investment flows
3. Improved multi-directional knowledge sharing and learning between South-South and South-North-South countries on green growth
4. Better value for donor money

Donors continue to support the case for green growth. Political will exists or can be generated to pursue green growth strategies. Member states are willing to adopt technical advice and solutions in their decision making.

The private sector is able and willing to mobilize the required level of investment if risk and market failures can be offset. Green growth interventions have the potential to generate a return for the private sector.

Policy makers and decision makers in public and private sector demonstrate intentions to take up new concepts and knowledge on low carbon development pathways.

The private sector is able and willing to mobilize the required level of investment if risk and market failures can be offset. Green growth interventions have the potential to generate a return for the private sector.

GGGI Members are willing and have influence to support outreach to new member countries.

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Our Theory of Change

Given Assumptions

Intermediate Outcomes

Process of Change

Strategic Outcomes

Related SDGs

1. Strengthened national, sub-national, local green growth planning, financing, and institutional frameworks
2. Increased green investment flows
3. Improved multi-directional knowledge sharing and learning between South-South and South-North-South countries on green growth
4. Better value for donor money

Reduced GHG emission
Creation of green jobs
Increased access to sustainable services
Improved air quality
Adequate supply of ecosystem services ensured
Enhanced adaptation to climate change

SO1
SO2
SO3
SO4
SO5
SO6

1. Demand-driven technical advisory, knowledge development, and private sector solutions offered on the ground for pro-poor 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. GGGI membership expanded
6. Professionalism of the organization ensured

SO1
SO2
SO3
SO4
SO5
SO6

1. Demand-driven technical advisory, knowledge development, and private sector solutions offered on the ground for pro-poor green growth interventions
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6. Professionalism of the organization ensured
Intermediate Outcome 1: developing green growth national policy and institutional frameworks

A fundamental step to transforming economies toward a green growth development model, is to have governments adopt and implement the right enabling policies. This is a core focus of the support that GGGI provides to its Member and partner countries seeking to establish green growth policies at the national, sub-national and sectoral levels of government. GGGI achieved strong results under Intermediate Outcome 1 (IO1) in 2018. GGGI delivered 88 completed advisory outputs that inform the development of green growth policies against a CRF target of 58 and the adoption of 32 green growth policies by governments against a CRF target of 38. The results in 2018 are higher than 2017 because of the timeline of the WPB 2017-2018 in that most projects have a two-year timeline and were planned and scheduled to be completed in 2018.

Additional results achieved under IO 1 include:

- In measuring the extent to which the 32 adopted policies were integrated into green growth, 79% have resources allocated, 95% have clear arrangements for implementation, 95% have objectives aligned with green growth elements and 85% have specific actions or investments identified.

- In measuring the extent to which the 32 adopted policies will result in transformational change for Member and partner countries, 95% have a large-scale focus, 91% have the potential to be replicated, 91% were innovative and 95% sought to leverage other resources.

- In measuring the extent of the 32 adopted policies contribution to the four elements of green growth, all of the policies have incorporated three or more of these elements, namely economic growth (90%), poverty reduction (70%), environmental sustainability (74%) and social inclusion (67%).
Intermediate Outcome 2: Catalyzing green growth investments

Intermediate Outcome 2 (IO 2) represents investments in green growth projects which are necessary to implement adopted green growth national policy and legal frameworks. GGGI worked directly with its Member and partner countries to help design and implement programs to assist in developing and financing green growth in national development plans. GGGI’s work focuses primarily on developing National Financing Vehicles (NFV) to mobilize investment funds, bankable projects, investment proposals, designing de-risking mitigation instruments, and enabling policies and legislation. These interventions ultimately increase public sector and private sector capital flows toward the development of green investment projects that enhance Member and partner countries’ transformation.

Since 2017, under WPB 2017-2018, GGGI has prioritized and shifted its focus toward accelerating green investment activities on the ‘right side’ of its Value Chain. In pursuance of this goal, GGGI revised and set itself up for ambitious CRF targets of USD 500 million for 2017 and 2018.

While initially challenging, GGGI has successfully catalyzed, in Member and partner countries, a total of USD 1 billion over the WPB 2017-2018 period; this includes USD 525 million in 2017, and USD482 million in 2018 (see below). Furthermore, GGGI has also developed a very healthy and growing investment pipeline worth over USD 650 million. Taking into account GGGI’s combined budget of approximately USD 94 million over the WPB 2017-2018 period, the scale of green investments catalyzed represents a reasonably good value for money.

2018 total value of green investments catalyzed with GGGI’s support

In addition, GGGI also achieved the target of 48 completed advisory outputs that inform decisions on green growth investments. These advisory outputs consisted mainly of NFVs, bankable projects, investment proposals and de-risking instruments. Furthermore, of the 48 completed advisory outputs, 29 aimed to improve the enabling environment for green investments against a CRF target of 14.

Additional 2018 results under IO 3 include:

- Approximately 46% of capacity development activities shared experiences and lessons from other GGGI Member and partner countries compared to 37% in 2017.
- Out of the 70 projects delivered, 30 brokered partnerships on 71 occasions. One of GGGI’s most valued partnerships is with GCF, where GGGI is a partner in supporting its Member and partner countries develop capacity to access GCF climate finance.

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

Intermediate Outcome 3 (IO3) is important to advancing GGGI’s global green growth agenda and global and national actions is the sharing of knowledge and experiences on green growth successes, best practices and technology and tools between countries and the private sector and non-state actors.

In 2018, GGGI delivered a total of 319 capacity building activities benefitting a total of 10,466 participants in Member and partner countries, 53% of whom were men and 47%, women (see below). Participants benefitted from knowledge and skills development and transfer which enhanced Member and partner countries’ capacity to develop and implement green growth policies and plans, investments and project implementation.

