

ATTACHMENT: COMPENDIUM OF COUNTRY AND GLOBAL BUSINESS PLANS

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AFRICA REGION

GGGI'S STRATEGIC APPROACH IN THE REGION FOR 2021-2022

GGGI has been active on the African continent since its establishment as an international organization in 2012, with current programs deployed in Ethiopia Rwanda, Uganda, Senegal, Burkina Faso and in Morocco. GGGI has additional programs or individual projects running or about to commence in Mozambique, Côte d'Ivoire, Angola, Zambia and Togo, with these and several other countries having expressed interest for membership (e.g. Ghana, Madagascar, Sudan, Comoros, etc.). The strategic ambition for the Region is to deliver impactful actions which can accelerate countries' transition into low-carbon and resilient economies. Strengthening partnerships for resource mobilization and leveraging investments, rationalizing delivery under programmatic solutions to match the organization's capacities, while enhancing operational efficiency and project management will be key to success.

TABLE Priorities under WPB 2021-2022

<i>GOPs</i>	<i>Programmatic Solutions</i>	<i>Africa Portfolio</i>
GOP 1. Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector	1. Green Investments (green bankable projects, NFVs, green and climate instruments, carbon-focused engagements)	All programs
GOP 2. Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes	2. Climate Action (inclusive green growth plans, LT-LEDS, NDC support, MRV system design, climate diplomacy)	All programs (LEDS/LTS –Ethiopia, Burkina Faso)
GOP 3. Achieving a sustainable and circular bioeconomy while securing healthy natural systems	3. Climate Resilient Agriculture (solar irrigation, RE application in agri-value chain, resilient cropping practices, resource conservation)	Angola, Burkina Faso, Cote d'Ivoire, Ethiopia, Rwanda, Senegal, Uganda
	4. Sustainable Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Angola, Ethiopia, Mozambique
	5. Coastal Resilience (mangroves as ecosystem for livelihoods, aquaculture, marine issues - fisheries, flood protection and pollution)	N/A
GOP 4. Making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure capital markets innovations)	6. Waste Management (circular economies, urban and agricultural waste, wastewater, FSM, waste to resource)	Morocco, Rwanda, Senegal
	7. Sustainable Mobility (e-mobility, non-motorized transport)	Ethiopia, Morocco, Rwanda, Senegal
	8. Green Buildings (green urban infrastructure norms/standards/policies, energy efficiency in residential & commercial buildings)	Rwanda, Senegal
	9. Solar PV (energy transition access and productive use - solar water pumping, solar PV auctions, rooftop, utility scale plants, storage)	Burkina Faso, Ethiopia, Uganda, Mozambique

	10. Green Industries (green industrial parks, green supply chains, EE in SMEs, labelling and standards)	Ethiopia, Uganda
GOP 5. Accelerating progress in our country programs in poverty eradication and gender equality through our operations.	Cross cutting	N/A

APPROACH TO GREEN COVID RECOVERY PLANS DEVELOPMENT

Most countries are currently focusing on the containment of the COVID-19 disease. But as lockdowns begin to ease and countries making plans to re-start their economy, the focus shifts to recovery and potential stimulus packages aiming to incentivize businesses and regain and/or create jobs. This is also an opportunity for countries to intensify efforts to sustain and further establish new green growth pathways. GGGI is in good position to help its members to design programs that build climate resilience in key sectors such as agricultural value-chains, off-grid energy, green urban infrastructure, and forest restoration. GGGI will support member-countries to ensure that recovery actions are aligned with long-term development strategies and to climate-related commitments under the UNFCCC framework. Accordingly, GGGI will provide green advisory to partner Governments for the consolidation and implementation of recovery plans. At a regional level, GGGI in partnership of major African organizations will contribute to the emergence of an African narrative of climate change resilience in a post Covid-19 world.

PARTNERSHIPS AND RESOURCE MOBILIZATION

GGGI's Africa region has been very successful in mobilizing resources from a range of partnerships. With the exception of Senegal, GCF Readiness projects (including NAP in Rwanda) are currently implemented in all GGGI member countries of the region (including in Mozambique and Cote d'Ivoire), while new Readiness projects have been prepared and expecting approvals until Q1 2021 in Ethiopia (NAP) Angola, Zambia, Uganda and Togo. While the IMELS/Italy project in Rwanda, and the Netherlands project in Uganda are coming to end, new partners have emerged with GGGI securing or promising earmarked funding for several country operations. Some examples include projects with NDCP in Burkina Faso and Morocco, with Sweden in Burkina Faso, with the EU in Uganda, with Luxembourg in Senegal and Rwanda, with KOICA in Ethiopia and Uganda, with Enable in Mozambique, with GIZ in Ethiopia, with BMGF in Senegal, with GEF/UNIDO and with AFD in Morocco and Ethiopia. GGGI will leverage on those partnerships for building sector-wide dialogues and securing a solid resource base for its existing programs, while expanding with their support the membership and operations in new countries (with emphasis on LDCs).

The Regional office in Addis Ababa, will enable GGGI to streamline delivery across the portfolio Region, while help with stronger resource mobilization. It will also ensure focus and replicability/scalability of programmatic solutions, increase of impact and value for its partners. In addition, to enhance its support and visibility across Africa, GGGI's regional office will continue efforts to contribute to the green/climate agenda of the continent in partnership with key African organizations. The regional office will intensify efforts to create concrete programmatic collaborations under the MoUs established with AfDB, UNECA, as well as with UN Habitat and UNEP Nairobi. Similarly, it will seek to expand collaboration with P4G, as well as with WB, TICAD, COMESA, SADC, WRI/NCE. Finally, the Regional office will actively pursue to strengthen ties with the Africa Union Commission with the aim to obtain an observer status. In parallel, partnerships are being forged with regional partners with an ambition to elevate the commitment and endorsement of green growth at the highest level of political agenda, thus catalyzing the green economy transition by African countries.

BURKINA FASO

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI operations started in Burkina Faso in 2018, the same year when the country became a Member of GGGI. Embedded within the Ministry of Environment, Green economy and climate change, GGGI is closely working with key stakeholders to support Burkina Faso overcome key challenges such as: its vulnerability to exogenous and climate shocks (due to dependence on fossil fuel and food imports), its dependence on a deteriorating natural resource base and low agricultural productivity, an oil dependent energy sector and limited access to clean energy for productive use, a rapid population growth and urbanization with inadequate urban infrastructures.

GGGI has supported the Government of Burkina Faso (GoBF) to access climate finance through several initiatives since 2019. First, the “Support for Accreditation of Direct Access Entities (DAE), Pipeline Development and Private Sector Mobilization in Burkina Faso” project funded by the Green Climate Fund (GCF), where GGGI works closely with the Prime Ministry as the country’s National Designated Authority (NDA) to GCF. The project supports GCF accreditation of two DAEs: Coris Bank International and the Fund for Environment Intervention (FIE). GGGI support complements the joint technical assistance from Luxemburg Cooperation and the Embassy of Sweden. Second, GGGI has supported the Nationally Determined Contribution (NDC) implementation, Measurement Reporting and Verification and Low Emission Development Plans. Third, GGGI has enhanced capacities of key stakeholders at national level for the preparation and management of green growth projects: which benefited 85 stakeholders trained and 21 green growth project synopsis developed. Fourth, GGGI support led to the development of guidelines, business model and an investment program to support the implementation of the Ecovillage initiative (a government priority) and, the development of Green City Guidelines, which is used as reference for the development of green cities in Burkina Faso’s context.

The GGGI-Burkina Faso’s choice of 2021-2022 Global Operation Programs (GOPs) and programmatic solutions is a continuity and is guided by the need to address some of its main challenges as well as national commitments defined in the Country Planning Framework (2019-2023) related to: (i) the transition of cities to climate-resilient, energy efficient, and low-carbon-driven cities, (ii) the transition of villages to more inclusive and resilient ecovillages, leading to enhanced adaptation to climate change and an adequate supply of ecosystem services ensures, (iii) the increase in green investments in renewable energy, water & sanitation, and landscape sector leading to decreased GHG emissions and Increased green jobs.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Burkina Faso with a focus on national targets defined in the national policies and strategies implemented during the next five years. Based on the new national development strategy (2021-2025) and Burkina Vision 2025, GGGI will contribute to:

SO1, 3 & 4: improving increased access to affordable and reliable renewable energy and sanitation services, innovation and green technologies in urban planning, building and public transport and water & waste management.

SO2: Creation of green jobs: increasing the green investment at local and national levels provide sustain the structural transformation of the country’s green economy.

SO5 & 6: Supply of ecosystem services ensured Strengthening climate resilience and adaptation with sustainable management of natural resources power a stronger and inclusive Eco-villages development model.

With a focus on:

- GOP1, Catalyzing and accelerating access to climate finance /green investments for members’ public and private sector.

Programmatic Solutions 1. Green Investment: GGGI is already working in this area and will continue by (i) assisting the government establish a national entity accredited to the GCF for direct access to climate finance and developing four bankable project concept notes for GCF funding or other climate financing sources and (ii) delivering of a national financial vehicle that will enable increase of private investment, particularly in energy, water and sanitation, and landscape. For the period 2021-2022 it is expected to support the investment of USD 23 million.

- **• GOP2, Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes.**
Programmatic Solutions 2. Climate Action: GGGI is already working in this area and will continue by supporting the establishment of a national GHG reduction target and a Monitoring, Reporting and Verification (MRV) system, and the development of the Long – Term Low Emission Development Strategy (LEDS).
- **• GOP3, Achieving a sustainable and circular bioeconomy while securing healthy natural systems.**
Programmatic Solutions 3. Climate Resilient Agriculture: GGGI is already working in this area and will continue by deploying agri-business models and potential green value chains for at least two commodities.
Programmatic Solutions 4. Sustainable Forests: by developing of a portfolio of RE4PU & sustainable landscape green bankable projects providing opportunities for job creation (including support to the development of REDD+ projects).
- **• GOP4, Making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure.**
Programmatic Solutions 9. Solar PV: GGGI is already working in this area and will continue by delivering of a financial mechanism that will enable increase of private investment, particularly in renewable energy (including the solar PV for irrigation initiative).
- **• GOP5, Accelerating progress in our country programs in poverty eradication and gender equality through our operations.**
Cross cutting issues to be integrated into programs as appropriate: Strengthen national capacities in green governance and financing according to the thematic areas of the GGGI.
Supporting the implementation of gender mainstreaming and establishment of strong social and environmental safeguards across the projects in all programmatic solutions.

GGGI’s Approach to Green COVID Recovery Plans development: Burkina Faso has been experiencing security and humanitarian crisis since 2015, that led to an estimated 700,000+ internally displaced people. The situation makes the country extremely vulnerable to the COVID-19 pandemic. The COVID-19 pandemic is creating a new set of issues and might put an additional 50,000 people under the poverty line. Disease outbreaks and poverty are a vicious cycle — widespread declining economic status leads to more disease and reduced productivity which leads to more poverty. In Burkina Faso, people living in poverty might increase by 3 percent due to COVID-19, with 6,300 households (50,000 people, of which 25,500 are women) impacted, mostly in rural areas in addition to the 7.2 million already on or below the poverty line. GGGI will support the government to green its development process, and mainstreaming the COVID-19 recovery through: (i) the new national development strategy (2021-2025), (ii) key sector strategic document aligned with GGGI priorities areas, (iii) the NDC revision and, (iv) the development of a Low Emissions Development Strategy. GGGI will continue playing its trusted advisory role to guide and support this transition. Specifically, GGGI COVID-19 responses explore the following areas:

- **Building Agricultural Safety Nets - Building Climate Resilient Agricultural Value Chains and Accelerating Renewable Energy Use – the allows:** (1) Access to clean energy for vulnerable households is enabled through the use of Solar Irrigation Pumping System (SPIS) by vulnerable farmers living in the ecovillages; and (2) Vulnerable households’ and Ecovillage committees’ capacities and knowledge enhanced to maintain social and economic trajectories and initiate the green growth transition.
- **Restoring Degraded Landscapes to Generate Employment and Build Long-term Resilience –** where technology and investment packages will create employment and accelerate recovery from post COVID-19 pandemic.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Based on the stakeholders’ mapping conducted and series of meetings with state and non-state agencies, GGGI has been developing new partnerships and strengthening existing ones with institutions collaborating at regional and global levels. The consultation with ensure that GGGI program, projects is aligning with development partners strategies and green response in the country, playing a key role in joint coordination committees, as well as supporting the Government in aligning development agendas with resource partners. The partnerships will contribute to maximize the opportunities for increase access to finance, knowledge, and innovation to drive the transition of Burkina Faso to green growth. Three categories of partners are to be considered:

Government Partners: Prime Minister Office – NDA, Ministry of Environment, Green Economy & Climate Change, Ministry of Economy, Finance & Development, Ministry of Transport, Urban Mobility & Security, Ministry of Territorial Administration, Ministry of Energy, Ministry of Water & Sanitation, Ministry of Agriculture & Hydraulic Infrastructures, Ministry of Industry, Ministry of urbanization and Housing, University of Ouagadougou - Ouaga 1, ANEREE - National Agency for RE & Energy Efficiency, ABER - National Agency for Rural Electrification, FIE – Funds for Investment in Environment, INSD - National Institute of Statistics and Demography, SP/CNDD - Permanent Secretariat of the National Council for Sustainable Development.

Implementing Partners: UN-Habitat, Agrhyment, International Renewable Energy Agency (IRENA), Order of Architects of Burkina (OAB), Order of Urban Planners of Burkina (OUB), Association Tiipaalga, Water Aid, Akvo. Ecowas Centre for Renewable Energy and Energy Efficiency (ECREEE).

Resource Partners: AfDB, World Bank, KOICA, IUCN, Government of the Grand Duchy of Luxembourg, SIDA and Sweden, Denmark, France, Canada, Netherlands, Switzerland, UNEP, Prince Albert II of Monaco Foundation, Qatar Fund for Development (QFFD), UNDP, LUCCC, Coris Bank International, FAO, GIZ, AFD, GCF, NDC Partnership, European Union, Denmark, SNV, BMGF, West African Development Bank (BOAD), USAID, and ENABEL.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for **Burkina Faso** for 2021-2022: **\$0.00 million**; Government counterpart contribution: **\$0.4 million**; and Partner co-financing of the program is expected at **\$4.92 million** in the biennium for a total of **\$5.33 million**.

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ¹	Partner	Gap		Total
2019-2020										
GOP1	PS 1	Support for accreditation of direct access entities, pipeline development and private sector mobilization in Burkina Faso	Jan 2020	Dec 2020	0	0	0.37	0	0.37	GCF
		National Financial vehicle - Burkina Green Energy funds	Jan 2020	Dec 2020	0.07	0	0	0	0.07	Core funding
		Supporting Sustainable Landscape and scaling up of Ecovillages development model (Ecovillages Investment Program)	Jan 2019	Dec 2019	0.03	0	0	0	0.03	Core funding
GOP2	PS 2	Development of the Monitoring, Reporting, and Verification (MRV) System in Burkina Faso	Jan 2020	Dec 2020	0	0	0.59	0	0.59	Agreement signed with Sweden International Development Agency (Sida)
		Climate Action Enhancement Package: Burkina Faso	Jan 2020	Dec 2020	0.03	0	0.20	0	0.24	Core funding and agreement signed with NDC Partnership
GOP3	PS 3	Solar PV electricity for agricultural development	Jan 2020	Dec 2020	0.08	0	0	0	0.08	Core funding
GOP4	PS 2	Green Cities Guidelines formulation	Jan 2019	Dec 2019	0.06	0	0	0	0.06	Core funding
GOP5		Green growth governance - Long-term capacity-building to support climate change development Initiatives	Jan 2019	Dec 2019	0.04	0	0	0	0.04	Core funding

¹ [Insert footnote describing in-kind contribution]

Operations/ project preparation	BFPM-Burkina Faso Program	Jan 2019	Dec 2020	0.36	0.36	0	0	0.36	Core funding
TOTAL				0.67	0.07	1.16	0	1.9	

			Inception	Completion	GGGI	Gov ²	Partner	Gap	Total	
2021-2022										
GOP 1	PS1	BF06-Support for accreditation of direct access entities, pipeline development and private sector mobilization in Burkina Faso	Jan 2021	Jul 2021	0	0	0.07	0	0.07	GCF Readiness (6 months remaining resources)
		Accelerating climate-resilient transition of Burkina Faso through the development of the Long – Term Low Emission Development Strategy	Jan 2021	Dec 2022	0	0	1.2		1.2	AFD - Agence française de développement
GOP 2	PS2	BF05-Development of the Monitoring, Reporting, and Verification (MRV) System in Burkina Faso	Jan 2021	Dec 2022	0	0.20	1.09	0	1.30	Agreement signed with Sweden International Development Agency (Sida) Resources planned for the second year of MRV Project implementation
GOP 3	PS 3	Solar PV electricity for agricultural development – Renewable Energy , and SL/forestry (Core programmatic)	Jan 2021	Dec 2022	0	0	1.06	0	1.06	Core programmatic funding Denmark
		Solar-Powered Irrigation Systems for Climate-Smart Agriculture in Burkina Faso	Jan 2021	Dec 2022	0	0	1.5	0	1.5	QFFD funding
GOP 1,2,3,4 &5	All focused PSs	Approved projects and BFPM (Burkina Faso Program)	Jan 2021	Dec 2022	ND	0	ND	ND	ND	Resources mobilized through the projects already submitted to partners (NDC – CAEP, 2 IKI initiatives...) and projects to be submitted (NAP 1, LEDS, Climate-Friendly Cooling, NDC CAEP Rnd 2, GCF Readiness, EU n/cycle - SPIS, Monaco initiative, REDD+ /FL, NAP 2, Grand Duchy of Luxembourg New Cycle, Netherland cooperation, SIDA phase 2)
Operations/Project Preparation - BFPM-Burkina Faso Program			Jan 2021	Dec 2022	0.0	0.20	0	0	0.20	Core
TOTAL					0.00	0.4	4.92	0	5.33	

² [Insert footnote describing in-kind contribution]

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Inv. target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 1	PS 1	Support for accreditation of direct access entities, pipeline development and private sector mobilization in Burkina Faso	2 national direct access entities GCF accreditation application; 4 bankable project concept notes developed	Project progress and completion report, GCF report on accreditation	USD 40 million	SO1, 2, 3, 4, 5 & 6	Which sectors will this project support so we can work out the TAI using the investment amount?		IO 1	<ul style="list-style-type: none"> - Security issue in the country with the increasing of terrors attacks, - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP 2	PS 2	Accelerating climate-resilient transition of Burkina Faso through the development of the Long – Term Low Emission Development Strategy	1 Long – Term Low Emission Strategy developed	LEDS Strategy		SO1, 2, 3, 4, 5 & 6	N/A	N/A	IO 2	<ul style="list-style-type: none"> - Security issue in the country with the increasing of terrors attacks, - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP 2	PS 2	Development of the Monitoring, Reporting, and Verification (MRV) System in Burkina Faso	Burkina Faso's functional MRV system	Quality of NC/BUR/BTR produced by Burkina Faso; Project monitoring, annual result, completion and evaluation reports		SO1, 2, 3, 4, 5 & 6	N/A	N/A	IO 2	<ul style="list-style-type: none"> - Security issue in the country with the increasing of terrors attacks, - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP 3	PS 3	Solar PV electricity for agricultural development – Renewable Energy , and SL/forestry (Core programmatic)	Solar PV electricity for agricultural development project receive investor commitment	Commitment Letter; Project monitoring, annual results, completion and evaluation reports	0 M	SO 1 & 2	Move 24,000 vulnerable people out of poverty, train 1,500 farmers on climate smart agriculture practices, create 1200 green jobs, and reduce 1880 tCO2e GHG emission over 20 years.	TBD	IO 1	<ul style="list-style-type: none"> - Security issue in the country with the increasing of terrors attacks, - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP 3	PS 3	Solar PV electricity for agricultural development – Renewable Energy , and SL/forestry (Core programmatic)	Solar PV electricity for agricultural development project receive investor commitment	Commitment Letter; Project monitoring, annual results, completion and evaluation reports	1.2 M	SO 1 & 2	Move 48,000 vulnerable people out of poverty, train 3,000 farmers on climate smart agriculture practices, contributing to poverty reduction of 4,000 households, 1400 new green jobs, and reduce 4,288 tCO2e GHG emission over 20 years.	TBD	IO 1	<ul style="list-style-type: none"> - Security issue in the country with the increasing of terrors attacks, - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors

CÔTE D'IVOIRE

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Cote D'Ivoire's climate, health, agriculture and ecosystems, the country joined the Climate and Clean Air Coalition (CCAC) to increase its domestic SLCP-mitigating activities. Upon joining, Cote D'Ivoire expressed a particular interest in CCAC initiatives that reduce SLCPs from municipal waste, transport, agriculture, industry, household energy and the distribution of fossil fuels Cote d'Ivoire started its membership process since 2018 and aims to finalize it in 2020. As one of the economic powers in the region and fastest-growing economies in Africa (GDP growth rate forecast of 7-7.5% in 2019), Côte d'Ivoire's exposure to the impacts of climate change poses a threat to the economy and the livelihoods of many citizens, especially those working in vulnerable sectors. The climate change will affect agricultural production in Côte d'Ivoire, especially cocoa, with potentially severe implications for the economy and farmer livelihoods as well as for forests and natural habitat. Hotter average temperatures, far more inconsistent rainfall, and rising sea levels are already being observed. If no action is taken, sea levels could rise up to 1.2 meters in the Greater Bassam and Abidjan area. The Government has put in place several flagship program such as National Development Plan (2016-2020), National program of Climate change (2015-2020) to coordinate, propose and promote measures and strategies in the fight against climate change, as well as low emission target (-28%) under the Nationally Determined Contribution (NDC). All these programs and strategies will support the transition to overcome climate-related issues such as: i)Flood, ii) tempests, (iii)landslides,(iv)droughts-heat waves, and surface water capacity dwindling, (vii) reduction of medium times of vegetation growth and long exposition of plants to dryness, (viii) vegetal biomass lower growth, (ix) ecosystems productive potentialities reduction, (x) reduction of cultivable soils due to degradation, (xi) coastal erosion, (xii) seasonal upwelling phenomenon mitigation. Cote D'Ivoire's joined the Climate and Clean Air Coalition (CCAC) in 2013 to increase its domestic short-lived climate pollutants (SLCP) mitigating activities. Upon joining, Cote D'Ivoire expressed a particular interest in CCAC initiatives that reduce SLCPs from municipal waste, transport, agriculture, industry, household energy and the distribution of fossil fuels.

GGGI is closely working with key stakeholders to support Cote d'Ivoire to overcome key challenges. In November 2018, GGGI conducted a mission and engaged with the key stakeholders including the Ministry of Finance, Ministry of Planning and Development, Ministry of Foreign Affairs, UNDP, Association of Region and Districts (ARDCI), the Union of Cities (UVICOCI) and Chamber of Commerce and Industry (CCCI). The discussion has led, among others, to the development of a readiness proposal that supports direct access to GCF, project development and capacity building. GGGI organized working sessions with UNDP on NDC readiness, NDC partnership on NDC plan, CSE on the readiness, on country program as well to find synergies and avoid duplication. GGGI conducted a mission in November 2019 to work with the NDA and other key actors on GGGI support in order to integrate government requests. Since 2020, GGGI is implementing a readiness project that supports direct access to GCF, project development and capacity building.

Cote d'Ivoire is promoting sustainable and inclusive growth. The development of the CBP for Cote d'Ivoire is guided by the high potential of the country to have resources mobilized to establish a country program. Cote d'Ivoire is considered as one of the potential countries in GGGI's growth and expansion designed in Strategy 2030 The choices of 2021-2022 Global Operation Programs (GOPs) and programmatic solutions respond to GGGI plan to support the country addressing its main challenges as well as national commitments defined in the PND (2015-2020), the National Agriculture Investment Program and Vision 2030 related to: i) eliminate hunger, food insecurity and malnutrition, ii) Improve sustainable forest management, iii) Improve people's access to electricity and energy at an affordable price, iv) Increase the use of renewable energies in electricity production, v) Improve urban sanitation; and (vi) Ensure sustainable management and recovery of wastes.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Cote d'Ivoire with a focus on national targets defined in the national policies and strategies implemented during the next five years. Based on the new PND (2021-2025) and Cote d'Ivoire Vision 2040, GGGI will contribute to:

SO1, 3 & 4: improving increased access to affordable and reliable renewable energy and sanitation services, innovation and green technologies in urban planning, building and public transport and water & waste management.

SO2: Creation of green jobs: increasing the green investment at local and national levels provide sustain the structural transformation of the country's green economy.

SO5 & 6: Supply of ecosystem services ensured Strengthening climate resilience and adaptation with sustainable management of natural resources power a stronger and inclusive rural-villages development model.

With a focus on:

- **GOP1, Catalyzing and accelerating access to climate finance /green investments for members' public and private sector.**
Programmatic Solutions 1. Green Investment: By (i) assisting the government establish a national entity accredited to the Green Climate Fund (GCF) for direct access to climate finance and developing three bankable project concept notes for GCF funding or other climate financing sources—and (ii) delivering of a national financial vehicle as well as exploring the Green Bonds mechanism.
- **GOP2, supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes.**
Programmatic Solutions 2. Climate Action: by supporting the establishment of a national GHG reduction target and a Monitoring, Reporting and Verification (MRV) system, and the development of the Long – Term Low Emission Development Strategy (LEDS).
- **GOP3, Achieving a sustainable and circular bioeconomy while securing healthy natural systems.**
Programmatic Solutions 3. Climate Resilient Agriculture: By deploying agri-business models and potential green value chains for at least two commodities.
- **GOP4, Sustainable Forests: by developing of a portfolio of RE4PU & sustainable landscape green bankable projects providing opportunities for job creation (including support to the development of REDD+ projects).**
- **GOP5, Support the implementation of gender mainstreaming and establishment of strong social and environmental safeguards across the projects in all programmatic solutions.**

GGGI's Approach to Green COVID Recovery Plans development: The COVID-19 pandemic is creating a new set of issues and might 23 million of the people pushed into poverty are projected to be in Sub-Saharan Africa . Cote d'Ivoire has a population of 24 million and is a leading producer of the world's cocoa, coffee, and palm oil—there is still poverty in Cote d'Ivoire. Cote d'Ivoire is the world's biggest producer of Cocoa. One of the main threats to its agriculture sector in general is the fear of major disruptions in the supply chains. As of 2019, 46.3 percent of citizens of Cote d'Ivoire lived below the poverty line, and the country had an unemployment rate of 9.5 percent. Disease outbreaks and poverty are a vicious cycle — widespread declining economic status leads to more disease and reduced productivity which leads to more poverty. The combination of the social and economic impact of COVID-19 and climate change will maintain the poor population under the poverty line. GGGI will closely work with the Government of Cote d'Ivoire on key national strategic documents such as the new PND 2021-2025, LEDS, NDCs to ensure the mainstreaming of key solution that will stimulate growth and improve access to social services as well as supporting the Green recovery. Specifically, GGGI COVID-19 Responses will explore the following areas in Cote d'Ivoire:

- **Building Agricultural Safety Nets - Building Climate--Resilient Agricultural Value Chains and Accelerating Renewable Energy Use – this includes Access to clean energy for vulnerable households is enabled through the use of Solar Irrigation Pumping System (SPIS) by vulnerable farmers.**
- **Restoring Degraded Landscapes to Generate Employment and Build Long-term Resilience – where technology and investment packages will create employment and accelerate recovery from post--COVID-19 pandemic.**

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Based on the stakeholders' mapping conducted and series of meetings with state and non-state agencies, GGGI has been developing new partnerships and strengthening existing ones with institutions collaborating at regional and global levels. The consultation will ensure that GGGI program, projects are-aligned with development partners strategies and green response in the country, playing a key role in joint coordination committees, as well as supporting the Government in-finding synergies between their development agendas and that of donors. The partnerships will contribute to maximize the opportunities for increase access to finance, knowledge and innovation to drive the transition of Cote d'Ivoire to green growth. GGGI will also leverage on expanding activities under the MoU with the AfDB which HQ is in Abidjan. Three categories of partners are to be considered:

Government Partners: Ministry of Environment and sustainable development, Ministry of Agriculture, Ministry of water and Forest, Energy, Ministry of Economy and Finance, Ministry of water and Sanitation, Ministry of women, Family and child, Ministry of Foreign Affairs...and agencies like Direction de la Lutte contre les Changements Climatiques (DLCC), Programme Nationale de lutte contre les Changements Climatiques (PNCC), Société de Développement des Forêts (SODEFOR), Agence Nationale d'Appui au Développement Rural (ANADER), Agence de Development de la filière riz (ADERIZ), etc.; and the candidate direct access entities BNI, OIPR and FIRCA. From the private sector, this project will involve the Chambre de Commerce et d'Industrie de Côte d'Ivoire (CCI-CI),

Confédération Générale des Entreprises de Côte d'Ivoire (CGECI), Côte d'Ivoire PME, Fédération des PME, Association Professionnelle des Banques et Établissements Financiers de Côte d'Ivoire (APBEF-CI),

Resource Partners: AfDB, World Bank, KOICA, IUCN, Government of the Grand Duchy of Luxembourg, Sweden, France, Canada, UNEP Monaco, UNDP, FAO, GIZ, AFD (including AdaptAction Facility), GCF, NDC -Partnership, European Union, Denmark, SNV, BMGF, West African Development Bank (BOAD), USAID.

Implementing Partners: UN-Habitat, Agrhyment, The International Renewable Energy Agency, Ecowas Centre for Renewable Energy and Energy Efficiency (ECREEE).

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Cote d'Ivoire for 2021-2022: **\$0.0 million**; Government counterpart contribution: **\$0.10 million**; and Partner co-financing of the program is expected at **\$1.2 million** in the biennium for a total of **\$1.3million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

			Inception	Completion	GGGI	Gov ³	Partner	Gap	Total	
2019-2020										
GOP 1	PS 1	CI01- Enhancing the Republic of Côte d'Ivoire's Access to Climate Finance	01/2020	12/2020	0	0	0.29	0	0.29	GCF Readiness
		CI02- Development of a strategic framework for climate change and green growth	07/2020	12/2020	0	0	0.15	0	0.15	Proposal submitted with ICF – Project with AfDB. Decision expected....
Operations/ project preparation					0	0	0	0	0	
TOTAL					0	0	0.44	0	0.44	
2021-2022										
GOP 1	PS 1	CI01- Enhancing the Republic of Côte d'Ivoire's Access to Climate Finance	01/2021	07/2021	0	0	0.12	0	0.12	GCF Readiness (6 months remaining resources)
GOP 2	PS 2	CI03- Readiness project 2	06/2021	12/2022	0	0	0.45		0.45	Assumption – Submission of a new proposal to GCF
GOP2	PS2	LEDS projects	01/2022	12/2022	0	0	0.38	0	0.38	Assumption - Submission of a requesting to AFD, Canadian, and Government of the Grand Duchy of Luxembourg
GOP 3	PS 3	Exp Solar Powered Irrigation Systems for Climate Smart Agriculture in Cote d'Ivoire	01/2022	12/2022	0	0	0.37	0	0.37	Assumption - Submission of a requesting to KOICA, AFD, IFAD, SIDA
GOP 1,2,3,& 5	All PSs (1,2,3,4,8, Cross cutting)	Approved projects and CIPM (CIV Faso Program)	01/2021	12/2022	ND	0.1	ND	ND	ND	Resources mobilized through the projects already submitted to partners (IKI initiatives...) and projects to be submitted (LEDS, Rnd 2, GCF Readiness, EU n/cycle - SPIS, SIDA)
Operations/ Project Preparation										
TOTAL					0	0.1	1.2	0	1.3	

³ [Insert footnote describing in-kind contribution]

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Investment Targets	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 1	PS 1	Enhancing the Republic of Côte d'Ivoire's Access to Climate Finance	1 direct access entities accredited; 3 bankable project concept notes developed	Project progress and completion report, GCF report on accreditation	TBD	SO 1, 2, 3, 4, 5 & 6	TBD	TBD	IO 1	<ul style="list-style-type: none"> - Security issue in the country - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP 2	PS 2	Readiness program 2	Vulnerability assessment of Cote d'Ivoire after COVID; Enhanced capacity of the private sector and key actors on climate finance; Pre-feasibility study of E-mobility	Project monitoring, annual results, completion and evaluation reports		SO 1, 2, 3, 4, 5 & 6	N/A	N/A	IO 1 IO 2	<ul style="list-style-type: none"> - Security issue in the country - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP2	PS2	Low emission development strategies (LEDS) projects	LEDS implementation governance structure; LEDS monitoring and evaluation framework Low emission development strategies (LEDS) document	Final report Endorsement of the final LEDS document by the Government of Cote d'Ivoire; Project monitoring, annual results, completion and evaluation reports	N/A	SO 1, 2, 3, 4, 5 & 6	N/A	N/A	IO 2	<ul style="list-style-type: none"> - Security issue in the country - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
GOP 3	PS 3	Exp, Empower women in Agriculture sector Economic empowerment program for rural women in Côte d'Ivoire for enhanced resilience to climate change	Number of women empowered	Project monitoring, annual results, completion and evaluation reports	TBD	SO 2, 5 & 6	2 millions of women empowered 150 Green SME created 500 green jobs created	TBD	IO 2	<ul style="list-style-type: none"> - Security issue in the country with the increasing of terrors attacks, - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors
	PS 3	Exp Solar Powered Irrigation Systems for Climate Smart Agriculture in Cote d'Ivoire.	Number of SPIPS installed Number of best adaptation practices spread and adopted by the communities.	Project monitoring, annual results, completion and evaluation reports	TBD	SO 2, 5 & 6	TBD	TBD	IO 3	<ul style="list-style-type: none"> - Security issue in the country - Low level of financial resources mobilization due to international economic context, after the COVID 19 crisis, - Lack of communication between the partners, - Low mobilization (membership and ownership issues) of the various actors.

ETHIOPIA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Ethiopia stands as one of GGGI's 16 founding members, in 2012. Since commencing in 2010, GGGI's programmatic interventions in Ethiopia have been characterized by a clear and purposed mission to support the country in its ambitious effort towards greening its rapid growth and development trajectory, thus ensuring economically and environmentally sustainable and socially inclusive systems and infrastructures are secured and thriving in the long-run. With a population now topping app.110 million, Ethiopia has emerged as one of the fastest growing economies in the region for the past 12+ years. Furthermore, its diverse ecological landscape leaves it increasingly vulnerable to the negative effects of climate change, particularly with app. 80% of its population being rural/agrarian-based and agriculture comprising 73% of total employment and 37% of GDP (UNDP, 2018). On a business as usual course of action, climate change impacts are estimated to contribute directly to a 2-10% GDP loss by 2045 (against baseline growth projections; World Bank, 2010). Thus, the Government of Ethiopia has remained committed to deploying effective mainstreaming and implementation of mitigation and adaptation measures to ensure sustainable, inclusive economic growth and development. As encapsulated in its CRGE vision and strategy (2011), Ethiopia has boldly committed to addressing climate change through a cross-sector, transformative, sustainable, inclusive growth and development, focused on reducing GHG emissions by 64% below projected levels in 2030 (400 CO2E) and reaching middle-income status by 2025. With support of GGGI, the CRGE was mainstreamed into the country's overarching development planning frameworks, specifically the Second Growth and Transformation Plan (GTP-II, 2015-2020) and the Ten-year perspectives plan 2020-2030, which is currently being finalized.

GGGI closely supports the GoE in the major CRGE processes and most recently (2019), with the Government-commissioned formal stocktaking of CRGE implementation successes and remaining gaps over the course of the eight years since its launch. The review was taken on by the World Bank while GGGI, upon request of the Government, participated as a co-chair of the technical committee which oversaw the review process. Key findings address achievements in institutional procedures and tools, with remaining challenges in practical implementation and mainstreaming climate change into national/sub-national activities and programs. The latest conclusions of the CRGE review shall guide GGGI support and focus areas moving forward, through addressing remaining gaps and challenges and support practical mainstreaming of climate action at national and sub national levels. According to the recently concluded CRGE review, important challenges that need to be tackled for Ethiopia to achieve SDGs and CRGE targets still remain. Electricity connectivity in Ethiopia remains very low, with more than 50% of the population without electricity. In order to bring remedial solutions, the government launched the New Electrification Plan (NEP) in November 2017, that lays out the country's ambition to achieve universal access by 2025 through a combination of grid extension, mini-grids, and solar home systems. This ambitious plan proposes that, by 2025, 65% of the population will have electricity through the grid, and the remaining 35% will have electricity through off-grid technologies that is, stand-alone solar systems and mini-grids.

Additional challenges relate to the interconnectedness between agriculture and forestry that requires adoption of both sectors' climate resilient development. Initiatives, such as the Climate Resilience Strategy for Agriculture and Forest (2015) and the REDD+ Investment Programme (2016-2021), have been designed based on an in-depth understanding of the relationship between the sectors and are expected to find an appropriate balance between the sustainable use of their respective landscapes. This can only be achieved through effective coordination of initiatives from design to planning, implementation to monitoring, and data analysis to the dissemination of results – providing a solid basis for replication and scaling up elsewhere in Ethiopia. The above challenges are combined with accelerating industrialization and increasing air pollution brought on by expanding unsustainable urban transport. The GoE has prioritized the establishment of industrial parks as part of its efforts to boost manufacturing and exports in the country. This is in accordance with the aspirations of the GTP II (2015-2020), which aims to ensure that the manufacturing sector contributes up to 20 percent of the country's GDP and 50 percent of export volume by 2025. Currently, six industrial parks (IPs) have been completed and are operational and more IPs are planned. While many efforts are being done by the government to have eco-industrialization, more support is needed for comprehensive and systematic approach to greening IPs following a well-designed roadmap.

GGGI's mission is facilitated through a series of focused, evolving (agile) implementation modalities, reflective of an evolving business and working context, as well as a clear understanding of the scope of the work to be done, in terms of capitalizing on comparative advantage and maximizing meaningful impact with regards to achieving its NDCs and SDG targets. Guided by the above mentioned challenges and the four pillars of the CRGE vision and strategy (agriculture; forestry; power; and transport, industrial sectors and infrastructure), GGGI's core in-country implementation modalities have evolved and expanded to include the following: Provision of technical and advisory expertise, distributed across CRGE sectors; Policy/strategy development and capacity building support and; Mobilization of green capital investment along with the designing and implementation of bankable, scalable investment projects on the ground. These modalities are intended to serve an evolving set of strategic program objectives ranging from establishing comprehensive green growth policy framework(s) to the mainstreaming, implementation and acceleration of green growth in the country.

GGGI's notable achievements to date include: Development of Ethiopia's principal green growth strategy, the national Climate Resilient Green Economy (CRGE) Strategy (2011/2012); Integration of the CRGE into Ethiopia's Second Growth and Transformation Plan (GTP II 2015-2020); Establishment and Operationalization of the CRGE special financing facility (based in and Chaired by the Ministry of Finance); Development of a Sector-wide system and methodology for tracking climate expenditures in line with accelerating CRGE implementation; Chairing of the Least Developed Countries (LDC) group of negotiators to the UNFCCC, on behalf of the Government of Ethiopia (GoE) (2017-2018); to name a few. Specific achievements in 2019-2020 were/are centered on harnessing opportunities in some of the following cross-sectoral areas: Greening industrial parks through investment in renewable energy and waste reuse and development of greening policy frameworks; Supporting implementation of Ethiopia's REDD+ Investment Program, with a focus on social inclusion; Facilitating investment in Climate Smart Irrigated agriculture in lowland areas; Development of a Climate Resilient Landscape Restoration Program for selected watersheds; Delivery of readiness and preparatory support activities with GCF support, including adaptation planning and implementation. On the investment side, over the past few years, GGGI has helped Ethiopia mobilize an estimated USD 450 M of green investments.