The number of capacity development activities implemented in 2018 doubled compared to 2017, demonstrating that GGGI has scaled-up its level of activities and impact in supporting IO3.
Maximizing organizational effectiveness and efficiency

GGGI’s ongoing efforts to improve its financial stability and strengthen its business processes are designed to enhance its performance, effectiveness, governance, accountabilities 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 member LDCs (see table). In 2018, core funding to LDCs was 32%, compared to 35% in 2017, showing a 3% reduction, 10% below target. Similarly, GGGI has established 2020 targets to allocate 87% of the core country budget to Member LDCs and MICs combined. In 2018, core funding to Member LDCs and MICs increased to 72%, from 71% in 2017, but is still 15% below target.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2020 (Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of core country program budget allocated to Member LDCs</td>
<td>35%</td>
<td>32%</td>
<td>42%</td>
</tr>
<tr>
<td>% of core country budget allocated to LDCs</td>
<td>54%</td>
<td>49%</td>
<td>50%</td>
</tr>
<tr>
<td>% of core country budget allocated to MICs</td>
<td>46%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>% of core country budget allocated to Member LDCs and MICs combined</td>
<td>71%</td>
<td>72%</td>
<td>87%</td>
</tr>
</tbody>
</table>

Business process improvements

In 2018, GGGI took concerted efforts to improve its business processes through the iGROW business reform launched in late 2017. This was 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. iGROW aims to position GGGI as: (i) a lead player promoting green growth; (ii) a well-funded organization with a growing pipeline of projects; iii) an organization delivering exciting projects actively supported by stakeholders; (iv) an organization with strong partners and extended portfolios; (v) an organization which delivers products and services at optimum cost; (vi) a responsible and value-driven organization that is trusted; and (vi) a great place to work.

To achieve maximum results, the reform process has introduced new tools and deployed new approaches that leverage the organizational enablers of values and strategy, policies, systems and processes, and the people of GGGI. These have included the review and adoption of the Refreshed Strategic Plan 2015-2020 in 2017, together with a refreshed CRF, implementation of the Customer Relationship Management (CRM) system to support the process of resource mobilization and project management, review of the Project Cycle Management (PCM) process with the introduction of 5 distinct steps; PCM 1 to 5, implementation of GGGI Online which is an advanced project information management system, launch of culture circles, adoption of a risk management system and timesheet reporting and broadening of GGGI’s accountability framework to cover safety of staff in the work place and creating a conducive work environment.
Enhancing efficiency

Implementation of the Work Program and Budget in 2018 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 able 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 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). The results for 2018, calculated based on core budget allotments, was 15% in the former compared to 16% in 2017, while the latter remained the same at 30%. The improvements stem mainly from an overall 14% reduction of budget for finance and procurement, human resources, and IT services.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2020 (Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of spending on management and administration</td>
<td>16%</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>% of spending on non-programmatic activities</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Impact & Evaluation

In 2018, GGGI continued to develop its evaluation capabilities through the work of its Impact & Evaluation Unit (IEU). In line with GGGI’s Annual Evaluation Workplan 2018, IEU focused on: (a) delivering country and thematic evaluations; (b) harnessing green growth evidence to enhance program impact; (c) strengthening results-based planning and M&E capability within GGGI.

In the first half of 2018, IEU published final evaluation reports for GGGI’s Thailand and Mexico country programs. The recommendations of these evaluations, together with GGGI’s management responses, were presented to MPSC in April. In the second half of 2018, IEU also commenced evaluations on the Peru country program, as well as the thematic topic of Green City Strategies. These are scheduled to be finalized and released in early 2019.

In addition, IEU also commenced work to develop an institutional approach to harnessing evidence relating to interventions used in its country programs. Development of an approach was completed in early 2019, and an online platform has been launched to begin making this evidence accessible to staff for use in GGGI’s programming activities, particularly project design and results reporting.

Finally, IEU also undertook a range of activities to strengthen results-based management capability in GGGI. This included supporting the delivery of two sets of week-long training courses in results-based management. IEU also built capacity using on-the-job methods, by providing technical support to staff working on proposal preparation, particularly around developing theories of change and logframes.

Transparency and accountability

GGGI 2018 financial statements were released on time (4th Week of March 2019) with an unqualified opinion on the significant findings noted by the external auditors. This is an important proxy demonstrating the strength and transparency of GGGI’s financial, accounting and procurement policies and systems and the effectiveness of the control environment to manage risks.

This Annual Report includes Project Results Reports (PRRs) for all 70 projects implemented in 2018 under the biennium WPB 2017-2018. The PRRs can be accessed on GGGI’s website as a supplement to the 2018 Annual Report. GGGI will continue to strengthen its Results Based Management (RBM) system to better manage and control the delivery of its programs and projects as well as the reporting and accountability for the organization’s results and impacts in support of the transformation of member and partner countries towards a green growth development pathway.
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 iGrow business process reforms are also aimed at transforming GGGI’s operating business and funding models with the objective of reducing GGGI’s 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 provided by its staff in partner countries.

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 biannually on risk management to the GGGI MPSC and publicly to the Council in the Annual Report. This involves Council’s review and provision of advice on the appropriateness of the risk assessment, effectiveness, and adequacy of risk mitigation and management. The RFM is monitored by the GGGI Management Team by using the Risk Management Matrix. This provides a tool for internal consultation and assessment of risks with indications of the rating and ranking system. It includes risk mitigation measures, which, in turn, are implemented through daily operations of GGGI 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 November 2018, the GGGI Management Team reviewed both the RMF and the Matrix, seven months after they were reported to the Council. It noted that risks to the organization in terms of financial and human resources, business processes, portfolio and assets were assessed to be at satisfactory levels and unchanged and that adequate measures were being implemented to sufficiently manage and reduce GGGI’s risks.