Programmatic actions are designed to critically address prevailing development challenges, as highlighted in Ethiopia's recently revised and updated CRGE and NDCs. Interventions will continue to target climate and environmental related SDGs. Finally, considering recent events related to the COVID-19 global pandemic, particular efforts and resources will be allocated towards greening the emerging Ethiopian Post COVID 19 Economic Recovery Plan. The main challenges to be focused on for 2021-2022 are as follows:

- Ethiopia's CO2 emission level mitigation target, per NDC and CRGE targets, seeking a reduction of 64% from BAU scenario in 2030 (NDC target potentially subject to change upon GoE submission of revisions to UNFCCC)
- Strengthen existing and establish lacking systems and tools to effectively mainstream and implement the CRGE strategy in a programmatic manner (at national and subnational levels); i.e. Delivering mainstreaming guidelines; Strengthening data and information systems; Enhancing monitoring, evaluation and reporting systems; knowledge sharing and communication tools; etc., to better ensure lasting impact of project-level interventions
- Build resilience of poor and disenfranchised populations and restore sustainable landscapes whilst creating jobs and other off-land sources of income to build community resilience to climate variability induced socio-economic shocks.
- Accelerate the mobilization of resources (public and private), namely climate finance, to implement ambitious CRGE targets and objectives.
- Adjust programmatic focus and mobilize resources towards supporting the incorporation and integration of resilience-building in the post COVID recovery program currently under development by the GoE.

II. COUNTRY PROGRAM

Areas of Focus: GGGI Ethiopia 2021-22 WBP will build on experience, knowledge, and results accumulated since 2010 to support the country's implementation of mitigation and adaptation goals as reflected in the revised CRGE and NDCs. The projects to be implemented during 2021-2022 will focus on contributing to Ethiopia's Green Growth Agenda considering the current situation, where COVID 19 pandemic socio-economic negative effects will need remedial solutions to be part of our planning and implementation for more resilient and sustainable future. Based on Ethiopia's Revised Green Growth Strategy and NDCs commitment, GGGI will contribute to:

- Green House Gas Emission (GHG) emission reduction (SO1) through, greening infrastructure under industrial parks, clean energy, E-mobility and landscape restoration projects;
- Green jobs creation (SO2): several projects planned for 2021-2022 will create new green jobs based on gender equality and poverty alleviation;
- Increased access to sustainable services (SO3) including sustainable clean affordable energy in rural areas and suitable sustainable mobility in cities;
- Improved air quality (SO4) will be achieved as a result of E-mobility, carbon sequestration by restored forestry and greening industrial parks;
- Adequate supply of ecosystem services (SO5) will be achieved as a result of planned projects climate resilient sustainable landscape projects that will start in 2021;
- Enhanced adaptation to climate change (SO6): introduction of solar pumps that will allow improved agricultural yields and providing productive solar energy to rural areas will help them create small business and get engaged in off-farm activities and conserve their produces.

The above strategic outcomes will be reached through the implementation of the following programmatic solutions classified under several global operational priorities as defined in the GGGI 2030 strategy:

SO 1: RM under GCF Readiness: Development and submission of at least 3 project concept notes (PCNs) in strategically prioritized areas/sectors on (i.e. Off grid/mini grid systems for rural electrification: productive use energy project focusing on mini grids to support rural poor; CR Irrigation; CR Agriculture; etc. ; Investment target – USD 5-10M

SO 2: Long Term Low Emissions Development Strategy (LT-LEDS)

- Building Capacity to Facilitate the Integration of the National Adaptation Planning Process in Ethiopia (GCF NAP)
- Build program development, coordination and delivery capacity of Ministry of Finance and strengthen Ethiopia's engagement with GCF (Readiness project).

In addition, GGGI will continue to help the government with mainstreaming Green Growth through CRGE/NDCs review, update, planning and implementation and will offer continued support in MRV framework implementation and climate diplomacy.

SO 3: Solar pumps irrigated improved yields project in Ethiopia low land (Part of Global Program)

- E-mobility and sustainable urban infrastructure along with Ethiopian BRT development

SO4: Climate Resilient Sustainable Landscape Restoration: forestry restoration that will cover more than 13 Ha watershed area.

- Forest Finance Investment Incubator
- P4G partnership Agroforestry for People, Peace and Prosperity

SO 6 : RM under GCF NAP: Development and submission of 3 PCNs in prioritized adaptation areas; Investment target – USD5-10M

SO 1,2,3: Greening Ethiopia's industrial parks: Implementation of the roadmap for greening IPs in Ethiopia.

- Industrial Parks waste reuse plan: Design and implement intermediary sludge drying beds.
- Rooftop Solar PV in Industrial Parks: upscaling feasibility study and cover the remaining 6 IPs.
- Support the implementation of gender mainstreaming and establishment of strong social and environmental safeguards units in CRGE sector ministries.

GGGI's Approach to Greening COVID Recovery Plans development: Before the outbreak of COVID-19, the Ethiopian economy was one of the fastest growing economies in Africa. Although real GDP growth in the country slowed to approximately 7.4 percent in 2019 from 7.7 percent in 2018 due to social turmoil and fiscal consolidation, the economy was expected to stabilize in 2020 with a projected growth rate of between 7.1% and 7.2%. However, the outbreak of the COVID-19 pandemic, which has spread to most countries in the world, including Ethiopia, is expected to erode the projected growth rate and create severe socioeconomic impact on the Ethiopian economy. There will be a significant contraction in real GDP growth with immediate impacts on businesses and livelihoods of individuals and families due to severe disruptions to value chains, industries and government revenue for the foreseeable future. The economic consequences of this pandemic will also manifest on government reserves, as economic activities slow down, significantly affecting businesses, individuals and families in the economy. Many businesses have either closed or scaled down their operations, leading to massive unemployment and loss of income and livelihoods. Ethiopia has very large informal economic sectors with many small, medium and micro businesses that create employment for the bulk of the population. These informal sectors are expected to be hit hard by the pandemic. In addition, the agricultural and forest sectors, which accounts for over 60 percent of the economy and the largest employer of the population, are severely impacted by the closing down of borders and disruption of supply chains and the lockdowns in foreign markets.

For a post COVID-19 economic recovery to take place, the government of Ethiopia in collaboration with development partners will need to stabilize the economy by providing support to the productive sectors in order to create employment and re-establish the supply chains, especially through transport networks. GGGI will participate and support the development and implementation of a green recovery plan that emphasizes the implementation of the revised Climate-Resilient Green Economy Strategy (Revised CRGE) and Ethiopia's Nationally Determined Contribution (NDC). Specifically, GGGI COVID-19 Responses explore the following areas:

- Building Agricultural Safety Nets -Building Climate Resilient Agricultural Value Chains and Accelerating Renewable Energy Use.
- Restoring Degraded Landscapes to Generate Employment and Build Long-term Resilience. – where technology and investment packages will create employment and accelerate recovery from post COVID-19 pandemic.
- Restoring and safeguarding COVID-19 impacted livelihoods through short-term and long-term transformational change towards a more resilient, low carbon tourism sector.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

From 2018, with the new GGGI business model, based on projects pipeline preparation and resources mobilization, GGGI Ethiopia has established strong partnership and resources mobilization strategy. Effective Q3/Q4 2020 through 2021/22, GGGI Ethiopia Program shall be funded through Danish Programmatic funding (per DK-GGGI contribution Agreement). Projects focused on renewable energy, solar irrigation and SL/Forestry will be central components of the Ethiopia program in 2020-2022. Furthermore, Since Earmarked funding has been mobilized from Government of Denmark (USD 100K), GIZ (USD 80K), GCF (USD 827K) and KOICA totaling about USD 13 million. The KOICA funding on forestry restoration with a total amount of USD 12 million will be available by the first quarter of 2021 and we also expect to have GCF NAP of USD 2.8 million by the end of 2020, which will continue in the next programming period. Resources mobilization strategy for GGGI Ethiopia is based on identification of partners interested in what we are doing, and we engage with them with well-prepared ideas. We have been successful so far because we are a trusted partner of the GoE and have a unique modus operandi, characterized by our embedded office within GGGI's line institution that is in charge of CRGE coordination across all the main development sectors. In addition to this, we work with GGGI HQ to be able to access funding sources identified by partnership team. During 2021-2022, we will engage with new partners which have manifested keen interest in climate action such as: Austria, AFD, AfDB, NDC Partnerships, EC/EIB, Canada, Denmark, Norway, P4G, Sweden, Switzerland/SDC, UN. GGGI Ethiopia country office, in close collaboration with the Regional Office, will also leverage regional partnership for more resource mobilization.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative-planning figure for GGGI Core resources for Ethiopia for 2021-2022: **\$0** million; Government counterpart contribution: **tbd** million; and Partner co-financing of the program is expected at **\$2.9** million in the biennium for a total of **\$2.9** million.

TABLE Current and Planned 2021-2022 Country Program

GOPs	PSs	Project Title	Implementation		Funding			Resource Mobilization		
			Inception	Completion	GGGI	Gov ⁴	Partner	Gap	Total	
2019-2020										
ETPM-C1		Project Management	Jan 2019	Dec 2020	1.4 M	0	0		1.4 M	This is the ETPM core funding allocated to Ethiopia for 2019/20
ET-05	PS 2	Building the Project/Program development, coordination and delivery capacity of the NIE and strengthening Ethiopia's engagement with the GCF	Aug 2019	Jul 2021	0	0	0.7 M		0.7 M	GCF Readiness
ET-08 ET-09 ET-10	PS 6 PS 9 PS 10	-Business Case for Solar PV -Development of a Roadmap for Greening the Industrial Parks -Sustainable Industrial WW Sludge Management at the Ethiopian Industrial Parks	Apr 2019	Mar 2020	0.1 M	0	0.08 M		0.2 M	Partner co-funding was from GIZ Ethiopia
ET-11	PS 3 PS 9	Introducing climate-smart irrigated wheat systems	Jan 2019	Dec 2020	0.077 M	0	0		0.077 M	This project has now been moved to Global Projects to be managed by HQ
ET-13	PS 3 PS 4	Support The Forest Sector Transformation Unit, EFCCC	Feb 2019	Mar 2021	0	0	0.9 M		0.9 M	The project is fully funded by the Danish Embassy in Addis Ababa
ET-03	PS 2	Cooperation with IMELS in the field of climate change vulnerability, mitigation and adaptation.	Feb 2018	May 2019	0	0	0.034M		0.034 M	The project was fully funded by IMELS, Italy. The project started in 2018 and completed first quarter of 2019.
TOTAL					1.6 M	0	0.9 M	0	2.5M	

⁴ [Insert footnote describing in-kind contribution]

2021-2022										
			Inception	Completion	GGGI	Gov ⁵	Partner	Program Earmarked	Total	
GOP 2	PS 2	Enhancement; LEDS Development;	Jan 2021	Dec 2022	0.0	0.0	0.3 M		0.3 M	The total financing needed for this project is not known, estimated earmarked funding needed around 900KUSD. Funding expected from AFD
GOP 1, 2	PS 1 PS 2	Building Capacity to Facilitate the Integration of the National Adaptation Planning Process in Ethiopia;	Dec 2020	Dec 2023	0	0	0.170 M	0.342M	0.490M	GCF Readiness
GOP 1	PS1	1.Energy efficiency/Mini grid systems for rural Electrification;	Jan 2021	Dec 2021	0	0.0	0	0.1264 M	0.126 M	The total financing needed for this project is to be sourced from Danish Programmatic funding, as per the PIN developed the energy expert will be hired instead of outsourcing
GOP 3	PS 3 PS 4	1.Solar Powered Irrigated Systems in Ethiopia's Lowlands; 2. Climate Resilient Sustainable Landscape Restoration 3. SL03-Forest Finance and Investment Incubator	Jan 2021	Dec 2022		0.0	0.0 M 0.5 M 0.1 M	0.200 M	0.8 M	The total financing needed for each project is as below Project 1) 25K this project is ongoing and indicated budget is rough estimate for any remaining work (Danish Programmatic Funding) Project 2) KOICA funding expected in 2021. GGGI allocation will be around 600K per year rough estimate Project 3) Continued work from phase one of landscape restoration project, 50 budgeted for 2021&2022
GOP 4	PS 7 PS 9 PS 10	2.Low Carbon vehicles for the BRT System in Addis Ababa: 3.Solar PV Investment in Industrial Parks; 4.Green Industries-Sludge drying bed	Jan 2021	Dec 2021		0.0	0.2M 0.25 M 0.30 M	0.249 M	1.0 M	The total financing needed for each project is as below Project 1) TBD, global project Project 2) 159K expected from earmarked or Danish Programmatic funding Project 3) 150 USD estimated from earmarked funding for six IPs Project4) 1.5Mil Euro submitted for AFD project pipeline. Rough estimate for GGGI allocation around 15%-250USD
Operations/ Project Preparation							0.060	0.1	0.1	
TOTAL					0	tbd	1.88M	1.02M	2.9 M	

⁵ [Insert footnote describing in-kind contribution]

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Inv.T arget	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1, 2	PS1, 2	Building the Project/Program development, coordination and delivery capacity of the NIE and strengthening Ethiopia's engagement with the GCF	Three (3) project concept notes focused on priority sector(s) developed and submitted for financing; Enhanced country program; Upgraded direct access to climate finance; Robust project pipeline and financing strategy developed; Gender mainstreaming guidelines developed for CRGE executing ministries at national/sub national levels; Two gender /mainstreaming capacity building workshops/vents convened	Endorsement letters from GOE on support provided; Project reports, bilateral/multilateral agreements; Project progress and completion reports	5-10 M	SO1 SO2 SO3 SO5 SO6	To be confirmed upon determination of the targets, outputs and projected impact of the PCNs. TBD people supported to deal with climate change with respect to gender inclusivity	GGGI will contribute to the government's target to cut GHG emissions by 64% (based on BAU projections) by 2030 (tbc) GGGI will contribute to the government's commitment to achieve middle income status through sustainable and socially inclusive development trajectory	IO 2	Lacking inter-ministerial coordination and/or buy-in; Lack of effective engagement from Government; Lacking investment streams and/or resources; Implementation delays relating to COVID-19 pandemic. Commitment from Government Stakeholder cooperation and expectations aligned; Risks: Poor inter-ministerial coordination and/or buy-in Implementation delays relating to COVID-19 pandemic.
GOP2	PS2	LEDS Development;	LEDS Strategy Document for Ethiopia;	Endorsement letter from GOE on support provided, Project reports, bilateral/multilateral agreements, Project monitoring, annual results, completion and evaluation reports		SO1 SO2 SO3 SO5 SO6	tbd GHG emission reduction (tons co2e)	GGGI will contribute to the government's objective of decarbonizing the economy by 2050 and beyond	IO 1 IO 3	Assumptions: Commitment from Government; Stakeholder cooperation and expectations aligned; Availability of range of required technical expertise; Availability of project preparation finance. Risks: Implementation delays relating to COVID-19 pandemic; Lack of appropriate data
GOP1, 2	PS1, 2	Building Capacity to Facilitate the Integration of the National Adaptation Planning Process in Ethiopia	Strengthened Adaptation planning governance and coordination mechanism established; Strengthened climate vulnerability and adaptation investment rationale in place; Enhanced adaptation knowledge management, information sharing, and communication established; Adaptation integrated into the country's overall development policy and strategy; Adaptation	Endorsement letters from GOE on support provided, Project reports, bilateral/multilateral agreements, Project progress and completion reports		SO6	tbd people/community members have improved capacity to cope with climate change	GGGI will contribute to the government's target of integration of the NAP-ETH across its 9 regions and 2 administrative states)	IO 1, 2, 3	Assumptions: Commitment from Government; Stakeholder cooperation and expectations aligned; Availability of range of required technical expertise; Availability of project preparation finance Risks: Implementation delays relating to COVID-19 pandemic; Lack of appropriate data

			finance strategy developed; Adaptation-focused monitoring, evaluation, and learning capacity and system established							
GOP3	PS3	Sustainable Solar Irrigation Pumping Systems	Investment Teaser; Information Memorandum & listed record of potential funding sources developed;	Project monitoring, annual results, completion and evaluation reports	200 M (for entire global program – not limited to Ethiopia component)	SO1 SO3 SO4 SO5 SO6	App. 100,000 Ha of land irrigated; App. 50,000 households benefit from direct and indirect investments and job opportunities reduction of 4000 tCO2e and creation of 2000 green jobs	GGGI will contribute to the government's efforts towards transforming the national/subnational energy systems and integrating significant increase of RE in energy mix in the agro-value chain GGGI to contribute to the government's target of reducing GHG emission levels projected for 2030 (under BAU) by 64% (4000 tCO2e). Contribute 2000 green jobs to the government's employment target.	IO 2	Poor inter-ministerial coordination and/or buy-in (national/sub-national) -Lack of effective engagement from Government; Implementation delays relating to COVID-19 pandemic; Lacking investment streams and/or resources
GOP3	PS4	Climate Resilient Sustainable Landscape Restoration	Policy framework related to international transferring of mitigation outcomes to support forest landscape restoration; Institutional arrangements for inclusive cross-sectoral land use planning and forest restoration in selected watersheds; Site-appropriate technologies developed/applied for forest landscape restoration in selected watersheds; Green finance mechanisms for sustainability of forest landscape restoration in selected watersheds	Project monitoring, annual results, completion, and evaluation reports		SO5 SO6	13,000 ha of degraded land conserved and/or restored in select watersheds - (through the establishment of 2000 ha of community woodlots; Establishment of 4000 ha community timber plantations and; Regeneration of 7000 ha of degraded land);	GGGI will contribute to the government's goals of increasing forest cover of Ethiopia from 15.5% to 20%, improving local community livelihoods and enhancing the contribution of forests to the national economy – i.e. 4% increase in its contribution to national GDP	IO 1 IO 2	Poor inter-ministerial coordination and/or buy-in (national/sub-national) Lack of effective engagement from Government Implementation delays relating to COVID-19 pandemic Lacking investment streams and/or resources
GOP4	PS6	Sustainable Industrial Wastewater Management at the Ethiopian	Solar drying bed for industrial wastewater sludge at the Hawassa industrial park	Project monitoring, annual results, completion and evaluation reports. Letter of Intent from potential financier(s) or endorsement/acknowledgement		SO3 .3	tbd people gained access to better waste management	GGGI will contribute to the government' target to curb the industry sector's GHG emissions projects for 2030 of app. 67 Mt CO2 down to XX Mt CO2. GGGI	IO 2	Lacking inter-ministerial coordination and/or buy-in Lack of effective engagement from Government And/or capital market risk

		Industrial Parks -;		letter from relevant government authorities. Acknowledgement letter from Government				will contribute to the government's target to increase the industrial sector's contribution to GDP up to 20% by 2020, whilst minimizing increase in CO2 emissions,		Implementation delays relating to COVID-19 pandemic Lacking investment streams and/or resources
GOP4	PS7	Low Carbon vehicles for the BRT System in Addis Ababa:	Pre-feasibility; Technical Study; GCF Concept Note	Project monitoring, annual results, completion, and evaluation reports Assessment reports, Feasibility study and project design reports. -Concept note(s) submitted for financing Letter of Intent from potential financier(s) or endorsement/acknowledgement letter from relevant government authorities		SO3 .4	tbd passenger – kilometer covered by public transport modes	GGGI will contribute to the government's missions from transport are projected to grow from around 5 Mt CO2e in 2010 to 40 Mt CO2e in 2030; Improve urban transport in Addis Ababa by introducing urban electric rail, and enabling fast and efficient bus transit; new fuel efficiency standards for 30% of passenger vehicles	IO 2	Lacking inter-ministerial coordination and/or buy-in. Lack of effective engagement from Government and/or capital market risk. Implementation delays relating to COVID-19 pandemic Lacking investment streams and/or resources
GOP4	PS9	Solar PV Investment in Industrial Parks;	Solar PV Investment Plan	Project monitoring, annual results, completion and evaluation reports Letter of Intent from potential financier(s) or endorsement letter for GGGI from relevant government authorities) Official letter from Government acknowledging assessment findings		SO2	TBD GhG emission reduction 9tons co2) ; XX people gained improved access o clean energy	GGGI will contribute to the government's target to curb the industry sector's GHG emissions projects for 2030 of app. 67 Mt CO2 down to XX Mt CO2	IO 2	Lacking inter-ministerial coordination and/or buy-in Lack of effective engagement from Government And/or capital market risk Implementation delays relating to COVID-19 pandemic Lacking investment streams and/or resources
GOP4	PS10	Greening Industries	Capacity building and implementation of Greening Roadmap supported and provided	Project monitoring, annual results, completion and evaluation reports; -Capacity building materials developed and utilized for relevant IP's; Official letter from Government acknowledging assessment findings;		SO1	tbd GHG emission reduction (tons co2)	GGGI will contribute to the government' target to curb the industry sector's GHG emissions BAU projections for 2030 of app. 67 Mt CO2 down to XX Mt CO2	IO 1	Lacking inter-ministerial coordination and/or buy-in; Lack of effective engagement from Government And/or capital market risk; Implementation delays relating to COVID-19 pandemic; Lacking investment streams and/or resources;
GOP4	PS9	Energy efficiency/Mini grid systems for rural Electrification	Pre-feasibility study; Detailed feasibility study, including business models, key risks, sensitivity analysis; Business models with de-risking options	Project monitoring, annual results, completion and evaluation reports Assessment reports, Feasibility study and project design reports. -Letter of Intent from potential financier(s) or endorsement letter for GGGI from relevant government authorities) Official letter from Government acknowledging assessment findings		SO3 .1	Up to 19,910 households and 93,061 people have better access to clean, affordable energy	GGGI will contribute to the government's target of addressing universal access to electricity by 2025. (35% of which is planned to be off grid) .	IO2	Lacking inter-ministerial coordination and/or buy-in Lack of effective engagement from Government And/or capital market risk Implementation delays relating to COVID-19 pandemic Lacking investment streams and/or resources

MOROCCO

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Accession to GGGI Membership Agreement is at the final stage, pending the Royal seal. In anticipation of accession, the Government of Morocco (GoM) and GGGI have been working within the framework of the Memorandum of Understanding (MoU) signed in October 2017 to strengthen cooperation on accelerating Morocco's transition to a green and inclusive economy. During the 2019-2020 biennium, GGGI Morocco has developed a solid foundation for its program pipeline that currently consists of 10 projects based on official requests for technical assistance from 5 different departments, each to be implemented contingent upon external funding. Nearly USD1m in earmarked funding has been raised to fund the delivery of priority projects in this pipeline, 3 of which are being implemented during the 2019-2020 biennial period. In accordance with the MoU, in 2019 the GGGI Morocco program Inter-ministerial Steering Committee (SC) was established, representing 15 departments across the GoM. The SC's first agenda item was to deliberate the orientations of the GGGI 2021-2025 Country Planning Framework (CPF) for Morocco, which will be finalized in 2020 with broad involvement from both the government and development partners. The 2021-2022 Country Business Plan (CBP) proposed planning directions is consistent with the CPF program focus areas.

Morocco's three main challenges in implementing its initiatives to support the implementation of its National Sustainable Development Strategy (NSDS), NDC, and SDGs are linked to the:

- Absence of blended finance mechanism to leverage public, private and climate funding; aggregate mid-size investments; and ensure governance to manage coherence of national and subnational investment priorities;
- Strengthening of sub-national technical capacities to structure pipelines of bankable projects that can attract funding to promote and develop green growth initiatives;
- Fostering of inclusive sustainable growth and creation of revenue-generating activities in order to reduce territorial and social disparities.

Through the 2021-2022 CBP and the 2021 – 2025 CPF, GGGI will respond to targeted development challenges within select focus areas in order to support the GoM in achieving its development goals and national policy priorities. GGGI will blend its expertise in policy development and the structuring of green investments to establish suitable business models for the national context and attract financing into low carbon investments and institutional strengthening. One of the key targeted development challenges is the national post COVID-19 economic recovery. For this, GGGI will ensure the strategic and optimal mainstreaming of COVID-19 response components in all of its country support for Morocco's transition to a green economy, in order to promote inclusive jobs as well as economic and climate resilience.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports the Kingdom of Morocco with a focus on accompanying the NSDS, NDC and SDG implementation, aimed at promoting a green, inclusive, integrated and sustainable development model at the sub-national level, in alignment with the country's advanced regionalization process. Based on Morocco's commitments, GGGI will contribute to all six Strategic Objectives, namely: SO1. Reduced GHG emissions; SO2. Creation of green jobs; SO3. Increased access to sustainable services; SO4. Improved air quality; SO5. Supply of ecosystem services ensured; and SO6. Enhanced adaptation. In addition to the projects itemized in this CBP, GGGI is exploring several other project origination areas in support of the GoM's 1) new National Liquid Sanitation and Wastewater Treatment Program (PNAM), which will require investments of USD4.1B by 2040, 2) new National Forest Plan, which aims for climate resilience, sustainable job creation and land restoration 3) Climate Action requirements (LT-LEDS and NDC support, MRV system development) 4) carbon focused engagements and 5) the design of a climate- oriented development policy loan that is focused on the sustainable transportation sector.

The program will contribute to these Strategic Objectives through the following two program priority areas:

1. Climate investments catalyze the green transition of Morocco's territories
2. Sustainable energy, transport and waste services foster low-carbon and inclusive cities and communities

With a focus on:

- GOP1, Programmatic Solution 1. Green investment – design of a multi-sectoral National Financing Vehicle (NFV) for climate finance; build capacity for the implementation of Article 6 of the Paris Agreement; design a climate finance investment project pipeline development capacity building program that mainstreams COVID-19 response strategies. GoM targets: Mobilize project investments to meet GHG emissions reduction target of 42% below BAU, mobilize finance to meet conditional target of USD 24 billion.

- GOP2, Programmatic Solution 2. Climate action - build capacity to plan, model, implement and enhance the country's NDC ambitions, MRV systems design. GoM targets: Mobilize project investments to meet GHG emissions reduction target of 42% below BAU, Mobilize finance to meet conditional target of USD24 billion.
- GOP4, Programmatic Solution 6. Waste management –improve urban waste management, waste recovery and social inclusion by improving the technical and investment framework conditions to implement : integrated organic waste to energy initiatives under the new National Biomass Energy Strategy; a used tire value chain and an ecosystem dedicated to their material recovery; and potentially the design of wastewater treatment and reuse approaches. GoM targets: Provide 52% of the installed electrical power from renewable sources (NDC; National Energy Strategy), Achieve 15% energy savings compared to Business as Usual (BAU) (National Energy Strategy) Reduce energy consumption in buildings, industry and transport by 15% (expected energy savings per sector: 48% for industry, 23% for transport, 1) (National Energy Strategy).
- GOP4, Programmatic Solution 7. Sustainable mobility - enhance low carbon transport approaches within the framework of the National Sustainable Mobility Roadmap, including the development of a CO2-based bonus-malus system for low carbon transport; redesign of the Vehicle Renewal and Scrapping Program; planning for the transition from Euro IV to Euro VI vehicle emissions standards. GoM targets: Protect 1,500,000 hectares against erosion, which will include the prioritization of 22 basins, for USD 260 million, Afforest 600,000 hectares for USD 46 million.

GGGI's Approach to Green COVID-19 Recovery Plans development: The socio-economic and psychological impacts of the pandemic affects all levels of the society and impacts the vulnerable populations disproportionately. GDP is expected to shrink in 2020 to 2% from its projected 3.5% due to the combined impacts of the pandemic and drought, which is the lowest drop in GDP in 20 years. The economic post recovery stimulus package is not yet publicly debated in Morocco, as attention has been focused on the urgent concerns of managing the health and sanitary crisis and ensuring the country's security and essential supplies, while addressing the critical needs of businesses, the unemployed, and of those working in the informal sector. The government has already called upon the IMF for loans to help stabilize the banking sector and meet the liquidity requirements for imports, and the European Union and the World Bank have provided assistance for SMEs. It is anticipated that socio-economic support programs now under development by Morocco's key partners, such as the, EU, AfDB and AFD, will help the Moroccan government with the post crisis recovery efforts, which are expected to be aligned with Morocco's climate objectives, the European Green Deal and EU Neighborhood policy, as well as the priorities of the African Union. As a trusted partner of Morocco, and of our mutual partners the European Union (EU), African Development Bank (AfDB), French Development Agency (AFD), Green Climate Fund (GCF), and NDC Partnership, GGGI is well positioned to continue its work as an advisor and delivery partner to develop climate readiness and to catalyze green investments in the GoMs priority areas of National Financing Vehicles (NFVs), NDC/LEDS enhancement support, MRV system development, carbon markets, climate resilient infrastructure, renewable energy, sustainable mobility, and waste value chains. Within this context, AFD has proposed to GGGI to provide support in scoping the design of a EUR 50 million –100 million climate oriented public policy loan focused on the sustainable transportation sector.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI Morocco continues to build ties with in-country priority donors as well as other donors active in Morocco. It conducted comprehensive partner and donor consultations during the CPF 2021 – 2025 development process, which contribute to the orientations of the 2021 - 2022 biennial country program. GGGI Morocco seeks to build on the organizational agreements in place with entities active in Morocco, in particular the GCF, EU, AFD, AfDB, and NDC Partnership to mobilize resources in common focus areas in support of the GoM.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Morocco for 2021-2022: Core from GGGI: **USD 0 million**; Government counterpart contribution: **USD 0.056 million**; and Partner co-financing of the program is expected at **USD 2.20 million** in the biennium for a total of **USD 2.25 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ⁶	Partner	Gap	Total	
2019-2020										
GOP 1	PS 1	MA02-Establishment of a National Financing Vehicle and capacity building program in Morocco (Pre-RM for MA13)	Jan 2019	Dec 2019	57,409	0	0	0	57,409	GGGI Core (MA02)

⁶ Current market value of two equipped offices, including security, cleaning, water and electricity charges provided by the Ministry of Energy, Mines and Environment, Department of Environment at USD 28K/Year.

GOP 1	PS 1	MA10-Structuring, prioritizing and investing in organic waste to energy in Morocco	May 2019	Jun 2022	0	0	54,200 ⁷	0	54,200	Foundation for Climate Protection and Carbon Offset (KliK)-Swiss
GOP 2	PS 2	MA12-Climate Action Enhancement Package (CAEP) Morocco	Jun 2020	Dec 2020	40,000	0	190,000	0	230,000	NDC-Partnership CAEP
GOP 1	PS 1	MA13-Enhancing access to climate finance in Morocco's regions	Jan 2020	Jan 2022	0	0	133,414	0	133,414	GCF Readiness
GOP 1	PS 1	GIS03-Identifying policy approaches under Article 6	Jul 2019	Jun 2020	0	0	23,264	0	23,264	Government of Norway, Ministry of Climate and Environment
		MAPM-C1	Jan 2019	Dec 2020	112,583	56,000	0	0	168,583	GGGI Core (MAPM-C1)
		MAPM-E1 Pre-RM (origination)	Jan 2019	Dec 2019	0	0	300,000	0	300,000	UAE
TOTAL					0.209 M	0.056 M	0.7 M	0	0.966 M	

Minus Scenario: In alignment with GGGI's proposed measures in response to COVID-19 core funding reductions, a new budget allocation table that defines a minus scenario has been developed for Morocco program, removing the core funding and providing a revised low scenario for project earmarked funding, as indicated in the table below:

Minus Scenario 2021-2022

GOP 4	PS 7	MA03-Policy development of a CO2 based Bonus-Malus system for new passenger vehicles	Sep 2021	Sep 2023	0	0	145,966	0	145,966	AFD ⁸
GOP 4	PS 7	MA04-Redesign of the scrapping and renewal premium program for the vehicle fleet in Morocco	Sep 2021	Sep 2023	0	0	101,645	0	101,645	AFD ⁹
GOP 4	PS 7	MA09-Support for the transition from the Emission Standard Euro 4/IV to Euro 6/VI in Morocco	Sep 2021	Sep 2023	0	0	101,922	0	101,922	AFD ¹⁰
GOP4, GOP 1	PS 6 PS 1	MA10-Structuring, prioritizing and investing in organic waste to energy in Morocco	May 2019	Jun 2022	0	0	596,159	0	596,159	Site (biogas) owners/operators under the KliK program
GOP4, GOP 1	PS 6 PS 1	MA11-Structuring of a used tire value chain and a used tire material recovery sector in Morocco	Jan 2021	Dec 2022	0	0	913,606	0	913,606	EU ¹¹
GOP 1	PS 1	MA13-Enhancing access to climate finance in Morocco's regions	Jun 2020	January 2022	0	0	292,913	0	292,913	GCF Readiness
GOP 1	PS 1	GIS03-Identifying policy approaches under Article 6	Jun 2020	Mar 2021	0	0	50,042 ¹²	0	50,042	Government of Norway, Ministry of Climate and Environment
Operations/Project Preparation						0.056				
TOTAL					0	0.056 M	2.20 M	0	2.25 M	

⁷ Disbursement of funding is contingent upon the GoM lifting of conditions established by the KliK Foundation. Total amount to be disbursed to be negotiated by consortium. Amount indicated is the minimum GGGI allocation.

⁸ Contingent upon outcome of trilateral discussions between GoM-AFD-GGGI on the structuring of a climate change public policy loan which will be prepared throughout the year 2021. USD 145,966 is the minimum budget to be secured for activities delivery in 2022. Additional budget will be considered to complete the project delivery which will last until September 2023.

⁹ GGGI and consortium partner MSConex will develop proof of concept and ToRs based on the prefeasibility and feasibility studies for 2 of the 11 – 15 sites, using the KliK earmarked US\$4,200 indicated in the 2019-2020 table above. Tenders will be issued by the municipalities that manage the jurisdiction of each of the 9 to 13 remaining sites. The winning bidders for each site will contract the consortium to conduct pre/feasibilities for each of the remaining sites, as well as develop the MRV framework and the Art 6 framework and provide stakeholder capacity building in these frameworks. We estimate a revenue of US\$99k per site for a minimum of 6 sites. USD596,159 = 6 biogas x USD99,000 (to conduct pre-feasibility and feasibility studies, develop MRV and Article 6 frameworks and stakeholder training).

⁹ Contingent upon outcome of trilateral discussions between GoM-EU-GGGI.

⁹ GGGI and consortium partner MSConex will develop proof of concept and ToRs based on the prefeasibility and feasibility studies for 2 of the 11 – 15 sites, using the KliK earmarked US\$4,200 indicated in the 2019-2020 table above.

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¹¹ Contingent upon outcome of trilateral discussions between GoM-EU-GGGI.

¹² Morocco is among the 6 shortlisted countries for Phase II. A total of 4 countries are expected to be selected in September 2020 and informed of a budget allocation.

V. RESULTS FRAMEWORK

GOP	PS	Projects	Outputs	Verification	Investment Targets	SO	SO Impact Estimation		IOs	Assumptions /Risks
							Attributed	Contributed		
GOP 1	PS 1	Structuring, prioritizing, and investing in organic waste to energy in Morocco	Proper conditions designed for structuring an organic waste to energy value chain and investment project Investments catalyzed. Mitigation outcomes achieved are transacted in carbon markets	Project monitoring, annual results, completion, and evaluation reports	USD M 67,5 ¹³	SO1 SO2 SO3	Provide 52% of the installed electrical power from renewable sources (NDC; National Energy Strategy)	SO1 Reduced GHG emissions by 10.125m MT CO2e SO2: Creation of 500 green jobs SO3 Increased access to sustainable (waste) services: 45% recycled materials rate achieved (National Waste Valorization Strategy SNRVD)	Climate finance leveraged through carbon markets to support the scaling of emission reductions ambition and reduction of water contamination	-Corresponding adjustments made -proof of concept demonstrates viable program -EM from EU, or approval from Ministry of Interior to build consortium into municipal ToRs
GOP 1	PS 1	Structuring of a used tire value chain and a used tire material recovery sector in Morocco	Proper conditions designed for structuring a scrap tire value chain; Proper conditions designed to catalyze the scrap tire material recovery ecosystem and investment cases developed	Project monitoring, annual results, completion and evaluation reports; Expressions of Interest/Letters of Commitment	USD M 17.8	SO1 SO2 SO3 SO4	Data not available	SO1 Reduced GHG emissions (project data not available) SO2: Creation of green jobs (no national target set, project data not available) SO3 Increased access to sustainable (waste) services: 45% recycled materials rate achieve (SNRVD) Recovery rate of used tires to increased to 80% (SNRVD) SO4: Air quality improved (no national target set, no project data available)	-Scrap tires are inclusively and sustainably managed in Morocco -Investments in the circular economy increased	-EM from EU -Interministerial cooperation
GOP 1	PS 1	Enhancing access to climate finance in Morocco's regions	One bankable project concept note developed Establishment of a national financing vehicle (NFV)	Project progress and completion report, including - 1 concept note developed and submitted to GCF or other funding sources - NFV design, Steering Committee	USD M 75 ¹⁴	SO1 SO2 SO3 SO4 SO5 SO6	Data not available	SO1 Project investments mobilized to meet GHG emissions reduction target of 42% below BAU; Finance mobilized to meet conditional target of USD24 billion SO2, SO3, SO4, SO5, SO6 Project data unavailable	Climate finance strategies and project pipeline strengthened	Assumptions: -Virtual delivery -Full implication of key institutional partners; Risks: COVID-19 Delay in implementation Change in government Inadequate GCF Focal Point HR

¹³ According to the MAIN document submitted to KliK Foundation, Investment cost per site is around USD M 4,5 then for up to 15 Biogester sites the total investment cost is USD M 67,5

¹⁴ Once a project pipeline has been developed, project opportunities will be showcased by GGGI to investors to capitalize the NFV. First round of capitalization is expected to reach up to USD M 75. Potential financiers comprise the Green Climate Fund, European Union, Islamic Development Bank, African Development Bank, European Bank for Reconstruction and Development, European Investment Bank, French Development Agency, World Green Economy Organization, as well as other donors, local public and private financing Institutions.

				established, Fund Manager selected						
GOP 1	PS 1	Development of policy approaches under Article 6	Feasibility study Identification of policy approaches Development of policy approaches	Project monitoring, annual results, completion and evaluation reports	N/A global programme	SO1 SO3	Data not available	SO1 Project investments mobilized to meet GHG emissions reduction target of 42% below BAU; Finance mobilized to meet conditional target of USD24 billion SO3 Increased access to sustainable (energy) services (project data unavailable)	Climate finance leveraged through carbon markets to support the scaling of emission reductions ambition.	-Sector data available -Government implication
GOP 4	PS 7	Policy development of a CO2 based Bonus-Malus system	Proposed design of the bonus-malus system and a list of recommendations for implementation Monitoring and adjustment of the system	Project monitoring, annual results, completion and evaluation reports	N/A Policy work	SO1 SO3 SO4	Data not available	SO1 Reduced GHG emissions through energy use reduced by 23% in the transport sector (NDC) SO3: Increased access to sustainable services (public transport) (no national target set, no project data available) SO4: Improved air quality (no national target set, no project data available)	-GHG emissions reduced -Energy efficiency improved -Investment and technological innovations in low-carbon passenger vehicles scaled	-EM from AFD - Ministry of Finance buy-in - Social inclusion through well designed mitigation measures
GOP 4	PS 7	Redesign of the scrapping and renewal premium program for the vehicle fleet in Morocco	Vehicle renewal and scrapping program redesigned Capacity building conducted on the implementation and management of the redesigned program	Project monitoring, annual results, completion and evaluation reports	USD M 129 ¹⁵	SO1 SO2 SO3 SO4	Data not available	SO1 Reduced GHG emissions 9.699 MtCO ₂ e SO2: Creation of 6,708 green jobs (no national target, no project data available) SO3: Increased access to sustainable services for 1.108 million	Air pollution and GHG emissions reduced; road safety improved	-EM from AFD - Ministry of Finance buy-in -Policy recommendations implemented -Investments derisked
GOP 4	PS 7	Support for the transition from the Emission Standard Euro 4/IV to Euro 6/VI in Morocco	Expected costs and benefits associated with the transition to Euro 6/VI assessed Implementation plan for Euro 6/VI developed	Project monitoring, annual results, completion and evaluation reports	N/A Policy work ¹⁶	SO1 SO4	Data not available	SO1 Reduced GHG emissions through energy use reduced by 23% in the transport sector (NDC) SO4: Air quality improved (no national target set, no project data available)	-Air pollution and GHG emissions reduced -National vehicle producers and fuel suppliers products greened	-EM from AFD - Ministry of Finance buy-in -Regulatory risk: Private sector stakeholders endorse recommendations

¹⁵ An emergency revision to the renewal and scrapping program has been proposed as an amendment to the 2019 Finance Law, to take effect on January 1, 2019 and be valid through December 31, 2023. The amendment increases funding for the program, providing a budget of 1.25 billion dirhams ~ USD M 129

¹⁶ Policy work related as GGGI intervention, as agreed with the Ministry of Transport, will only focus on developing an implementation plan scenario for Euro 6 transition and it is up to the state to decide whether or not to adopt it and to consider its implementation.

RWANDA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Rwanda has made significant progress in its vision to become a middle-income country through Vision 2020 that has started in 2000, which since has evolved into Vision 2050. Both visioning processes came with their medium-term strategies in the form of the Economic Development and Poverty Reduction Strategies (EDPRS1&2), and the National Strategy for Transformation (NST1), where urbanization has been identified as one of the key growth drivers of the country. Over the last decade, Rwanda has experienced noticeable growth, among the top in Africa and globally. In 2019, economic growth reached 9.4%, the highest in the decade. The Rwandan economy has undergone structural changes where the share of agriculture sector has been declining while services sector and industry sector were the main drivers of growth, thanks to a number of government programs and strategies geared towards becoming a middle-income economy. Recently, government strategy to make Rwanda a tourism hub and “Made in Rwanda” initiatives started to pay off, creating growth opportunities in both services and industry sector. In addition, implementation of infrastructure and information and communications technology (ICT) projects are also set to boost productivity and economic growth in the future.

These visions and strategies laid the foundation to building an inclusive, climate resilient and green economic pathway through a robust policy making process that closely aligns to national and international development commitments, including the Green Growth and Climate Resilient Strategy (GGCRS), the recently updated¹⁷ Nationally Determined Contributions (NDCs), and the Sustainable Development Goals (SDGs). GGGI Rwanda has been playing a pivotal role in the development and implementation of the government’s green growth policy landscape with close collaboration with government ministries and agencies (see Section III. Partnerships and Resource Mobilization).

In the past years, GGGI in Rwanda has successfully contributed to government priorities in the areas of green urbanization that anchors economic development, environmental sustainability, gender equality and social inclusion. The National Roadmap for Green Secondary City Development¹⁸ developed in 2015 and adopted in 2016 set the stage for policy framework implementations that guided the EDPRS2 in the Secondary Cities as well as sustainable infrastructure guidelines and related institutions in projects such as green city master plans, district development strategies, green buildings, sustainable mobility, waste management, public spaces, and most importantly attracting related green investment finance. Capacity development and coordination of government’s work on green growth has been the hallmark of these past years of GGGI’s engagement through tailored technical advisory support rendered to different government institutions and agencies at the national and sub-national levels.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Rwanda with a focus on green urbanization, which itself is a multi-sectoral and multi-stakeholder endeavor. Following the work on national and district level green urbanization strategies and plans. GGGI is prioritizing sub-sector level interventions to implement the strategies and plans giving priority on greening the building and construction sector, demonstrating circular economy in waste management and promoting sustainable mobility in cities. GGGI Rwanda, as continuation of our strategy and policy work, will also focus on urban climate resilience and sustainable landscape management through the GCF National Adaptation Planning process. These activities contribute to:

- SO1 Reduced GHG emissions- From promoting green buildings, applying circular economy in waste management and introducing sustainable mobility options
- SO2: Creation of green jobs – Especially in the building and construction sector though promoting Made in Rwanda local green building materials; creating green job opportunities by promoting waste to resource facilities
- SO3: Increased access to sustainable service – Through improved management of waste, while demonstrating waste to resources opportunities
- SO4: Improved air quality – By promoting sustainable mobility, especially through introducing electric buses for public transportation and non-motorized transport options
- SO6: Enhanced adaptation to climate change – From national adaptation readiness and preparatory support for building flood resilience capacities in Rwanda

With a focus on:

¹⁷ https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Rwanda%20First/Rwanda_Updated_NDC_May_2020.pdf

¹⁸ <https://gggi.org/site/assets/uploads/2017/12/National-Roadmap-for-Green-Secondary-City-Development.pdf>

- GOP1 Programmatic Solution 1. Green Investment related activities will be incorporated as one of the outcomes of programmatic solutions mentioned under GOP4.
- GOP2, Programmatic Solution 2. Climate action related activities will be incorporated as one of the outcomes of programmatic solutions mentioned under GOP4.
- GOP4, Programmatic Solutions 6. Waste Management – Improving the management of municipal solid waste including electronic waste, through better separation, increased collection and valorization process
- GOP4, Programmatic Solutions 7. Sustainable Mobility – Supporting the introduction of electric buses in Kigali and non-motorized transport initiatives in Kigali and in the Secondary Cities
- GOP4, Programmatic Solutions 8. Green Buildings – Greening new construction and existing building stock in Rwanda as well as greening the building and construction value chain.

Note that GOP5, especially on gender mainstreaming, will be integrated into programs as appropriate.

GGGI’s Approach to Green COVID Recovery Plans Development: In Rwanda, activities restricted to curb the spread of the virus represent almost 60 % of total GDP, and 50 % of employees are currently restricted in carrying out economic activities. The recent achievements in Rwanda’s economy were supported by an increase in integration in the global economy, notably in trade of goods and services and finance. Subsequently, the disruptions in the global economy following the outbreak of COVID-19 and necessary containment measures taken by the Government of Rwanda to curb the spread have led to low economic activity, especially since mid-March 2020, with the exception of the agriculture sector where activities are ongoing, while most activities in industry sector and services sector are restricted.

The health and security of citizens are a priority for the Government of Rwanda as the country responds to the COVID-19 pandemic. However, with the lockdown measure to contain the virus, economy and businesses have suffered, with low-income and vulnerable groups being most affected. There is a need to limit the socio-economic impacts of the crisis, while using this opportunity to build back the economy better, greener and more resilient. GGGI will continue supporting the country in building urban resilience that incorporates post COVID-19 considerations while contributing to economic stability through business development and job creations, especially in sectors that have been impacted significantly by the pandemic, such as the six targeted post-COVID-19 recovery interventions identified as below:

- Post COVID-19 green economic recovery by promoting energy efficiency in new and existing public buildings and creating green jobs in Rwanda
- Green public open spaces for community recovery in Rwanda’s secondary cities post COVID-19 pandemic
- Reducing operation costs and creating green jobs for Rwanda’s tourism industry post COVID-19
- Strengthening urban agriculture practices to improve food security and provide income support for urban dwellers in Rwanda post COVID-19 pandemic
- COVID-19 response: Modernization of agricultural markets and value chains
- Water and sanitation systems post COVID-19 recovery in Rwanda

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI works in partnership with the national and local government, development partners, private sector, CSOs, academia and relevant stakeholders to advance Rwanda’s green growth and climate action agenda. These partnerships are geared towards building synergies as well as mobilizing resources that will support the government to achieve their vision of an inclusive, climate resilient green economy. The following list summarizes GGGI’s partnerships with key government entities and development partners and ongoing resource mobilization opportunities:

Government partners:

- Ministry of Infrastructure (MININFRA) and Ministry of Environment (MoE) are currently GGGI’s two main anchoring ministries. GGGI also works closely with the Rwanda Housing Authority (RHA), Water and Sanitation Corporation (WASAC), Rwanda Utilities Regulatory Authority (RURA), Rwanda Environment Management Authority (REMA), Aviation Transport and Logistics (ATL), Rwanda Transport Development Agency (RTDA), and the Rwanda Green Fund (FONERWA), as affiliated agencies under MININFRA and MoE.
- Ministry of Local Government (MINALOC) together with the District Offices in the Secondary Cities are GGGI’s government counterparts for activities in the Secondary Cities. There is also increasing collaboration with the Local Administrative Entities Development Agency (LODA) in building capacity and supporting socio-economic development of decentralized entities.

- Ministry of Finance and Economic Planning (MINECOFIN) is an important partner for coordinating activities and ensuring that climate resilient green growth is an integral part of Rwanda's development vision
- Ministry of Gender and Family Promotion (MIGEPROF) and the affiliated Gender Monitoring Office (GMO) are important partners to support the mainstreaming of gender in GGGI's projects and programs.
- Ministry of Trade and Industry (MINICOM) is also becoming an important partner for GGGI as we support private sector and industrial development for green building and construction materials and promote circular economy and waste valorization.
- Ministry of Foreign Affairs and International Cooperation (MINAFETT) has supported GGGI's operations in Rwanda as an international organization that has a Host Country Agreement with the Government of Rwanda.
- City of Kigali (COK) is an important partner for GGGI for activities related to the revised Kigali City Master Plan, as well as for building flood resilience capacities, wetland management and municipal solid waste management.
- Ultimate Developers Limited (UDL) a real estate developer in Rwanda 100% owned by the Rwanda Social Security Board (RSSB) are also important partners for GGGI Rwanda to incorporate green building principles in their upcoming real estate development projects and asset management practices in Rwanda

Development and resource mobilization partners:

- Green Climate Fund (GCF) – Delivery partner for Rwanda's GCF Readiness Support Program with completed and ongoing projects totaling over US\$3M to date. Key outputs from GCF Readiness projects include the development of Rwanda National Adaptation Plan (NAP) for submission to UNFCCC, formulation of bankable project concept notes for funding from GCF and other climate finance sources.
- Italian Ministry for the Environment, Land and Sea (IMELS) – Currently supporting REMA to implement the MoU between IMELS and the Government of Rwanda to strengthen long-term enabling environment for green growth through improving institutional capacity on climate action and NDC implementation
- Government of the Grand Duchy of Luxembourg – Resource mobilization efforts are underway to secure funding to implement sustainable waste management initiatives as a delivery agency mentioned under the Memorandum of Understanding between Government of Luxembourg and Government of Rwanda.
- World Bank – Closely working with World Bank's Rwanda Urban Development Project (RUDP Phase I & II) in Kigali and 6 Secondary Cities
- UN-Habitat – Collaboration on green urbanization and smart cities in Rwanda both at the national and sub-national level
- Enabel – Collaboration on green urbanization with a focus on "Made in Rwanda" building and construction materials. Discussions are underway to mobilize resources under the green urban development thematic area for GCF funding with Enabel providing co-financing
- DFID (or Foreign, Commonwealth and Development Office) – Cities for Infrastructure and Growth (CIG) program will initiate soon in Rwanda and there are opportunities to collaborate with DFID on projects linked with green urban development
- EU Delegation – Potential opportunity for resource mobilization to support energy efficient buildings and urban-rural linkages related initiatives
- SIDA – Potential Opportunity for resource mobilization to support biodiversity and sustainable landscape
- FONERWA – Collaboration on green investment and support to project implementation (especially the affordable housing component of GCF funded project (FP073) on Strengthening Climate Resilience of Rural Communities in Northern Rwanda and KfW funded Green City Kigali)

GGGI Rwanda is also exploring partnership opportunities with *Agence française de développement (AFD)* who plans to open their office in Rwanda especially on waste management and sustainable mobility related interventions, as well as African Development Bank on supporting their green investment pipeline development in the waste management sector. There is also on-going dialogue with the Korea International Cooperation Agency (KOICA), USAID and KfW on possible collaboration.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Rwanda Country Program for 2021-2022: **\$0.22 million**; Government counterpart contribution: **\$0.06 million (in-kind)**; and Partner co-financing of the program is expected at **\$4.63 million** in the biennium for a total of **\$4.91 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation				Funding			Resource Mobilization
			Inception	Completion	GGGI	Gov ¹⁹	Partner	Gap	Total	
2019-2020										
GOP2	PS 2	Inclusive green urban development	01/2019	12/2020	0.20	In-kind contribution (MININFRA/ District Offices)	-	-	0.20	
GOP2	PS 2	Post COVID-19 recovery through building urban adaptation & resilience ²⁰	04/2020	12/2020	0.11	In-kind contribution (MININFRA/ District Offices)	-	-	0.11	Post COVID-19 recovery concept notes prepared for RM from EU and SIDA (for earmarked project programming in 2021/22)
GOP2	PS 2	Supporting climate change, vulnerability, mitigation & adaptation	05/2019	12/2020	-	In-kind contribution (REMA)	0.27	-	0.27	IMELS-GGGI Contribution Agreement Phase 2
GOP2	PS 2	National Adaptation Readiness and Preparatory Support for Building Flood Resilience Capacities in Rwanda	01/2020	12/2020	-	In-kind contribution (MININFRA/ District Offices)	0.68	-	0.68	GCF NAP Readiness and Preparatory Support
GOP2	PS 2	Readiness Support to Capacitate Rwanda's subnational level actors in green growth and climate resilience	05/2020	11/2021	-	In-kind contribution (MININFRA/ District Offices)	0.30	-	0.30	GCF Readiness
GOP4	PS 8	Green infrastructure planning & delivery	01/2019	12/2020	0.18	In-kind contribution (RHA)	-	-	0.18	RM efforts underway to support greening airport project beyond 2020
GOP4	PS 6	Improving solid waste management practices in Kigali and in Secondary Cities	03/2020	12/2020	0.13	In-kind contribution (MININFRA)	-	-	0.13	RM efforts underway targeting Luxembourg on solid waste management and DFID on agricultural waste in partnership with Tony Blair Institute/NAEB ²¹
GOP4	PS 7	Supporting the introduction of public electric bus in Kigali	03/2020	12/2020	0.11	In-kind contribution (MININFRA)	-	0.10	0.21	Seeking initial financing from AFD or EU Delegation for more programmatic RM in 2021/22
GOP4	PS 7	Strengthening, prioritizing, and investing in non-motorized transport infrastructure	04/2020	12/2020	-	In-kind contribution (MININFRA)	0.03	-	0.03	Small scale funding agreement with UNEP as their delivery partner in Rwanda to implement "Investing in Walking and Cycling Policies in African Cities" funded by UNDA.
GOP4	PS 8	Greening Rwanda's building and construction sector	03/2020	12/2020	0.11	In-kind contribution (RHA)	-	0.10	0.21	Seeking initial financing from EU Delegation for more programmatic RM in 2021/22
TOTAL					0.84	0.06	1.28	0.20	2.38	

¹⁹ Provision of office space and communication/internet services accommodating approximately 10 staff and consultants at the Ministry of Infrastructure (MININFRA), Rwanda Housing Authority (RHA), Rwanda Environment Management Authority (REMA) and in the 6 District Offices.

²⁰ PIN under development

²¹ National Agricultural Export Development Board, Rwanda

2021-2022										
			Inception	Completion	GGGI	Gov ²²	Partner	Gap	Total	
GOP2	PS 2	Supporting climate change, vulnerability, mitigation & adaptation and post-COVID-19 recovery	01/2021	12/2022	0.05	In-kind contribution (REMA/MININFRA/District Offices)	0.06	0.30	0.41	IMELS-GGGI Contribution Agreement Phase 2 and follow-up RM including Post COVID-19 recovery
GOP2	PS 2	National Adaptation Readiness and Preparatory Support for Building Flood Resilience Capacities in Rwanda	01/2021	01/2022	-	In-kind contribution (MININFRA/District Offices)	1.02	-	1.02	GCF Readiness
GOP2	PS 2	Readiness Support to Capacitate Rwanda's Subnational Level Actors in Green Growth and Climate Resilience	01/2021	11/2021	-	In-kind contribution (MININFRA/District Offices)	0.35	-	0.35	GCF Readiness
GOP4	PS 6	Waste to Resources: Improving Municipal Solid Waste (MSW) and Hazardous Waste Management in Rwanda	01/2021	12/2022	-	In-kind contribution (MININFRA)	-	1.88	1.88	MoU between Government of Rwanda and Government of Luxembourg finalized for support in waste management sector (with GGGI as delivery agency)
GOP4	PS 7	Strengthening, prioritizing, and investing in non-motorized transport infrastructure and piloting sustainable mobility strategies in key cities	01/2021	12/2021	0.12	In-kind contribution (MININFRA)	0.05	0.20	0.37	Building from UNDA/UNEP project and public e-bus work, seeking RM from EU and/or AFD to develop sustainable mobility program
GOP4	PS 8	Greening the building and construction sector along the value chain ²³	01/2021	12/2022	0.05	In-kind contribution (RHA)	-	0.77	0.82	Seeking RM from EU, GCF, and/or DFID
Operations/Project Preparation										
TOTAL					0.22	0.06	1.48	3.15	4.91	

²² Provision of office space and communication/internet services accommodating approximately 10 staff and consultants at the Ministry of Infrastructure (MININFRA), Rwanda Housing Authority (RHA), Rwanda Environment Management Authority (REMA) and in the 6 District Offices.

²³ Improving energy efficiency in existing public building stock and developing local and green building material industries in Rwanda

V. RESULTS FRAMEWORK

GOP	PS	Projects	Outputs	Verification	Investment Targets	SOs	SO Impact Estimation		IOs	Assumptions and Risks ²⁴
							Attributed	Contributed		
GOP 2	PS 2	Supporting climate change, vulnerability, mitigation & adaptation and post-COVID-19 recovery	<ul style="list-style-type: none"> • Concept notes and proposals on NDC implementation • Business to business (B2B) exchange initiatives on climate and green growth • Resource efficiency and green jobs created for COVID-19 affected Rwanda's tourism industry • Urban-rural linkages improved to support livelihood recovery and build urban resilience 	<ul style="list-style-type: none"> • Concept notes and proposals • B2B activity materials • Capacity building materials & knowledge products • Project documents, monitoring, annual results, completion and evaluation reports 	\$5M	SO1, SO2, SO3, SO5, SO6	CPI = 0.00013 Ha for Nyandungu Wetland project 12,490 beneficiaries GHG reduction of 60 tCO2e	-	IO1, IO2, IO3	<ul style="list-style-type: none"> • B2B event disrupted due to COVID-19 • Government commitment (espec. Italian) • Interest from donors and funding availability
		National Adaptation Readiness and Preparatory Support for Building Flood Resilience Capacities in Rwanda	<ul style="list-style-type: none"> • Rwanda National Adaptation Plan (NAP) for submission to the UNFCCC prepared • Coordination framework on flood mitigation and landslide prevention • Technical studies for storm water and landslide management • Concept notes and financial models on flood mitigation and landslide prevention • Knowledge base developed on flood/landslide disaster management strategies 	<ul style="list-style-type: none"> • Steering Committee meeting minutes • Technical studies, concept notes and knowledge products • Project progress and completion reports submitted to GCF 	\$10M	SO2, SO5, SO6	GHG reduction of 120 tCO2e 100 green jobs created CPI = 300 staff and stakeholders as direct beneficiaries of training on effective flood and mitigation and landslides prevention	TCI = Potential of 0.31 million indirect beneficiaries-residents of the urban areas susceptible to flooding and landslides	IO1, IO2, IO3	<ul style="list-style-type: none"> • Cooperation from stakeholders
		Readiness Support to Capacitate Rwanda's subnational level actors in green growth and climate resilience	<ul style="list-style-type: none"> • NDA inter-institutional coordination mechanism established • Monitoring & verification system for climate finance flows developed • Private sector stakeholders trained 	<ul style="list-style-type: none"> • Meeting minutes and reports • Climate finance M&V system • Training materials • Project progress and completion reports submitted to GCF 	\$5M	SO1, SO2, SO6	N/A	N/A	IO1, IO3	<ul style="list-style-type: none"> • Cooperation from stakeholders
GOP 4	PS 6	Waste to Resources: Improving Municipal Solid Waste (MSW) and Hazardous Waste Management in	<ul style="list-style-type: none"> • Organic and plastic waste valorized; business model developed • E-waste collection points established • Regulatory framework developed; capacity building and outreach carried out 	<ul style="list-style-type: none"> • Project monitoring, annual results, completion and evaluation reports • Business model • E-waste collection points • capacity building/ outreach materials 	\$10M	SO1, SO2, SO3	389,287 beneficiaries from improved sanitation GHG reduction of 578,034 tCO2e	Approx. 90,000tCO2e reduced per year; 389,000people with improved waste disposal	IO1, IO2, IO3	<ul style="list-style-type: none"> • Funding agreement with Luxembourg • Viability of selected technical

²⁴ Common risk for all projects is COVID-19 disruptions and change in government policy priority,

	Rwanda						129 new green jobs	access		<ul style="list-style-type: none"> solutions Market interest
PS 7	Strengthening, prioritizing and investing in non-motorized transport (NMT) infrastructure and piloting sustainable mobility strategies in key cities	<ul style="list-style-type: none"> Stakeholder engagement framework and report National level commitments to NMT investment/ interventions City level NMT investment action plan Piloting of sustainable mobility options in select cities (e.g., public e-buses in Kigali) 	<ul style="list-style-type: none"> Stakeholder reports NMT plans Feasibility studies for selected pilots Project monitoring, annual results, completion and evaluation reports 	\$5M	SO1, SO2, SO3, SO4	<p>GHG reduction of 375,939 tCO₂e</p> <p>260 new green jobs</p> <p>42,945 beneficiaries</p>	N/A	IO1, IO2, IO3	<ul style="list-style-type: none"> Government buy-in and commitment Cooperation from stakeholders Interest from donors and funding availability 	
PS 8	Greening the building and construction sector along the value chain (including improving energy efficiency in existing public building stock and developing local and green building material industries in Rwanda)	<ul style="list-style-type: none"> Pilot demonstration of energy efficient measures in select existing buildings Business case for energy efficiency in existing building stocks Skills and knowledge of the facility managers improved to implement energy efficiency solutions Mapping of building and construction sector value chain Business plan for developing select/priority industries producing green building materials 	<ul style="list-style-type: none"> Project monitoring, annual results, completion and evaluation reports Business case report with results from pilot demonstrations Training materials Mapping report Business plan 	\$5M	SO1, SO2, SO4	<p>SO₂ CPT = 0.03 million jobs will be created just in the brick sector by promoting green and locally produced green building materials</p> <p>GHG reduction of 179,211tCO₂e</p> <p>TAI = 43 green jobs</p>	SO ₁ NTL = 0.79 MtCO ₂ e for implementing Rwanda Green Building Minimum Compliance System	IO1, IO2	<ul style="list-style-type: none"> Cooperation from facility managers Interest from donors and funding availability Market interest 	

SENEGAL

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI operations in Senegal started in 2016 during the phase 1 of the **Emerging Senegal Plan (PSE)**. In line with the second phase of Senegal's **Emerging Senegal Plan (PSE)**, GGGI supports the Government of Senegal (GoS) in its transition to a green, emerging Senegal, focusing on greening the country's growth engines: Cities as well as on sectors key to the achievement of its NDCs and where growth connects to green job creation. Building on its early work on guidelines for green cities, and assessment of rural renewable energy for productive use (RE4PU), GGGI has helped the GoS design its National Green Growth Strategy. During the 2019-20 biennium, GGGI's advice has helped progress from setting the agenda in favor of national and subnational green growth pathways, to mobilizing finance for secondary cities' green infrastructure. GGGI's work has resulted in the approval of 9 municipal strategies and roadmaps, the launch of Senegal's Secondary Green Cities network and green buildings platform, and the mobilization of 3.3 M USD at the benefit of transformative solid and liquid waste treatment and valorization projects. GGGI's program also helped identify opportunities for renewable energy to be used at the benefit of improved agricultural productivity and resilience to climate change in the rice value chain. The transverse focus on the financing of Senegal's NDC targets led to the structuring of innovative partnerships with financial institutions (FONSIS, La Banque Agricole) and investment project preparation for scalable financing vehicles such as the Renewable and Energy Efficiency Fund (REEF). Taken together, these initiatives are expected to deliver a reduction of more than 30 million tCO₂e over the next 20 years, provide access to sustainable waste management infrastructure to 1,860,000 people and create 700 green jobs.

Senegal's economic growth has been high, over 6% since 2014 (WB, 2019), and the forecast pre-Covid19 was optimistic. Questions of sustainability and inclusiveness remain, as growth prospects are correlated with oil and gas production, and as job creation is insufficient to absorb internal migration and a growing labor force. Most labor is informal, entailing low remuneration, underemployment, and limited social protection and the PSE has identified the creation of green jobs as one of its priorities. In light of the Covid19 economic and social impacts, improving productivity and employment in sectors where the poor are most active, and work is informal is essential for the country to maintain course towards the achievement of SDGs and NDCs.

- **Agricultural productivity, climate change and land degradation** - In rural areas, difficulties in accessing production factors (energy, water, quality inputs) result in low crop yields and poor transformation of agricultural raw materials. These combined with rapid population growth, soil degradation, depletion of soil nutrients, and climate change, have resulted in deforestation, land, air and water pollution.
- **Haphazard, rapid and large-scale urbanization** - With nearly half of the population living in urban areas, Senegal has an urbanization rate higher than the average in sub-Saharan Africa (40%). The lack of economic opportunity in rural areas has led the proportion of urban dwellers to almost double in recent decades and is expected to reach 60% by 2030. Cities are now the main drivers for growth, accounting for 65% of the national GDP, and 55% for Dakar alone. A chronic infrastructure deficit and lack of public services combined with haphazard spatial planning and weak infrastructure investment has led to severe impacts on the environment, human health and well-being.
- **Financing gap for NDCs and SDGs** - The estimated cost of PSE PAP2 climate projects is of around 3,162 billion XOF, while that of unconditional NDC is 2,734 billion XOF. Improving the environment for businesses to thrive, while catalyzing private investment into climate and green projects is crucial.

By focusing its interventions on the development of sustainable waste management and mobility in secondary Cities, and on climate resilient agriculture in rural areas, GGGI supports the revitalization of both as potential drivers for green growth, youth and women employment and poverty reduction, while helping address the climate crisis.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Senegal in the implementation of the second Priority Action Plan of the PSE (2019-2023) and the achievement of its SDG and NDC targets. Senegal's CPF 2019-2023 articulates three focal outcomes, in link with GGGI's Global Operational Priorities (GOP):

1. Enhanced green and inclusive governance for green growth and climate action (GOP1, GOP5) and increased access to finance for NDCs and SDGs (GOP2).
2. Accelerated low-carbon urban development and strengthened resilience to climate change of Senegalese secondary cities (GOP 4).
3. Investment mobilized for renewable energy for productive use in agriculture and climate smart practices in rural areas (GOP3).

Aligned with the above, GGGI's 2021-2022 Country Business Plan (CBP) will have the following impact with regards to GGGI Strategic Objectives:

- SO1: Reduced GHG emissions - GGGI will contribute to the 27.3% reduction in GHG emissions by 2025 under a conditional scenario, including 65,28% in waste, 8,76% in AFOLU; 38,5% in energy (NDC).
- SO3: Improved access to sanitation - GGGI will support increased access to sanitation in urban areas from 67% in 2017 to 86%, and in rural areas from 42% in 2017 to 65% by 2023 (PSE);
- SO4: Green jobs creation - Increase decent jobs creation, including an increase women employment from 32.8% in 2016 to 35% by 2023 (PSE);
- SO6: Enhanced adaptation to climate change: GGGI will contribute to 387,352 ha of farmland under sustainable land management by 2030 (NDC);

Corresponding impacts will be delivered via the introduction and scaling of the following programmatic solutions:

- GOP 1 - PS1 - Green Investments: mobilize finance for bankable projects in the circular economy, particularly solid waste and sanitation byproducts treatment and valorization, sustainable transport, green buildings, renewable energy for productive use and climate smart agriculture; Support FONSIS, La Banque Agricole to gain direct access to climate finance and develop a pipeline of bankable climate projects; Enhance readiness of Senegal to use market mechanisms under the Article 6 of the Paris Agreement.
- GOP 2 – PS2- Climate action: provide policy advice to connect economic stimulus packages to SDGs and NDCs achievement, support for NDC policy enhancement and implementation in sanitation and waste.
- GOP 3 – PS3 -Climate Resilient Agriculture: Consolidate and scale up the introduction of Climate Smart Agriculture practices and technologies with a focus on Renewable Energy for Productive Use (RE4PU) such as solar powered irrigation systems in rural areas.
- GOP 4 – PS6 -Waste management: Support the design of a favorable policy environment for a circular economy and the scaling up, development and financing of innovative, private sector led business models to drive investment into low carbon, sustainable and inclusive solid and liquid waste value chains.
- GOP4 - PS7 - Sustainable mobility: Policy and investment advice for the development of sustainable mobility options in newly developed urban poles, helping reduce impacts on urban air pollution.

GGGI's Approach to Green COVID Recovery Plans development: Covid19 is expected to affect Senegal's GDP growth forecast by around 4% in 2020 alone, under a conservative scenario. Beyond the impact on people's health, livelihoods, employment and food security will be severely affected. Four economic sectors are particularly hit by the pandemic: hospitality and tourism, trade, transport and education. Senegal's reliance on imports for certain types of commodities also makes it vulnerable to supply chains' disruption and export quotas, increasing the risk of food insecurity. After being focused primarily on managing the crisis, the GoS has shifted its focus towards economic recovery. A package of short-term economic support measures under the *Economic and Social Resilience Plan (PRES)* have been adopted and target the following (i) strengthening of the health system (ii) strengthening the resilience of people (iii) macroeconomic and financial stability to support the private sector and maintain employment (iv) secure supply of hydrocarbons, medical and pharmaceutical products, and critical supplies. An amount of 1,000 billion FCFA are expected to be mobilized from public, international and private sources, and will be pooled under the FORCE COVID19 Fund, which will be the primary vehicle to channel these. The PRES targets both the lightening of the fiscal and debt burden for key affected sectors and households, as well as direct in cash and in-kind economic support and stabilization. The GoS is in the process of reviewing the second Priority Action program (PAP2) of the PSE, considering the impacts of Covid19. The Recovery Plan for the National Economy (PREN) is being drafted for the period 2020-2021 under the lead of Senegal's Ministry of Economy, Planning and Cooperation. Although its details are not yet disclosed, its priorities are likely to revolve around two main pillars: investment support and consumer support. This, by targeting sectors such as tourism, fisheries, pharmaceuticals, digital, agribusiness, agriculture, and construction. Forestry and reforestation may also play a role in the latter. GGGI, together with other key development partners, has indicated the importance of continued political commitment to climate action and greening the economy despite the crisis and to ensuring future economic stimulus and recovery plans help accelerate the transition towards strong, inclusive and climate resilient economic growth.

GGGI programs in Senegal are well positioned to support green recovery. Existing projects in waste and sanitation have a strong connection to improve public health. GGGI Senegal is currently reviewing how to incorporate emerging issues (e.g. sanitation and Covid19) into its existing portfolio. Target groups include vulnerable people and informal workers, most affected by Covid19. Projects in climate resilient agriculture also strongly connect to improved productivity, resilience to shocks and food security. Programming during the coming biennium intends to provide support to the GoS in connecting recovery plans to the achievement of SDGs and NDCs and helping mobilize finance at scale for their implementation. The program already focuses on some of the sectors where potential for immediate job creation exist namely agriculture and forestry.

The current, GGGI Covid19 response is exploring the following areas: Building Agricultural Safety Nets through the climate resilient agricultural value chains and acceleration renewable energy use

– this includes access to clean energy for vulnerable households enabled through Solar Irrigation and use of renewable energy for the transformation of agricultural raw material, the restoring degraded landscapes to generate employment and build long-term resilience – where technology and investment packages will create short term jobs, help accelerate recovery from Covid19.

Restoring and safeguarding COVID-19 impacted livelihoods through short-term and long-term transformational change towards a more resilient, low carbon tourism sector.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI Senegal’s partnerships and resource mobilization strategy relies on GGGI’s trusted partnership with key Government Ministries and agencies, financial institutions as well as on the delivery and visibility of the tangible results and impacts of its past and current projects. Green cities projects funded by existing partners (Government of the Grand Duchy of Luxembourg, Bill & Melinda Gates Foundation), will continue, helping demonstrate the viability of GGGI’s approach, working across value chains, and focusing on the development of business models attractive for the private sector, while striving to integrate informal workers. GGGI will be recognized as a relevant partner to help influence Municipal agendas in favor of a circular economy, in connection with organizations active on the same issues (EU, World Bank, USAID, AFD, IFC). Additional programming depth will be achieved, with the support of existing partners (BMGF) while expansion to new programmatic solutions will benefit from organization-wide agreements, strong in country-engagement with donors such as the EU, GIZ, the AFD or Korea and the participation to relevant global opportunities (IKI, KCEP). Initial work in Climate Smart Agriculture and RE4PU will be leveraged to kick-start a multiyear EM funded project, building on the visibility of GGGI’s Global Program and initial interest from donors such as the Qatar Fund for Development and other donors in and out of the country (AFD, Canada, Korea). The effective leveraging of GGGI’s partnerships with FONSI and La Banque Agricole, in the framework of their accreditation to the GCF, will help target scalable opportunities and position GGGI as a partner of choice for low carbon and climate resilient pipeline project development.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Senegal for 2021-2022: **\$0.52** million; Government counterpart contribution: **\$0.05** million; and Partner co-financing of the program is expected at **\$2.58** million in the biennium for a total of **\$5.454**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov	Partner	Gap	Total	
2019-2020										
GOP 1, GOP 2 GOP 4, GOP 5	PS 1 PS 4	SN2 - Green Secondary Cities Wastewater, Plastic Waste and WEEE Management: Innovative Business Models for Recycling and Valorization	Jan 2019	Dec 2022	0	0.02	1.37	0	3.3	(EM) Government of the Grand Duchy of Luxembourg
GOP 1	PS 1	SN05 - National Finance Vehicle in Senegal: the Renewable Energy and Energy Efficiency Fund	May 2019	Dec 2020	0.08	0	0	0	0.08	(Core)
GOP 1, GOP 2 GOP 4, GOP 5	PS 1 PS 2 PS 4	SN06 - Promoting city-wide inclusive sanitation through the Climate Resilience and Green Growth agenda	Jan 2019	Mar 2021	0	0	0.7	0	0.7	(EM) Bill and Melinda Gates Foundation
GOP 1	PS 1	SN07 - Support to CNCAS for GCF pipeline development as DAE	May 2019	Dec. 2019	0.01	0	0	0	0.01	(Core)
GOP 1, GOP 3	PS 1 PS 3	SN08 - Solar PV electricity for agricultural development	Jan 2019	Dec 2020	0.13	0	0	0	0.13	(Core)
GOP 2, GOP 4	PS 5	SN09 - Senegal Green building readiness program	Jul 2019	Dec 2020	0.038	0	0	0	0.038	(Core)
GOP 1	PS 1	GIS03 - Identifying policy approaches under Article 6	Jan 2019	Mar 2021	0	0	0.03	0	0.03	(EM, Core) Government of Norway, Ministry of Climate and Environment
		SNPM-C1	Jan 2019	Dec 2020	0.47	0.03	0	0	0.5	(Core)
TOTAL					0.728	0.05	1.37	0	2.148	
2021-2022										
GOP 1, GOP 2 GOP 4, GOP 5	PS 6	SN2 - Green Secondary Cities Wastewater, Plastic Waste and WEEE Management: Innovative Business Models for Recycling and Valorization	Jan 2019	Dec 2022	0	0.2	1.96	0	3.3	(Secured) Government of the Grand Duchy of Luxembourg (3.3M USD)
GOP 1, GOP 2 GOP 4, GOP 5	PS 1 PS 2 PS 6	SN06 - Promoting city-wide inclusive sanitation through the Climate Resilience and Green Growth agenda	Sep 2020	Dec 2021	0	0	0.54	0	0.54	(Full proposal approved) Bill and Melinda Gates Foundation - Grant extension
GOP 1 GOP 3	PS 1 PS 3	SN08 (GPEB01) - Creating Enabling Environment for Solar Powered Irrigation Systems	Jan 2021	Dec 2021	0.164	0	0	0	0.164	(Core)
GOP 1	PS 1	GIS03 - Identifying policy approaches under Article 6	Jan 2019	March 2021	0	0	0.05	0	0.05	(EM, Core) Government of Norway, Ministry of Climate and Environment, conditional to Senegal being included in Phase 2
GOP 2	PS 2	1281 - Climate change and WaSH: assessing emissions and resilience	Jan 2021	Aug 2023	0	0	0.07	0	1	(EM, Full proposal approved - Bill and Melinda Gates Foundation)
GOP1, GOP3 GOP5	PS 1 PS 3	1278 – Solar Powered Irrigation for Climate Smart Agriculture in the Senegal River Valley	Jan 2021	Dec 2023	0.06	0.06	2.42	0	3.26	(EM, Full proposal at final approval stage) – Qatar Fund for Development
Operations/Project Preparation - SNPM-C1			Jan 2021	Dec 2022	0.357	0.03	0	0	0.4	(Core)
TOTAL					0.521	0.05	2.58	0	5.454	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Invest. Targets	SOs	SO Impact Estimation		IOs	Assumptions & Risks
							Attributed	Contributed		
GOP 1 GOP 2 GOP 4 GOP 5	PS4	SN2 - Green Secondary Cities Wastewater, Plastic Waste and WEEE Management: Innovative Business Models for Recycling and Valorization	<p>- (Project management). Resources and project's commitments are managed efficiently to ensure delivery of the expected results. To deliver this output, the following activities will be undertaken</p> <p>- (Sustainable Plastic waste management). The plastic waste sector is structured through a PPP business model to better organize collection, transportation, and valorization, building on North-South and South-South cooperation opportunities. The following activities will be implemented</p> <p>- (Sustainable E-waste management). The system, process and business opportunities for green jobs creation around WEEE management and valorization are optimized through PPP business model building on the North-South and South-South cooperation. The following activities will be implemented</p> <p>- Sustainable Wastewater management: Develop a sustainable Public-Private-Partnership business model(s) for FSM service delivery and valorization (for agricultural & energy production purposes) to drive the development of Local entrepreneurship and economy</p> <p>- (Capacity building, institutional development and knowledge sharing initiatives delivered to key stakeholders).</p>	Project M&E Framework; Project annual donor report; Project monitoring, annual results, completion and evaluation reports	Investment of USD 0.5M planned in project costs	SO1 SO3 SO4	<p>979,100 tCO₂e avoided over 25 years</p> <p>Improved access to waste management and sanitation for 19,464 beneficiaries</p> <p>700 green jobs created (direct, indirect and induced)</p>	<p>Contribution of 117,495 tCO₂e to the NTL 27.3% reduction in GHG emissions by 2025 under a conditional scenario, including 65,28% in waste,</p> <p>Contribution of 700 jobs to the NTL of increasing decent jobs creation, including an increase women employment from 32.8% in 2016 to 35% by 2023.</p>	IO1 IO2 IO3	<p>Risks - COVID-19 -Delay on delivering activities due to COVID-19 pandemic.</p> <p>- Infrastructure investment component size is can't cover 100% of CAPEX for pilots</p> <p>- Involvement of municipalities and stakeholders</p> <p>Assumptions - Availability of land, provided by municipalities for the pilot infrastructures</p> <p>- Feasibility studies identify viable business models</p> <p>- Government supports the adoption of a WEEE legal framework</p> <p>- Markets for valorization of byproducts are identified</p>
GOP 1 GOP 2 GOP 4 GOP 5	PS1 PS2 PS4	SN06 - Promoting city-wide inclusive sanitation through the Climate Resilience and Green Growth agenda	<p>- Inception report is delivered and endorsed by federal government</p> <p>- Policy recommendations endorsed, and detailed implementation plan delivered</p> <p>- Sanitation incorporated into national climate change and/or green growth strategy, policy or plans</p> <p>- Municipal strategies are delivered and approved by municipal governments</p>	Project annual donor report; GGGI Online; Project monitoring, annual results, completion and evaluation reports	USD 7M	SO1 SO3 SO4	<p>2.5 million tCO₂e avoided over the next 25 years</p> <p>382 green jobs created</p> <p>Improved access to sanitation for 360,000</p>	<p>Contribution of 300,000 tCO₂e to the NTL 27.3% reduction in GHG emissions by 2025 under a conditional scenario, including 65,28% in waste,</p> <p>Contribution of 382 green jobs to the NTL of increasing decent jobs</p>	IO1 IO2 IO3	<p>Risks- COVID-19 -Delay on delivering activities due to COVID-19 pandemic.</p> <p>- Lack of government support to tax incentives in times of economic crisis</p> <p>- Involvement of municipalities and stakeholders</p> <p>Assumptions - Availability of</p>

							beneficiaries.	creation, including an increase women employment from 32.8% in 2016 to 35% by 2023.		land, provided by municipalities for the pilot infrastructures - Feasibility studies identify viable business models - Interest of climate and other financiers for PPPs in sanitation - Markets for valorization of byproducts are identified
GOP 1	PS1	GIS3 - Identifying policy approaches under Article 6	<ul style="list-style-type: none"> - Initial scoping completed in 8 countries with the confirmed shortlist of up to 4 countries for policy approach development - Development of Policy Approach in up to 4 selected countries in the form of full-fledged policy/ regulation/market to be adopted by respective governments, and emission reduction transaction to access climate finance. - Knowledge Sharing and Project Management resulting in 4 Knowledge Products and six-monthly progress reports. - Two investment projects on city-wide inclusive sanitation with commitment to finance 	Project annual donor report; GGGI Online; Project monitoring, annual results, completion and evaluation reports	USD 2M		Not estimated	Not estimated	IO1 IO2 IO3	<p>Risks - COVID-19 -Delay on delivering activities due to COVID-19 pandemic.</p> <ul style="list-style-type: none"> - Coming COP26 fails to define the Article 6 rulebook - Lack of coordination between different Article 6 related initiatives at country level <p>Assumptions</p> <ul style="list-style-type: none"> - Interest of the Government to take part in Phase 2 is confirmed - Norway selects Senegal to benefit from Phase 2.
GOP 1 GOP 3	PS1 PS3	SN08 (GPEB01) - Creating Enabling Environment for Solar Powered Irrigation Systems	TBD	GGGI Online; Project monitoring, annual results, completion and evaluation reports	NA		Not estimated	Not estimated	IO1 IO2 IO3	TBD
GOP2	PS2	1281 - Climate change and WaSH: assessing emissions and resilience	TBD	Project annual donor report; GGGI Online; Project monitoring, annual results, completion, and evaluation reports	NA		Not estimated	Not estimated	IO1 IO3	TBD

UGANDA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Uganda is categorized as a Least Developed Country (LDC), or Low-Income Countries, with a GDP per capita of around 642 USD and is also categorized as a Landlocked Development Country (LLDCs). With a low ranking on the Human Development Index (ranked 159 out of 189 countries worldwide in 2019), it is clear that Uganda has a challenging road ahead of it. However Uganda has put in significant efforts to enhance the countries situation, and has gone through a steady growth of real GDP averaging 7% per year in the '90s and '00, after a slightly lower period 2012 – 2017, a new spike in growth was observed in 2018 with 6.2%. The Government of Uganda (GoU) is committed to ensure this continued growth is happening in a sustainable path to reach upper-middle income status by 2040 (a GDP of 3,996 – 12,375 USD) and thus launched the Uganda Green Growth Development Strategy and its implementation roadmap in 2017. The strategy which is aligned with the SDGs, NDCs and Paris Agreement commitments, identifies green growth in five core catalytic sectors: climate smart agriculture, natural capital management, planned green cities, sustainable transport and energy for sustainable livelihoods and development with aim of boosting investment, GDP growth, creation of green and decent jobs, resource efficiency, equity and social inclusiveness.