Ensuring integrity

GGGI’s integrity as a respected and trusted organization at the core is dependent on the ethical behavior and conduct of its employees in embracing the organizations values and following its established rules, regulations, policies and procedures.

To strengthen strategic oversight, management and leadership on accountability, GGGI adopted its Accountability Framework in 2018. The Framework consolidates its governance policies, including transparency, program quality, safeguards and integrity. Some of the policies and rules to create a safe and trusted environment within GGGI include GGGI’s Code of Conduct supplemented by GGGI’s Staff Rules and Regulations. GGGI has also adopted Sustainability and Safeguards Rules and the Private Sector Engagement Rules, as well as a Disclosure Policy that ensures the publishing of information on its decisions and activities on a timely basis to foster transparency and accountability, which includes publishing its projects data in the IATI Registry since 2018.

GGGI’s Anti-Corruption Policy affirms zero tolerance policy against fraud, corruption, coercion and collusion perpetuated by staff members of third parties that directly or indirectly do business with or have interests in GGGI. GGGI has a Whistleblower Policy that supports the Anti-Corruption Policy by aiming to create an environment where staff members and external persons feel safe to report any suspected integrity violations and misconduct without fear of retaliation.

GGGI also has a Compliance Review Mechanism mechanism through which external parties adversely affected by GGGI’s failure to comply with its own regulations, rules, policies and procedures can bring such instances of allegations to the attention of GGGI. In support of this, GGGI has established an online reporting mechanism that is available on GGGI’s external website.

Since its establishment in 2013, the Office of Internal Audit and Integrity (OIAI) provides assurance services to assess whether GGGI’s programs and plans are implemented effectively, strategic management information is reliable and generally accurate and continuous efforts are made to improve the quality of GGGI’s operations and services. In accordance with the International Standards for the Professional Practice of Internal Auditing, OIAI has continued to provide GGGI with an independent and objective internal oversight on GGGI’s operations as well as an annual risk assessment in 2018.
Human Resources

While staff numbers have steadily grown in accordance to GGGI programmatic expansion, the number of staff remained relatively consistent between 2017 and 2018. GGGI’s staff turnover decreased to 10% in September and increased to 17% between October and December 2018 due to the closure of China and London offices, the downsizing of the Operations Enabling Division and the non-renewal of GCF readiness projects. However, staff increases in global regions relative to versus Headquarters aligned to the “decentralization” approach and commitment to locate people on the ground where the work is being delivered.

As a follow up to GGGI’s Culture Change circles feedback in 2017, the organization engaged in a number of initiatives to promote its core values and policies with the view to support inclusivity, increase staff engagement, and make GGGI a great place to work. These initiatives included inter alia the introduction of modern flexi-work arrangement arrangements, a mentoring program, higher responsibility allowance as an incentive for performance, and childcare allowance to support working parents. Internal mobility programs in the form of international staff rotation and job swapping were also launched as an inclusive approach to engage all types of positions in substantial and geographical mobility. GGGI also promoted a harassment-free work environment introducing a Respectful Workplace Program with conflict resolution-trained staff workplace advisors of staff and access to an external professional Ombudsperson.

To measure sentiment of organizational life, GGGI again conducted a staff survey in 2018. Compared to 2017, the overall staff engagement score increased by 10% (reaching 60%) with 74% of the respondents stating they were proud to work for GGGI. The results revealed the sentiment that GGGI effectively directs its resources towards its strategic goals was reinforced, staff are given opportunities to develop and grow, and collaboration had improved. To further enhance GGGI’s management principles and practices for staff, the results will guide HR policies and procedure to improve working conditions and sense of engagement.

<table>
<thead>
<tr>
<th>GGGI Staff</th>
<th>2016</th>
<th>2016 Total</th>
<th>2017</th>
<th>2017 Total</th>
<th>2018</th>
<th>2018 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Office</strong></td>
<td></td>
<td></td>
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<tr>
<td>HQ</td>
<td>51</td>
<td>53</td>
<td>104</td>
<td>63</td>
<td>64</td>
<td>127</td>
</tr>
<tr>
<td>Asia and Pacific</td>
<td>19</td>
<td>15</td>
<td>34</td>
<td>46</td>
<td>38</td>
<td>84</td>
</tr>
<tr>
<td>Africa, Middle East, and Europe</td>
<td>5</td>
<td>14</td>
<td>19</td>
<td>11</td>
<td>24</td>
<td>35</td>
</tr>
<tr>
<td>Latin American and Caribbean</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td><strong>76</strong></td>
<td><strong>85</strong></td>
<td><strong>161</strong></td>
<td><strong>124</strong></td>
<td><strong>137</strong></td>
<td><strong>262</strong></td>
</tr>
</tbody>
</table>
Summary of Financial Statements

Overview

GGGI received an unqualified 2018 audited financial statement from the external auditors. The following summary of the audited financial statement provides an overview of the components affecting GGGI’s financial position in 2018. The complete audited financial statements can be found on the 2018 Annual Report website: http://report.gggi.org/2018/.

Operating income

GGGI’s operating income increased by USD 5.4 million, or 18%, to USD 35.4 million in 2018. This comprised of an increase of USD 1 million, or 4%, in core funding and USD 4.4 million, or 64%, in earmarked funding.

The increase of USD 1 million in core funding was due to the increase of DFAT’s contribution from USD 3 million in 2017 to USD 4 million in 2018 in-accordance with its 2017-2019 contribution agreement.

The increase of USD 4.4 million in earmarked funding is primarily due to recognition of higher income 1) USD 1.9 million from Norway’s earmarked contribution to Indonesia 2) USD 1.1 million in Colombia 3) USD 1.4 million from GCF’s Readiness program to multiple countries.