The partnership between the GoU and GGGI was initiated in 2016 through the Ministry of Finance, Planning and Economic Development in close cooperation with a number of other Government stakeholders. With a Country Planning Framework in place for 2017-2021 the work of the Country Program is focused and aligned with the Vision 2040, the UGGDS and the CPF. GGGI Uganda has been able to secure a number of earmarked funded programs to support the Country and work has therefore be centered around:

- Support the GoU, and specifically the Ministry of Water and Environment (MWE) with the identification of viable business models and investment opportunities for medium to large scale irrigation of commercial farming, based on renewable energy solutions and sustainable water management principles. After scoping ten potential sites through a pre-feasibility phase, two business plans and teasers have been developed and private sector players are being supported by GGGI to obtain funding to realize these investments (a EUR 3.29M debt project for stevia and moringa production and related processing units and a USD 2.0 M debt project to finance solar irrigation kits and an end-to-end cold chain solution to further improve hot pepper & chilli production. This is an earmarked project funded by the Government of Hungary with a value of HUF73m or USD 290,166 for 2018-2020. **(PS03)**
- Ensuring Uganda's readiness to interact strategically and effectively with the Green Climate Fund (GCF) with the aim of increased green financial flows for implementation of the UGGDS and reaching National and International commitments. Through an earmarked grant of the GCF (USD 700,593 for 2019-2021), GGGI Uganda has been able to support the institutional set-up of the National Designated Authority (NDA) including the development of the Country Program as the main strategic document, awareness raising in the country in regards to the GCF, the accreditation process of multiple entities in Uganda, and the development of a pipeline of projects (concept notes). **(PS01)**
- The "Catalysing the Solar Home Systems Market to benefit low income Urban Households in two secondary cities of Mbarara and Gulu" program funded by the Netherlands Government (USD 939,491 for 2018-2020) has the intent to accelerating consumer and market access to solar home systems (SHS) including small enterprise energy solutions for low-income, urban households. GGGI is supporting the strengthening of Uganda's policy and institutional framework to unlock the SHS market in Uganda and improve access to financing for SHS. **(PS09)**
- At a strategic level GGGI has been supporting the development of the National Development Plan III (FY 2020/21 – 2024/25) with a specific focus on ensuring that its indicators hold the Government accountable for its deliverables, and are reflecting an inclusive, sustainable and overall green approach and impact. As of early 2020 this also includes technical advisory provided to the COVID-19 Response Paper of the NPA **(PS01)**
- Building upon the strategic work GGGI has been doing since its commenced in Uganda, especially the Uganda Green Growth Strategy Document and the technical advisory provided to the National Urban Policy (NUP) and strategy, the National Urban Solid Waste Management Policy (NUSWMP) and strategy, the Climate Change Bill, the Regulatory Impact Assessment (RIA) for the Energy Efficiency and Conservation Bill 2018, the Review of the National Environment Management Policy (NEMP) and its alignment with the National Environment Act, GGGI put a lot of effort in 2019-2020 on the design of the "Greening Uganda's Urbanization and Industrialization" program, to be funded by the European Union as of mid-2020. **(PS02, 06, 07, 08)**

II. COUNTRY PROGRAM

Expected interventions for the 2021-2022 period will be centered around the following activities:

- The “Greening Uganda’s Urbanization and Industrialization” project in partnership with the European Union through a 4,978,961 Euro grant (2020 – 2023) and with an impact objective for Uganda to achieve strong, inclusive and sustainable economic growth. The Uganda Vision 2040 specifically highlights Industrialization and urbanization as key focal areas as it envisions that 60% of Ugandans will live in urban areas by 2040. Therefore, activities are centered around Green City Development in four Secondary Cities, Green Industrialization at four locations, Efficient and effective waste management, and the integration of Green Growth into the National Development Plan’s implementation. (Project confirmed, UG15). **(PS01, 02, 06, 07, 08, 09, 10)**
- A second phase of readiness support for the NDA specifically focusing on further institutionalization and operationalization of the GCF related practices, finalizing accreditation for the multiple entities in country, capacity building of the relevant entities and the attraction of additional financing to Uganda to implement Green projects (both public and private sector). The program will also focus on the Monitoring, Reporting and Verification (MRV) Frameworks for three of the key sectors and will start explorations to design and implement a National Financing Vehicle (NFV) in Uganda. (Proposal to be submitted by end of June 2020, budget yet to be determined, UG19) **(PS01, 02)**
- GGGI Uganda is in an advanced stage of discussing a project called “Strengthening Solid Waste and Fecal Sludge Management Capacity of the Greater Kampala Metropolitan Area (Phase 1)” with KOICA (2 years / USD 2,254.234) of which phase 1 will solely focus on creation of the enabling environment and preparation of the detailed technical and financial feasibility studies for a fecal sludge treatment plant and two potential waste collection and diversion centers. This will be the basis for the development of the procurement documents for the MWE, with potential funding (Phase 2) from KOICA and other stakeholders to be identified in Phase 1. (Project being evaluated by KOICA, UG17) (PS06)
- The Government of Denmark has allocated 300.000 USD/year for the 2021-2022 period which will be utilized to build upon the earlier work done in Uganda on Solar Irrigation and Climate Smart Agriculture. Furthermore, GGGI Uganda is in early stage conversations with DFID Uganda about a potential CSA program. The Danish funded work will prepare the team for this larger program and will directly feed into this work (PS03).
- GGGI Uganda is receiving an allocation of 150,000 USD from the Technical Assistance Fund of the NDC Partnership, which is supplemented with 40,000 USD from GGGI Core to support the Government of Uganda, and specifically the Ministry of Finance, Planning and Economic Development with the development of Project Identification Notes (PINs) and several policy briefs as requested by the MOFPED from the NDC-Partnership.

Areas of Focus: GGGI supports Uganda with a focus on greening their urbanization and industrialization, their climate smart agriculture ambitions and the management of natural capital and energy for sustainable livelihoods and development with the overall aim of boosting investment in all of these sectors following the UGDDS and other domestic and international commitments. During this period the GoU and GGGI will also cooperate to develop the GGGI Country Planning Framework for the period 2022-2026 redefining these strategic directions and GGGI’s key support areas. Through their activities and support to the GoU, GGGI aims to contribute to the following GGGI Strategic Objectives:

- SO1 – GHG Reductions measured in reduced or avoided tCO₂ equivalent all Ugandan program activities aim at reduced emissions
- SO2 – The creation of Green Jobs is a key component of all activities implemented by the Uganda country program
- SO3 – Increased access to sustainable services through especially contributions to the enabling environment to access clean and affordable energy and sustainable waste management. Actual implementation and physical access as a result of GGGI’s interventions is only expected in the 2022-2023 cycle.
- SO4 - Improved Air Quality or avoided bad air quality through the design and planning for green urbanization and green industrialization
- SO5 – Natural Capital Protection especially with a focus on resource mobilization to further support the development of Climate Smart Agriculture and the channeling of investment funds in this direction.
- SO6 - Enhance adaptation to climate change

Furthermore, the activities are focusing on the following Global Operational Priorities (GOP), the Programmatic Solutions (PS) are already indicated above:

- GOP 1 – it has been the main request by the GoU for GGGI to support the facilitation and generation of Green Investments in the green plans and developments in Uganda. All activities of the country programs will have this aim, very specifically we have targets as part of the EU program to develop 12 bankable projects for both the four urban areas as the four economic zones. The GCF Readiness Phase 2 will also focus on the development of Concept Notes for submission to the GCF to accelerate investment in Uganda.
- GOP 2 – especially through its work on the readiness to receive climate finance and interact with the GCF the GGGI Uganda team will support the revision of the NDC and the countries MRV system design. The support to the further development and implementation of green growth plans, like greening the NDPIII will also continue in the 2021-2022 period.
- GOP 3 – the country program will work on achieving a sustainable and circular bioeconomy within Uganda while securing healthy natural systems for the future mainly through resource mobilization for Climate Resilient Agriculture and Sustainable Forests in this planning period.
- GOP 4 – GGGI’s support to Uganda is mainly focused around GOP4, making cities and communities sustainable, livable and resilient with a special focus on Waste Management, Sustainable Mobility (potentially as part of the work in the secondary cities), Green Buildings, Solar PV and Green Industries.

- GOP 5 - Accelerating progress in poverty eradication and gender equality through ensuring this is integrated into all activities as appropriate.

GGGI's Approach to Green Recovery Plans development: The IMF forecast that Ugandan GDP growth will slow to 3.5% in 2020 and 4.3% in 2021. Uganda is likely to be impacted by a declining services and tourism sector, falling remittances and exchange rate depreciation. Uganda is a net exporter of basic food and can produce sufficient food to feed its population, so should be less affected by trade disruptions and rising food prices. Food prices are currently very low in Uganda (food crops annual inflation fell to minus 2.0% in April 2020), indicating ample food supplies.

The National Planning Authority is working on a position paper called "the Implications of Corona Virus on Uganda's Economy and the Possible Interventions" of which a draft has been confidentially shared with GGGI, as one of their trusted partners. GGGI is providing technical advisory to this strategic document to ensure Uganda's COVID19 response is green, inclusive, and sustainable. The paper is however in very early stage of development and needs significant strengthening and especially more data to facilitate the analysis and strategic direction. However, it is already clear that Uganda is aiming, among other things, at a focus of setting up supporting funding mechanisms and to highly incentivize the agricultural sector through yet to be identified mechanisms.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI Uganda has a large number of partnerships due to the project with the European Union and the other ongoing Earmarked projects. A longlist is as following:

- Ministry of Finance, Planning and Economic Development (MoFPED) including the National Designated Authority (NDA)
- Ministry of Lands, Housing and Urban Development (MLHUD)
- Ministry of Energy and Mineral Development (MEMD)
- Ministry of Water and Environment (MWE) including the Climate Change Department (CCD) as a key counterpart (which is almost independent)
- National Planning Authority (NPA)
- Kampala Capital City Authority (KCCA)
- Ministry of Local Government (MLG)
- Uganda Free Zones Authority (UFZA)
- Uganda Investment Authority (UIA)
- Ministry of Trade Cooperatives and Industry (MoTCI)
- National Environment Management Authority (NEMA)
- Uganda Development Bank Limited (UDBL or UDB)
- Plus district governments for the 2021-2022 cycle for the work on secondary cities and industrial zones

GGGI Uganda's resource mobilization is focused around the following donor partners:

- European Union (Confirmed Donor)
- Green Climate Fund (Confirmed Donor)
- NDC Partnership (Confirmed Donor through the TAF)
- The Government of the Netherlands (Donor) – Engagement will end in 2020, it is highly likely that they move away from this kind of support in Uganda
- The Government of Hungary (Donor) – Engagement ended in March 2020 and their call for proposals has been postponed due to the COVID19 situation. Potential future partnerships will continue to be explored.
- KOICA (Potential Donor)
- (MOLIT) Ministry of Land, Infrastructure and Transport of Korea (Potential Donor)
- DFID (Potential Donor)
- Other donors meetings are taking place like for example with the Agence Française de Développement (AFD), Ministry of Land, Infrastructure and Transport (MoLIT) of Korea and others, but have not yet reached a stage of potential fund allocation.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for 2021-2022 GGGI Core resources for Uganda for 2021-2022: **\$0**; Government counterpart contribution: In Kind **\$0.025 million** office space estimation²⁵, Partner co-financing of the program is expected at **USD 5,46 million**²⁶ in the biennium for a total of **\$5,485 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ²⁷	Partner	Gap	Total	
2019-2020										
GOP 1 GOP 3	Sustainable Water Management	(UG03) Sustainable Energy-Water Solutions for Irrigation of Commercial Farming in Uganda	Apr 2018	Feb 2020	00	0.005	0.290		0.295	Secured earmarked from Government of Hungary
GOP 4 GOP 5	Sustainable Energy services	(UG04) Catalyzing the Solar Home Systems Market	Jun 2018	Dec 2020	00	0.005	0.465		0.470	Secured earmarked funding from Netherlands
GOP 1 GOP 2	Climate Finance Green Investment	(UG13) Readiness Support to strengthen Uganda's engagement with the GCF	Feb 2019	Feb 2021	00	0.005	0.701		0.706	Secured earmarked funding from the Green Climate Fund (GCF)
GOP 1 GOP 4 GOP 5	Livable and sustainable cities e.g. Mobility, green buildings, green industrialization and waste management	(UG15) Greening Uganda's Urbanization and Industrialization	Jul 2020	Jul 2023	00	0.005	0.568		0.573	Secured earmarked funding from the European Union
GOP 2 GOP 5	Cross Cutting	(UG18) Greening the National Development Plan III (NDPIII)	Aug 2019	Aug 2020	0.030	0.005	00		0.035	Core fund
TOTAL					0.030	0.025	2.024		2.079	
2021-2022										
GOP 1 GOP 4 GOP 5	Livable and sustainable cities e.g. Mobility, green buildings, industrialization, waste management	(UG15) Greening Uganda's Urbanization and Industrialization	Jul 2020	Jul 2023	00	0.005	2.661.36 1	00	2.666.3 61	Secured earmarked funding from the European Union
GOP 4 GOP 5	Livable and sustainable cities e.g. Waste management	(UG17) Strengthening Solid Waste and Fecal Sludge Management Capacity of the GKMA (Phase 1)"	Jan 2021	Dec 2022	0.0	0.005	1.193.17 8	00	1.198.1 78	Secured earmarked funding from KOICA
GOP 1 GOP 2	Institutional capacity building for both public and private sector	(UG19) Readiness Support to strengthen Uganda's engagement with the GCF - Phase 2	Jan 2021	Dec 2022	00	0.005	1.337.48 0	00	1.342.4 80	Secured earmarked finance form Green Climate Finance
GOP 4	Climate smart Agriculture	Solar Irrigation and Climate Smart Agriculture.	Jan 2021	Dec 2022	00	0.005	0.600	00	605.00 0	Secured earmarked from Government of Denmark
GOP 2	Climate Finance Advisory	Climate Finance Advisory	October 2020	December 2021	0.0	0.005	127.565	00	132.56 5	Secured earmarked from the NDC Partnership (40k Core not reported)
TOTAL					0.00	0.025	5,46		5,48	

²⁵ Estimated at 1mln UGX per room per month, plus 2mln UGX for the meeting room per month.

²⁶ This does not include the 40,000 USD core that has been allocated to Uganda for the NDC-Partnership. This has not yet been included in the WPB.

²⁷ [Insert footnote describing in-kind contribution]

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Investment Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 4 GOP 5	Livable and sustainable cities e.g. Mobility, green buildings, green industrialization and Waste management; Green investments; and Green industrialization	(UG15) Greening Uganda's Urbanization and Industrialization	<ul style="list-style-type: none"> - Green City Development pursued in 4 Secondary Cities, - Green Industrialization at four locations, - 12 bankable projects developed for both the four urban areas as the four economic zones. Efficient and effective waste management and the integration of Green Growth into the National Development Plan's implementation ensured.	Letter of intent from arranged financier and investors Number of secondary cities under sustainable physical planning system	TBD - estimation of green investment mobilized cannot be made at this stage but down the line once concepts are developed	SO1, SO2, SO3, SO4	TBD	TBD	IO1	Political will at national and local government level
GOP 4 GOP 5	Livable and sustainable cities e.g. Waste management	(UG17) Strengthening Solid Waste and Fecal Sludge Management Capacity of the Greater Kampala Metropolitan Area (Phase 1)	<ul style="list-style-type: none"> - A detailed technical and financial feasibility studies for a fecal sludge treatment plant and 2 potential waste collection and diversion centers developed 	Letter of intent from an investor	USD 10 million in 2023	SO2, SO3	578,034 tCO ₂ e GHG reduction 128 green jobs generated (using global multiplier from Strategy 2030)	Annual Target for 2020/21 – 2024/25 is 520,000 jobs (NDPIII). GGGI's attribution is 0,1% in the year the jobs materialize.	IO1	Commitment by the government to create an enabling environment for investments and availability of national and international investors
GOP 1 GOP 2	Institutional capacity building for both public and private sector	(UG19) Readiness support for the NDA (PRSP-2)	<ul style="list-style-type: none"> - Concept notes developed for submission to GCF to accelerate investment in Uganda - 3 sector MRV frameworks developed - Design of the NFV commenced 	Project monitoring and quarterly reviews and results reports	N/A	SO2, SO3	N/A	N/A	IO4	Government approval and Favorable Policy Environment.
GOP 4	Climate Smart Agriculture	Solar Irrigation and Climate Smart Agriculture.	<ul style="list-style-type: none"> - 1 Bankable project developed 	Project proposal	TBD – project planning at a very preliminary stage	SO5, SO6	TBD	TBD	IO1	Availability of financiers

ASIA REGION

GGGI'S STRATEGIC APPROACH IN THE REGION FOR 2021-2022

GGGI presence and operations in Asia have not just grown in volume but also their focus deepened into demonstrating practical solutions either in the form of catalytic policies or investment projects to deliver on national sustainable development objectives and green growth priorities. As Sri Lanka, Uzbekistan, and Kyrgyzstan joined as members during this biennium, Asia regional program now consists of 13 countries at differentiated phases of a country programming from scoping to maturity of full implementation. The overall regional operation is projected to grow by 51% in budget size in the next biennium from 2019-20. The program resource base is further diversified and expanded by a sharp increase in earmarked resources, building on successes in bringing new partnerships.

Asia programs have made a steady progress by resulting in adoption of 6 policies in 2019 by national and local governments and 22 additional policies in the approval process to be adopted in 2020 for mainstreaming green growth and instituting policy targets for effective decarbonization pathways, while delivering on the commitment on green investment of 257 M USD for 2019 and additional 670 M USD in the pipeline to materialize in 2020. In the next biennium, the regional operation aims to deliver on 60 green growth solutions with continued balanced emphasis on strengthening climate action (15%) through NDC related policy development and planning support, and mobilizing green investment (15%) through National Financing Vehicles and other de-risking institutional mechanisms. Moreover, the regional operation is set to demonstrate sectoral solutions for rapid urbanization (28% on waste management, e-mobility and green buildings), climate resilient rural development (21% on agriculture, forest and coastal resilience), accelerating solar deployment (12%) and innovative and efficient industrial sector with the development of MSMEs (8% on green industry). Through the 60 solutions, GGGI is strategically positioned to deliver impactful results by generating 670 m USD green investment in the next biennium directly supporting 67,000 green job creations and reduction of 895 M tons of carbon emissions by 2030. While deploying these solutions, the regional operation focuses on (1) identifying opportunities for replication and scale up of successful examples by facilitating internal knowledge exchange and multi country teamwork in particular on projects on waste-to-energy, e-mobility, and climate smart agriculture (2) strengthening GGGI's visibility and role as a trusted advisor on evidence based green growth solutions by engaging regional organizations and partners for an integrated platform where peer-to-peer learning and knowledge transfer amongst Asia countries can take place at scale. In this regard, GGGI is exploring opportunities to engage UNESCAP, ASEAN Secretariat, Central Asia Regional Economic Cooperation (CAREC), and other regional entities for salient regional agenda such as green financing capacity development, integrated waste management and waste to energy solutions. Asia programs will participate in high level regional engagements such as P4G Summit and World Forest Congress hosted by Korea in 2021 to showcase its activities and leverage further partnership.

TABLE Priorities under WPB 2021-2022

<i>GOPs</i>	<i>Programmatic Solutions</i>	<i>Asia Portfolio</i>
GOP 1. Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector	1. Green Investments (green bankable projects, NFVs, green and climate instruments, carbon-focused engagements)	All programs - \$577 M for the biennium
GOP 2. Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes	2. Climate Action (inclusive green growth plans, LT-LEDS, NDC support, MRV system design, climate diplomacy)	All programs
GOP 3. Achieving a sustainable and circular bioeconomy while securing healthy natural systems	3. Climate Resilient Agriculture (solar irrigation, RE application in agri-value chain, resilient cropping practices, resource conservation)	India, Myanmar, Nepal, Philippines, Uzbekistan
	4. Sustainable Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	India, Indonesia, Myanmar, Nepal, Sri Lanka

	5. Coastal Resilience (mangroves as ecosystem for livelihoods, aquaculture, marine issues - fisheries, flood protection and pollution)	India, Myanmar, Sri Lanka
GOP 4. Making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure capital markets innovations)	6. Waste Management (circular economies, urban and agricultural waste, wastewater, FSM, waste to resource)	Cambodia, India, Lao PDR, Myanmar, Nepal, Uzbekistan
	7. Sustainable Mobility (e-mobility, non-motorized transport)	Cambodia, Indonesia, Lao PDR, Mongolia, Myanmar, Nepal, Sri Lanka
	8. Green Buildings (green urban infrastructure norms/standards/policies, energy efficiency in residential & commercial buildings)	Indonesia, Lao PDR, Mongolia, Myanmar
	9. Solar PV (energy transition access and productive use - solar water pumping, solar PV auctions, rooftop, utility scale plants, storage)	Cambodia, Indonesia, Lao PDR, Mongolia, Myanmar, Philippines, Sri Lanka, Vietnam
	10. Green Industries (green industrial parks, green supply chains, EE in SMEs, labelling and standards)	Cambodia, Indonesia, Lao PDR, Myanmar, Vietnam
GOP 5. Accelerating progress in our country programs in poverty eradication and gender equality through our operations.	Cross cutting	N/A

APPROACH TO GREEN COVID RECOVERY PLANS DEVELOPMENT

Countries in Asia are going through massive socio-economic shocks incurred by prolonged COVID-19 pandemic. After a slowdown in economic growth in Asia in 2019, the initial signs of growth in Asia in the beginning of 2020 was suppressed by the COVID-19 pandemic. (Asian Development Outlook 2020, p.4) Asia countries are experiencing job and income loss of which impact disproportionately weighing on vulnerable segments of the population. Millions of people are at the risk of sinking back into poverty level due to shutdown of all economic activities. Governments are announcing stimulus measures to offset the short-term impact and relief packages to ailing sectors and groups. Multilateral development banks have provided emergency assistance to countries in need through grants and loans to help countries stay afloat during the pandemic.

GGGI is committed to supporting green recovery of countries in Asia from COVID-19 (1) through the ongoing and planned projects that directly engage COVID afflicted sectors for resource efficient investment and enabling job creations, such as Cambodia's energy efficiency project for the garment industry and Myanmar's support for farmers and small Agri processors; and(2) devising innovative projects that contribute to achieving both the short term objective of economic recovery and long-term one of sustainable development, as in the examples of Uzbekistan's green rehabilitation investment plan, Philippines' drive to accelerate solar energy deployment and Vietnam's digital solutions for energy efficiency. Alongside these projects, GGGI will continue to work closely with partner governments and stakeholders to explore innovative ways for COVID-19 green recovery.

PARTNERSHIPS AND RESOURCE MOBILIZATION

The Asia regional program projects to have an overall increase of 2.7 times more of earmarked funding agreements to be signed in the next biennium, building on the successes from diversifying new partnership opportunities, while moving away from heavy reliance on core funding. Luxembourg, EU, Korea's Multilateral Humanitarian Assistance Program, NAMA, Bill and Melinda Gates Foundation, World Bank, and USAID are new financial partnerships which are expected to be mobilized in the next biennium. Green Climate Fund will be a continuously significant partner on supporting Asia countries in enhancing capacity for climate financing. KOICA, NICFI are continuously important partners for Asia Program as well.

CAMBODIA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Cambodia is a Least Developed Country with a population of 16.5 million people and a GDP per capita of 1516 USD (NIS, 2018). Until the corona-virus pandemic, Cambodia's annual economic growth averaged 7.7% since 1994 (World Bank, 2018). Cambodia's economy has seen structural changes. Agriculture has dropped to 22% of value added, industry has risen to 32% (two thirds out of which is garment production), and services to 39%. Cambodia's economy is driven by SMEs, which represent 70% of employment and 58% of GDP (MISTI, 2018). The national poverty headcount declined from close to 50% in 2007 to 13.5% in 2014 (UNDP, 2019). However, many disparities persist, largely between core and peripheral areas of the country. Cambodia has one of the fastest urbanization rates in Southeast Asia (3.25%, World Bank, 2018). Rapid unplanned urbanization results in increased vulnerabilities, including for the poor. Infrastructure and services such as waste management, sanitation and transport struggle to keep up with the pace of urban growth, while cities face challenges such as congestion, pollution and affordable housing. Among lower Mekong Basin countries, Cambodia has been identified as particularly vulnerable to climate change in part because of its relatively low elevation, proximity to the ocean and the Mekong River and its limited capacity to cope with climate related risks. Other climate threats include cyclones and extreme draughts in the dry season, compromising agricultural productivity as well as electricity supply in a country which sources 55% of its electricity from hydropower. On the mitigation front, while Cambodia was a net carbon sink in 2000, nearly half of Cambodia's total emissions come from land use change and forestry (Forest Trends 2015). Cambodia's forests have shrunk from 73% of the territory in 1975 to 46% today (RGC, 2018).

Government recognizes these challenges in its "Rectangular Strategy IV" which puts an emphasis on economic diversification, SME development, urban management, environmental sustainability and readiness for climate change. Similar emphasis can be found in the National Strategic Development Plan 2019-2023 and the Public Investment Program 2020-2022. Meanwhile, the National Council for Sustainable Development (NCSD), GGGI's principle government counterpart, emphasizes in its Strategic Framework 2019-2023 the Green Economy priorities of Green Cities, Sustainable Energy and Sustainable Consumption and Production. GGGI follows these priorities closely. GGGI worked with NCSD and national and municipal counterparts on a Sustainable City Plan for Phnom Penh (launched) and for seven secondary cities (in final stages of approval). The Plans propose a holistic concept of green urban economic growth, social inclusion and resilience – addressing a broad range of issues including energy, transport, solid waste and sanitation. Since 2018, GGGI's focus in Cambodia has shifted towards the implementation of these plans, with a project portfolio that comprises policy and investment advice in waste management, sanitation, mobility and industrial energy efficiency – and a strong focus on SME development throughout. In the past biennium, GGGI has supported the NCSD in accessing climate finance from the GCF under a readiness program. Other new donors and partners to the country program include World Bank, EU, the Australian Volunteer Program, Coca Cola, H&M and UNIDO.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Cambodia with sustainable city development. GGGI has an active network of 8 cities²⁸ in Cambodia, which developed Sustainable City Strategies with GGGI support. This network covers 70 % of Cambodia's urban population, providing an exceptional platform for demonstration and replication of solutions. In 2021-2022, GGGI will continue with priority projects identified in these sustainable city strategies, supporting these cities in their efforts to coordinate and implement the plans. In doing so, GGGI's Cambodia program will contribute to:

SO 1: Reduced GHG emissions – GGGI will contribute to the NDC target of 7% GHG emissions reductions against BAU stemming from the manufacturing sector – or 727 Gg CO₂eq;

SO 3.1: Increased access to sustainable energy – GGGI will contribute to the government's SDG target of achieving 5,066.20 Mtoe proportion of renewable energy in the total final energy consumption by 2030, increased from 3,031 Mtoe today.

SO 3.2: Improved sanitation – GGGI will contribute to the government SDG target of seeing 50% proportion of population using safely managed sanitation services by 2030, up from 32% today.

SO 3.3: Sustainable waste management – GGGI will contribute to government SDG target of seeing 1.50 million tons of urban solid waste to be regularly collected, with adequate final discharge by 2030, up from 1.35 million ton today.

²⁸ Phnom Penh, Siem Reap, Battambang, Sihanoukville, Kep, Kampong Cham, Bavet, Suong

SO 3.4: Sustainable transport – GGGI will contribute to government target of 3% GHG emission reduction against BAU stemming from public and clean transport (NDC).

With a focus on:

- GOP 1, Programmatic Solution 1. Green Investment – mobilizing investment with target of 20 million for priority projects of the sustainable city plans, with a focus on PS 6, 9 and 10;
- GOP 2, Programmatic Solution 2. Climate Action – continued support towards translating the sustainable city priorities in the municipalities’ investment plans, with a focus on PS 6, 9 and 10;
- GOP 4, Programmatic Solution 6. Waste Management – replicating some of our first successes in waste management, sanitation, fecal sludge management and waste-to-resource opportunities providing policy and investment advice throughout our network of cities;
- GOP 4, Programmatic Solution 7. Sustainable transport – policy and investment solutions to promote electric mobility;
- GOP 4, Programmatic Solution 9. Solar PV– working with key players in the country’s biggest industrial sector – garment – to promote clean energy solutions in manufacturing SMEs – including energy efficiency, rooftop solar and sustainable wood fuel;
- GOP 4, Programmatic Solution 10. Green Industries – working in with key players in the country’s biggest industrial sector – garment – to promote clean energy solutions in manufacturing SMEs – including energy efficiency, rooftop solar and sustainable wood fuel.

GGGI’s Approach to Green COVID Recovery Plans development Under a "relatively optimistic scenario", ADB anticipates growth in Cambodia will slow from 7.1% in 2019 to 2.3% in 2020 as a direct result of the COVID-19 outbreak, before rebounding to 5.7% in 2021. At the time of writing, Government had not revised its forecasts yet. COVID-19 hits tourism, as well as construction and manufacturing through supply chain disruption and reduced demand. Industry growth is forecast to slow to 6.5% in 2020 with deceleration in garment production, in addition to the curtailment of EU trade preferences. By mid-May, 237 factories had suspended operations, directly affecting 110 000 employees (RGC). The outbreak and temporary border closures in Southeast Asia could apply additional pressure on consumer prices (ADB, 2020). Government announced stimulus measures to offset the short-term impacts of COVID-19 and lost trade preferences. Relief packages to help to ailing garment and tourism sectors include tax breaks and paid leave for workers on forced leave.

With an existing portfolio that engages the garment sector, SMEs and the informal economy, GGGI can contribute to a green recovery for some of the most vulnerable in Cambodian society. GGGI's economic modelling in 2018 demonstrated that combined resource efficiency measures in the garment sector can drive increased competitiveness, productivity and employment. GGGI's garment sector work planned under the WPB focusses firmly on SMEs, which means we support the more vulnerable businesses in the economy. The country team plans more in-depth discussions with industry players to understand how to maximize the contribution of the project to green recovery. GGGI's work to stimulate recycling solutions and decentralized sanitation also involves direct support to SMEs and start-ups, while the larger scale bankability work on Refuse Derived Fuel (RDF) facilities will seek to identify how to maximize job creation for the waste pickers who are currently in the informal sector, and how to improve living and working conditions for current informal workers in the waste sector. In support of tourism sector recovery, GGGI is exploring options to boost sustainable transport in Siem Reap and the Angkor World Heritage Site.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI Cambodia has ongoing earmarked projects with GCF and World Bank which are ending in 2020. GGGI Cambodia has signed a 4-year, 2M Euro funding agreement with the EU on a project to promote clean energy in garment manufacturing SMEs. GGGI Cambodia has participated in a regional 1M USD concept note on clean energy with WWF for International Climate Initiative (IKI) and has worked with the government to submit a concept note to the Czech Republic for decentralized sanitation (+/- 0.5M USD). GGGI is also in discussion with potential partners such as KDB, AFD and the Ministry of Public Works and Transport about a sustainable transport program. While the Australian Volunteer Program has been put on hold during the COVID19 outbreak, the country office has received an indication that GGGI Cambodia will be prioritized for future volunteers. Early stage discussions on waste management and clean energy projects have started with other donors, and the country office has initial project ideas for the forestry sector, but in line with the WPB guidance to only include anticipated earmarked projects if they have “high likelihood of securing funding”, some of these ideas have not been included in the CBP and will be considered for the CPF.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Cambodia for 2021-2022: **\$0.7 million**; in-kind contributions from government and partners: **\$0.45 million**; and Partner co-financing of the program is expected at **\$1.39 million** in the biennium for a total of **\$2.54 million**.

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOP	PS	Project Title	Implementation		Funding				Resource Management	
			Inception	Completion	GGGI	In-kind	Partner	Gap		Total
2019-2020										
GOP 2	PS 2	Capacity Dev	Jan 2019	Dec 2020	0.26				0.26	
GOP 2	PS 2	NDC enhancement	Apr 2020	Dec 2020	0.04		0.06		0.10	World Bank
GOP 4	PS 6	Waste management	Jan 2019	Dec 2019	0.13				0.13	
GOP 4	PS 1,6	RDF	Mar 2019	Jun 2021	0.28				0.28	
GOP 4	PS 6	Sanitation	Feb 2019	Dec 2019	0.10				0.10	
GOP 4	PS 7	Electric motorcycles	Sep 2019	Dec 2020			0.2		0.20	GCF Readiness
GOP 4	PS 10	Energy efficiency in SMEs	Jun 2019	Jun 2020	0.04				0.04	
GOP 4	PS 10	Switch Garment	May 2020	Apr 2024	0.04		0.3		0.34	EU (tbc)
		KHPM			0.35				0.35	
						0.02			0.02	Australian Volunteer Program
						0.01			0.01	GEI experts
						0.04			0.04	Government provides offices and staff time
TOTAL					1.24	0.07	0.56		1.87	
2021-2022										
GOP 4	PS1, 6	RDF	Mar 2019	Jun 2021	0.08	0.3 (CDIA)			0.38	CDIA executed feasibility study (tbc)
GOP 4	PS 10	Switch Garment	May 2020	Apr 2024	0.12		0.95		1.06	EU Switch (tbc)
GOP 4	PS 10	Energy Demand Side Management (DSM)	Jan 2022	Dec 2025	0.02		0.16		0.19	IKI/KCEP (tbc)
GOP 4	PS 6	Strengthening waste value chains	Oct 2020	Dec 2021	0.30				0.30	
GOP 4	PS 6	Decentralized sanitation	Nov 2021	Oct 2024			0.20		0.20	Czech Republic (tbc)
GOP 4	PS 7	Electric mobility	Jan 2021	Mar 2024			0.08		0.08	GCF + MPWT (tbc)
		KHPM			0.18				0.18	
						0.06			0.06	GEI energy expertise
						0.04			0.04	Australian Volunteer Program
						0.05			0.05	Offices and staff provided by government
TOTAL					0.7	0.45	1.39		2.54	

V. RESULTS FRAMEWORK

GOPs	PS	Projects	Outputs	Verification	Invest. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP4	PS 6	Strengthening waste value chains in selected Cambodian cities	Policy and investment advice to cities/business on waste reduction, collection, separation, transport, infrastructure, and waste-to-resource options.	Cities / businesses reporting Project monitoring, annual results, completion and evaluation reports		SO1, SO2, SO3.3	40,000 people have better access to waste management	GGGI will contribute to government target of 1.50 million tons of urban solid waste/year to be regularly collected with adequate final discharge by 2030 (up from 1.35 million ton today, CSDG)	IO1, IO2, IO3	Replicating Battambang assumes that local recyclers will be operating in the target cities. Risk of Covid19 disruptions, including change in government priorities. Project assumptions are relevant and applicable.
GOP4	PS 6	Refused Derived Fuel in Phnom Penh (KH09)	Bankable project preparation for an RDF facility	Investor commitment letter Project monitoring, annual results, completion and evaluation reports	10M		GHG reduction of 578,034 tCo2e 400,000 people have access to better waste management 1,286 green jobs generated	GGGI will contribute to government target of 1.50 million tons of urban solid waste/year to be regularly collected with adequate final discharge by 2030 (up from 1.35 million ton today, CSDG)	IO1	Risks are outlined in the final pre-feasibility study. Main risk: the different points of view within government on which W2E technology to progress. Main assumption: external funding will be available for the feasibility study and auction design. Covid19 disruption may hamper project implementation and investor interest.
GOP4	PS 6	Decentralized sanitation solution in a secondary city	Sanitation infrastructure and cost-recovery scheme designed	Cities/businesses reporting		SO3.2	40,000 people have improved access to sanitation	GGGI will contribute to government target of 50% of population using safely managed sanitation services by 2030 (up 32% from today, CSDG)	IO1, IO2	Government/donor funding allocation for infrastructure component. Risk of Covid19 disruptions, including change in government/donor priorities. Service fees are affordable to the poor.
GOP4	PS 9 PS10	Switch Garment (KH08) and DSM	Policy and investment advice to promote energy efficiency, solar PV and sustainable wood fuel	Government reporting/invest or commitments Project monitoring, annual results, completion and evaluation reports		SO1	GHG emission decrease by 175,000 tCO2e by 2025	Contribute to gov target of 7% GHG emission reduction against BAU stemming from manufacturing (NDC)	IO1, IO2, IO3	Donor funds available for the proposed de-risking facility; government commitment

GOP4	PS 7	Electric Mobility	Policy and investment advice to promote electric mobility	Gov reporting/invest or commitments Project monitoring, annual results, completion and evaluation reports	10M	SO3.4	GHG reduction of 751,187 MtCO2e 520 green jobs generated 20 000 people have access to sustainable transport solutions	Reduce transport emissions by 3% promoting public transport, improving vehicle O&M, eco-driving, and increasing the use of hybrid electric vehicles and bicycles.	IO1, IO2, IO3	Risk of Covid19 disruptions, including change in investor appetite
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INDIA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

From 2013 to 2017, GGGI India program worked closely with three Indian state governments: Karnataka, Himachal Pradesh and Punjab, developing their comprehensive green growth strategies and proposals for investments, including those for electric buses in Karnataka and Himachal. In 2017, with the strategy to strengthen India's shift towards Green Growth, engagement with national government intensified. In 2018, GGGI collaborated with NITI Aayog, a leading policy think-tank of the Indian Government, for India's SDG index and indicators through a 'Statement of Intent'. GGGI's contribution was acknowledged in NITI's official SDG reports in 2018 and 2019. In the renewable energy sector, GGGI and International Solar Alliance (ISA) signed a Joint Declaration to cooperate in developing financing around solar projects for member countries. In 2019, GGGI also collaborated with the Ministry of Rural Development (MoRD) for introducing green growth elements into Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Pradhan Mantri Awaas Yojana-Gramin (PMAY-G). GGGI gave policy advice to MoRD to integrate climate resilience and outcome-based reporting in MGNREGS: a wage guarantee scheme operational in more than 264,000 villages with 117 million registered workers. In PMAY-G, GGGI in collaboration with USAID-MAITREE developed a framework on "Greening the PMAY-G" to catalyze the transition towards energy and water efficiency in rural housing sector. Once implemented, it will generate substantial benefits for more than 15 million rural housing units planned under PMAY-G. Additionally, GGGI in engagement with Tea Board India, conducted carbon footprint and vulnerability assessment to highlight the threat of climate change on small tea growers in five States of India to identify suitable adaptation strategies. Based on report, a concept note for accessing National Adaptation Fund for Climate Change (NAFCC) to the tune of USD 21 Million was approved by Ministry of Environment, Forest & Climate Change, Government of India that is expected to benefit 30,000 small tea growers directly. GGGI, with support from the Royal Danish Embassy also developed a business model for waste to energy linking organic Municipal waste to Bio-CNG to bolster India's energy security. Preliminary assessment in four municipalities followed by a financial model for Bengaluru Municipality has positioned GGGI to foray into waste to energy sector in India, while simultaneously supporting green urban development. GGGI is also supporting Maharashtra State Road Development Corporation (MSRDC) to set up at least 250 MW ground mounted Solar PV along the 700 KM long Mumbai-Nagpur 'Samrudhhi' Highway.

Key development challenges:

- The need for low emission development in view of per capita use of energy, energy mix and dependency on fossil fuels.
- High dependency for employment on agriculture and MSME sectors leading to adaptation challenges.
- Rapid urbanization, often unplanned, leading to high carbon footprint, high pollution levels and inefficiencies in resources utilization.
- Slowdown in growth rate due to demand and supply side constraints post Covid-19 pandemic.

National development strategies to address these challenges: India's plan as per its quantified NDC targets is to: 1) lower emissions intensity of its GDP by 33-35% compared to 2005 levels by 2030; 2) increase total cumulative electricity generation from fossil free energy sources to 40% by 2030; 3) create additional carbon sink of 2.5 to 3 billion tons through additional forest and tree cover. India has set up an ambitious target of setting up 175 GW of renewable energy capacity by 2022 and has achieved 86 GW by December 2019. The National Action Plan on Climate Change (NAPCC) focuses on eight missions, namely National Solar Mission, National Mission for Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining the Himalayan Ecosystem, Green India Mission, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change. India will continue to invest in strengthening energy infrastructure and promote renewable energy. However, limited availability of concessional international climate finance, technology transfer issues and initial high costs of transition would remain as the key challenges. Government of India, through innovative mechanisms such as solar auctions, solar parks and preferential treatment to RE has achieved grid parity in solar and wind tariffs. The energy security, considering high import dependency on fossil fuels, will remain a key consideration until alternatives like e-mobility are achieved at scale with low costs. Tapping into the indigenous renewable resources can avoid revenue outflows on expensive fossil fuels, beside environmental benefits (less pollution) and social benefits (local employment opportunities). GGGI is aligned with Government strategies in decarbonizing energy sector through RE and energy efficiency, and strengthening energy security by replacing imported fossil fuels through innovative substitutions such as compressed BioGas(CBG)/BioCNG. Working at the national and sub-national levels, GGGI will continue to demonstrate the green growth approaches by policy advisories, project formulation support and mobilizing green investments through bankable projects. Government supports rural economy which is predominantly dependent on agriculture through assured agriculture procurement with guaranteed minimum support price. Supporting avenues such as

credit extension, wage guarantee schemes such as MGNREGS, loan waivers, fertilizer and electricity subsidies, micro-food processing facilities, augmentation of storage capacities, farmer insurance are also deployed. However, farmers continue to grow water intensive crops and receive electricity subsidies leading to continued stress on both water and energy sectors. Additionally, rapid urbanization, poor water use efficiency, insufficient infrastructure, and climate change are intensifying the stress on India's water resources. GGGI's work on mission water conservation under MGNREGS, climate resilience in commodity value chains as well as proposed demonstration of sustainable water management through projects such as Narmada Landscape Restoration Project (NLRP) will aid the Indian government efforts in addressing agriculture and water related development challenges. Government of India aims to transform urban areas through interventions such as Smart Cities Mission, AMRUT Mission and e-mobility. GGGI is supporting the Government policies through support on waste-to-energy such as organic waste to Biogas, sustainable water management through source security and wastewater utilization and improving water use efficiency. GGGI, subject to resources from funders, will support Government of India in the scale up of waste to BioCNG/ CBG projects. India's high dependency on China for Solar Cells and modules and failure of domestic manufacturers to tap the opportunity will continue to be tested in the coming years especially post Covid-19 scenario.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports India with a focus on energy, water security and urban management through Climate Resilient Agriculture, Sustainable Forests, Waste Management, Green Buildings and Solar PV. Based on India's efforts to promote renewable energy and water conservation to meet the demands of a rapidly growing nation, GGGI will contribute to:

SO1- GHG emissions reduction: GGGI will continue to support the renewable energy portfolio including Solar PV and waste to energy of Government of India through green investments that will directly contribute to India's NDC targets.

SO2- Green jobs creation: GGGI's program support to renewable energy, waste management, energy efficiency and green commodity value chains will contribute towards new green jobs creation as well as adoption of programs for reskilling for green jobs.

SO3-Increased access to sustainable services: GGGI will strengthen its presence in the waste to CBG by seeking green investments to roll out the Government's Sustainable Alternative Towards Affordable Transportation (SATAT) scheme, which will benefit both vehicle-users as well as farmers and entrepreneurs and promote clean affordable energy.

SO5-Sustained natural capital for the adequate supply of ecosystem services: GGGI will strive to demonstrate the payment for ecosystem services (PES) through NLRP that can be adopted and scaled by the Government through suitable policy and investment decisions.

SO6-Enhanced adaptation to climate change: GGGI will work for inclusive green growth in the commodity value chains by mobilizing resources for suitable adaptation strategies for farmers and women.

With a focus on:

- GOP4, Programmatic Solutions 9. Solar PV: GGGI is the greening and sustainability advisor to MSRDC and is working to green the electricity consumption and develop a Renewable Energy portfolio by partnering for about 250 MW of solar power installation along the 700 KM long 'Samruddhi' highway.
- GOP4, Programmatic Solutions 6. Waste Management: Graduating from waste to CBG investment plan for one municipality, GGGI is proposing to develop an environmentally sustainable and commercially scalable Compressed BioGas (CBG) model from waste streams to support the SATAT scheme.
- GOP3, Programmatic Solutions 4. Sustainable Forests: USAID's earmarked funding will help GGGI demonstrate the interdependency of upstream sustainable landscape management with downstream water quality and quantity and design a scheme for government to adopt and scale the services.
- GOP3, Programmatic Solutions 3. Climate Resilient Agriculture: After securing adaptation fund worth USD 21 million for small tea growers in five states of India, GGGI will diversify in other commodity value chains which are vulnerable to climate change and require urgent support.
- GOP1 & 2: GGGI India program will continue to focus on mobilizing at least USD 50 Million per year in green investments in the above listed programmatic solutions and aim

to influence policy decisions to attract these investments.

GGGI's Approach to Green COVID Recovery Plans development: India is on the verge of an unprecedented economic catastrophe as the humanitarian disaster from the COVID-19 pandemic unfolds. This pandemic has also impacted the food production systems, disrupting regional agricultural value chains, and posing risks food, water and energy security. Therefore, GGGI would further ramp up its support to the government for adaptation strategies, to promote resilient cropping practices such as in Tea, Coffee and Oil (including palm oil). GGGI's interventions in NLRP could support government in recovery measures for water security. Similarly, waste management interventions by GGGI in India would support government in reduction of energy dependency of fossil fuels, by promoting CBG/BioCNG operations to increase India's domestic energy production. India is committed to increase its renewable energy capacity to 450GW, towards meeting its target of renewable energy by 2022. GGGI's energy security interventions in India with MSRDC for 250MW solar PV could contribute to Governments' NDC plan to boost renewable energy mix in the total energy basket. With the COVID-19 pandemic likely to affect national development objectives at broader scale, the impact will be observed prominently on SDG agenda in India, however, the impact of Government recovery interventions can be directly seen on performance of SDG 3 (health), SDG 7 (energy) and supporting human capital (SDG 8, SDG 11 - decent work an affordable housing), and are expected to impact SDG 9 (industry, innovation and infrastructure) in near future.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI India has been actively engaged with bilateral organizations such as GIZ, multilaterals such as UNEP and foundations such as MacArthur Foundation for partnerships and fund mobilization. The strategy to tap the resources has been multifold:

- Open calls for funding like the USAID's India Partnership Program, where a US\$3.5 Million NLRP is approved, UKPACT, SEI's Strategic Collaborative Fund and IKI Funds.
- Priority matching with resource partner's priority areas for a common objective such as partnering with USAID's MAITREE program policy on green buildings in ultra-low cost rural housing proposal to expand organic waste to BioCNG project as technical guidance to Government through UK Embassy's funding in energy sector.
- Collaborative engagement with partners through networks, common workshops to explore further opportunities like ISA, European Union etc. The GGGI and ISA are currently discussing program on solar irrigation in common member countries. Similarly, EU has shown keen interest in GGGI-TERI's initial work on green economic recovery post COVID.
- Lastly, GGGI has also been engaging with Indian government departments, like Tea Board of India, on cost sharing basis, to explore green investment opportunities through government funds like National Adaptation Fund for Climate Change (NAFCC)
- Going forward GGGI intends to maintain its relationship with existing resource partners and explore more collaboration with new partners to create a bigger impact in the energy and water efficiency domains.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for India for 2021-2022: **\$0.00 million** and Partner co-financing of the program is expected at **\$ 2.013 million** in the biennium for a total of **\$ 2.013 million**.

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOPs	PS	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ²	Partner	Gap	Total	
2019-2020										
GOP 1 GOP 4	PS 1 & 6	India – Green Growth through INDC	Jan 2018	Dec 2020	0.0032	0	0		0.0032	
GOP 2 GOP 3	PS 2 & 3	PS-India-Climate-resilient and gender inclusive MGNREGA based on Mission Water Conservation	Sep 2018	Dec 2019	0.0248	0.0025	0		0.0273	State Governments of West Bengal and Haryana and NABARD for UNCCD COP14
GOP 2 GOP 4	PS 2 & 8	Greening Rural Housing in India through PMAY-G	May 2019	Dec 2020	0.0647		0.0500		0.0115	USAID-MAITREE
GOP 1 GOP 3	PS 1 & 3	Greening of commodity value chains	Jan 2019	Dec 2020	0.1348	0.0025	0.0531		0.1905	GIZ, EU-SPIPA, Tea Board India, NABARD for UNCCD COP14 event
GOP 1 GOP 4	PS 1 & 6	Waste to CBG/BioCNG	Nov 2018	Jul 2019	0		0.0749		0.0749	Royal Danish Embassy
GOP 1 GOP 4	PS 1 & 9	Utility scale 150MW ground mounted solar PV project for new highway corridor in Maharashtra - India	Feb 2019	Jul 2020	0.0705		0		0.0705	
GOP 1 GOP 2 GOP 3	PS 1,2 & 4	Narmada Landscape Restoration Project	Jun 2020	May 2024	0		0.6993		0.6993	USAID-NTPC
TOTAL					0.298	0.005	0.8773	0	1.1804	
2021-2022										
GOP 1 GOP 2 GOP 3	PS 1,2 & 4	Narmada Landscape Restoration Project	Jun 2020	May 2024	0	0	0.5388		0.5388	USAID
GOP 1 GOP 4	PS 1 & 9	Sustainable cities through solar PV, wastewater management and electric mobility	Aug 2020	Dec 2022	0	0	0.4562		0.4562	Danish Funding, MSRDC and NTPC Ltd
GOP 1 GOP 4	PS 1 & 6	Waste to CBG/BioCNG	Jan 2021	Dec 2022	0	0	0.3935		0.3935	Danish Funding
GOP4	PS 1 & 9	Partnership with ISA for One Million Solar Irrigation Pumps	Jan 2021	Dec 2022	0	0	0.0848		0.0848	Danish Funding
Operations/ Project Preparation					0		0.5402		0.5402	Danish Funding
TOTAL						0	2.0135	0	2.0135	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Investmen Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 1, GOP 2, GOP 3	PS 1 PS 2 PS 4	Narmada Landscape Restoration Project	1. Sustainable landscape practices in the catchment of select Narmada tributaries. 2. Enhanced livelihoods for catchment communities including women	1. Project MIS reports on area treated. 2. MIS reports on capacity building & training of beneficiaries. Project monitoring, annual results, completion, and evaluation reports	N/A	SO5	Up to 10,000 hectares of mixed landscape has improved biophysical conditions		IO1, IO3	Access to USAID-NTPC earmarked funds.
GOP 1, GOP 4	PS 1 PS 6	Waste to CBG/BioCNG	1. Prefeasibility studies 2. Business Cases 3. Standardized bid documents	1. Project monitoring, annual results, and completion reports 2. Documents 3. Standard templates	4 M	SO1 SO3	SO1: 137,931tCO ₂ e for waste-to- BioCNG SO2: 5 jobs generated	SO2: Project will contribute to India's policy objective to create 75,000 green jobs from CBG/BioCNG deployment	IO2	Core & earmarked funds availability. Government of India's continued focus on CBG production.
GOP 1, GOP 4	PS 1 PS 5	Sustainable cities through solar PV, wastewater management and electric mobility	1. Urban planning guideline assessment 2. Detailed plan for urban mobility on highways and select municipalities. 3. Detailed project report for solar PV/wind installations	1. Guideline documents 2. Master Plan 3. Detailed Project Report 4. Project monitoring, annual results and completion reports.	2 M	SO1 SO3	SO1: 68,965tCO ₂ e SO2: 3 green jobs generated		IO2	Earmarked funds availability.
GOP 4	PS1 PS9	Partnership with ISA for One Million Solar Irrigation Pumps	1. Policy and regulatory framework 2. Country assessments 3. Business model design	1. Policy framework document 2. Country assessment reports 3. Country-specific business model	1M	SO1	SO1: 50,000 tCO ₂ e SO2: 10 green jobs generated		IO2	

INDONESIA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Since 2013, under a hosting arrangement with the Ministry for National Development Planning (Bappenas), GGGI has assisted the Government of Indonesia (GoI) with the mainstreaming of green growth principles and approaches in the country's development strategies and plans. Funded by the Government of Norway, Green Climate Fund (GCF) and NDC Partnership, GGGI has been supporting GoI with a focus on accelerating investment, leveraging partnerships, and strengthening institutions to replicate and scale up green growth and to support the Government's agenda for low carbon development, economic growth, poverty reduction, job creation and environmental sustainability in order for Indonesia to achieve its NDC and SDG commitments.

Examples of important achievements include GGGI's contribution to the development of key national and provincial policies. For example, GGGI has supported the development of technical Background Studies for the forestry and energy sectors for the National Medium-Term Development Plan (RPJMN 2020-2024). GGGI has also supported the Low Carbon Development Initiative (LCDI; led by Bappenas) as well as the development of Indonesia's NDC Roadmap for implementation (led by the Ministry of Environment and Forestry, KLHK). In addition, GGGI supported KLHK with budget tagging analysis for 2017, resulting in an estimate of emission reductions for Indonesia's 2nd Biennial Update Report (BUR) to the UNFCCC. Green growth principles were included in the East Kalimantan (EK) Annual Development Plan 2019 and the EK Long-Term Provincial Forestry Plan 2011-2030 (adopted by GoI).

A key area of collaboration has been on the mobilization of public and private investment for sustainable and inclusive landscape-wide projects, including the design of a landscape-wide approach and bond financing to enable large-scale financing and implementation of peatlands restoration. GGGI provided significant technical assistance to the development of the EK Emission Reduction Program Document (ERPD) for the Forest Carbon Partnership Facility (FCPF), thus achieving a commitment from FCPF/World Bank for USD 110 million for result-based payments to Indonesia, next to the government's budget of USD 67 million reserved for the implementation of this first subnational jurisdictional emissions reduction program in Indonesia. GGGI's expertise is now also used for the preparation of a similar BioCF provincial project in Jambi, Sumatra. As the delivery partner for GCF Readiness in Indonesia, GGGI assisted the NDA with the development of a pipeline of 47 projects to the amount of USD700m projected investment from GCF, and project proponents were matched with Accredited Entities. With the Ministry of Energy and Mineral Resources and as a partner in Indonesia's SDG Indonesia One Fund and PT Sarana Multi Infrastruktur (PT SMI), GGGI has supported the design of bankable projects for public and private investors in the energy sector, including e.g. 9 MW Waste-to-Energy (in Luwuk and Solo cities) amounting to USD 41.3 million and a project design for the electricity supply of the new city of Ponu in Timur involving biomass (mainly from smallholder bamboo plantations) to energy. A market study for BioCNG from palm oil waste in Central and East Kalimantan has been successful in raising much interest from national and local stakeholders. In addition, GGGI supported the Coordinating Ministry of Economic Affairs with the establishment of guidelines for green development in Special Economic Zones.

Key challenges are to increase domestic and international investments in renewable energy, green cities and forest and land-based mitigation and adaptation, and addressing the limited capacity in public, private and financial sectors that impedes the acceleration of green growth. Sustainable Forests, Green Investments, Climate Action and Climate Resilient Agriculture stand out as programmatic priorities for GGGI to help the Indonesian government with:

- Effective policymaking and planning to drive NDC implementation and enhancement, especially by reducing deforestation and peatland degradation;
- Mobilizing public and private investment for green projects designed to achieve low carbon development;
- Strengthening the capacity of key institutional actors to adopt and implement low-carbon development policies, plans and investments.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Indonesia with green growth mainstreaming, especially NDC and SDG commitments, into government development plans and policies at national and provincial level, mobilizing public and private investment, and strengthening the capacity of key institutions and actors. GGGI support focuses on the Nationally Determined Contribution (NDC), Low-Carbon Development (LCDI), National and Provincial Medium-Term Development Plans (RPJMN 2020-2024 and RPJMDs), Forestry Strategic Plans (Renstra), Peatland Development and Restoration Plans (RPPEG), Low Carbon Development Plans (PPRK) and Long-term Development Plans (RPHJP) for Forest Management Units (FMU).

Supporting the GoI in the development and implementation of these national policies and strategic plans contributes to achieving several of GGGI's Strategic Outcomes:

SO1 Reduced GHG emission: GGGI is supporting Indonesia's NDC planning and implementation to achieve 29% (unconditional) to 41% (conditional) reductions of GHG emissions in the 2020-2030 period with a focus on reducing and avoiding further deforestation and peatland degradation. Examples include the Forest Carbon Partnership Facility FCPF project in East Kalimantan, that is expected to result in long-term reduction of GHG emissions of ca. 97.1 Mt CO₂eq.

SO2 Creation of green jobs: Through scalable and bankable projects, such as the 9 MW Waste-to-Energy projects in Luwuk and Solo city, the biomass (from smallholder bamboo plantations) to energy project in Ponu city, and by supporting the development of green financing mechanisms such as the Public Agency for Environmental Fund Management (BPD LH), GGGI supports Gol in attracting investments that generate green jobs.

SO3 Increased access to sustainable services: To enhance access to clean, affordable energy, Gol and GGGI have cooperated to support strategies, policies and plans, bankable projects and investment in the energy sector, including the development of pipelines of renewable energy projects for the Green Climate Fund, SDG Indonesia One Fund, PT Serana Multi Infrastruktur, the Ministry of Energy and Mineral Resources and Bappenas.

SO4 Improved air quality: The programmatic activities on renewable energy, green cities and sustainable landscapes (including peat and forest fire prevention) all contribute to improving outdoor air quality by reducing emissions.

SO5 Adequate maintenance of natural capital: The first two phases of the joint Green Growth Program included a strategy of "resilient landscapes" with the aim of protecting natural capital and ecosystem services while providing clean water, energy, and natural resources for sustainable economic growth.

SO6 Enhanced adaptation to climate change: Climate mitigation and adaptation projects are often small-scale and struggle to attract investors or financiers as they are generally non-bankable and high-risk. GGGI contributes to SO6 by supporting Gol in mobilizing both public and private investments for adaptation projects, including through the GCF Readiness projects I & II.

With a focus on:

- GOP1, PS1. Green Investment – Mobilizing public and private investment of USD 200 million through the support of bankable green projects and national financing vehicles (NFVs) in the areas Sustainable Landscapes, Renewable Energy and Green Cities remains a key objective of GGGI in 2021 and 2022. The USD 700 million GCF pipeline of climate projects and the BPD LH, SDG Indonesia One as well as the FCPF and BioCarbon funds will be at the center of GGGI's support.
- GOP2, PS2. Climate Action – Programmatic activities will focus on mainstreaming green growth in national and provincial government plans, such as the National Long-Term Development Plan (RPJPN) 2025-2045, NDC implementation and enhancement (e.g. increased ambition, strengthened financing, benefit sharing and MRV systems). Support will also be provided for enhancing climate change diplomacy and negotiation skills in KLHK and other relevant government agencies.
- GOP3, PS3. Climate Resilient Agriculture – Continue to support Gol with the promotion of commercially interesting agroforestry crop species on fully rewetted peatlands, emphasizing resilient and sustainable cropping practices and resource conservation.
- GOP3, PS4. Sustainable Forests – Reducing and avoiding deforestation and degradation of forests and peatlands for carbon emission reductions and for securing water supply, will remain at the core of the country program, including activities on Strategic Environmental Assessment, landscapes financing mechanisms, natural capital markets innovations, and Payment for Environmental services (PES) schemes and fiscal transfer mechanisms. GGGI will support landscape-wide and jurisdictional approaches, building on the examples in East and Central Kalimantan and Jambi. A key focus is on capacity enhancement of Forest Management Units.
- GOP4, PS6, 7, 8, 9 & 10 – GGGI will seek opportunities to support replicable and scalable initiatives regarding green infrastructure and services, in the field of waste management, sustainable mobility, energy efficiency, green industries and upscaling of Solar PV and other renewable energy as part of a green cities and green economic zones development.

GGGI's Approach to Green COVID Recovery Plans development: GGGI suggests that restoring forests, peatlands, and mangroves could be a part of this effort. Emergency interventions could thus include investment in rural work programs, financed by governments and donors, that target reforestation and other ecosystem restoration efforts, such as peatland restoration. This would provide lasting environmental, public health, and employment benefits (including carbon benefits). We also advocate investment in Renewable Energy as key, providing at least 2 times more jobs per dollar invested than non-renewable energy investments, as well as more high-skill jobs.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Under the collaborative Green Growth Program with Gol, GGGI aims to establish partnerships with private and public sector investors and project developers to accelerate project pipeline development in the focal areas of sustainable landscapes, renewable energy and green cities. Moreover, the country team maintains a regular dialogue with the donor community in Indonesia to mobilize resources for GGGI's operations in the country, resulting in the diversification of the donor base, adding funding from the GCF and the NDC Partnership to the long-standing support from the Government of Norway, and an enhanced interest for collaboration from other donors. The country team currently pursues various funding options, including:

- GGGI and the Government of Norway (NICFI) are in the final stage of agreeing on the Gol–GGGI Green Growth Program Phase III Sustainable Landscapes Project (1 Oct 2020 – 30 Sept 2022) with an estimated budget of USD 9 million, as part of a 5 year strategy 2020-2025, of which the last 3 years (2023-2025) will be financed through a different finance modality.
- GGGI and Kemitraan have been requested by the Ministry of Environment and Forestry to help develop and manage a portfolio of projects to accelerate the multi-sector NDC implementation and ambition, with emphasis on REDD+. This involves a budget of over USD 18 million, envisaged to be financed through the Indonesian Environment Fund (BPDLH) using results-based payments. The proposal submission is expected around the middle of 2021.
- Gol nominated GGGI as the delivery partner for two GCF Readiness projects (“Strengthen the NDA and Indonesia’s engagement with the GCF” and “Readiness support for strategic climate finance in Indonesia”) with a combined budget of ca. USD 2 million to support the NDA in building Indonesia’s capacity to engage with the GCF, including the establishment of a project pipeline of USD 700 million for anticipated GCF funding and accreditation support. In 2020, GGGI’s will explore with the Ministry of Finance the potential for a third Readiness program with GGGI as delivery partner.
- GGGI is collaborating with DFID to develop a project for the design and implementation of a specific market-building (‘sand box’) approach for Sustainable Landscapes, possibly funded through a non-competitive grant of ca. GBP 2 million from 2020 to 2022. The proposal is in development and details are yet to be discussed with Gol and agreed with DFID.
- UNFCCC Article 6: The project will develop policy approaches in up to four countries for 18 months from September 2020 - March 2022. USD 50,000 is provisionally budgeted for Indonesia for 2021, but it has yet to be decided after completion of the scoping phase if Indonesia will be part of the group of four countries.
- Following the 2020 CAEP project to update and socialize Indonesia’s NDC, funded by the NDC Partnership to the amount of USD 519,000, we anticipate further opportunities for collaboration in 2021-2022.
- GGGI will continue to engage countries with an active donor program in Indonesia (USA, Japan, Republic of Korea, UK, Norway, Australia, New Zealand, Canada, Switzerland, Denmark and Germany) as well as bilateral and multilateral donors to mobilize resources for the period 2021/22 and beyond.
- In 2019 and 2020 Indonesia has expressed interest to provide further funding support to GGGI, but with the funding earmarked for the Green Growth Program in Indonesia, and especially for the Energy and Green Cities/SEZ related collaboration. In view of the economic impacts of the COVID-19 pandemic, this possibility will be kept in a placeholder until further notice.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Indonesia for 2021-2022: **\$0 million**. Government counterpart in-kind contributions; **\$0.08 million**¹; and Partner co-financing of the program is expected at **\$9.84 million** in the biennium for a total budget of **\$9.9million**.

TABLE Current and Planned 2021-2022 Indonesia Country Program (million USD)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ²	Partner	Gap		Total
2019-2020										
GOP 1, GOP 2, GOP 3, GOP 4	PS 1, PS 2, PS 3, PS 4	Indonesia GGP Phase II Indonesia GGP Phase II top-up	Jan 2016	Sep 2020 August-Sept 2020	0	0.046	8.73 0.55	0 0	8.77 0.55	Norway Earmarked until 2020 Norway Earmarked 2020
GOP 1, GOP 2, GOP 3	PS1, PS2 PS3	Indonesia GGP 3 Landscapes Inception Phase	1 Oct 2020	31 Dec 2020	0	0	1.5	0	1.5	Norway Earmarked
GOP 1, GOP 2	PS 1, PS 2	Strengthen the NDA and Indonesia's engagement with the GCF	Jun 2018	Dec 2020	0	0.0095	0.85	0	0.86	GCF Readiness grant funding
GOP 1, GOP 2	PS 1, PS 2	Readiness support for strategic climate finance in Indonesia	Jan 2020	Dec 2021	0	0.0095	0.26	0	0.27	GCF Readiness
GOP 2	PS 2	CAEP	Feb 2020	Dec 2020	0	0	0.5	0	0.5	WRI / NDC Partnership grant funding
GOP 1, GOP 2		Article 6			0	0	0.017	0	0.017	
TOTAL					0	0.065	12.41	0	12.47	
2021-2022										
GOP 1, GOP 2, GOP 3	PS 1, PS 2, PS 4	Indonesia GGP3 Landscapes project	Oct 2020	Oct 2022 2025	0	0.051	9	0	9.05	Norway earmarked until Oct 2022
GOP 1, GOP 2	PS 1, PS 2	Readiness support for strategic climate finance in Indonesia	Jan 2020	Dec 2021	0	0.028	0.78	0	0.8	GCF Readiness
GOP 1, GOP 2	PS 1, PS 2									
GOP 2		Article 6			0	0	0.06	0	0.06	Provisional
Operations/ Project preparation										
TOTAL					0	0.08	9.84	0	9.9	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Outputs	Verifications	Inv. target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1	PS 1	-Indonesia GGP Phase III; - Sustainable Landscapes project -Readiness support for strategic climate finance in Indonesia	Public and private investment is mobilized for sustainable and inclusive landscape-based projects through: - Project pipelines, including sustainable landscape-wide bankable projects; - Investable subnational jurisdictional programs. Strengthened financial mechanisms to support NDC implementation in all sectors. - Continue support of project concept notes from USD700M pipeline in 2020. - Direct access to GCF supported for Kemitraan and PT Indonesia Infrastructure Finance (PT IIF) and additional ca. 2-3 DAEs in 2019. - Accreditation support, project pipeline and concept note development.	- Project proposals and feasibility studies approved by investors - Investor commitment letters for projects and financing vehicles - Accreditation documents - Project progress and completion report submitted to GCF	150 M	SO1, SO2, SO3, SO5 SO1, SO5 SO1, SO2, SO5 SO1, SO2	SO1: GHG reduction of 12,499 MtCO ₂ e SO2: 67,238 green jobs generated SO5: 22,357 hectares SO6: 374,802 beneficiaries		IO 1	Opportunities and proponents for bankable projects cannot be found in focus sectors Investors perceive Indonesia as a whole, or focus sectors, as too risky In the wake of COVID19 crises, green investment may not be the priority for new government of Indonesia
GOP2	PS 2	- Indonesia GGP Phase III; Sustainable Landscapes project- Readiness support for strategic climate finance in Indonesia - Readiness support for strategic climate finance in Indonesia - Article 6	- Effective policies and plans drive reduced deforestation and peatland degradation nationally and avoided forest loss - Strengthened policies, instruments and coordination mechanisms for multi-sectoral NDC implementation and coordination is in place - Design and acceleration of an on-line and near real time multi-sector NDC monitoring system - A climate finance strategy is developed, reflecting the future role of BPD LH. - Institutional coordination mechanism for climate finance focal points (e.g. GEF, AF, GCF). - Stakeholder engagement mechanisms especially with the private sector are established and institutional capacity to engage with the GCF is strengthened. - Indonesia has developed policy approaches with a carbon price output that enables it to undertake national-level emission reductions.	- Policy papers, strategies and plans, technical guidelines and workshop reports - Project progress and completion report submitted to GCF		SO1, SO2, SO3, SO5 SO1, SO5 SO1, SO2, SO6 SO1, SO2 SO1			IO 1, IO 2, IO 3	Changes in personnel and leadership dilute commitment Vested interests of certain groups in society push policies in a less-green direction. Weak governance and shift towards less green-growth friendly policies Women and other marginal groups are excluded from decision making
GOP3	PS 4	- Indonesia GGP3 Sustainable Landscapes project	- Replicable and scalable business models are designed to demonstrate feasibility and attractiveness of green investments.	Pre-feasibility, feasibility and value-chain assessments Evidence of investors' commitment to invest		SO1, SO2, SO5			IO 1, IO 2	Pilot projects meant to demonstrate clean business models may be overwhelmed by bad environmental practices in surrounding areas
GOP4	PS 7 PS 8 PS 9 PS10	Indonesia GGP Phase III : - GGP3 Sustainable Landscapes Project - Readiness support for strategic climate finance in Indonesia	- Project pipelines and national financing mechanisms are supported to promote green investment in bankable projects.	Project proposals and feasibility studies approved by investor Investor commitment letters for projects	50 M	SO1, SO2, SO3, SO5, SO6	SO1: GHG reduction of 4,166 MtCO ₂ e SO2: 22,4,12 green jobs generated SO5: 7,451 hectares SO6: 124,934 beneficiaries		IO 1	Opportunities and proponents for bankable projects cannot be found in focus sectors Investors perceive Indonesia as a whole, or focus sectors, as too risky

LAO PDR

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI Lao program was established only a few years ago in January 2017. The program quickly grew with strong support from the Government of Lao PDR (GoL) along with a series of wins in earmarked projects amounting to more than USD 7 million. Both the membership and the Host Country Agreement were signed in September 2017. The program now employs 14 staff, including 5 internationals, and is collaborating with 5 key ministries and 1 national research institute: the Ministry of Planning and Investment (MPI), the National Institute for Economic Research (NIER), the Ministry of Public Works and Transport (MPWT), the Ministry of Natural Resources and Environment (MONRE), and the Ministry of Energy and Mines (MEM), and the Ministry of Industry and Commerce (MOIC). The Lao program operates 4 government embedded offices in Vientiane Capital and 1 office in Pakse, a secondary city in Southern Laos.

Lao PDR has experienced a strong economic growth over the past 5 years (2016 – 2019) with annual GDP growth of 5.9% on average. GDP per capita has also increased steadily from USD 2,025 in 2016 to 2,645 in 2019. Poverty rates have declined steadily from 23.2% in 2012 – 2013 to around 18.3% in 2018 – 2019. Access to electricity, schools, roads, health care has been significantly improved, enhancing living standards for many Lao citizens. However, the country is still faced with common development constraints. The challenges of Lao PDR, aligned with the GOPs and programmatic solutions, that GGGI strives to ameliorate are:

- Lack of inclusive and sustainable urban services due to rapid annual urban population growth (8.6%) and urban expansion (7.3%). GGGI will support developing policies and strategy and investment-ready action plans to increase access to urban services in the areas of waste management, sanitation, and sustainable mobility.
- Limited institutional capacity to coordinate and strategize development plans in green and sustainable manner. GGGI is supporting the Department of Planning (DOP) of MPI to strengthen green growth plans (GOP2) in the 9th National Socioeconomic Development Plan (NSEDPP) by developing green growth planning manual, selecting green growth indicators, and potentially developing a green growth investment plan. Also, we are helping the Government of Lao PDR (GoL), under the leadership of MONRE, to update its Nationally Determined Contributions (NDC) and strengthening the capacity of the National Designated Authority (NDA) for GCF, Department of Climate Change under MONRE, to implement its GCF country program.
- Lack of adequate investments. As an LDC country with limited industries aside from mining and hydropower, Lao PDR lacks domestic resources to fund its investments. GGGI's work in climate finance (GOP1) and green cities (GOP4) are intertwined as all of our sectoral work has investment mobilization aspects. We are helping to prepare investment projects such as conducting feasibility studies for procurement of the electric buses for Vientiane Capital and auction for solar farms. In 2021-22, GGGI will further strengthen its support on investment mobilizations by expanding its services to the area of energy efficiency for housing and industrial sectors.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Lao DPR with a focus on (1) mainstreaming green growth into its national and sectoral development plans and implementing its National Green Growth Strategy and the NDC, (2) developing green cities, and (3) mobilizing green investments. GGGI will contribute to:

- SO1- Reduced GHG emissions: GGGI's work in EVs will replace imported fossil fuels with clean renewable energy with less GHG intensive and domestically electricity. Energy Efficiency work will reduce consumption of energy and associated GHG emissions.
- SO2- Creation of green jobs: GGGI's work in decentralized waste collection services will provide formalized jobs to waste pickers and create additional jobs.
- SO3- Increased access to sustainable services: GGGI's waste management initiatives will enhance access to sustainable services in Vientiane and Pakse in the areas of waste management and sustainable mobility.

- SO6-Enhance adaptation to climate change: GGGI supports the GoL to have better institutional capacity and coordination mechanisms to govern and coordinate climate action and finance across sectors including private sector mobilization.

With a focus on:

- GOP1: GGGI mobilizes green investments of USD 50 million in the areas of sustainable mobility (PS7), energy efficiency (PS8), and solar PV (PS9).
- GOP2: GGGI mainstreams green growth (PS2) in the national development plans, sectoral strategies and green city action plans.
- GOP4: GGGI develops and implements strategies on waste management (PS6), green buildings (PS8) and green industries (PS10).