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1 Vanuatu, Mongolia, Indonesia, PNG, Rwanda, Thailand, Laos, Jordan, SAP project and Adaptation workshop.
Operating expenditures

GGGI's operating expenses increased by USD 5.7 million, or 13% from USD 44.1 million in 2017 to USD 49.7 million in 2018. The increase was predominantly driven by increase in personnel costs by USD 4.3 million, or 23% to implement 75 regular projects under the WPB 2017-2018 and also reflects the expansion of GGGI’s program to 4 new countries, Burkina Faso, Caribbean, Guyana, and Papua New Guinea.

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 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 2018, GGGI invested up to a maximum USD 20 million (including USD 10 million working capital reserves) and managed to recognize an investment returns of USD 0.25 million, a reduction of USD 0.10 million from USD 0.35 million reported in 2017 due to utilization of retained surplus to meet 2018 obligations as planned in the 2017/18 work program.

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 2018, due to increase in earmarked contributions in various currencies, GGGI recorded a net foreign exchange loss of USD 0.11 million compared to a net gain of USD 0.03 million in 2017.
Reserves
In the 5th session of the Council, a discussion paper was presented to demonstrate the business need for a working capital reserve 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.

Consequent to this paper and the establishment of working capital reserves guidelines, the Council approved a 2015 and 2016 biennium budget with USD 10 million to be set-aside for working capital. The first USD 5 million was set-aside at the beginning of 2015 and for the year ended 31 December 2016 GGGI has set-aside a further USD 5 million to make up the projected USD 10 million in working capital. GGGI has retained the same level of working capital throughout 2018.

Retained Surplus
At the ninth session of the Council in September 2016, Council instructed management to spend down the retained surplus (estimated at USD 34 million, down to the approved level of working capital of USD 10 million. For the year ended 31 December 2018, after accounting for the USD 13.9 million operating deficit, the retained surplus reduced to USD 7.4 million. This reduction in the retained surplus is largely in line with the projection presented to the Council at the beginning of the biennium to fund the level of activities approved by the Council for the 2017 and 2018 work program that is considerably greater than the expected level of contributions for this period.

Conclusion
Overall, GGGI’s financial position remain stable for 2018 and on course to fully fund its 2019/20 biennial work program approved by the Council in October 2018.
Greening GGGI

In 2018, GGGI continued to drive an organization-wide effort for green operations by strengthening communications and encouraging collaboration across all offices. Throughout the year, various green office initiatives, awareness campaigns, and outreach activities were undertaken by GGGI offices worldwide to promote sustainable GGGI office operations, encourage an individual green lifestyle both at work and home, and engage GGGI partners in efforts to combat global environmental challenges.

In November 2018, GGGI’s Seoul Headquarters became the first office in the Republic of Korea to receive LEED V4 Gold certification for commercial interior. Other key accomplishments in 2018 include Green Office Month, a month-long campaign that produced an online magazine, GREENISM, showcasing environmental sustainability efforts across GGGI offices. Many GGGI country offices made efforts to boost sustainable office measures by reducing paper and plastic consumption, implementing waste management and recycling systems, practicing green procurement and events, and increasing engagement with their partners through workshops and knowledge-sharing.

Air Travel and Facility Operations

Since 2013, GGGI has made efforts to measure and manage its ecological footprint, especially its carbon emissions. Using the Greenhouse Gas Protocol methodology, GGGI assessed its environmental footprint in 2018 by measuring carbon emissions from Air Travel and Facility Operations in offices across the organization.

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<tr>
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<tbody>
<tr>
<td><strong>Air Travel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Carbon Emission from Air Travel (tCO₂)</td>
<td>1,493</td>
<td>1,611</td>
<td>1,407</td>
<td>705</td>
<td>669</td>
<td>793</td>
</tr>
<tr>
<td>Total Number of Flights</td>
<td>1,794</td>
<td>1,620</td>
<td>1,254</td>
<td>1,544</td>
<td>1,595</td>
<td>1,409</td>
</tr>
<tr>
<td>Class of travel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PREMIUM</td>
<td>425</td>
<td>380</td>
<td>306</td>
<td>737</td>
<td>497</td>
<td>583</td>
</tr>
<tr>
<td>ECONOMY</td>
<td>1,369</td>
<td>1,240</td>
<td>948</td>
<td>812</td>
<td>1,098</td>
<td>816</td>
</tr>
<tr>
<td><strong>Facilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Carbon Emission from Facilities (tCO₂)</td>
<td>372</td>
<td>312</td>
<td>221</td>
<td>239</td>
<td>189</td>
<td>N/A</td>
</tr>
<tr>
<td>Emission from Seoul HQ</td>
<td>249</td>
<td>208</td>
<td>206</td>
<td>168</td>
<td>149</td>
<td>N/A</td>
</tr>
<tr>
<td>Emission from Songdo Office</td>
<td>36</td>
<td>37</td>
<td>15</td>
<td>71</td>
<td>40</td>
<td>N/A</td>
</tr>
<tr>
<td>Emission from Country Offices</td>
<td>88</td>
<td>66</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total Carbon Emission (tCO₂)</strong></td>
<td>1,865</td>
<td>1,923</td>
<td>1,628</td>
<td>944</td>
<td>858</td>
<td>793</td>
</tr>
<tr>
<td>Total Number of Personnel²</td>
<td>353</td>
<td>348</td>
<td>327</td>
<td>260</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total Carbon Emission Per Capita (tCO₂) - Air Travel</td>
<td>4.23</td>
<td>4.63</td>
<td>4.30</td>
<td>2.71</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total Carbon Emission Per Capita (tCO₂) - Facilities</td>
<td>1.05</td>
<td>0.90</td>
<td>0.68</td>
<td>0.92</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total Carbon Emission Per Capita (tCO₂)</strong></td>
<td>5.28</td>
<td>5.53</td>
<td>4.98</td>
<td>3.63</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

² LEED, or Leadership in Energy and Environmental Design, is the most widely used green building/office rating system in the world, which provides a framework to create healthy, highly efficient and cost-saving green spaces.