GGGI's Approach to Green COVID Recovery Plans development: According to the National Institute of Economic Research, Laos' GDP is projected to grow by 3.3 percent in 2020, a significant reduction from the original projection of 6.5 percent growth, due to the impacts of Covid-19. The new estimate would be the lowest rate in three and a half decades. Given the adverse impacts, GGGI will support the government of Lao PDR to respond by supporting the implementation of the National Green Growth Strategy, the updated NDC, and the 9th NSEDP. In particular, our planned implementation of decentralized waste collection services in Vientiane Capital will provide some financial relief to waste pickers as the pilot project will employ informal workers who may be financially distressed. In Pakse, construction of 5 decentralized wastewater treatment systems will boost the local economy. Additionally, GGGI will mobilize investments in the areas of energy efficiency, electric vehicles, and solar PV, which will positively contribute to the economic growth and create more green jobs for Lao PDR.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

In the past few years, the Lao Program has successfully mobilized more than USD 7 million of earmarked funds from KOICA and GCF. In the next biennium, we strive to expand its donor base to sustain the annual budget level of USD 2.5 million, positioning the program in the expansion phase, by targeting the following opportunities in 2021:

- USD 1 million from GCF for the development of National Adaptation Plan
- USD 1 million from EU Switch
- USD 0.3 million from GCF Readiness for promoting energy efficiency targeting industrial sites
- USD 0.4 million from ROK Ministry of Land, Infrastructure, and Transport

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Lao PDR for 2021-2022: **\$0.7** million; Government counterpart contribution: **\$0.06** million; and Partner co-financing of the program is expected at **\$4.7** million in the biennium for a total of **\$5.5** million.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov	Partner	Gap	Total	
2019-2020										
		LAPM: Project Management	Jan 2019	Dec 2020	0.32	0.05			0.37	Core
GOP1, GOP4	PS7	LA4: EV dissemination	Jan 2019	Dec 2020	0.12				0.12	Core; a component of LA9 is supporting LA4
GOP1, GOP4	PS9	LA6: Solar Auction	Jan 2019	Dec 2020	0.12				0.12	Core
GOP2	PS2	LA7: GG Mainstreaming	Jan 2019	Dec 2020	0.14		0.11		0.25	Core, CAEP
GOP4	PS6	LA9: Waste Management	July 2019	Dec 2023			1.82		1.82	KOICA; Total \$6.5 million
GOP1, GOP4	PS8	LA11: EE for buildings	Oct 2019	Dec 2020	0.07				0.07	Core
GOP2	PS2	LA12: Enhancing NDA Capacity and Access to the GCF in Lao PDR	Jan 2020	Jun 2021			0.18		0.18	GCF Readiness
GOP4	PS1, PS10	LA13: Market Preparation for Industrial Energy Efficiency in Lao PDR	Oct 2020	Mar 2021			0.06		0.06	GCF Readiness
TOTAL					0.77	0.05	2.17	0	2.99	
2021-2022										
GOP1, GOP4	PS7	LA4: EV dissemination	Jan 2021	Dec 2022	0.19				0.19	Core; a component of LA9 is supporting LA4
GOP2	PS2	LA7: GG Mainstreaming	Jan 2021	Dec 2022	0.14		0.05		0.19	Core, CAEP
GOP4	PS6	LA9: Waste Management	July 2019	Dec 2023			4.29		4.29	KOICA; Total \$6.5 million
GOP1, GOP4	PS8	LA11: EE for buildings	Jan 2021	Dec 2022	0.19				0.19	Core
GOP2	PS2	LA12: Enhancing NDA Capacity and Access to the GCF in Lao PDR	Jan 2021	Jun 2022			0.06		0.06	GCF Readiness
GOP1, GOP4	PS1, PS10	LA13: Market Preparation for Industrial Energy Efficiency in Lao PDR	Oct 2020	Mar 2022			0.29		0.29	GCF Readiness
Operations/ Project Preparation		LAPM: Project Management	Jan 2021	Dec 2022	0.18	0.06			0.24	Core
TOTAL					0.70	0.06	4.69	0	5.45	

V. RESULTS FRAMEWORK

GOP	PS	Projects	Outputs	Verification	Inv.T target s	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1 GOP4	PS7	LA4: EV dissemination	<ul style="list-style-type: none"> Development of an investment proposal 	<ul style="list-style-type: none"> Proposal produced Project monitoring, annual results, completion and evaluation reports 	10 M	SO1	300,000 tCO ₂ e (2020-2030)		IO2	Low sovereign rating well below investment grade might discourage commercial banks' investments; The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation
GOP1 GOP4	PS9	LA6: Solar Auction	<ul style="list-style-type: none"> Facilitation of solar auctions 	<ul style="list-style-type: none"> Auction documents 	20 M	SO1	42,885 tCO ₂ e/year		IO2	This project is part of the Global RE Auction Program; Low sovereign rating well below investment grade might discourage commercial banks' investments; The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation
GOP1 GOP2	PS1 PS2	LA7: GG Mainstreaming	<ul style="list-style-type: none"> Operationalization of Green Growth Promotion Center 	<ul style="list-style-type: none"> ToR for GG Promotion Center produced Project monitoring, annual results, completion and evaluation reports 		SO1, SO2, SO3, SO4, SO5, SO6		SO1: 39,750,000 tCO ₂ e by 2030 SO5: 0.1 Million hectares by 2030 SO6: 0.2 million people	IO1, IO3	The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation
GOP4	PS6	LA9: Waste Management	<ul style="list-style-type: none"> 2 Green city action plans 2 GCF concept notes Implementation strategy for solid waste management in Vientiane. Deployment of waste-to-resource initiatives and facilities in Vientiane. Implementation strategy for wastewater management in Pakse Deployment of wastewater management facilities in Pakse National Urban Sanitation Strategy Improvement 	<ul style="list-style-type: none"> Action plans developed Concept notes developed Strategy report developed Initiative operationalized Facilities operationalized Project monitoring, annual results, completion and evaluation reports 		SO2, SO3, SO6	Vientiane: SO2: 72 Jobs SO3.3: 135,782 people Pakse: SO2: 12 jobs SO3: 94,000 people	Vientiane: SO3.3: 1,141,911 people Pakse: SO3: 94,000 people	IO1, IO3	Construction and installation costs may increase. Unexpected weather events may occur and affect the construction. The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation
GOP1	PS8	LA11: EE for	<ul style="list-style-type: none"> Green building policy 	<ul style="list-style-type: none"> Energy audit reports 	10 M	SO1	1,400,000	2,800,000	IO2	The project is part of the Global Green

GOP4		buildings	<ul style="list-style-type: none"> • Energy audits • Business cases developed 	<p>developed</p> <ul style="list-style-type: none"> • Information Memorandum presented to investors • Project monitoring, annual results, completion and evaluation reports 			tCO2e (2020-2030)	tCO2e (2020-2030)		Buildings Program. Low sovereign rating well below investment grade might discourage commercial banks' investments; The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation
GOP2	PS2	LA12: Enhancing NDA Capacity and Access to the GCF in Lao PDR	<ul style="list-style-type: none"> • NDA inter-institutional coordination mechanism • Monitoring and verification systems for climate finance flows • Periodic participatory review and updating of Country Program • Stakeholder engagement consultative processes • Private sector engagement 	<ul style="list-style-type: none"> • Reports produced • Climate tagging integrated into ODA MIS • GCF Country Program updated and submitted • GCF electronic newsletters produced and disseminated • Project progress and completion report submitted to GCF 		SO6		Population affected by natural disasters (<1,600,000 from 2020 – 2025, and <120,000 from 2025 – 2030)	IO1	GCF-GEF committee not approved by Minister. The project is focused on building capacity of the agreed coordination mechanism. If approval is further delayed it will make it difficult to implement our project activities on time. Coordination between MONRE and MPI is delayed due to bureaucratic process resulting in missed opportunity to integrate climate markers into ODA MIS. The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation
GOP1 GOP4	PS1, PS1 0	LA13: Market Preparation for Industrial Energy Efficiency in Lao PDR	<ul style="list-style-type: none"> • Green industry policy • ESCO training program • Energy audits • Business cases developed • Awareness raising for Government officials (study tour) 	<ul style="list-style-type: none"> • Policy submitted • Training program delivered • Audit reports • Information Memorandum developed and presented to investors • Satisfaction survey • Project progress and completion report submitted to GCF 	10 M	SO1	579,000 tCO2 (2020-2030)	2,800,000 tCO2e (2020-2030)	IO1, IO2	Relatively low cost of electricity. Assumptions: Significant stakeholder engagement; Sufficient energy efficiency opportunities with short payback period are identified through the audits. The COVID 19 situation worsens and the lockdown or social distancing measures delay the implementation

MONGOLIA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Mongolia CBP 2019-2020 builds on (i) GGGI Mongolia's past support to the Mongolia's National Green Development Policy (NGDP) and the Vision 2050, and the preparation of bankable projects in the areas of residential retrofitting, energy efficiency and low carbon heating solutions. The main achievements include: Mobilized earmarked funding of USD 384,000 for bankable project preparation to utilize Energy Performance Contracting for Residential Retrofitting; Mobilized USD 23M from Government of Mongolia and USD 5M from consortium of commercial banks for the Mongolia Green Finance Corporation, Mongolia adopted its updated NDC that includes targets for Agriculture and IPPU sectors, Energy efficiency Standards & Labelling regulation approved by the Cabinet and mobilized (USD 250K+USD 650k) for a public heat pump pilot and green kindergarten projects in Ulaanbaatar.

Mongolia's annual GHG emissions were estimated at 34,482.73 thousand tons of CO₂ in 2014, with 50% of these coming from the energy sector, 48.5% from agriculture, 1% from industry, and the remaining 0.5% from the waste sector. The country's contribution to the global GHG emissions is quite low as less than 0.1%, but emissions per capita and emissions intensity per GDP is relatively large despite its small population of the country. Mongolia's Updated NDC identified EE measures as one of key mitigation measures to achieve a 22.7% reduction in GHG emissions by 2030. Main challenges are:

- Reduction of GHG emissions and improving air quality
- Advancing technological improvements.
- Climate resilient development
- Adaptation measures to reduce the burden and risks in vulnerable sector of the economy and society.

With the Ministry of Environment and Tourism's (MET) guidance, GGGI Mongolia works to facilitate the implementation of the NGDP and the country's NDC, providing policy advice and investment project development support to ministries, agencies and sub-national governments. GGGI Mongolia's activities on Green investments (GOP1, PS1), Climate action (GOP2, PS2) and strong focus on Energy thematic solutions are strongly aligned with Government's priorities of green policy development, reduction of GHG emissions and energy efficiency efforts.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Mongolia in its commitment to transition to an inclusive and greener development pathway through GGGI's Energy and Green Cities thematic areas, all of which are identified as priority areas in Mongolia's long term development policy - Vision 2050 (adopted in May, 2020), NGDP and Mongolia's NDC to the Paris Agreement. Based on the Strategy 2030 and Roadmap 2021-2025, GGGI Mongolia will contribute to:

- SO1 : GGGI will contribute to reduction of GHG emission to achieve its NDC target.
- SO2: Introduce advanced technology and services that will create green jobs.
- SO3: Provide access to clean energy and sustainable transport.
- SO4: Improve air quality by implementing energy efficiency measures and introducing clean technologies.
- SO5: Contribute by raising investments for green infrastructure.
- SO6: Strengthen climate resilience

With a focus on:

- GOP1, Programmatic Solutions 1. Green Investment – GGGI and the GoM work to improve EE and access to cleaner energy to reduce GHG emissions and air pollution, by strengthening the related policy environment, helping raise finance for clean energy and EE projects. Euro 34.5 million will be mobilized for the apartment retrofitting project supported by the Nama Facility, and an estimated USD 6 million can be mobilized.
- GOP2, Programmatic Solutions 2. Climate actions – GGGI will be developing GCF Multi-Year Readiness Proposal on NDC Capacity Building and addressing specific Adaptation (CC impact on Public Health) and Mitigation ([Global REAP Program](#), Subnational Greening) research.
- GOP4, Programmatic Solutions 7. Sustainable mobility – GGGI will enter E-mobility area to support municipality to develop clean public transportation and relevant framework.
- GOP4, Programmatic Solutions 8 and 10. Green Buildings and Industrial Energy Efficiency- Continue engagements to increase EE in Public Buildings and designated entities based on results delivered in 2020 under MN04. Scale up of residential building energy efficiency proposed to KOICA.

GGGI Mongolia's 2021-2022 Country Business Plan will consolidate its past achievements, to build-up its support to the GoM for the implementation of green growth policies, in areas of sustainable energy and green cities; and will seek to leverage earmarked funding for Green buildings and its global program on sustainable mobility. GGGI has been approached by both Korea University and GIZ to collaborate in the forestry/landscapes area, but any engagement would require earmarked resources.

GGGI's Approach to Green COVID Recovery Plans development: Impact of the COVID19 pandemic is high in Mongolia. According to the World Bank's projections, Mongolia's economic growth will decelerate to 2.4 percent in the baseline and 1.0 percent in the lower-case scenario in 2020, from 5.1 percent in 2019. Given an already high poverty incidence estimated at 28.4 percent in 2018 and 15 percent of the total population, clustered just above the national poverty line, there is a substantial risk that more households, especially those, who are linked to economic sectors affected by COVID-19, will fall into poverty. Labour market shocks, including rising unemployment, reduced salaries and diminished profits of businesses, and price shocks – falling prices for mining products and cashmere and rising prices for imported food and consumer goods – are expected to be the key transmission channels. On 18 March 2020, the Government of Mongolia adopted the COVID-19 Preparedness and Response Plan (CPRP), which provides the national response framework for all stakeholders in delivery of effective, timely and coordinated response to the COVID-19 led by the State Emergency Commission (SEC), chaired by Deputy Prime Minister (DPM) and supported by international multilateral and bilateral partners.

To support the government's actions, particularly in green growth strategies, GGGI in Mongolia aims to closely assess situation with development partners and link green recovery concepts embedded in Mongolia program with socio-economic concerns and needs within the most affected sectors and population groups for formulation of the response to the COVID-19 pandemic in line with the programmatic solutions. This will include; Identification of main socio-economic risks induced by COVID-19 as well as relevant measures for mitigation of risks in longer-term perspectives.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Building on GGGI's partnerships and resource mobilization strategy, GGGI Mongolia's efforts will be put into (i) developing a coherent programming of projects across thematic areas by demonstrating a clearly articulated logic towards scale and impact; that is attractive for earmarked donors (ii) systematically seeking to leverage global and local partnerships, based on shared interests and vision, (iii) building close ties with priority donors in-country, with KOICA and the GCF as short term priorities (iv) leveraging the support of its government partners in promoting GGGI's value-add and (v) a proactive monitoring of local, regional and global Call for Proposals and Tenders aligned with GGGI's Mongolia CPF, with ADB, EBRD, NAMA Facility, EU Delegation (EU-SWITCH Asia) as short term focuses. GGGI's engagement with the Mongolian private sector, specifically the financial sector, will help support innovative partnerships in areas such as, but not limited to, green finance development, building and industrial EE, renewable energy and transportation as well as knowledge sharing and capacity building.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Mongolia/Asia program for 2021-2022: **\$0.70 million**; Government counterpart contribution: **\$0.02 million**; and Partner co-financing of the program is expected at **\$1.18 million** in the biennium for a total of **\$1.9 million**. There is a gap of **\$7.24million** which we hope to mobilize additional resources.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov	Partner	Gap		Total
2019-2020										
GOP1	PS1	Mongolia Green Finance Corporation (MN13)	01/2019	12/2019	0.06	-	-		0.06	Core
GOP2	PS2	Sectoral Analysis for NDC Update 2020 - Agriculture and IPPU (MN08)	01/2019	12/2019	0.09	-	-		0.09	Core
GOP2	PS2	Building Capacity of Mongolian Government for NDC Implementation (MN19)	06/2020	05/2021	0.02		0.05		0.07	Under NDC-CAEP, GGGI is subcontracted by UNEP. Total amount of the grant agreement is US\$49k (09/20~08/21)
GOP4	PS 8 &10	Promoting Energy Efficiency and ESCO development in Mongolia (MN04)	01/2019	12/2020	0.39	0.02 ²⁹			0.41	Core
GOP4	PS 9	Mongolia Renewable Energy Absorption Project	01/2019	12/2019	0.15	-			0.15	Core
GOP4	PS10	Low Carbon Heat only boilers in Public Buildings	01/2019	12/2020	0.12		-		0.12	Mobilized \$900K green investment from MET & ADB.
GOP4	PS 8	TTR Phase II-Development of Guideline for Standard Offer Program (MN15)	08/2019	12/2020	0.04	-	0.01		0.05	ICLEI East Secretariat provided co-funding of USD 14.1k
GOP4	PS 8	Energy Performance Contracting for Residential Retrofitting in UB City (MN17)	01/2020	07/2020	-	-	0.38		0.38	EM funding of \$ 383k from the NAMA Facility for detailed preparation phase
TOTAL					0.87	0.02	0.44	-	1.33	
2021-2022 MINUS										
GOP1 GOP4	PS1 PS8	EPC for Residential Retrofitting	01/2021	12/2021	-	-	0.04	- 0.36	0.40	NAMA Facility DPP Phase II will carry over into 2022. In the minus scenario we assume GGGI will not have a role in implementation of the project. Will discuss potential role for GGGI in project implementation phase Q3-4 2020, so that is the gap of USD 360k
GOP2	PS2	Building capacity of Mongolian Government for NDC Implementation	06/2020	05/2021	0.01	-	0.02		0.03	Under NDC-CAEP, GGGI is subcontracted by UNEP. Total amount of the grant agreement is US\$49k from 09/20 to 09/21.
GOP2	PS2	Subnational capacity building & baseline research for NDC Implementation	01/2021	12/2023	-		1.12		1.12	GCF Multi-year proposal with USD 2.1 mln for 3 years. Proposal will be submitted in Q3 2020 for planned implementation in Q1 2021. Expect some budget to contribute to REAP program.
GOP4	PS7	Promote E-mobility	01/2021	12/2022	0.20	-	-	0.38	0.58	Resource mobilization and in-kind contribution is expected from local government and development partners. Resource mobilization will be required to advance mobility work.
GOP4	PS8/10	Energy Efficiency	01/2021	12/2022	0.24	0.02	-	6.5	6.76	KOICA PCP 2022 submitted for USD 6.5 million.
GOP4	REAP	REAP program in Mongolia	07/2020	12/2022	0	0	0	0	0	No core resources available to support global REAP program. Some budget for RE work will be included in the GCF readiness project listed under climate action above. Will engage with the global REAP program to identify potential resources.
Operations/ Project Preparation					0.25				0.25	
TOTAL					0.70	0.02	1.18	7.24	9.14	

²⁹ In kind office space from ERC& MET

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Inv. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 1 GOP 4	PS 1 PS 8	MN 17 - EPC for Residential Retrofitting	<ul style="list-style-type: none"> - DPP phase 2 completed and NAMA project approved. - 375 apartment blocks will be retrofitted by main project implementer GIZ 	<ul style="list-style-type: none"> - Project approved by NAMA Facility. - Project monitoring, annual results, completion and evaluation reports 	Euro 34.5 M USD 41 M	SO1 SO4	96,891tCO ₂ e will be reduced from 375 buildings over the 5 year period from 2022-26 24 buildings to be retrofitted in 2022 Estimated 1,068 new jobs created.	Est. 181,379tCO ₂ c for 700 buildings to be scaled up in subsequent phases.	IO2	<p>Covid will strain budget resources of government to contribute co-financing. Complexity of the business model could cause delays. Current subsidies are opaque & distort the market and make it difficult to adequately assess the costs and benefits.</p> <p>Lack of awareness Lack of strong drive from new government</p>
GOP 2	PS 2	Building capacity of Mongolian Government for NDC Implementation	<ul style="list-style-type: none"> - Increased technical capacity - Integrated long term planning of air pollution and climate change 	<ul style="list-style-type: none"> - SEI-Certified trainings - Integrated planning of air pollution and climate change - Project monitoring, annual results, completion and evaluation reports 		SO1	N/A	N/A	IO1, IO5	<p>Risks: Delays due to Covid are expected, contract signing with UNEP Change in government priorities due to Parliament elections</p> <p>Assumptions: Maintenance of stakeholder engagement</p>
GOP 2	PS 2	Capacity building, baseline study for NDC Implementation	<ul style="list-style-type: none"> - Strengthening coordination mechanism & Improved institutional arrangement to implement NDC - Wind map and RE capacity building - Subnational GHG maps - Assessment of CC impact on public health, capacity building of public health - Capacity building at national and subnational level - Vulnerability analysis at selected subnational - Incentive and leverage identification for NDC 	<ul style="list-style-type: none"> - Climate change is integrated into subnational planning and implementation - GCF Country Programme is updated; - Strengthened capacity and governance at subnational level - Wind map are produced - CC impact on Public health is conducted and training implemented - Project monitoring, annual results, completion and evaluation reports 		SO1 SO6	N/A	GHG emissions is reduced at 22.7% Share of RE in energy mix is increased to 30% by 2030	IO1, IO3, IO5	<p>Risks: Lack of strong drive and weak capacity at subnational and specific sectors Slow Post-Covid recovery Lack of public awareness New government appointed in 2020 might effect in the general scope and activities at the subnational level Limited GGGI presence in provincial level</p> <p>Assumptions: Strengthened engagement with stakeholders will be maintained NDC CAEP project carried out in 2020/2021 will be strong pathway to work at national and subnational</p>

			<ul style="list-style-type: none"> enabling environment - National level public awareness - GFC country program is updated 							level
GOP 1 GOP 4	PS7.S ustainable mobility	Promote E- mobility	<ul style="list-style-type: none"> - Strengthened policy, planning and regulatory frameworks - Mobilized green investment 	<ul style="list-style-type: none"> - Financing mobilized, - # of policies adopted - Project monitoring, annual results, completion and evaluation reports 	US\$ 3 million Depends on earmarked resource mobilization	SO1 SO2 SO4	TBD	-	IO1, IO2	Risks: Weak capacity of local governments and weak presence of GGGI and partnership High grid emissions factor makes e-mobility less attractive Dependent on RM and government budget which could be at risk due to covid 19.
GOP 4, GOP 1	PS8.G Green Buildings PS10 Green Industries	Building EE Global Program - Financing EE in Public and Private sector	<ul style="list-style-type: none"> - Concept developed on increased EE - Advisory to amend the Energy Conservation Law and other relevant laws 	<ul style="list-style-type: none"> - MRV for Public office buildings - Law on Energy Conservation is amended - Financing is mobilized - Project monitoring, annual results, completion and evaluation reports - 	US\$ 3 million Depends on earmarked resource mobilization	SO 1	TBD by end of 2020 SO1 – 180,000 tCO2 SO2 – 1000 green jobs		IO1, IO2	Risks: relatively low cost of electricity and absence of heat meters, lack of incentives to increase EE, weak capacity Assumptions: Significant stakeholder engagement IM target is dependent on earmarked resource mobilization.
GOP 4 GOP 1	PS9. Solar PV	REAP	<ul style="list-style-type: none"> - TBD - Wind resource assessment and capacity building to be complete under GCF readiness project 	<ul style="list-style-type: none"> - TBD 		TBD	TBD	TBD		RE space is crowded in Mongolia, EBRD already has an auction program. Coal is heavily subsidized Limited capacity in the grids to absorb RE

MYANMAR

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Myanmar is the largest country in mainland South East Asia sitting astride historical and geopolitically important trade routes connecting South Asia, China and South East Asia. Meanwhile its 676,577km² stretches from Himalayan range to tropical forests, hosting a rich diversity of peoples with unique languages and cultures, and iconic ethnic groups. The country emerged from economic sanctions in 2013 and underwent democratization in 2015. The development community increased their ODA commitments 9-fold between 2010 and 2015 to make Myanmar the 7th largest ODA recipient globally (\$63b), and the country has enjoyed significant economic growth (expected 6.4% in 2019-2020) particularly in the service and manufacturing sectors. The government has made significant investments in infrastructure and policy reforms enabling Myanmar to go from 171/190 to 165/190 in the World Bank's 2020 Doing Business report. However, while country is blessed with significant mineral wealth, agricultural land, and forest cover, these resources continue to be utilized unsustainably, with limited value addition, and with significant impacts on the environment. In many parts of the country, severe underdevelopment and unsustainable resource extraction are fuelled by decades of civil unrest, despite the government's efforts made to bring the diverse armed groups to the Panglong negotiation table. The government also continues to struggle in addressing large scale population displacements and protecting human rights in Rakhine. Furthermore, Myanmar is one of the world's most vulnerable countries to the impacts of climate change, particularly in its exposure to tropical cyclones, flooding and droughts.

GGGI signed an MOU with the Ministry of Natural Resources and Environmental Conservation (MONREC) in February 2017 to support NDC implementation and green growth policies. The national government cabinet endorsed a Host-Country Agreement and Myanmar's membership in 2020 with expected ratification in early 2021. GGGI contributed to the revision of several national policy documents: Myanmar Climate Change Policy & Master Plan (2019), Forestry Rules (2020 expected). GGGI was a leading development partner in Myanmar's NDC Revision Technical Advisory working group (2020). Through its embedded technical advisory support, high-quality technical and financial analyses, and resource/partnership development on behalf of government, GGGI has signed government implementation partnerships for:

- MRV institutional capacity building and NDC enhancement with the country's UNFCCC/GCF focal point (ECD),
- Forest and community forestry institutional framework development, value chains business model assessment, natural capital accounting of coastal landscape ecosystem services restoration in with MONREC, MOALI and Ayeyarwady Region government.
- Greening urban development infrastructure related to energy, transport, construction and supporting national climate finance accreditation with 11 national agencies and 4 regional governments.

GGGI developed resource partnerships for the Government of Myanmar with the:

- MAVA Foundation (2019) and World Bank (2020), and Australian AVI program (2020) in support of coastal landscape restoration and value chain development;
- Green Climate Fund (2019), and Australian AVI (2020) in support of green cities development;
- Global Environment Facility (2020), and Australian AVI (2018-2020) in support of NDC MRV institutional support.

Additional resource partnerships are being explored with Kigali Cooling Efficiency Program (K-CEP), NAMA Facility, Convergence (2020), International Climate Initiative (IKI), EU Switch Asia, and DFID Cities and Infrastructure for Growth program (CIG Hlan-Chi).

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Myanmar in NDC Enhancement, Landscape restoration and Green cities development. These activities are directly adapted to address the priorities defined in Myanmar's Nationally Determined Contributions to Climate Change (NDC), Sustainable Development Plan (MSDP), Climate Change Policy and Master Plan (MCCPMP), Green Economy Policy Framework (GEPF); Reforestation and Rehabilitation Plan (MRRP), Agriculture Development Strategy (ADS), Green Land Cities Initiative, and COVID Economic Response Plan (CERP), among other policies. In supporting implementation of these national policy frameworks GGGI contributes to achieving the following of GGGI's Strategic Outcomes on behalf of Myanmar and its citizens:

- **SO1 Reduced GHG emissions:** GGGI is supporting increase of Myanmar's ambition level for GHG emissions from AFOLU sectors through development of projects that promote investment in community-based mangrove restoration (188,413 ha, 10,564,725 CO₂Teq by 2026³⁰ in Ayeyarwady) in line with the Forestry Department's NDC commitment to reduce net emissions to by 50% by 2030 (23,632,661 CO₂Teq³¹ Through development of new a NDC conditional agroforestry targets(412,500ha, 37,826,25 tCO₂Teq by 2030), through promotion of environmentally sustainable agricultural waste to energy (30MW/yr, 100,CO₂Teq/yr), and through promotion of solar PV and energy efficiency, green logistics, green building codes, and solid waste management and sanitation in cities.
- **SO2 Creation of green jobs:** GGGI is promoting green jobs in Ayeyarwady Region's coastal landscapes with the target of supporting development of up to leading to the development of up to 15,000 mangrove-friendly silvo-fishery and agroforestry value chain-based jobs by 2026³². This will benefit predominantly landless people who have limited resource tenure security and rely heavily on unsustainable/illegal livelihood activities, and offer opportunities for scaling to other regions.
- **SO3.1 Clean affordable energy:** In support of the National Electrification Plan target to supply 100% of the country with electricity by 2023, GGGI is supporting investment in conversion of agricultural waste (rice husk) to energy by 500 rice mills (30MW/yr) in Ayeyarwady, a region that has <30% electricity connectivity; GGGI is also supporting Low Emissions Development Scenarios (LEDS) and exploring opportunities for bankable projects for promotion of renewable energy and energy efficiency in line with the revised NDC target for Potential Renewable Energy Projects on Solar, Floating Solar and Wind (8270 MW by 2030 TBC³³).
- **SO3.2 Improved sanitation:** GGGI GGGI is supporting Low Emissions Development Scenarios (LEDS) and exploring opportunities for bankable projects for promotion of access to sanitation in Myanmar's secondary cities.
- **SO3.3 Sustainable waste management:** GGGI is supporting Low Emissions Development Scenarios (LEDS) and exploring opportunities for bankable projects for improvement of waste production, segregation, recycling, reuse in Myanmar's secondary cities.
- **SO3.4 Increased access to sustainable public transport:** GGGI is supporting Low Emissions Development Scenarios (LEDS) and exploring opportunities for bankable projects to provide green transport and logistics for passengers and goods within and connecting Myanmar's cities to rural agrarian hinterlands.
- **SO4. Improved air quality:** GGGI is promoting bankable project investments in solar PV and energy efficiency, green logistics, green building codes, and solid waste management and sanitation that will improve air quality in Myanmar's secondary cities.
- **SO5 Maintenance of natural capital:** GGGI is promoting investments in community-based forest restoration that will increase mangrove restoration in 188,413 ha by 2026; will introduce agroforestry in 412,500ha, by 2030), and in reducing the toxicity of 4,000,000 MT waste water that is released³⁴ untreated by rice mills into the Ayeyarwady Delta every year.
- **SO6 Enhanced Adaptation to Climate Change:** GGGI is directly targeting the strengthening of local community institutions, development of green jobs, and enhancement of sustainable value chains in concert with restoration of coastal mangroves in Ayeyarwady region which was devastated by Cyclone Nargis in 2008 (est.135,000 deaths).

These areas of focus are aligned with and will feed into GGGI's Global Operational Priorities (GOPs) and programmatic solutions set for 2021-2025:

GOP1, PS1, Green investments: Development of green bankable projects for coastal landscape restoration and green cities development, with investment targets of \$2.5m and \$20m to be raised for mangrove restoration and rice husk gassification financing respectively;

GOP2, Supporting our members in strengthening regulatory frameworks and institutional capacity to achieve green growth outcomes: Development of MRV system design, LT-LEDS, NDC enhancement, carbon markets.

GOP 3, Achieving a sustainable and circular bioeconomy: RE Biomass waste to energy application in rice mills; Promotion of natural capital accounting and development of bankable project investments in landscape restoration, and Promotion of regulatory reforms and mangrove/agroforestry value chain business models to support coastal resilience.

GOP 4. Making cities more sustainable: Development of bankable projects that promote green infrastructure and green jobs investments in cities, including waste management, sustainable mobility, green buildings, solar PV, Energy Efficiency and greening industrial parks.

³⁰ Source: GGGI 3Returns analysis if green growth scenarios (2020)

³¹ Source: NDC v.6 draft – to be confirmed based on government endorsement

³² Source: GGGI 3Returns analysis if green growth scenarios (2020)

³³ Source: Myanmar revised NDC v.6 TBC

³⁴ Source: GGGI Rice Husk to Power Finance Facility Pre-feasibility study.

GOP 5. Poverty eradication and gender equality: Cross-cutting approach to promote/target livelihoods, SME development and tenure security in coastal areas and cities with specific consideration of marginalized stakeholders and women's needs; assess NDC impacts on poverty reduction; mainstream gender disaggregated NDC MRV reporting.

GGGI's Approach to Green COVID Recovery Plans development: Myanmar's economy is highly dependent on inputs from China and on export markets in China (where growth is forecast to slow to 2.3% in 2020) and India (where growth is expected to slow to 4.0% to 2020). Growth in Southeast Asia is expected to decelerate in 2020.³⁵ Whereas Myanmar enjoyed a GDP growth rate of 6.4% and 6.8% in 2018 and 2019, respectively, Myanmar's economic growth is expected to fall sharply in 2020 because of the COVID-19 pandemic. While there is some speculation that the relatively limited rate of infection in Myanmar may be due to the high temperatures, there is a potential risk of a more significant virus infection wave later in the year, when temperatures cool down.

Due to the reduction of cross-border trade since early 2020, many rural farmers, fisherfolk are currently facing severe economic hardship. GGGI's work on improved business models for mangrove/agroforestry value chains and promotion of community forestry can directly supports the development of more resilient livelihoods in the future and rapid economic recovery by increasing small-holder income from existing agro-forestry/forest/fishery activities, providing them with land use tenure, and by improving the quality of products sold. This is in line with the government's CERP priority³⁶:

- 2.1.7. "Support to Farmers, Small AgriProcessors, Seed Farmers and AgriBusinesses for Planting and Income Retention."

The economic activities in Myanmar's urban areas are severely suppressed due to restrictions on movement, and the government is seeking to provide relieve to SMEs through a range of interventions. In defining the priority bankable projects to be developed in GGGI's Green Cities project, in addition to its value for local SMEs in promoting economic investment itself, the team is identifying specific co-benefits between the GCF GHG emissions/Climate resilience priorities and causes of morbidity associated with the disease pandemic, such needs for improvements of waste and sanitation, hazards from air pollution, and promotion of public green spaces. Several such priorities have similarly been identified in the government's CERP:

- 2.3.1. *Expedite the Solicitation Process to Develop Strategic PPP Projects for Entry into the Project Bank* "(a) Expedite solicitation of renewable energy projects after monitoring cost developments to assess the quality of available deal. (b) Expedite solicitation of strategic infrastructure projects."
- 2.3.3. *Prioritize Ready, High Impact Public Investments (Expedite Government Spending)* "(a) Review the existing public investment portfolio and i) prioritize near-ready projects to increase visible impact, ii) scale-up well-performing and high impact projects and iii) restructure/close non-performing projects/assets to free up resources. (b) Prioritize a ready and high impact public investment pipeline for recovery and resilience with a focus on healthcare, key economic infrastructure and other strategic and ready projects listed within the Project Bank."
- 6.1.3. *Improve Preventive Measures* "(e) Improve waste/waste-water management, and drainage system cleaning."
- 7.1.3. *Increase Access to COVID-19 Related Development Financing:* "(a) Acquire significant increases in external development finance in the form of grants and concessional loans to finance CERP Action Plans and Myanmar's broader COVID-19 response"

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI's Myanmar team has identified programmatic synergies and potential resource mobilization opportunities with 40+ bilateral/multilateral donors. Of these, 10+ can be regarded as providing the foundation for GGGI's CBP for the next 2 years. Due to the continuing political challenges that continue to face Myanmar in particular with regard to the human rights situation in Rakhine, and due to the upcoming national elections in Nov 2020, there is some uncertainty regarding future policy directions in the country. In addition, the trend of increasingly private-sector or humanitarian (rather than development) focused engagement by many traditional development partners has reduced the overall support for many areas of GGGI's activities. On the other hand, GGGI is recognized as being relatively unique as one of the first IOs to base their country office in Nay Pyi Taw, and to be embedded within a ministry itself. GGGI has developed strong partnerships as an implementation partner with several ministries, and is working closely with them to mobilize resources from international green/climate finance (GCF, GEF-CBIT, IKI, NAMA, KCEP). In addition, due to its embedded advisory role, GGGI is actively exploring programmatic partnerships with several donors/partners (ex. World Bank, Australian volunteers, UK DFID, Netherlands, Denmark, UN Environment, WWF, and Switzerland/SDC). GGGI expects to bring several green investment projects valued at \$22.5m to closure in 2021-2022.

³⁵ Source: ADB Asian Development Outlook 2020: <https://www.adb.org/sites/default/files/publication/575626/ado2020.pdf>

³⁶ Source: GoM (2020), COVID-19 Economic Recovery Plan

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Myanmar for 2021-2022: **\$0.40 million**; Government counterpart contribution: **\$0.06 million**; and Partner co-financing of the program is expected at **\$ 1.34 million** in the biennium for a total of **\$ 1.80 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ³⁷	Partner	Gap	Total	
2019-2020										
3	4,5	Mangrove Restoration Program in Myanmar (MM03, MM18)	2019	2020	0.24		0.16		0.4	MM03-E1 : MAVA Foundation (\$0.11), MM18: WB WAVES (\$0.080); SPRSI co-finance (\$0.01)
2	2	Development of MRV Capacity Building Program (MM04)	2019	2020	0.18		0.06		0.24	AVI volunteer (\$0.06)
4	2	Readiness Support for Developing Myanmar's Green Cities Investment Plans (MM09, CN04)	2019	2020	0.06		0.65		0.71	MM09 GCF (\$0.54)+ CN04: EU China Climate Cooperation Project (\$0.11)
3,4	3,6	Rice-Husk-To-Power Leasing Finance Facility (RH2P) (MM10)	2019	2020	0.18				0.18	
3	5	Distributed Ledger Technology Powered Improved Cookstoves Finance Facility (DLTICS) (MM11)	2019	2020	0.09				0.09	
MMPM	Myanmar - Implementation of the INDC	Myanmar-Program Management (MMPM)	2019	2020	0.24	0.06			0.3	Govt Office Allocation (\$2,500/month)
TOTAL					0.99	0.06	0.87		1.92	
2021-2022										
3	4,5	Myanmar coastal resilience and economic growth project (MM03)	202101	202212	0.10		0.20		0.30	WB PROBLUE, NORAD/NICFI, DANIDA, Afd, Convergence, KOICA, Australian volunteer,
2	2	MRV Capacity Building/NDC Enhancement (MM04)	202101	202212	0.11		0.47		0.58	MM17: , CBIT 0.47m), Australian volunteer
4	1, 2	Green Cities Investment and Urban LEDS (MM09, MM19)	202101	202212	0.04		0.67		0.71	MM09: GCF Readiness –Green Cities (\$0.3); MM19: GCF Readiness – Urban LEDS (\$0.35), DFID-CIG ,IKI,KOICA
3,4	3,6	Rice-Husk-To-Power Leasing Finance Facility (RH2P) (MM10)	202101	202112	0.05				0.05	Netherlands, Finland, Denmark
Operations/Project Preparation		Myanmar-Program Management (MMPM)	202201	202212	0.10	0.06			0.16	Govt contribution in kind: Office Allocation (est \$2,500/month)
TOTAL					0.40	0.06	1.34		1.80	

³⁷ [Insert footnote describing in-kind contribution]

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Invest. Target	Verification	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1, GOP3	PS1, PS4, PS5	Mangrove Restoration Program in Myanmar (MM03)	Mangrove value chain business models piloted; Mangrove afforestation project financing completed	\$2.5m	Development partner/govt funding allocation for pilot signed; Mangrove afforestation financing term sheet signed <u>Project monitoring, annual results, completion and evaluation reports</u>	SO1, SO2, SO5, SO6	SO1=10,564,726 tCO2eq (2026) SO2=15,000 (2030), SO5=84,228ha (2026) SO6 =NA	SO1=23,632,661 tCO2eq (2030), SO2=NA SO5=188,413 ha (2030), SO6 =843,927ppl (2019)	Policies, Projects, Financing	Government policy continuity and improvement of government/development partner relations following 2020 elections results in continued support for GGGI and increased funding for Myanmar and reduced investor uncertainty; continued improvement of government capacities/systems enabling GGGI implementation. Absence of DP conflicting activities undermining GGGI resource mobilization and project implementation.
GOP1, GOP3	PS1, PS4, PS5	WB WAVES – 3Returns for Ayeyarwady mangroves (MM18)	Mangrove value chain business models piloted; Mangrove afforestation project financing completed		Development partner/govt funding allocation for pilot signed; Mangrove afforestation financing term sheet signed <u>Project monitoring, annual results, completion and evaluation reports</u>	SO1, SO2, SO5, SO6	SO1=22,325,255 tCO2eq (2026), SO2=46,582 (2026), SO5=177,990 ha (2026), SO6 =NA	SO1=579,892,397 tCO2eq (2026) SO2=NA SO5=437,811 ha (2026) SO6 =2,095,636ppl (2019)	Policies, Projects, Financing	Government policy continuity and improvement of government/development partner relations following 2020 elections results in continued support for GGGI and increased funding for Myanmar and reduced investor uncertainty; continued improvement of government capacities/systems enabling GGGI implementation. Absence of DP conflicting activities undermining GGGI resource mobilization and project implementation.
GOP2	PS2	MRV Capacity Building/NDC Enhancement (MM04, MM17)	MRV Masterplan endorsed and institutionalized	N/A	Government MRV Masterplan endorsements <u>Project monitoring, annual results, completion and evaluation reports</u> Revised NDC	SO1, SO5,	NA	SO1, 339,537,749 tCO2eq (2030) SO5 23,010,822 ha (2030)	Policies, Projects	Government policy continuity following 2020 elections results in continued support for GGGI activities; continued improvement of government capacities/systems enabling GGGI implementation; Absence of DP conflicting activities undermining GGGI resource mobilization and project implementation
GOP1, GOP4	PS1, PS6, PS7, PS8, PS9, PS10	Readiness Support for Developing Myanmar's Green Cities Investment Plans (MM09)/Urban LEDS/Energy Efficiency	4 concept notes focused on secondary cities submitted for GCF funding; 1 DAE nominated; Urban LEDS Situational analysis and guidelines developed	\$20.00 m	Concept notes submitted to NDA; DAE nomination submitted to NDA <u>Project monitoring, annual results, completion and evaluation reports</u>	SO1, SO2, SO 3.1, SO3.2 SO3.3 SO3.4 SO4	TBC	TBC	Policies, Projects, Financing	Government policy continuity and improvement of government/development partner relations following 2020 elections results in continued support for GGGI and reduced investor uncertainty; continued improvement of government capacities/systems enabling GGGI implementation.
GOP1, GOP3, GOP4	PS1, PS3, PS6	Rice-Husk-To-Power Leasing Finance Facility (RH2P) (MM10)	Finance Facility DFI-Banking Term Sheet signed; Rice husk waste water regulation guideline adopted; ECD monitoring framework for waste water established	\$20.00 m	RH4P financing term sheet signed; Government endorsement of guideline; Development partner/govt funding allocation for wastewater monitoring signed;	SO2	SO2=1,576	SO2=15,976	Policies, Projects, Financing	Government policy continuity and improvement of government/development partner relations following 2020 elections results in continued support for GGGI and increased funding for Myanmar and reduced investor uncertainty; continued improvement of government capacities/systems enabling GGGI implementation.