² Personnel is defined as the sum of 266 Staff, 77 Consultants, and 10 Interns.

*Data based on utility bills for gas and electricity collected from each office; in offices where such bills are not available, estimate was calculated based on the number of building occupants. Data from 19 country offices were aggregated to calculate the estimate total emission for Country Offices.
As indicated in the above table, GGGI has been measuring carbon emissions in all its offices around the world since 2017. A total of 1,865 tons of CO2 (tCO2) was emitted by GGGI in 2018, with Air Travel and Facility Operations emissions amounting to 1,493 and 372 tons, respectively. Air Travel emissions decreased by 7.3% from previous year, which may be attributed to GGGI not organizing Global Green Growth Week in 2018, which reduced the volume of air travel. On the other hand, Facilities emissions increased by 19.4%. At Seoul Headquarters, both the rise in number of employees and the increased usage of heating and cooling systems during winter and summer months may have caused the increase in Facilities emissions.

### Per Capita Carbon Emissions

When comparing results to the UN Greening the Blue Report 2018, GGGI has maintained a tCO2/ per personnel emission average similar to or well below the average emitted by United Nations organizations in 2017.

<table>
<thead>
<tr>
<th>Comparison with UN Entities</th>
<th>Per Capita Emissions (tCO2/personnel)</th>
<th>Share of Total Emissions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Air Travel</td>
</tr>
<tr>
<td>GGGI (2018)</td>
<td>5.28</td>
<td>80%</td>
</tr>
<tr>
<td>UNFCCC (2017)</td>
<td>4.87</td>
<td>94%</td>
</tr>
<tr>
<td>UNOPS (2017)</td>
<td>4.77</td>
<td>39%</td>
</tr>
<tr>
<td>UNHQ (2017)</td>
<td>4.31</td>
<td>66%</td>
</tr>
<tr>
<td>World Bank (2017)</td>
<td>12.12</td>
<td>65%</td>
</tr>
<tr>
<td>UN System Overall (2017)</td>
<td>7.26</td>
<td>42%</td>
</tr>
</tbody>
</table>

### Additional Efforts to Reduce

Since 2016, GGGI HQ has been measuring and monitoring spending of key operational expenses. The graph below shows a steady downward trend in spending per staff for all expense categories over the 3-year period from 2016 to 2018. Compared to 2016 and 2017, the year 2018 saw a significant reduction in printing partly due to increased awareness and responsible printing practices. Office Utilities and Maintenance costs remain relatively steady because these expenses are comprised of fixed services required for office operations.

### Looking Ahead

GGGI is committed to making continuous efforts to reduce its ecological impact by promoting environmentally sustainable office operations and monitoring its carbon footprint. Like in previous years, each GGGI office has developed action plans for 2019 to further green their operations and make improvements in the areas of energy and water consumption, waste management, travel, green procurement and community outreach.
Annex 1

Refreshed Corporate Results Framework 2015-2020

The Corporate Results Framework approved by the GGGI Council in November, 2015 is presented below.

<table>
<thead>
<tr>
<th>IMPACT LEVEL</th>
<th>GGGI Member countries move toward a model of green growth that simultaneously achieves poverty reduction, social inclusion, environmental sustainability, and economic growth</th>
</tr>
</thead>
</table>
| Indicators   | Economic growth: GDP growth (annual %)  
Poverty reduction: % of population living below $1.25 per day  
Social inclusion: Gender Inequality Index score  
Climate change: Total GHG emissions per capita (including due to land-use changes)  
Green cities: % of population exposed to PM2.5 levels exceeding recommended levels  
Energy: % of total electricity production from renewable sources  
Land-use: Forest area as a % of total land area  
Water: % of total internal renewable freshwater resources extracted  
Adaptation: Global adaptation index score  
Environmental policies: Environmental performance index score |

<table>
<thead>
<tr>
<th>OUTCOME LEVEL</th>
<th>1. Strengthened national, sub-national, local green growth planning, financing, and institutional frameworks</th>
</tr>
</thead>
</table>
| Indicators    | 1.1 Number of green growth policies adopted by governments with GGGI’s support  
Target (2015): 17  
Target (2016): 25*  
1.2 Extend to which green growth is integrated into government policies and likely to lead transformational change  
1.3 Proportion of policies supported by GGGI that address three or more elements of green growth, namely economic growth, environmental sustainability, poverty reduction and social inclusion  |

<table>
<thead>
<tr>
<th>OUTPUT LEVEL</th>
<th>2. Increased green investment flows</th>
</tr>
</thead>
</table>
| Indicators   | 2.1 Total volume of financing catalyzed with GGGI support (disaggregated by public and private)  
Target (2015): US $0  
Target (2016): US $18  
Target (2020): US $30 (Source: Strategic Plan)  
2.2/ 2.3/ 2.4 Outputs are developed in a way that seek to simultaneously address economic growth, environmental sustainability, poverty reduction and social inclusion.  
Target (2015): GGGI safeguard assessments and identification of opportunities to address PRSI are piloted in 5 countries and agreed recommendations implemented.  
Target (2016): Issues related to safeguards and opportunities to achieve PRSI are adequately identified and addressed in all new projects before approved for implementation.  
6. Professionalism of the organization ensured |

| Indicators   | 6.1 % of core budget allocated to Member LDCs  
Baseline (2014): 14%  
Target (2020): 42% (Source: Strategic Plan)  
6.2 % of core budget allocated to Member LDCs and MICs combined  
Baseline (2014): 57%  
Target (2020): 87% (Source: Strategic Plan)  
6.3 Increase in GGGI core and earmarked funding  
Baseline (2014): US $29.8m in core funding and US $ 12.1m in earmarked funding  
Target (2020): US $40m in core and US $40m in earmarked funding (Source: Strategic Plan) |