NEPAL

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

A least developed country (LDC) with a population of 28 million and a per capita income of USD 1033 (2018), Nepal is the second poorest in Asia. The country emerged from armed conflict in 2006, and was devastated by the Great Gorka Earthquakes of 2015, from which reconstruction is ongoing. Nepal plans to graduate to middle-income country status by 2022, for which economic growth is needed, and is pursuing a range of climate action targets including increased adoption of electric vehicles, diversification of renewable energy sources, improved environmental management at municipal level and improved landscape resilience, as outlined in the Nationally Determined Contribution (2015). GGGI's activities in Nepal align with these targets. The GGGI country office launched its first programs in 2017, focusing on electric vehicle adoption through the Electric Mobility Program (EMP) and localized green growth through the Green Municipal Development Program (GMDDP). The country office's early work caught the attention of the Bill and Melinda Gates Foundation, leading to a USD 1.6M grant to scale up investment in sanitation. As an outcome of EMP, in 2019, GGGI's technical assistance on electric buses helped to unlock USD 26M in federal funding for electric bus deployment. Through 2019-20, GGGI continued in these two programmatic areas, providing additional support the Government of Nepal for NDC scale up. In 2020, the Bill and Melinda Gates Foundation further extended its investment in GGGI Nepal. Across 2020, GGGI Nepal continued to support the government's accession to GGGI, and the development of a host-country agreement.

Ongoing challenges:

- *The vast potential of electric mobility remains largely untapped* – Despite increased investment in the sector, the Government of Nepal removed fiscal incentives in 2020, and electric vehicle penetration remains low. Adoption is hampered by a lack of norms and standards, the absence of a coordinating body, limited technical know-how, and limited financing and supportive infrastructure. Much can be done to build Nepal's electric mobility ecosystem and transition the country from its current reliance on conventional fossil fuel-powered transport.
- *The sanitation sector is under-financed and under-serviced* – Despite the critical role of sanitation in improving health and wellbeing, enterprise and business development within the sector is limited. There are few incentives in place to stimulate the sector, poor regulation and enforcement at local levels, poor quality service provision, costly financing and limited commercial viability. All this results in ongoing vulnerabilities and ecosystem degradation.
- *Bamboo forests are small, and the value chain is fragmented* – Native to Nepal and offering a range of climate change and economic benefits, the bamboo segment of the forestry sector has been long overlooked. The country's limited bamboo forests are small holder and scattered, the domestic market relies on imports from India, the market is poorly structured, with limited activities along the value chain. Limited investment and almost no bamboo policy further undermine the segment.
- *Agriculture sector is vulnerable, exacerbated by COVID 19 humanitarian crisis* – Nepal's lowland flood plains (terai) contain most of the country's agriculture and agriculture workers. Climate driven emergencies, particularly flood and drought, regularly damage the sector and undermine livelihoods. This vulnerability has been exacerbated by large scale return of economically displaced migrant Nepali workers, due to COVID 19 pandemic. The agriculture sector requires urgent support to render it more resilient and reintegrate workers.

GGGI Nepal's Electric Mobility Program (EMP), under GOP4, Programmatic Solution 7, aligns with electric mobility challenges and targets expressed in Nepal's NDC, 15th Five Year Plan, and 'National Action Plan for Electric Mobility'. The Green Sanitation Services Program (GSSP), under GOP4, Programmatic Solutions 6, is aligned with Nepal's upcoming NDC, Nepal's SDG Report, and the Fecal Sludge Management Policy. The Bamboo Accelerator Program (BAP), under GOP3, Programmatic Solutions 4, is aligned with Nepal's National Forestry Policy. The Climate Smart Agriculture Program (CSAP) aligns with Nepal's NDC, SDG priorities, agriculture policies and COVID-19 recovery priorities and plans. The SEA ITMO initiative aligns with Nepal's NDC targets.

II. COUNTRY PROGRAM

Areas of Focus GGGI supports Nepal with a focus on electric mobility, waste and sanitation, agriculture and forestry, with green investments taking place across these areas. Based on the Nepal Country Planning Framework, expiring in 2021, GGGI will contribute to:

- SO1 Reduced GHG emission: Reducing emissions from transport and waste sectors; supporting sequestration through bamboo.
- SO2 Creation of green jobs: Inclusive job creation through mobility operations, waste-to-energy facilities, bamboo market growth.
- SO3.3 Sustainable waste management. Increased access to sustainable waste management through sanitation and waste projects.
- SO3.4 Sustainable public transport: Increased access to sustainable transport services through electric mobility.
- SO4 Improved air quality: Improve air quality through electric mobility.
- SO6 Improved ecosystem services.

With a focus on:

- GOP 1, PS1, Green Investment – GGGI’s programs and projects in Nepal contribute to investment mobilization amounting to USD 134M across the biennium. In collaboration with SEA, Nepal will support international carbon trading through ITMO under Paris Agreement valued at 22M.
- GOP2, PS2, Climate Action – Both EMP and GSSP directly support NDC target implementation.
- GOP, PS3, Climate Smart Agriculture – The KOICA-funded program starting 2022 will support climate smart agriculture and green recovery in Nepal, leading to USD 20M mobilization.
- GOP3, PS4. Sustainable Forests – BAP will support policy and planning and bamboo market activation.
- GOP4, PS6. Waste Management – GSSP Phase I and II will support business activation, policy development and technology transfer, supporting
- GOP4, PS7. Sustainable Mobility – EMP Phase III will support in policy development, investment and capacity development.

GGGI’s Approach to Green COVID Recovery Plans development: It is assumed that there will be a significant negative impact in the socio-economic sector of Nepal due to COVID 19. It will, however, take some time for the country to estimate the actual loss. GGGI Nepal’s ongoing programs are well placed to support recovery, including through the generation of green jobs (SO2) through electric mobility, waste management and forestry programs. In particular, improved access to sustainable sanitation and waste management directly contribute to improving public health (SO3), and improved air quality as a result of clean transport improves respiratory and lung health (SO4). Since tourism is a priority sector in Nepal, contributing around 8% to the country’s GDP in 2018,¹ GGGI’s interventions can also focus on providing support to the government in reviving the tourism sector, particularly through electric mobility for heritage and tourism (SO3), an area where GGGI Nepal is active. The proposed climate smart agriculture program will enable worker reintegration following economic displacement due to COVID-19 humanitarian crisis.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Through 2021-22, GGGI and GIZ will continue their partnership to mobilize funds from the NAMA Facility for electric mobility. GGGI is actively engaging with the Green Technology Center-Korea, as they have shown interest in working in electric mobility in Nepal. Similarly, a partnership with the World Bank on electric mobility will be sought, at both technical and funding levels, and GGGI will scope for opportunities with the EU and DFID for financing electric mobility investment projects. In the sanitation sector, GGGI has secured a grant supplement from the Bill and Melinda Gates Foundation in 2020 to scale up activities across 2021. In addition, GGGI will prepare a second phase funding proposal for the Bill and Melinda Gates Foundation, and GGGI and the Alternative Energy Promotion Center will extend their partnership on waste-to-energy, targeting the Green Climate Fund. GGGI has also submitted a climate smart agriculture proposal to KOICA, for the 2022 funding cycle. Beyond this, GGGI will continue to deepen relationships with KOICA by developing new proposals. Under the BAP, partnerships with Danish Forestry Extension and ICCO will seek funding from the Nordic Climate Fund, DFID and possibly the EU. GGGI has also submitted a proposal to the Swedish Energy Authority to support carbon trading between Nepal and Sweden linked to GGGI’s ongoing biogas development work in Nepal.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Nepal Program for 2021-2022: **\$0.36** million (\$0.3 million in core, and \$0.06 million in co-financing); Government counterpart contribution: **\$0.05** million; and Partner co-financing of the program is expected at **\$1.55** million in the biennium for a total of **\$1.96** million.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ²	Partner	Gap		Total
2019-2020										
GOP 1, GOP 2, GOP 4	6. Waste Management	Green Sanitation Services Program, Phase I	Apr. 2019	[Dec. 2020] ³	0.0	0.0	0.7	0.0	0.7	Funded by BMGF. New funding proposal for the GCF.
GOP 1, GOP 2, GOP 4	7. Sustainable Mobility	Electric Mobility Program, Phase II	Jan. 2019	Dec. 2020	0.35 ⁴	0.05	0.0	0.0	0.35	NAMA Facility. Funding proposals for the GCF.
TOTAL					0.35	0.05	0.7	0.0	1.05	
2021-2022										
GOP 1, GOP 3, GOP 5	4. Sustainable Forests	Bamboo Accelerator Program	Jan. 2021	Dec. 2022	0.1	0.0	0.0	0.0	0.1	Nordic Climate Fund, IKI
GOP 1, GOP 3, GOP 5	3. Climate Resilient Agriculture	Climate Smart Agriculture Program	Jun. 2022	Dec. 2022	0.06	0.0	0.75	0.0	0.81	KOICA MDCP 2022: 6M
GOP 1, GOP 2, GOP 4	6. Waste Management	Green Sanitation Services Program, Phase I	Jan. 2021	[Dec. 2021]	0.0	0.0	0.46	0.0	0.46	Additional funding from the BMGF = 0.46 million.
GOP 2 GOP 4	6. Waste Management	Resilient Sanitation Research Initiative	Jan. 2021	Dec. 2023	0.0	0.0	0.04	0.0	0.05	BMGF = 0.05
GOP 1, GOP 6	1. Green Investments	Carbon Trading (ITMO) Initiative with SEA	Jan. 2021	Dec. 2022	0.0	0.0	0.3	0.0	0.3	SEA = 0.6 (HQ = 0.3 and CO = 0.3)
GOP 1, GOP 2, GOP 4	7. Sustainable Mobility	Electric Mobility Program, Phase III	Jan. 2021	Dec. 2022	0.12	0.05	0.0	0.0	0.18	World Bank. NAMA Facility. EU, GCF.
Operations/ Project Preparation		NPPM			0.08				0.08	
TOTAL					0.36	0.05	1.55	0.0	1.96	

V. RESULTS FRAMEWORK

GOP	PSs	Projects	Outputs	Verification	Invest. Target	SO	SO Impact Estimation		IO	Assumptions and Risks
							Attributed	Contributed		
GOP 1, GOP 3, GOP 5	PS1 PS4	Bamboo Accelerator Program, Phase I	Enabling environment – Establish taskforce; map donors and undertake gap assessment of Bamboo Action Plan; Market assessment – Assess bamboo market and identify investment opportunities; develop bamboo business accelerator project preparation.	Letters of endorsement from government Publication of sequestration database Project monitoring	2M (2022)	SO1, SO2, SO5, SO6	NA	NA	IO1, IO2	Government commitment; Market interest; Delivery risk linked to COVID 19;
GOP 1, GOP 3, GOP 5	PS1 PS3	Climate Smart Agriculture Program	Emergency management – Build capacity of local governments; Climate smart agriculture planning – Develop CSA plans and implement measures; Business incubator – Incubate and train new agribusinesses; Business accelerator and challenge fund – Operationalize fund, disburse and mobilize investment.	Letters of endorsement from government Publication of sequestration database Project monitoring, annual results.	20M (2025)	SO2, SO6	SO2: 3,200 SO6: 392,000		IO1, IO2	Government commitment; Market interest; Delivery risk linked to COVID 19;
GOP 1, GOP 2, GOP 4	PS1 PS6	Green Sanitation Services Program, Phase I (NP06)	Industry assessment – Assess the sanitation industry and identify policy, financing and fiscal barriers to ease of doing business; Ease of doing business reform – Design a comprehensive suite of policy and regulatory reforms, and obtain approval; Green sanitation plans – Deliver green citywide inclusive sanitation plans; Investment mobilization – Undertake waste-to-energy (biogas) feasibility studies, prepare investment proposal. Develop sanitation credit facility.	Letters of endorsement Financing commitment note/letter Municipal council decisions Project monitoring, annual results completion	50M (2021)	SO1, , SO3.2, SO3.3	SO1: 5340 tCO2e SO3.2 480,000 SO3.3 480,000	20.4 million people 19 million people	IO1, IO2	Government commitment; Interest from financiers; Technical robustness of proposals; Delivery risk linked to COVID 19;
GOP 1, GOP 2, GOP 4	PS1 PS6	Resilient Sanitation Research Initiative	Stakeholder engagement – Stakeholder engagement and buy in for research activities; Policy integration – Resilient sanitation methods adopted into policy making processes; Dissemination – Finding of the research are disseminated for uptake.	Letters of endorsement from government	0	SO1, SO2, SO3.1, SO3.2, SO3.3	NA	NA	IO1, IO2	Government commitment; Delivery risk linked to COVID 19;
GOP 1, GOP 4	PS1 PS6	Carbon Trading Initiative	Institutional and regulatory set up – Review regulatory changes and support procedure development to enable carbon trading; MRV framework – Support MRV framework development for biogas plants.	Letters of endorsement from government		SO1,	1,2 M tonCO 2d	NA	IO1, IO2	Government commitment; Delivery risk linked to COVID 19;
GOP 4	PS1 PS7	Electric Mobility Program, Phase III (NP03)	Promotion center – Establish and operationalize national electric mobility promotion center; National standards – Develop national electric vehicle quality and performance standards; Procurement guidelines – Develop national generic electric bus specifications and procurement guidelines	Letters of endorsement Financing commitment note/letter Official standards registry Project monitoring	40M (2022)	SO1, SO2, SO3, SO4	NA	NA	IO1, IO2, IO3	Government commitment; Technical viability; Delivery risk linked to COVID 19;

PHILIPPINES

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI supports the Republic of Philippines in its transition toward climate resilient and inclusive green growth. Since 2012, GGGI has been partnering with the National Government Agencies (NGAs) such as the Climate Change Commission (CCC); the National Economic and Development Authority (NEDA); the Department of Trade and Industry (DTI); and the Department of Energy (DOE). GGGI's initial intervention, mainly rooted in a climate adaptation, has focused on green growth planning, policy analysis, and capacity development for the decentralized local government units (LGUs) – including the Provincial Government of Palawan, Oriental Mindoro, and Bataan – as well as micro, small and medium enterprises (MSMEs). During 2019-2020, GGGI's intervention has expanded towards structuring bankable projects and bringing climate finance to the country, while strategically pivoting from pure adaptation to mitigation activities with an ambition of contributing to gradual displacing coal in the power mix and creating new economic opportunities particularly for the poor and marginalized. These include technical assistance and investment structuring targeted to renewable energy deployment; rural based micro enterprises in need of expanding their value chain; electric tricycles in selected LGUs; as well as technical advisory services to support country's access to the Green Climate Fund (GCF). This direction is envisioned to tackle key development challenges as summarized below:

- **Expansion of coal power plants / energy access:** The country has the second highest rate of electricity in Asia (next to Japan) for residential customers at Php8.96/kwh (International Energy Consultants, 2018) with power generated largely through fossil-fuel based sources. Coal is the country's dominant (and expanding) source of electricity with a 52 percent share in gross power generation as of December 2018. An estimated 2.4 million households have no access to electricity given the archipelagic nature of the country with more than 7,100 islands. Solar energy is a viable and affordable alternative but remains largely untapped in LGUs mainly due to lack of enabling policy environment and capacity to structure bankable projects.
- **Low productivity and poverty in agriculture value chain:** The productivity of the agriculture sector has been declining as it contributes only about 9% of the GDP while accounting for almost 25.5% of national employment, mostly farmers and fisherfolks. Given this, poverty has remained widespread in the rural sector since they compete for a small set of economic opportunities, even being the most vulnerable to climate change. There is a strong need to establish evidence-based climate risk information and enabling environment to assist rural-based micro enterprises, such as investment in agriculture value chain development to help them transform raw produce into higher value products with an aim of creating jobs and income embedded in the process.
- **Limited capacity to access climate finance:** The country is one of the most disaster-prone country in the world and – with a population over 107 million – is the most densely populated all global climate disaster hotspots. However, domestic sources of climate funding remain paltry at 7% of the national budget, on average. LGUs, as front-liners in climate change preparation and response, have limited capacity to originate technical proposal justifying investment even from the domestic source of financing; and the country as a whole still has limited technical and institutional capacity to bring international climate finance, which requires further support from international communities.

II. COUNTRY PROGRAM

Areas of Focus: GGGI intervention is designed to directly and indirectly support the Philippines aligned with the Philippine Development Plan (2017–2022) (poverty incidence rate from 21.6% in 2015 to 14.0% in 2020), the National Climate Change Action Plan (2011-2028), the Philippine Renewable Energy Roadmap (2017-2040) (15GW by 2030; 20GW by 2040), the MSME Development Plan (2017-2022), and the Nationally Determined Contribution (NDC) of the Philippines. For 2021 to 2022, GGGI will maintain its focus on structuring bankable projects as well as developing and/or strengthening policies that will provide an enabling environment for such investment in LGUs, which will end up contributing to Reduced GHG Emissions (SO1); Creation of Green Jobs (SO2); Increased Access to Sustainable Energy Services (SO3); and Enhanced Adaptation to Climate Change (SO6) through the Programmatic Solutions summarized as below:

- **GOP 1, Programmatic Solutions 1. Green Investment –** Accelerating bankable project origination and investment mobilization of USD 30M mainly for, but not limited to, the renewable energy promotion and agriculture value chain development.
- **GOP 2, Programmatic Solutions 2. Climate Action –** Developing institutional capacity of the National Designated Authority (NDA) and Direct Access Entities (DAEs) of the Green Climate Fund (GCF); improving country's capacity to monitor climate finance flows; and enhancing MSME capacities to adopt and implement green business practices.
- **GOP 3, Programmatic Solutions 3. Climate Resilient Agriculture –** Enhancing climate resilient and inclusive agriculture value chain expansion through the targeted investment in agriculture-based micro enterprises (e.g. cooperatives) to improve processing capacity of higher value secondary agri products and to enhance market access; developing capacity to institutionalize

policies that inform climate risk to the stakeholders. Additionally – in light of increasing investment flows into agri-tech (e.g. digital transformation) – facilitating institutional investment into start-ups in the sector and development of a conducive policy environment for growth of such start-ups.

- GOP 4, Programmatic Solutions 9. Solar PV – Accelerating deployment of solar photovoltaic (PV) to displace coal in the power mix and provide inclusive access to affordable, reliable, and sustainable energy services in the areas where the energy source is mainly diesel generated, highly subsidized, and undersupplied. The approach is mixed with provincial-level policy measure and direct investment project; covering both utility-scale and distributed solar PV.

GGGI's Approach to Green COVID Recovery Plans Development: On the one hand, triggered by the pandemic, GGGI remains firmly committed to supporting Philippines' clean energy transition, since this is an unique opportunity to expedite President's call in his recent State of the Nation Address to fast-track renewable energy projects. To this end, GGGI will redouble our efforts to originate and structure clean energy projects while mobilizing increased climate finance flows into the country. On the other hand, GGGI aims to support the sustained growth of Philippines' agricultural sector mostly affected by the pandemic in economic terms, facing reduced income and difficulty obtaining inputs due to supply chain disruptions. Our goal is to foster the development of farmer-entrepreneurs by, among others, strengthening their market access, providing training on the production of processed food products, and financing capital expenditures for the construction of processing facilities, contributing to the modernization and global competitiveness of Philippines's agribusinesses, which will, in turn, enhance their ability to weather future external shocks.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI will strengthen partnership with government agencies both at the national and local levels and increase partnership base with the private sector stakeholders in the country, including start-ups and associated financing facilities. For resource mobilization, the key principle is to utilize GGGI's core resources to leverage new earmarked resources targeted in common areas of interest, while maintaining financially healthy operation. GGGI will maintain or explore partnership with the Korea International Cooperation Agency (KOICA); Green Climate Fund (GCF), International Climate Initiative (IKI), United States Agency for International Development (USAID), Asian Development Bank (ADB), and so on.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Philippines for 2021-2022: **\$0.60 million**; Government counterpart contribution: **\$0.14 million**; and Partner co-financing of the program is expected at **\$3.38 million** in the biennium for a total of **\$4.11**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov'	Partner	Gap	Total	
2019-2020										
GOP 1	1	Bataan 50MW Solar Farm Project (PH10)	Apr-19	Jun-20	0.198	0.003	0.000	0.000	0.201	Funded by GGGI
GOP 2	2	Readiness Support to Strengthen Philippines Capacity and Knowledge on Accessing GCF	Sep-19	Mar-21	0.000	0.013	0.234	0.000	0.247	GCF Readiness approved, but NDA waiting for Special Presidential Authority
		Green Climate Fund Readiness Support to Strengthen Engagement and Direct Access	Dec-19	Dec-21	0.000	0.013	0.252	0.000	0.265	
GOP3	3	Climate Resilient and Inclusive Green Agriculture Value Chain Development	Jan-19	Dec-20	0.140	0.096	0.496	0	0.732	KOICA Proposal submitted (approval pending); GGGI financed business development in 2019
GOP 4	9	Policy analysis on rooftop solar generation through solar auction in Oriental Mindoro	June-20	June-21	0.020	0.010	0.000	0.000	0.030	Being funded by GGGI
	10	Greening MSMEs and promoting Greenpreneurship	Aug-19	Dec-20	0.078	0.081	0.000	0.000	0.159	Being funded by GGGI
Program Management		Resource mobilization of four (4) earmarked proposals, CPF development, etc.	Jan-19	Dec-20	0.971	0.000	0.000	0.000	0.971	KOICA proposal; 2 GCF Readiness proposals; IKI proposal
TOTAL					1.407	0.216	0.982	0	2.605	
2021-2022										
GOP 2	2	Readiness Support to Strengthen Philippines Capacity and Knowledge on Accessing GCF	Sep-19	Mar-21	0.000	0.013	0.062	0.000	0.075	GCF Readiness approved, but NDA waiting for Special Presidential Authority
		Green Climate Fund Readiness Support to Strengthen Engagement and Direct Access	Dec-19	Dec-21	0.000	0.013	0.443	0.000	0.456	
GOP 3	3	Climate Resilient and Inclusive Green Agriculture Value Chain Development	Jan-21	Dec-22	0.130	0.096	2.875	0	3.101	KOICA proposal submitted GGGI to co-finance
GOP 4	9	Policy analysis on rooftop solar generation through solar auction in Oriental Mindoro	Jun-20	Jun-21	0.043	0.009	0.000	0.000	0.052	GGGI to finance (linked to Global Program)
		Solar PV deployment investment project in LGU(s)	Jan-21	Dec-22	0.127	0.000	0.000	0.000	0.127	GGGI to finance
Program Management		Resource mobilization, pipeline development, operation, etc.	Jan-21	Dec-22	0.300	0.000	0.000	0.000	0.300	
TOTAL					0.60	0.131	3.38	0	4.111	

V. RESULTS FRAMEWORK

GOPs	PS s	Projects	Outputs	Verification	Invest. Target	SOs	SO Impact Estimation		IO ³⁸	Assumptions and Risks
							Attributed	Contributed		
GOP1	PS 1	Preparation and demonstration of bankable, innovative RE and EE projects	-Feasibility study for bankable projects conducted to support RE investments -Investments for RE projects mobilized	Feasibility study report and letter of intent for investment projects; Project monitoring, annual results, completion and evaluation reports;	10M	SO1	Bottom-up attributed estimation: 163,063 ton CO2e	N/A	IO2	IKI proposal is approved; Government is in favor of feasibility study; Enough pipeline of projects identified;
GOP2	PS 2	Readiness Support to Strengthen Philippines Capacity and Knowledge on Accessing GCF	Capacity development activities and policy analysis conducted to improve NDA access to the Green Climate Fund; Institutional capacity and coordination mechanisms developed to govern and coordinate climate action and finance	Policies submitted to Government; Capacity development completion reports; Project Concept Notes; Project monitoring, annual results, completion and evaluation reports	N/A	SO6	N/A	Top-down contributed estimation: 37,479 people with enhanced adaptation to climate change	IO3	Project proposals approved by GCF Stable socio-economic and political situation to support project implementation
		Green Climate Fund Readiness Support to Strengthen Engagement and Direct Access	-Country Programming processed and climate finance strategies and project pipeline developed. -Direct access to climate finance facilitated. -Six (6) draft Project Concept Notes for possible GCF financing developed.							
GOP3	PS 3	Climate Resilient and Inclusive Green Agriculture Value Chain Development	-Evidence-based climate policies and tools to support climate resilience of farmers, agribusinesses, and vulnerable local communities in Oriental Mindoro implemented. -Design, financing, and operationalization of microenterprises and a Provincial Agricultural Center (PAC) in Oriental Mindoro conducted. Institutional development activities to improve capacity of government and nongovernment stakeholders to implement climate resilient, inclusive and green agriculture value chain projects in Oriental Mindoro conducted.	Climate resilient policies and tools submitted to Government; Infrastructure completion and operations reports; Capacity development completion reports; Project monitoring, annual results, completion and evaluation reports	2M	SO2	Targeted Attribution Impact: 897 green jobs	N/A	IO1; IO3	Earmarked proposal approved by KOICA Off-take business agreement finalized for agri-based microenterprises Government support for climate resilient policies secured Stable socio-economic and political situation
						SO6	Targeted Attribution Impact: 12,493 people	N/A		
GOP4	PS 9	Policy analysis on rooftop solar generation through solar auction in Oriental Mindoro	-Technical advisory report on enabling investment environment for solar PV investments	Technical advisory report and policies submitted to Government; Project monitoring, annual results, completion and evaluation reports	N/A	SO3.1	N/A	N/A	IO1; IO2	Stable socio-economic and political situation to encourage investor confidence; Government is in favor of the direction
		Policy analysis and outreach to improve the enabling environment in 2 LGUs and MSMEs	Capacity development activities for MSMEs	Policy assessment report(s); Capacity development completion report(s)		SO3.1	N/A	N/A		

³⁸ IO1: Strengthened national, sub-national and local green growth planning, financing and institutional frameworks; IO2: Increase green growth investment flows which enable partner governments to implement green growth policies; IO3: Improved multi-directional knowledge sharing and learning to empower local and external agents necessary to drive green growth processes in partner governments.

										to fund the cost of solar PVs and other energy efficiency measures with support from DTI
		Solar PV deployment investment project in LGU(s)	Feasibility study to support solar PV investment project(s) developed Solar project investment mobilized	Feasibility study report and letter of intent for investment project(s); Project monitoring, annual results, completion and evaluation reports	US\$ 18 M	SO1	Bottom-up attributed estimation: 293,518 ton CO2e	N/A	IO2	Government support at the national and provincial level; Technical/Feasibility study yielded favorable results

SRI LANKA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

In January 2019, GGGI welcomed the Government of Sri Lanka as its thirtieth Member, committing to support the country in achieving its Nationally Determined Contributions (NDCs) and implementing its National Adaptation Plan (NAP). Nominated by the Ministry of Environment and Wildlife Resources³⁹ as its delivery partner for the Green Climate Fund (GCF) Readiness Programme, GGGI supported the Government of Sri Lanka in the preparation and submission of a US\$3M NAP Readiness Proposal in June 2019, the approval of which is anticipated in mid-2020. The project will build on the results of the country's earlier key adaptation initiatives which include the National Climate Change Adaptation Strategy 2011-2016 and the National Adaptation Plan for Climate Change Impacts 2016-2025. Aimed to strengthen the national and subnational capacity and system to implement the country's needed adaptation actions, being a small island country highly vulnerable to adverse impacts of climate change. The Global Climate Risk Index ranks Sri Lanka as the second country at-most-risk in 2017 based on the impact analyses of weather-related loss events. In September 2019, the GGGI Sri Lanka Country Program set-up was officially commenced and the Interim Country Planning Framework (CPF) was submitted to the Government during the occasion of Sri Lanka's Blue-Green Summit in October. The Interim CPF 2020-2024 will however need to be further validated under the newly elected Government in November 2019. A final validation workshop will be conducted prior to the target launch in Q3 of 2020, the schedule of which has been adjusted in light of the COVID-19 crisis. GGGI's intervention areas under the CPF aims to support Sri Lanka's NDC and SDG targets in the areas of energy, transport, and forestry.

Sri Lanka's NDC aims to reduce GHG emissions by 30% from 2010 BAU (20% from energy- 4% unconditional and 16% conditional; and 10% from transport, industry, waste and forestry -3% unconditional and 7% conditional). While the country's greenhouse gas emissions represent less than 0.1% of the global emissions, it has registered a steady increase of 8.5% annually between 2010 and 2014 with the transport sector accounting for almost half (48%) and the power and thermal generation at 41%. Worth noting are Sri Lanka's socio-economic reforms, achieving significant progress in human development indicators particularly in poverty reduction and climate change initiatives which follow a more than 30-year civil war which ended in 2009. At the macro-economic front, challenges remain in addressing the country's declining tax revenues, heavy reliance on borrowings to finance the deficit, and an economy that is highly dependent on climate-sensitive sectors such as agriculture, tourism, manufacturing, forestry and energy. Thus, aligned with the government priorities under the Sri Lanka Vision 2025 which recognizes climate change challenges and prioritizes environmental protection and disaster management; the President's Ten-Point Socio-Economic Agenda under the December 2019-National Policy Framework Vistas of Prosperity and Splendor; 2012 National Climate Change Policy; 2019 Energy Policy which underscores clean, safe, sustainable, reliable and economically feasible energy supply; 2009 National Transport Policy (currently under review) which underscores the need to reduce fossil fuel-dependency for mobility requirements and encourage the use of public transport and provision of incentives for new technologies, the GGGI support to Sri Lanka in 2019-2020 is largely focused in establishing the country program which sets the stage for implementing the national adaptation readiness and support the government's NDC goals on: (a) energy-efficient and environment-friendly transport; (b) green energy and energy efficiency; and, (c) forest/mangrove enhancement. Sri Lanka's key development challenges include:

- Need for an integrated overall policy approach in managing mobility; support for an enabling environment for green and energy-efficient transport system and investment projects to address the increasing demand for passenger and freight, worsening urban mobility, poor regional interconnectivity, increasing road accidents, and deteriorating air quality
- Need for a clear and stable policy framework, harmonized regulations, and government standards to attract green investments that will shift fossil fuel-based sources to energy efficient and renewable sources, and introduction of demand-side management to reduce energy losses
- Need to enhance the implementation of forest policies, strengthen the institutional capacity of forest-related agencies, promote awareness, and accelerate investments of public and private companies for environmental conservation.

II. COUNTRY PROGRAM

Areas of Focus: GGGI will support Sri Lanka in achieving both its NDC targets in adaptation through the GCF NAP, and its mitigation targets in: (a) energy-efficient and environment-friendly transport; (b) green energy and energy efficiency; and, (c) increased forest cover/enhanced mangrove rehabilitation. GGGI will therefore contribute to:

³⁹ Formerly known as the Ministry of Mahaweli Development and Environment (MMDE).

- SO6: As the delivery partner in the GCF NAP Readiness Project, GGGI will contribute to Sri Lanka's efforts in building resilience of the most vulnerable sectors and communities to adverse effects of climate change by strengthening the country's capacity and system to implement the NAP.
- SO5: Supporting Sri Lanka's NDC target in increasing forest cover from 29% to 32% and enhancing mangrove rehabilitation that will in turn contribute to Sri Lanka's adequate maintenance of its natural capital
- SO1: GGGI support in the conduct of policy and investment feasibility studies and awareness-raising in the energy and transport sectors will contribute to reducing GHG emissions through the creation of an enabling environment that incentivizes green investments and by accelerating the adoption of or shift to green energy and energy efficient technologies.
- SO4: Support for policy and investment studies on e-mobility or public transportation systems that are renewable energy-driven transport modes contributes to improved air quality and encourages inclusiveness, creates economic opportunities, and improves resilience to climate change.

With a focus on:

- GOP1, Programmatic Solution 1. Green Investments – two-pronged support focused on: (1) developing and submitting concept notes on adaptation for each Province for funding under the GCF or other climate finance sources under the GCF-NAP; and, (2) mobilizing a USD5 million green investment-target for sustainable transport, green energy and forest/mangroves restoration by strengthening private sector participation through provision of investment advisory on technical and financial feasibility
- GOP2, Programmatic Solution 2. Climate Action - support focused on achieving Sri Lanka's NDC on adaptation by further strengthening the country's adaptation planning process and enhancing access to climate finance for the implementation of its national adaptation plan
- GOP3, Programmatic Solution 4. Sustainable Forests /5. Coastal Resilience – support focused on strengthening forest and mangroves management and investments
- GOP4,
 - Programmatic Solution 7. Sustainable Transport/E-Mobility support focused for a pilot project on introduction of electric buses for public transport to assess and inform policy and mobilize required green investment for the wider adoption of e-buses
 - Programmatic Solution 9. Solar PV – support focused on adoption of solar rooftop as energy source for a cluster of government-owned buildings/institutions to strengthen green energy policy and mobilize investments for wider adoption

GGGI's Approach to Green COVID Recovery Plans development: The global crisis induced by the COVID19 and declining oil prices are expected to significantly impact Sri Lanka with growth prospects reduced to 2.2% (ADB Outlook 2020), from the earlier 4.5 to 5% projected by the Sri Lanka Central Bank (PWC, 2020). The impact of the COVID19 crisis comes amidst a country recovering modestly at the end of last year from the April 2019 Easter Bombing which resulted to a significant drop in tourism receipts, a key revenue source for Sri Lanka. In 2020, the ensuing disruptions to global travel and restrictions have significantly affected tourist arrivals which saw a 30% reduction in the first quarter compared to last year. Remittances received by Sri Lanka are also expected to fall by almost 20% which are likely to result to less stability and job security for Sri Lanka-origin migrant workers (World Bank, April 2020). About half of the country's remittances come from oil-producing Middle East and about 20% from Europe (20%) (PWC, 2020) are critical in covering for Sri Lanka's trade deficit which stood at 84% in 2019 and such drop signifies a loss of a crucial financing lifeline for many vulnerable households in the country (WB, 2020).

Worth noting are the quick measures enacted by the Sri Lanka Government to contain the domestic spread of the virus and provision of relief to those adversely affected which are acting as key mitigating factors (ADB, 2020; WHO, 2020). A Public-Private Partnerships to aid Sri Lankan households obtain essential/emergency supplies, along with increased government spending on healthcare and public safety measures were also put in place. Nevertheless, the COVID 19 and the imperative measures to contain it also means curtailed movement of labor, disrupted livelihoods and supply chains, and cashflow problems for businesses (ADB, 2020). As sales, investments and exports drop due to a slump in global demand and disruption on the supply side of raw materials, the focus of Sri Lanka Government's recovery plans has turned to strengthening the development of its local industries. Evolving as a key strategy for economic development, Sri Lanka has banned imports to shift attention to local production in agriculture and forestry sectors. GGGI's support to Sri Lanka therefore is timely as its planned interventions will contribute to building resilience of its communities and vulnerable sectors through adaptation planning; strengthening policies; and, accelerating green investments in the energy, agro-forestry and transport sectors—all critical inputs to support the country's industrial development.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

With the set-up of the Sri Lanka Country Program officially commenced in September 2019, GGGI has been welcomed into the Sri Lanka Development Partners Forum led by the UN Resident in Sri Lanka. The Forum is an opportunity to be apprised of in-country development partners and the respective areas of cooperation and build synergy through collaboration. Potential partnerships in

2019 have been explored with GIZ-Sri Lanka on e-mobility, and other areas being explored are in the areas of energy, and forest/mangroves. GGGI-Sri Lanka has been invited by UNDP-Sri Lanka to explore potential collaboration in strengthening Sri Lanka NDC's targets. In addition, with GGGI as among the international organizations with a signed MoU and Framework Agreement with the GCF, the potential inclusion of Sri Lanka in the multi-country approach proposal by GGGI for NDC Implementation support is currently being discussed with the Government.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for **Sri Lanka** for 2021-2022: **\$0** million (MINUS Scenario); Government counterpart contribution: **\$0.05** million; and Partner co-financing of the program is expected at **\$1.15** million in the biennium for a total of **\$1.2**million.

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ⁴⁰	Partner	Gap	Total	
2019-2020										
GOP 2	PS2	Country Program Set-up; inclusive green growth plans and NDC support	Sep 2019	Dec 2020	0.315	0.025	-		0.34	
GOP 2	PS2	GCF NAP Readiness: Strengthen the Process and Capacity of Implementation of NAP of Sri Lanka	Aug 2020	Feb 2024	-	0.008	0.44	0.44	0.448	GCF Readiness
GOP 4	PS8	Investment Support for Energy-Efficient Street Lighting	Sept 2020	Dec 2020	0.010	-	-		0.010	Under discussion with Govt Counterpart, MEWR
TOTAL					0.325	0.033	0.44	0.44	0.798	
2021-2022										
GOP 2	PS2	GCF NAP Readiness: Strengthen the Process and Capacity of Implementation of NAP of Sri Lanka	Aug 2020	Feb 2024		0.0125	1.15		1.1625	GCF Readiness
GOP 1, 3	PS1 PS4 PS5	Support for Implementation of Forest Management/ Mangrove Reforestation Strategies and Accelerating Investment Therein	Jan 2021	Dec 2021	0.0	0.0125	-	0.146	0.1585	(not included in total)
GOP 1, 4	PS1 PS7	Investment Support to Assess Feasibility of E-Vehicles Adoption for App-Based Taxi Service Providers in Sri Lanka	Apr 2021	March 2021	0.0	0.0125	-	0.146	0.1585	(not included in total)
	PS1 PS9	Investment Support to Assess Technical & Financial Feasibility of Solar PV Application in Selected Cluster Public Institutions/Offices	June 2021	June 2022	0.0	0.0125	-	0.146	0.1585	(not included in total)
Operations/Project Preparation						0.05	-		0.05	
TOTAL					0.0	0.05	1.15	0	1.2	

⁴⁰ [In-kind contribution from Sept 2019 to Dec 2020 for staff time for at least 3 staff- 2 Directors and a Program Assistant contributing 25% time/month; and office space]

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Invest. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contrib		
GOP 2	PS2	GCF NAP Readiness: Strengthen the Process and Capacity of Implementation of NAP of Sri Lanka	1.Capacity of NAP National Focal Point Strengthened 2.National Planning System of Sri Lanka competent to integrate CCA into policies/strategies for all vulnerable sectors and regions 3. National, sectoral and provincial actors capable to use best available climate info, methodologies, tools for adaptation planning 4. Adaptation research and awareness, knowledge management & exchange of vulnerable communities to respond, enhanced 5. Comprehensive adaptation finance and RM approach enable scaling of adaptation finance 6. Govt capable of monitoring, reporting, evaluating progress and updating NAP.	Sri Lanka Government Project monitoring, annual results, completion and evaluation reports		SO6 N/A	N/A		IO1, IO3	<ul style="list-style-type: none"> ➤ Socio-Economic and Political Stability maintained in Sri Lanka ➤ Govt of Sri Lanka remains committed to NAP implementation and green growth ➤ NDA's sustained support to project implementation from inception and coordination meetings between GGGI and the National Working Group (NWG) for cross-cutting national needs, Sectoral Climate Cells, Provincial Climate Cells and other government entities to ensure appropriate resources are committed to the project
GOP 3	PS4 PS5	Support for Implementation of Forest Management/Mangroves Restoration Strategies and Accelerating Investment Therein	Policy and Investment Support through Technical and Financial Feasibility Study (TFS)/Capacity Building Support and Investment Matching/Mobilization	Technical & Financial Feasibility Study as Submitted to Government. Project monitoring, annual, completion and evaluation reports	US\$ 2M	SO1, SO2, SO5	SO1: GHG reduction of 166,666tCo2e SO2: 89 jobs generated SO5: 42 hectares ⁴¹		IO1, IO2	Socio-economic and political stability in Sri Lanka; Govt and other stakeholders remain committed to green growth and the project
GOP 4	PS7	Investment Support to Assess Feasibility of E-Vehicles Adoption for App-Based Taxi Service Providers in Sri Lanka	Policy Advise and Investment Design Support through Technical and Financial Feasibility Study and Investment Matching/Mobilization	Technical & Financial Feasibility Study as Submitted to Govt. Project monitoring; annual, completion and evaluation reports	US\$ 2 M	SO1, SO2, SO3.4	SO1: GHG reduction of 150,375 tCO2e SO2: 104 jobs generated SO3.4: 17,178 people ⁴²		IO1, IO2	Socio-economic and political stability in Sri Lanka; Govt and other stakeholders remain committed to green growth and the project
	PS9	Investment Support to Assess Technical & Financial Feasibility of Solar PV Application in Selected Cluster Public Institutions/Offices	Policy Advise and Investment Support through Technical and Financial Feasibility Study and Investment Matching/Mobilization	Technical & Financial Feasibility Study as Submitted to Govt. Project monitoring, annual, completion and evaluation reports	US\$1 million	SO1, SO3	SO1: 34,482 tCO2e ⁴³		IO1, IO2	Socio-economic and political stability in Sri Lanka; Govt and other stakeholders remain committed to green growth and the project

⁴¹ This figure is arrived at by multiplying the investment target of USD2 million by the investment multiplier of 6,710 for (GI-9: natural capital conservation for SO5: Maintenance of Natural Capital) under the GGGI Technical Guideline 6 on GGGI Strategic Outcomes Guideline.