Note: Some targets are derived from the logical frameworks of in-country and global projects and are based on the best available information at the time of preparing this Work Program and Budget. These logical frameworks may be subject to periodic revisions in response to changing circumstances.
3. Improved multi-directional knowledge sharing and learning between South-South and South-North-South countries on green growth

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>3.1</strong> Proportion of people participating in GGGI capacity development activities that gain improved knowledge and skills (disaggregated by men and women).</td>
<td><strong>Target (2015): 70%</strong>&lt;br&gt;<strong>Target (2016): 70%</strong></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>3.2</strong> Number of green growth policies adopted or investments made that benefited from experiences and lessons from other countries</td>
<td></td>
<td></td>
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</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
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<th></th>
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</thead>
<tbody>
<tr>
<td><strong>3.3</strong> Number of countries where GGGI projects helped leaders to more effectively advocate for green growth by providing examples of success</td>
<td></td>
<td></td>
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</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>3. Support provided in creating an enabling environment for public and private sector investment green growth</strong></td>
<td><strong>4. Global institutional relationships, partnerships, and knowledge networks formed and leveraged</strong></td>
<td><strong>5. GGGI membership expanded</strong></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
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</thead>
<tbody>
<tr>
<td><strong>3.1</strong> Number of outputs* that aim to improve the enabling environment for green growth investments (eg. derisking instruments, supporting countries to gain access to new sources of financing)</td>
<td><strong>4.1</strong> Proportion of capacity development activities that share experiences and lessons from ggg countries</td>
<td><strong>5.1</strong> Number of new countries joining GGGI as members</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>4.2</strong> Number of projects where country needs are being met through partnerships brokered by GGGI</td>
<td><strong>Target (2015): 8</strong>&lt;br&gt;<strong>Target (2016): 4</strong>*</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>6.4</strong> Unqualified annual GGGI audit reports</td>
<td><strong>6.5</strong> Effective and timely communication of results</td>
<td><strong>6.6</strong> % of core budget spent on management and administration</td>
</tr>
</tbody>
</table>

As a result, the final targets reported each year through GGGI’s Annual Report may vary slightly from the ones presented here. To ensure full transparency, any variations to target and the reasons for them will be disclosed as part of the Annual Report.
<table>
<thead>
<tr>
<th>IMPACT LEVEL</th>
<th>GGGI partner countries move toward a model of green growth that simultaneously achieves poverty reduction, social inclusion, environmental sustainability, and economic growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO1 GHG emission reduction: GHG emissions reduction from BAU (MCO₂e)</td>
<td>This indicator measures the reduction of anthropogenic CO₂-equivalent emissions (CO₂-e) below business-as-usual (reference) level in a target year. Equivalent CO₂ (CO₂-e) is the concentration of CO₂ that would cause the same amount of radiative forcing as a given mixture of CO₂ and other greenhouse gases. <strong>Proposed basis for setting targets:</strong> Latest national and sectoral reduction targets available from government strategy/policy documents, reduction projections based on current/upcoming policies by reputed entities, as well as Nationally Determined Contributions, Biennial Update Reports, Biennial Reports, and national communications submitted to the UNFCCC.</td>
</tr>
<tr>
<td>SO2 Creation of green jobs: Number of green jobs created (in millions)</td>
<td>This indicator refers to change in the number of full-time jobs (FTE) in a target year compared to base year value resulting from the green economy transition. The scope includes new jobs created (including from the formalization of informal sectors, e.g., informal waste-picking transformed into a recycling business) and existing jobs that are enhanced with a green economy perspective. Additional green jobs created over the base year are included. Current definitions by the ILO (2016) and UNEP (2008) are used to define the scope of this indicator. Green jobs are jobs that “contribute to preserve or restore the environment, be they in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency” (ILO, 2016). Green jobs include decent jobs with “work in agriculture, industry, services, employment factors, input-output analysis and computational general equilibrium methods). <strong>Proposed basis for setting targets:</strong> Government targets, or reputable projections based on major methodologies, such as inventories and surveys, employment factors, input-output analysis and computational general equilibrium methods.</td>
</tr>
<tr>
<td>SO3 Increased access to sustainable services: 3.1 Access to clean affordable energy: Number of people who gained access to electricity (millions)</td>
<td>This indicator measures the change in the total number of people (in millions) gaining access to the following four sustainable services. <strong>Proposed basis for setting targets:</strong> Government targets in relevant SDGs.</td>
</tr>
<tr>
<td>SO4 Improved air quality: Number of days above ‘orange’ Air Quality Index (in major cities, days)</td>
<td>This indicator measures the improvement in the outdoor air pollution level in major urban areas or cities. Days above ‘orange’ Air Quality Index (AQI), calculated according to US Environmental Protection Agency and based on concentration of major pollutants, is used as indicator. Where AQI estimates are currently not available, 24-hour mean of PM2.5 above 35.5 μg/m³ is used as substitute to determine days above ‘Orange’ AQI level (‘Orange’ AQI corresponds to a 24-hour mean of PM2.5 in the range 35.5 - 55.4 μg/m³). <strong>Proposed basis for setting targets:</strong> Government target or standard for air quality.</td>
</tr>
<tr>
<td>SO5 Adequate supply of ecosystem services ensured: Area of deforestation avoided and/or re-forested (million-ha)</td>
<td>This indicator measures the area of deforestation avoided and/or re-forested in a target year compared to the base year. As a key supplier of number of terrestrial ecosystem services (and its close links to livelihoods in many developing nations), forests are used as the pragmatic proxy for providing adequate supply of ecosystem services. Ecosystem services range from providing necessities such as food, clean water and clean air, to regulating climate, diseases, and flood. Ensuring an adequate supply of ecosystem services requires that degraded ecosystems be restored and loss of intact ecosystems be prevented. <strong>Proposed basis for setting targets:</strong> Government targets and projections by reputable entities based on current/upcoming policies etc.</td>
</tr>
<tr>
<td>SO6 Enhanced adaptation to climate change: Number of people supported to cope with climate change (millions)</td>
<td>The indicator measures the change in the number of people supported to cope with climate change related impacts in a target year compared to the base year. Support to cope with climate change related impacts includes adaptation measures in all economic sectors covering populations exposed to adverse impacts of climate change. Adverse impacts of climate change result from climate variability and extremes, and include droughts, floods, storm surge, heat waves, sea level rise etc. Examples of populations supported could include populations covered by early warning systems, farmers equipped with climate smart agriculture practices, populations covered by improved flood protection/prevention measures, and population covered with climate insurance etc. <strong>Proposed basis for setting targets:</strong> Government adaptation plans and targets could be basis for setting targets.</td>
</tr>
</tbody>
</table>
### Intermediate Outcomes (IOS)

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>1.2</td>
<td>Extent to which green growth is integrated into government policies and likely to lead to transformational change</td>
<td></td>
<td></td>
<td>Target (2015): 0</td>
<td>Target (2016): 1</td>
<td>Target (2017): 42</td>
<td>Target (2018): 42</td>
</tr>
<tr>
<td>1.3</td>
<td>Proportion of policies supported by GGGI that address three or more elements of green growth, namely economic growth, environmental sustainability, poverty reduction and social inclusion</td>
<td></td>
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</table>

### Output Level

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</thead>
<tbody>
<tr>
<td>1.2</td>
<td>Outputs are developed in a way that seek to simultaneously address economic growth, environmental sustainability, poverty reduction and social inclusion.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Proportion of people participating in GGGI capacity development activities that gain improved knowledge and skills (disaggregated by men and women).</td>
<td></td>
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</tr>
</tbody>
</table>

### Results

- **2.1 Total volume of financing catalyzed with GGGI support (disaggregated by public and private)**
  - Target (2015): US$0
  - Target (2016): US$18m
  - Target (2017): US$64m¹
  - Target (2018): US$100m¹

- **2.2 Number of instances where Member countries successfully gain new access to financing sources (eg: Green Climate Fund) with GGGI support.**
  - Target (2015): 0
  - Target (2016): 1
  - Target (2017): 42
  - Target (2018): 42

- **2.3 Proportion of all investments supported by GGGI that address three or more elements of green growth, namely economic growth, environmental sustainability, poverty reduction and social inclusion**

- **2.4 Proportion of capacity development activities that share experiences and lessons from other countries**

- **2.5 GGGI membership expanded**

- **3.1 Proportion of people participating in GGGI capacity development activities that gain improved knowledge and skills (disaggregated by men and women).**
  - Target (2015): 70% (average)
  - Target (2016): 70% (average)
  - Target (2017): 70% (average)
  - Target (2018): 70% (average)

- **3.2 Number of green growth policies adopted or investments made that benefited from experiences and lessons from other countries**

- **3.3 Number of countries where GGGI projects helped leaders to more effectively advocate for green growth by providing examples of success.**

- **3.4 Proportion of capacity development activities that share experiences and lessons from other countries**
  - Target (2015): 39% (average)
  - Target (2016): 41% (average)
  - Target (2017): 55% (average)
  - Target (2018): 55% (average)

- **3.5 GGGI membership expanded**
  - Target (2015): 2 (Source: Strategic Plan)

- **4.1 Proportion of capacity development activities that share experiences and lessons from GGGI countries.**
  - Target (2015): 39% (average)
  - Target (2016): 41% (average)
  - Target (2017): 55% (average)
  - Target (2018): 55% (average)

- **4.2 Number of projects where country needs are being met through partnerships brokered by GGGI.**
  - Target (2015): 8
  - Target (2016): 4
  - Target (2017): 5
  - Target (2018): 6
GGGI partner countries move toward a model of green growth that simultaneously achieves poverty reduction, social inclusion, environmental sustainability, and economic growth.

### Impact Level

**6. Professionalism of the organization ensured**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Baseline (2014)</th>
<th>Target (2020)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>% of core budget allocated to Member LDCs</td>
<td>14%</td>
<td>42%</td>
<td>Strategic Plan</td>
</tr>
<tr>
<td>6.2</td>
<td>% of core budget allocated to member LDCs and MICs combined</td>
<td>57%</td>
<td>87%</td>
<td>Strategic Plan</td>
</tr>
<tr>
<td>6.3</td>
<td>Increase in GGGI core and earmarked funding</td>
<td>US$29.8m</td>
<td>US$12.1m</td>
<td>Strategic Plan</td>
</tr>
<tr>
<td>6.4</td>
<td>Unqualified annual GGGI audit reports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5</td>
<td>Effective and timely communication of results</td>
<td>Target (annual): GGGI Annual Report outlining progress against WPB and Corporate Results Framework is published by no later than end of June each year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.6</td>
<td>% of core budget spent on management and administration</td>
<td>22%</td>
<td>17%</td>
<td>Strategic Plan</td>
</tr>
<tr>
<td>6.7</td>
<td>% of core budget spent on non-programmatic activities</td>
<td>45%</td>
<td>30%</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Where technically feasible to do so, targets have been included based on the logframes of in-country and global projects. These are based on the best available information at the time of preparing the Refreshed Strategic Plan. Logframes may be subject to periodic revisions in response to changing circumstances over the course of the strategic planning timeframe. As a result, reporting on the Corporate Results Framework in GGGI’s Annual Report may vary slightly from the information presented here due to changes in country conditions or funding arrangements, among others. For example, earmarked funding for the Ethiopia program has at August 2017, not yet been secured as expected. To ensure transparency, any significant variations in planned results and the reasons for them will be disclosed in the Annual Report. All indicators presented here, regardless of whether they include targets here or not, will be reported on in GGGI’s Annual Report.

1 At the time of revision of this document GGGI results have exceeded the targets on this indicator. Since the installation of the Green Investment Services team, the pipeline of projects, instruments and national financing vehicles has grown rapidly. Therefore the targets in 2017 and 2018 increase substantially from the original targets set for 2015 and 2016.

2 2017 and 2018 targets for the number of instances of successful access to financing were previously set as ‘tbd’ (to be decided). In the interim it has been possible to establish targets due to the development of a pipeline of projects.

3 The resource mobilization target has been revised downward compared to the original target of US$40mn core and US$40mn earmarked. This has been agreed in consultation with Members in order to chart a more sustainable rate of growth for GGGI.
### Annex 2

**List of Project Results Reports**

The following 70 projects were implemented in 2018. A project level results report has been developed for each of these projects and is available on the online GGGI Annual Report 2018 website – [http://www.report.gggi.org/2018/](http://www.report.gggi.org/2018/)

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burkina-Faso</td>
<td>Burkina Faso Country Program - (BF1-2000-1)</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Green Urban Development Program, Phase II (GUDP II) - KH2</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Policy Alignment for Green Growth (PAGG) - KH1</td>
</tr>
<tr>
<td>China</td>
<td>China Global and Regional Knowledge Sharing - CN1-2000-1</td>
</tr>
<tr>
<td>China</td>
<td>China-Japan-Korea (CJK) Green Growth Collaboration Program – CN2-2000-1</td>
</tr>
<tr>
<td>China</td>
<td>China for Others – CN3-2000-1</td>
</tr>
<tr>
<td>Colombia</td>
<td>Colombia Green Growth Program 2017 -2019</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Accelerating Green Growth in Ethiopia - II</td>
</tr>
<tr>
<td>Fiji</td>
<td>Supporting the Implementation of the Green Growth Framework for Fiji - Phase 2 – FJ1</td>
</tr>
<tr>
<td>Hungary</td>
<td>Hungary-Balkan Regional Multi Donor Trust Fund</td>
</tr>
<tr>
<td>India</td>
<td>India – Green Growth through INDC – IN1</td>
</tr>
<tr>
<td>India</td>
<td>Danish Minigrant Facility on Waste to Energy - IN1-2003-3</td>
</tr>
<tr>
<td>India</td>
<td>Advancing climate resilient tea production and sustained livelihoods for small tea growers with emphasis on women laborers in Assam and West Bengal -IN1-2002-2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Indonesia Green Growth Program Phase II - IN1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Strengthen the NDA and Indonesia’s Commitment to the Green Climate Fund IN2</td>
</tr>
<tr>
<td>Jordan</td>
<td>Implementation Support for the National Green Growth Plan of Jordan - JO1</td>
</tr>
<tr>
<td>Jordan</td>
<td>NGGP Action Planning - JO2</td>
</tr>
<tr>
<td>Jordan</td>
<td>Jordan GCF Readiness Program 2018-2019 - JO3</td>
</tr>
<tr>
<td>Kiribati</td>
<td>Kiribati - Green and Climate Resilient Island Development – KI1</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>Lao PDR - National and Subnational Planning, Financing and Budgeting for Green Growth - LA1</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>Readiness Support to Enhance Green Growth Finance in the Areas of Green Growth Cities in Lao - LA2</td>
</tr>
<tr>
<td>Mexico</td>
<td>State of Sonora Green Growth Plan - MX1</td>
</tr>
<tr>
<td>Mexico</td>
<td>Improving Public Transportation Systems in Mexico - MX2</td>
</tr>
<tr>
<td>Mongolia</td>
<td>Mongolia Transition to Green Development - Phase 2 - MN1</td>
</tr>
<tr>
<td>Mongolia</td>
<td>Readiness Support Program for Enhancing the Access to Green Finance in Mongolia</td>
</tr>
<tr>
<td>Morocco</td>
<td>Morocco - Green Cities and Territories (MA1-2000-1)</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Scaling up Pro-poor Renewable Energy in Mozambique - MZ1</td>
</tr>
<tr>
<td>Myanmar</td>
<td>MMI - Myanmar - Implementation of the INDC</td>
</tr>
<tr>
<td>Nepal</td>
<td>Nepal - Implementation of the Nationally Determined Contribution of Nepal - NP1-2000-1</td>
</tr>
<tr>
<td>Nepal</td>
<td>PS-Nepal-Implementation of the NDC (IPSD Output) - NP1-3LND-2</td>
</tr>
<tr>
<td>Pacific Region</td>
<td>Pacific Regional Project for Green Growth - PR1</td>
</tr>
<tr>
<td>Peru</td>
<td>Peru Implementation Phase of Peru’s National Eco-Efficiency Strategy</td>
</tr>
<tr>
<td>Peru</td>
<td>Identifying Synergies between Green Growth Actions Across National Strategies and Implementing Priority Options</td>
</tr>
<tr>
<td>Philippines</td>
<td>Support for the Operationalization of the People’s Survival Fund: PH1-2000-1</td>
</tr>
<tr>
<td>Country</td>
<td>Name of Project</td>
</tr>
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<td>-------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Green Growth Planning and Implementation Division (GGPI)</strong></td>
<td></td>
</tr>
<tr>
<td>35 Philippines</td>
<td>Mainstreaming Green growth in Development Planning: PH2-2000-1</td>
</tr>
<tr>
<td>36 Philippines</td>
<td>Climate Resilient Green Growth Planning PH3-1</td>
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