⁴² Based on an investment target of USD2M multiplied by 13.30 as the investment multiplier for (GI-5: e-mobility for SO1 on GHG emissions reduction) under the GGGI Technical Guideline 6 on Strategic Outcomes Guideline.

⁴³ Based on an investment target of USd1M multiplied by 24.00 as the investment multiplier for (GI-2 Solar PV off-grid systems for energy access for SO 1).

UZBEKISTAN

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

With Uzbekistan's Membership to GGGI established in April 2019, a series of activities to scope and set up a country program to assist green growth transition of Uzbekistan have been undertaken. Rapid progress has been achieved in (1) developing a Country Planning Framework (CPF); (2) establishing an institutional partnership with green growth Ministries and agencies; and (3) establishing a potentially impactful project addressing critical needs of overcoming and building resilience against environmental disaster with an earmarked funding from KOICA ("Green Rehabilitation Investment Project for Karakalpakstan Republic to address impacts of the Aral Sea Crisis").

For the biennium of 2021 and 2022, GGGI will kick-off in-country presence and operation, implementing the CPF jointly with the government of Uzbekistan. The proposed biennium plan will prioritize a set of interventions to address the following sustainable development challenges and pave the way for green growth transformation of the country.

- [Economic challenges] Uzbekistan economy demonstrates stable annual GDP growth (8%) but energy resources to harness both the quality and quantity of growth is constrained due to the rapid industrialization and expected fossil fuel depletion (in 25 years). While Uzbekistan has improved its energy intensity by 50% between 1990 and 2010 as transitional economy, its NDC target of furthering energy intensity improvement by 10% by 2030 from level of 2010 calls for a series of viable actions for the next decade accelerating uptake of resource efficiency technologies.
- [Environmental challenges] The country faces paramount challenge of overcoming one of the largest and most complicated man-made ecological disasters of the Aral Sea Crisis. which in fact epitomizes Uzbekistan's development challenges in water deficiency, land desertification and degradation. Uzbekistan's NDC prioritizes adaptation efforts and resilience building against climate and environment disasters of which concrete measures to achieve them should be urgently prepared.
- [Inclusive social development challenges] Overall development is regionally imbalanced, leaving some regions behind with growing gaps particularly on lack of opportunity for private sector development and investment. Lack of, and unevenly distributed economic opportunities for different segments of the population (e.g. women, vulnerable groups such as single households, local provinces) and regions are one of the major challenges to tackle. Essential social services including waste management should be strengthened for the regions behind. Strong green growth policies and investment oriented towards job creations, SMEs and private sector development are called for.

Succeeding the overarching objective of *achieving a sustainable and circular bioeconomy while securing healthy natural systems interventions* (GOP 3) will contribute to effectively address the above challenges simultaneously. With *climate resilient agricultural development* (Programmatic Solution 3) as a key anchor to trigger green growth transformation, the next biennium will focus on inter-related cross-cutting interventions such as (1) economic stimulus and rehabilitation investment plans for the region which experience backward development from the Aral Sea Crisis; (2) enabling green investment, SME development and job creations through agribusiness value chain development and (3) Circular economy and waste to resource.

II. COUNTRY PROGRAM

Areas of Focus. GGGI supports Uzbekistan with a focus on achievement of its NDC, as well as mainstreaming green growth into key national policies such as Government Strategic Development Action Plan for 2017-2021 and its successor Plan, State Program for the Development of the Aral Sea Region, Agriculture Development Strategy 2020-2030 and Presidential Direction for the Five Priority Areas for the Development of Karakalpakstan. GGGI will contribute to:

- SO6 - Enhance adaptation to climate change: GGGI will help build resilience against climate change and its interrelated environmental threats, by launching systematic policy, institutional capacity building and livelihood improvement measures, targeting the most vulnerable and least developed part of the country (direct beneficiaries: 236,400 residents of the four target districts including 50% women; Indirect beneficiaries: 1.82 million residents of Karakalpakstan; 15 district governments)
- SO2 - Creation of green jobs: Through adaptation/resilience focused rehabilitation measures, GGGI will support the government of Uzbekistan to institute concrete actions to create 1,100 jobs for target districts of Karakalpakstan

- SO3.3 – Access to sustainable waste management: GGGI will support the Government in having national and sectoral policies in place to incentivize resource efficiency and establish circular economy. GGGI will also help identify and demonstrate a viable waste2resource solution. With these interventions, rural MSW efficiency is expected to improve to 75% (from 50%) in rural areas, and improve recycling rate to 30% (from 10%).

With a focus on:

- GOP1, 1. Green Investments (PS1): Green Investments Risk mitigating financial mechanism to facilitate financing to MSMEs. 30M USD of commitment from public and private investors to be mobilized by mid-2024 and key progress towards the targeted investment will be made in the next biennium.
- GOP2, 2. Climate Actions (PS2): Inclusive green growth plans: Green Rehabilitation Investment Plan for the Aral Crisis affected region with green job focus.
- GOP3, 3. Climate resilient agriculture (PS3): Green business models and business development platform are established for MSMEs.
- GOP4, - 6. Waste management (PS6) -Circular economy and waste2 resource.

GGGI's Approach to Green COVID Recovery Plans development Through the proposed interventions, GGGI will support the government of Uzbekistan to respond to environmental and health disasters and build resilience against them. GGGI will work with the government of Uzbekistan to set up and implement key policy targets for green rehabilitation on production, industrial diversification, MSME and private sector development, national and international investment mobilization and job creation. The suite of priority actions will form a green stimulus package focusing on improving business climate, investment attraction and job creation in the local economy. The stimulus package aims to attract at least 30 million USD as direct investment on identified priority opportunities from local, national governments and international financiers by 2024. For instance, the proposed Green Rehabilitation Investment Plan for Karakalpakstan will propose concrete actions to reduce the unemployment level by 1% from Karakalpakstan, by generating 1,100 new job opportunities, of which investment plan to be adopted by national and local governments by 2024.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Country engagement will be structured through a GGGI-Uzbekistan Green Growth Joint Steering Committee where its focal counterpart-State Committee on Ecology and Environmental Protection, and other close partner Ministries and government body such as Ministry of Trade and Investment, Ministry of Economy and local governments (Government of Karakalpakstan will participate. KOICA, EU and GCF are prioritized project and resource partners to engage with for the biennium, based on alignment of strategic objectives and GGGI's niche to bridge Uzbekistan's needs with partners' priorities.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Uzbekistan for 2021-2022: **\$0.14 million**; Partner co-financing of the program is expected at **\$2.09 million** in the biennium for a total of **\$2.23 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov	Partner	Gap	Total	
2019-2020										
(Country Program will start in 2021)										
2021-2022										
GOP1, GOP2, GOP3	Green Investment (PS1), Climate Action (PS2), Climate resilient agriculture (PS3)	Green rehabilitation investment plan for Karakalpakstan	July 2021	December 2022	0		2.09	0	2.09	KOICA
GOP4	Waste Management (PS6)	Circular economy and waste2 resource	April 2021	December 2022	0.14			0	0.14	
Operations/ Project Preparation										
TOTAL					0.14		2.09	0	2.23	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Investment Targets	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1, GOP2, GOP3	PS1 PS2 PS3	Green rehabilitation investment plan for Karakalpakstan	<p>1. A Green Rehabilitation Investment Plan for Karakalpakstan (GRIPK) and its implementation framework developed.</p> <p>2. Effective response measures & disaster-related human security risk management mechanism established in Karakalpakstan</p> <p>3. Green business models and business development platform are established for MSMEs</p> <p>4. Microfinancing products are developed for sustainable agrobusiness in the targeted four districts</p>	<p>1. A validated and adopted plan by government</p> <p>2. Government acceptance of priority resilience measures, Participatory feedback report</p> <p>3. Letters of intent for financing MSMEs platform</p> <p>4. Financial performance measurement reports confirm improvement of ranking</p>	30M USD mobilized by mid 2024 through the Green Rehabilitation Investment Plan and GGGI business models for MSME from public, private and international investors; key progress to be achieved in the next biennium	SO2 SO6	Karakalpakstan's unemployment rate reduced by 1% (1100 new jobs created)	Uzbekistan achieves its national target of generating 372,100 jobs through investment projects and development programs	IO1 IO2	<p>Stabilities in macroeconomic conditions; deterioration of ecosystem due to the progress in desertification and degradation; buy-ins and participation from local MSMEs and banking sectors;</p> <p>Changed government priorities and availability of funds due to the prolonged global COVID 19 pandemic</p>
GOP4	PS6	Circular economy and waste2resource	<p>National and sectoral policy to incentivize resource efficiency and circular economy established</p> <p>Viable waste2resource solution demonstrated</p>	<p>1. Government acceptance of policy recommendations</p> <p>2. Letters of intent to finance waste2resource solution</p>		SO3	Rural MSW efficiency improved to 75% (from 50%) in rural areas; recycling rate improves to 30%(from 10%)	Target province/city MSW efficiency improves to 75% (from less than 50%); recycling rate improves to 30% (from 10%)	IO1 IO2	Stakeholder and government buy-ins

VIET NAM

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI is working with the government of Viet Nam in the delivery of the Nationally Determined Contribution (NDC) and Viet Nam's Green Growth Strategy (VGGs) to achieve its ambitious green growth goals. The work is aimed at accessing to green financing, increasing renewable energy deployment and transitioning Viet Nam's cities to urban green growth. Regarding to green financing, GGGI is working with Ministry of Finance (MOF) on the Green Bond Readiness Program funded by the Government of the Grand Duchy of Luxembourg, and also the Ministry of Planning and Investment (MPI) to promote greenovation through SMEs and start-ups in Viet Nam – aiming at creating an enabling environment to accelerate green investments. GGGI has worked with Ministry of Construction (MOC) to develop the report “Transitioning to a new model of urban development in Viet Nam”. This covers the current state of urban green growth in Viet Nam and actions for implementation. The report is expected to be delivered to the Office of the Government and the National Assembly. In order to increase finance for renewable energy development, GGGI supports an investment project on Municipal Solid Waste to Energy (MSWTE) with total CAPEX of 60 million USD and mobilizes multi-layered blended financing for solar companies to get access to non-recourse project finance. GGGI also enlarge its networks to work with Ministry of Natural Resources and Environment (MONRE) on NDC Action Project and on collaborating with Hanwha to donate 2 solar boats collecting waste on Mekong River.

Viet Nam has a lot of opportunities to achieve its NDCs and SDGs, but also faces many challenges. GGGI focus on supporting Viet Nam to address these challenges.

- *Green investment mobilization:* While Viet Nam has made progress in attracting climate finance, increased flows of investment are required given the scale of the climate challenge in the country. With a reduction target of 85 Mt CO₂ emissions for the period up to 2030, it has been estimated that financing the transition to green growth will equate to at least 15% of Viet Nam's GDP in 2015. To meet this financing needs and enable green growth, Viet Nam will need to increase the effectiveness of each dollar of climate finance and diversify funding sources. However, the lack of effective domestic funding sources for targeted investments inhibits the leveraging of external funds. And as Viet Nam is now a Middle-Income Country (MIC), it is transitioning away from official development assistance grants and highly concessional loans, which will limit the availability of international public finance. Therefore, building an enabling policy environment will be critical to Viet Nam's ability to access green finance from the private investor.
- *NDC Ambitions:* Viet Nam's Nationally Determined Contribution (NDC) was issued in November 2015 as a commitment to reduce greenhouse gas (GHG) emissions, contributing to limiting global warming to less than 2 degrees by the end of the century. Viet Nam's NDC emission reduction target is 8% compared to BAU (unconditional scenario) and 25% with international support (conditional scenario). The Government has a lot of efforts on preparing for the implementation of the NDC such as reviewing and revising its NDC and issuing the Plan for Implementation of the Paris Agreement which lays out activities to reach the emission reduction target. However, the NDC implementation faces numerous challenges, including the weakness of coordinating implementation, and the lack of a fully functioning national MRV system to enhance carbon reduction actions as well as the engagement of private sectors. GGGI seeks to support the government to enhance its NDC ambitions through the implementation of policy approaches for carbon transactions (under Article 6) and implementation of urban sustainable cooling actions.
- *Digital transformation:* The Vietnamese Government considers digital transformation across the broader economy as critical to continued growth and prosperity, especially in the context of COVID-impacted economic recovery. Recognising the importance of being a leader in the digitalisation process, the Vietnamese Government established a national e-government committee in 2018 (under Decision No. 1072/2018/QĐ-TTg). The committee is responsible for researching and proposing strategies, mechanisms and policies, creating a legal environment to promote the construction and development of e-government, and facilitating the implementation of the Industry 4.0 agenda. However, the role of digital transformation towards green growth has not been considered in the government's policy, especially the VGGs. Understanding the potential significant contribution of digital transformation in accelerating the achievement of green growth objectives, GGGI will support and work with the government in integrating digital transformation in the VGGs, accelerating investments in green innovative businesses, SMEs and start-ups across the economy, contributing to a rapid post-pandemic recovery of the economy. GGGI will also work with MOIT to accelerate digital solutions in energy efficiency towards commercialization, contributing to the National Energy Efficiency Program Phase 3 (2021-2030).

Over 2021-2022, GGGI's Viet Nam Country Program will:

- Contribute to GOP1 and address the green investment gaps through supporting the Government of Viet Nam in building an enabling policy environment in order to increase Vietnam's access to sources of finance for green growth from private investors. This includes our work with MPI, MOF, and MOIT in mobilizing investments for green businesses, developing a green bond market for Vietnam, promoting and digital solutions for energy efficiency. In addition, GGGI will work with relevant government authorities and the private sector to identify and scale up green investments in sustainable agriculture and forestry opportunities.
- Contribute to GOP2 and support the government to enhance its NDC ambitions through the implementation of policy approaches for carbon transactions (under Article 6).
- Contribute to programmatic solutions with a focus on digital transformation for green growth and climate actions: Work with MPI to strengthen the contribution of green growth towards Vietnam's post-pandemic recovery efforts through integrating digital solutions in the VGGs implementation, enhancing the policy environment to unblock investment opportunities for green innovative businesses, SMEs and start-ups. GGGI will also support MOIT in promoting renewable energy and energy efficiency, especially towards a resilient economy against COVID-19 and other disasters, through innovative activities such as accelerating digital solutions in energy efficiency, based on GGGI's experience, generating clean energy, and green jobs.

II. COUNTRY PROGRAM

Areas of Focus Looking ahead 2021-2022, GGGI will continue working with the Government of Viet Nam to provide strategic policy advice and help develop bankable projects with a focus on green growth and sustainable development. GGGI's ongoing aim is to mobilize finance for inclusive, sustainable, green projects, especially to develop renewable energy. GGGI's projects will reduce GHG emissions (SO1), increase green and sustainable services (SO3), improve air quality (SO4) and create green jobs (SO2). GGGI will tackle multi-dimensional poverty, gender inequalities and social exclusion through multi-sectoral policy-led solutions and practical projects that will bring green infrastructure and affordable, clean energy.

All planned projects are aligned with global operational priorities and programmatic solutions. They include:

- The Green Bond Readiness Program, the project on Promoting greenovation through SMEs and start-ups, the proposal to accelerate innovations for energy efficiency initiative and other projects focus on catalysing and accelerating access to climate finance for both public and private sectors with target of mobilizing USD 78.5 million (GOP1, PS1. Green Investments) to achieve green growth outcomes (VGGs), the Nationally Determined Contribution (NDC) and the Sustainable Development Goals (SDGs).
- The Accelerating Innovations for Energy Efficiency Initiative project helps mobilize green investment (GOP1, PS1 Green Investments) for innovative energy efficiency (GOP4, PS10. Green Industries).

GGGI's Approach to Green COVID Recovery Plans development: The impact of the ongoing COVID-19 crisis is hard to predict, given the uncertainty surrounding its magnitude and duration. Until now, the health impact of the outbreak has not been as severe in Vietnam as in other countries due to proactive measures at the national and subnational levels. However, as heavily relying on the global economy, Vietnam has been hit hard by the COVID-19 pandemic. There are indications that it is going to be a lot worse in the 2nd quarter, as for example, there is no new foreign tourists coming to Viet Nam, while there is rapidly falling demands for Vietnamese goods in export markets, as most trade partner countries are under lockdown. The economic growth is expected to slow down to 3-4 percent in 2020 compared 6.5 percent pre-crisis projections. Public financing requirements will increase as the result of lower revenue and higher spending due to the stimulus package that will be necessary to compensate for the negative effect of the pandemics on households and businesses

GGGI's country program is well positioned to support the government in formulating an implementing its green recovery plan through our existing activities:

- Digital transformation is considered by the government as an important pillar for Vietnam's economic recovery in the context of the COVID19 pandemic. Therefore, our collaboration with MPI on both enhancing the policy environment to promote digital transformation for green growth and climate actions (DSENRE) as well as mobilizing investments for green innovative businesses, SMEs and start-ups (SMEDF) will play an important role in the government's efforts for green recovery. In addition, our work with MOIT to accelerate digital solutions for energy efficiency would contribute to this important agenda.

- Waste-to-energy financing: the government has made sustainable waste management as a priority for infrastructure investments to improve sanitary conditions for Vietnamese cities, helping to mitigate the risks of disease outbreaks, amongst other things. Our plan to develop a financing facility to scale up investments in waste-to-energy projects will contribute to the achievement of this priority.

Upcoming opportunities:

- Establish a COVID recovery fund for green innovative businesses, SMEs and start-ups affected by the impacts of the pandemic (SMEDF): SMEDF has been mandated to implement the government's recovery package to businesses impacted by COVID-19. We are in discussion with SMEDF with regards to their approach and strategic sectors and how we can support them implement a green recovery package
- Accelerate the installation of solar PV rooftops in schools and health clinics in urban and rural communities (UNICEF): UNICEF reached out for a potential partnership with GGGI on a COVID-19 response linked with climate actions. The idea is at an initial stage and to be discussed further with the UNICEF country team.
- Strengthening urban resilience through smart city approaches to enable a quick return to a "new normal" from COVID-19.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI is working closely with the government and other partners to develop demand-driven initiatives and seek funding from both bilateral donors as well as through official calls for proposals. GGGI has built a solid relationship over the last 7 years, highlighting our work in country as a trusted advisor to the government. This has resulted in confirmed funding from the Government of the Grand Duchy of Luxembourg (for the Viet Nam Green Bond Readiness Program), the Kingdom of Norway (for the Designing Policy Approaches under Article 6 as part of a global program) and the United States Department of State (for the Forestry Finance & Investment Incubator global project) and intent of funding from the European Union for the Accelerating Innovations for Energy Efficiency Initiative.

GGGI continues to partner with strong international and local institutions with complementary expertise to enhance the chances of success. Partnerships have already been formed with UNEP, UNICEF, ADB, GIZ, and others. At local level, GGGI partners with Green ID, New Energy Nexus, Vietnam Bond Market Association, National Banking Association, Institute of Labour and Social Affairs etc. GGGI, where relevant, also partners with private sector such as HSBC, Hanwha, Dragon Capital etc.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Viet Nam for 2021-2022: **\$0.7 million**; Government counterpart contribution: **\$0.07 million**; and Partner co-financing of the program is expected at **\$3.54 million** in the biennium for a total of **\$4.3 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov'	Partner	Gap	Total	
2019-2020										
GOP4	PS6	VN3-3GIS-2 - Vietnam Urban Green Growth Action, Phase II	Jan 2017	Dec 2020	0.11	0.02	N/A	0	0.13	Core resource
GOP4	PS9	VN04-C1 - Viet Nam Distributed Solar - Solar Rooftop Leasing Finance Facility	Jan 2018	Dec 2020	0.17	0.02	N/A	0	0.19	Core resource
GOP2	PS2	VN05 Transitioning to a new model of urban development in Vietnam	Jan 2018	Dec 2019	0.12	0.02	N/A	0	0.14	Core resource
GOP1	PS1	VN06-C1 - Promoting Greenovation through SMEs and start-ups in Viet Nam	Jan 2019	Dec 2020	0.39	0.02	N/A	0	0.41	Core resource
GOP2	PS2	VN09-E1 - UNEP DTU NDC Action project in Vietnam	Jan 2019	April 2020	0	0	0.02	0	0.02	Earmarked: UNEP-DTU
GOP1	PS1	VN10-E1 - Viet Nam Green Bond Readiness Program	Jan 2020	Dec 2022	0	0	0.89	0	0.89	Earmarked: Luxembourg
GOP3	PS4	SLS03: Forestry Finance & Investment Incubator (FFII)	Oct 2019	Dec 2022	0	0	0.05	0	0.05	Earmarked: US DOS
GOP2	PS2	GIS03 - Article 6	July 2019	Dec 2021	0	0	0.06	0	0.06	Earmarked: Norway
TOTAL					0.79	0.08	0.96	0	1.83	
2021-2022										
GOP1	PS1	VN06-C1 - Promoting Greenovation through SMEs and start-ups in Viet Nam	Jan 2021	Dec 2022	0.24	0.04	0	0	0.28	Core resource
GOP1	PS1	VN10-E1 - Viet Nam Green Bond Readiness Program	Jan 2020	Dec 2022	0	0	1.79	0	1.79	Funding from Luxembourg
GOP3	PS4	SLS03: Forestry Finance & Investment Incubator (FFII) –Phase 2	Oct 2019	Dec 2022	0	0	0.18	0	0.18	Expected funding from US DOS
GOP2	PS2	GIS03: Article 6 – Phase 2	July 2019	Dec 2021	0	0	0.05	0.0	0.05	Expected funding from Norway
GOP4	PS10	Accelerating Innovations for Energy Efficiency Initiative	Apr 2021	Dec 2023	0	0	1.52		1.52	Expected funding from EU
GOP4	PS8	Solar/COVID Project	Jan 2021	Dec 2022	0.21	0	0	0	0.21	
Operations/Project Preparation					0.25	0.03			0.28	
TOTAL					0.7	0.07	3.54	0.0	4.3	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Invest. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1	PS1	Viet Nam Green Bond Readiness Program	<ol style="list-style-type: none"> 1. International best practices in regulating green bond market shared with relevant government officials 2. Assessment of existing regulations and market conditions for green bonds and proposing draft guidelines for green bond issuance 3. Consultation with stakeholders to get feedback on the proposed draft guideline 4. Final guidelines on green bond issuance developed for government and corporate bond issuers 5. International best practices on developing a green bond market from Luxembourg shared with government officials and market participants through global study trips 6. Knowledge and lessons from experienced green bond issuers in other comparable countries shared with government officials and market participants 7. Selected financial educators trained on green bonds 8. Knowledge and experience from successful green bond issuance documented and shared publicly for scale up 9. Green bond pilot issuers selected 10. Technical assistance provided to issue pilot green bonds 11. Project monitoring, annual results, completion, and evaluation reports. 	<ol style="list-style-type: none"> 1. Report document and meeting minutes with MOF confirming acceptance of the report 2. Report document and meeting minutes with MOF confirming acceptance of the report 3. Summary Report of feedback received on proposed draft guidelines and meeting minutes with MOF confirming acceptance of the report 4. Meeting minutes with MOF confirming acceptance of studies 5. Mission reports 6. Event write ups 7.1 Event writes up and evaluation questionnaire highlighting the gender and social impacts 7.2 Training materials to be used in the workshops 8. Insight brief/toolkit documents 9. Written evidence from MOF and/or corporate entity confirming acceptance to participate in the green bond pilot issuance 10.1 Written evidence of screening analyses of projects against gender responsive and social inclusive criteria 10.2 Written evidence of receipt of green bond prospectus document by the regulator 10.3 Written evidence of announcement of issuance 10.4 Written evidence of receipt of reporting templates by pilot issuers 	30M	SO1 SO2	<p>The project mobilizes green investments and develops adopted policy and financing instruments, with the following attributed impacts on the green investments:</p> <p>SO1: 585.7 mtCO₂e (based on investment multiplier average of all potential sectors)</p> <p>SO2 estimates to be determined during project implementation</p>	<p>The project contributes to national targets on green financing mobilization</p> <p>SO1: Unconditional 8% emissions reduction from BAU by 2030 or 63 million tCO₂e (NDC)</p> <p>10-20% reduction from energy activities from BAU levels by 2030 (VGGs, 2012)</p>	IO1. IO2. IO3.	<p>There are no follow-up projects from the pilot green bond issuance</p> <p>The government does not adopt the regulatory guidance documents in a timely manner</p> <p>Trainers do not hold any further training sessions. Incorrect officials are identified that have little interest in participating in the training</p> <p>Green bonds are issued however sales fail to materialize</p>
GOP1	PS1	Promoting greenovation through SMEs and start-ups in Viet Nam	<ol style="list-style-type: none"> 1. Green innovation is promoted and financed 2. Project monitoring, annual results, completion and evaluation reports. 	Government document	0.5M	SO1 SO2	<p>The project mobilizes green investments for innovative start-ups</p> <p>SO1: 9.4 mtCO₂e</p> <p>SO2: 2green jobs to be created</p>	<p>The project contributes to national targets on green financing mobilization</p>	IO1. IO2. IO3.	<p>Risk: Delay due to government's schedule; Government rejects recommendation; Start-up business might be affected by Covid-19, leading to fewer start-ups applying and being supported by the program.</p>

GOP2	PS2	Digital transformation of VGGS	<ol style="list-style-type: none"> 1. A scheme to integrate digital transformation into green growth and sustainable development policies in Viet Nam developed 2. Project monitoring, annual results, completion, and evaluation reports. 	<ul style="list-style-type: none"> • A final report shared with MPI • a project proposal mobilizing funding to enhance integrating digital transformation into green growth 		SO1 SO2	TBD	TBD	IO1. Delay due to government's schedules and approval process IO2. IO3. Buy-in from stakeholders is low due to the novelty of this topic
GOP4	PS10	Accelerating Innovations for Energy Efficiency Initiative	<ol style="list-style-type: none"> 1. Acceleration Program Design, Development, and Implementation 2. Deep-dive technical mentoring programs 3. Partnership development and project financing 4. Development of policy incentives for EE innovative start-ups 5. A handbook guiding innovation start-ups in energy efficiency is developed 6. A directory for EE innovative system is developed 7. Training of trainers for innovative start-ups 8. Network of EE innovative ecosystem developed 9. Project monitoring, annual results, completion and evaluation reports. 	<ul style="list-style-type: none"> • A design of acceleration program • Announcement and invitation to the workshops • energy efficiency hackathons organized • innovative start-ups attending training programs • start-ups pitching events organized 	3M	SO1 SO2	The project mobilizes green investments for innovative energy efficiency start-ups SO1: GHG reduction of 220,426 tCO ₂ e SO2: 171 green jobs to be created	The project contributes to national targets on green financing mobilization	IO1. Delay due to government schedule and approval process IO2. Limited investors get buy-in in EE digital solutions IO3. Government rejection policy recommendations Startup business might be affected by Covid 19, leading to fewer startups applying and being supported by the program.

Investment targets:

Projects	Investment targets (est. USD)	Notes
VN06-C1 - Promoting Greenovation through SMEs and start-ups in Viet Nam	500,000	3 start-ups receive investments of 500,000 US\$ from a pitching event (2021)
VN10 - Viet Nam Green Bond Readiness Program	30,000,000	2 pilot green bond issuances
VN07 - Accelerating Innovations for Energy Efficiency Initiative	3,000,000	At least 6 start-ups to be invested, targeting at USD 0.5m each.
GIS03: Article 6 – Phase 2	25,000,000	1 policy approach for Article 6 transaction
SLS03: Forestry Finance & Investment Incubator (FFII) –Phase 2	20,000,000	Based on the target of \$100m over 5 countries

LATIN AMERICA AND THE CARIBBEAN REGION

GGGI'S STRATEGIC APPROACH IN LATIN AMERICA

GGGI began work in Latin America & the Caribbean in 2013, and currently has seven Member and partner countries in the region including Colombia, Costa Rica, Ecuador, Guyana, Mexico, Peru, and Paraguay. Additionally, the Organization for Eastern Caribbean States (OECS), is the first regional integration organization to become a Member of GGGI and is a strong partner in delivering green growth interventions across the Eastern Caribbean. To date GGGI's work in the region has focused on national and subnational green growth planning, sustainable landscapes, green cities, renewable energy, developing investment projects and improving access to climate finance. GGGI opened the Latin America & Caribbean regional office in Fall 2018 in Mexico City, Mexico. The purpose of the regional office is to set the strategy for the region and oversee country programs throughout the Latin America & Caribbean region, while also delivering multi-country, regional programs and initiatives. Additionally, the regional office aims to develop partnerships throughout the region and share, replicate and scale up best practices learned through the implementation of country and regional programs. In 2019, the regional office launched its first regional project, the Mesoamerica regional initiative to support knowledge sharing and access to finance for green growth in the Mesoamerica region.

In the next biennium, GGGI's work in Latin America and the Caribbean aims to contribute to the achievement of all six of GGGI's Strategic Outcomes. GGGI's contribution will be achieved through supporting green finance (PS1) and climate action (PS2), particularly in the areas of Climate Resilient Agriculture (PS3), Sustainable Forests (PS4), Waste Management (PS6), Sustainable Mobility (PS7), and Solar PV (PS9). To date, GGGI's programs in the region have primarily focused on Sustainable Forests and Agroforestry as well as subnational green growth policy development and implementation. However, in the 2019-2020 biennium, GGGI's program expanded into new sectors including sustainable energy and solid waste management. Building on this work, in the 2021-2022 biennium, GGGI will focus on key programmatic solutions as sectoral interventions for mobilizing climate finance and ensuring the sustained implementation of climate action across the region. GGGI will also leverage its regional office to replicate successful projects and develop and enhance regional initiatives and multi-country projects.

TABLE: Priorities in Latin America & Caribbean, Work Program and Budget 2021-2022

<i>GOPs</i>	<i>Programmatic Solutions</i>	<i>Latin America & Caribbean Portfolio</i>
GOP 1. Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector	1. Green Investments (green bankable projects, NFVs, green and climate instruments, carbon-focused engagements)	All programs
GOP 2. Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes	2. Climate Action (inclusive green growth plans, LT-LEDS, NDC support, MRV system design, climate diplomacy)	All programs
GOP 3. Achieving a sustainable and circular bioeconomy while securing healthy natural systems	3. Climate Resilient Agriculture (solar irrigation, RE application in agri-value chain, resilient cropping practices, resource conservation)	Colombia, Peru
	4. Sustainable Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Colombia, Guyana, Peru
	5. Coastal Resilience (mangroves as ecosystem for livelihoods, aquaculture, marine issues - fisheries, flood protection and pollution)	N/A
	6. Waste Management (circular economies, urban and agricultural waste, wastewater, FSM, waste to resource)	Guyana, Mexico, Peru, Paraguay

GOP 4. Making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure capital markets innovations)	7. Sustainable Mobility (e-mobility, non-motorized transport)	Paraguay
	8. Green Buildings (green urban infrastructure norms/standards/policies, energy efficiency in residential & commercial buildings)	N/A
	9. Solar PV (energy transition access and productive use - solar water pumping, solar PV auctions, rooftop, utility scale plants, storage)	Caribbean, Guyana
	10. Green Industries (green industrial parks, green supply chains, EE in SMEs, labelling and standards)	Ethiopia, Uganda
GOP 5. Accelerating progress in our country programs in poverty eradication and gender equality through our operations.	Cross cutting	All Programs

APPROACH TO GREEN COVID RECOVERY PLANS DEVELOPMENT

Countries across Latin America & the Caribbean have been devastated by both the health and economic consequences of COVID-19. Home to some of the densest cities in the world, a large informal economy, and varying qualities of medical and social support systems, the region has been particularly vulnerable to the negative effects of the virus. GGGI's work for the remainder of 2020 and in the next biennium will shift to a focus on green economic recovery, leveraging existing projects to address the persistent social and economic consequences of the virus. Going forward, GGGI will also seek specific opportunities to address green economic recovery in key sectors including agriculture, tourism, renewable energy, and waste management, that can serve not only as economic engines but also maintain a focus on addressing key climate issues to ensure that development is green and sustainable. Given the large number of small and medium sized enterprises in the region, GGGI will seek opportunities with the private sector to develop and finance green investment projects that will positively impact the economy and support countries in meeting their international climate commitments. Finally, GGGI's will maintain its commitment to inclusive green growth, ensuring the COVID recovery addresses the needs of women, indigenous populations, and the poor.

PARTNERSHIPS & RESOURCE MOBILIZATION

GGGI's approach to resource mobilization in the Latin America region has been to secure and maintain diverse and sustainable sources of funding. In the 2019-2020 biennium, this has been accomplished through two Norway funded climate resilient agriculture/sustainable forest projects in Peru and Colombia, two GGGI-delivered readiness projects focused on enhancing access to climate finance in Guyana and Mexico, four NDC CAEP-funded projects in the St. Lucia, Grenada, Antigua & Barbuda and Peru aimed at enhancing the ambition and implementation of country NDCs, and one UK-PACT funded project in Colombia focused on green growth capacity and investments. The region has prepared for the future through a robust pipeline of proposals which are aimed for approval and implementation between end of 2020 and beginning of 2021. GGGI's resource mobilization goal in the region is to demonstrate results for existing projects, maintain a pipeline of proposals, continue enhancing donor relations through regular consultation and robust reporting, and to find synergies with local partners for value-added implementation and competitiveness.

CARIBBEAN

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

The 2019-2020 biennium saw the opening of GGGI's Caribbean regional office, a culmination of engagement with OECS and Caribbean governments since 2017. In the Caribbean, GGGI works closely with its partner organization, the Organization of Eastern Caribbean States (OECS). OECS and GGGI signed a Memorandum of Understanding in 2018 aimed at facilitating knowledge sharing and capacity building in priority countries, identifying synergies across regional green growth programs, and identifying viable sources of climate finance. In 2019, GGGI opened an office in Saint Lucia at OECS headquarters, and OECS became a GGGI member organization that same year.

The OECS comprises 11 member states, 6 of them independent countries, (Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent and the Grenadines), 3 overseas territories of the UK (Anguilla, the British Virgin Islands, and Montserrat), and 2 that are overseas departments of France (Guadeloupe and Martinique). All of the independent OECS member states have populations less than 200,000, and the total population of the independent member states is around 620,000. The OECS countries face several green growth challenges, including high electricity prices and dependence on fossil-fueled electricity, vulnerability to increased intensity and frequency of storm events, and securing climate financing to support ambitious NDC goals. As such, the GGGI program has to date focused on working with the OECS to increase the resilience of the energy sector by improving the policy and regulatory landscape to facilitate investments in resilient energy infrastructure. For example, in 2019 GGGI prepared briefings for OECS on climate risk insurance for energy resilience and on building code recommendations for increasing resilience of rooftop solar PV systems, and signed an MOU with the Antigua and Barbuda Department of Environment in support of joint work developing a GCF project pipeline.

In 2020, GGGI began working closely with the governments of Grenada, Antigua & Barbuda, and Saint Lucia to enhance and implement the countries' NDCs as part of the NDC Partnership's Climate Action and Enhancement Package (CAEP) program which includes developing strategies for ensuring inclusive access to renewable energy investments, development of climate financing strategies, assessment of MRV and data collection infrastructure, and modeling fossil fuel subsidy reforms. GGGI also worked with the government of Dominica to develop and submit a GCF Readiness proposal for development of a National Financing Vehicle to increase private sector investments in renewable energy and energy efficiency technology.

Given the heavy reliance on tourism in the region⁴⁴, OECS countries have been hard hit by the COVID-19 pandemic from an economic standpoint, with the tourism industry having come to a sudden complete collapse, causing widespread unemployment. During the next biennium GGGI will look for synergies to build resilience to climate change and future pandemics while mainstreaming green growth throughout the response measures. Further, GGGI will aim to scale up previous work by continuing to support the Caribbean islands in enhancing their NDC ambition, accessing climate finance, building support for green entrepreneurship and creation of green jobs. and meeting their international SDG and NDC commitments particularly through their renewable energy transition.

II. COUNTRY PROGRAM

Areas of Focus: During the 2021-2022 period, GGGI will support OECS countries in becoming more climate-resilient by strengthening NDC implementation, building support for green entrepreneurship and creation of green jobs, and increasing access to climate finance for renewable energy solutions. GGGI's support will continue to strengthen NDC updates and planning and mobilize resources for NDC implementation, while enhancing green innovation and capacity building. GGGI will contribute to:

- SO1: Reduced GHG Emissions through the mobilization of finance for renewable energy project implementation and indirectly through support for climate policy action.
- SO2: Creation of green jobs through green entrepreneurship and green job skills training as part of the QFFD-funded Eastern Caribbean Green Entrepreneurship Initiative, and indirectly through

⁴⁴ Tourism represents 48.9% of GDP on average in OECS.

facilitation of investment in renewable energy projects

- SO6: Enhanced adaptation to climate change and future economic shocks through Covid recovery programs.

With a focus on GGGI's Global Operational Priorities 1, 2, and 4 as follows:

- GOP1, Programmatic Solution 1 - Green investments: Identifying and structuring green bankable projects and investment proposals to mobilize green finance with a total mobilization target of USD 13 million, capitalizing a National Financing Vehicle in Dominica at a target of US\$ 20 million in funding commitments, and supporting new green entrepreneurial ventures with a targeted US\$1.2 million.
- GOP2, Programmatic Solution 2 - Climate action: Support for NDC enhancement and implementation through regional and country-specific technical assistance, and operationalization a National Financing Vehicle.
- GOP4 Programmatic Solution 9 – Solar PV: Implementing solar PV solutions to increase access to sustainable energy in the tourism and micro, small, and medium enterprise sectors and achieve renewables targets.

GGGI's Approach to Green COVID Recovery Plans development: To date (May 2020), OECS countries have a relatively low number of COVID-19 cases but are already experiencing catastrophic economic consequences from the novel coronavirus. The tourism industry is one of the largest economic sectors in OECS countries and is one of the primary sources of employment, representing on average nearly half of GDP and making up 45% of total employment⁴⁵. Movement restriction has essentially brought tourism to a halt and this has led to widespread unemployment and loss of income for many households. COVID-19 is having a devastating impact on individual livelihoods and country economies that is likely to last well beyond the crisis due to decreased travel and disposable income, challenges related to shipping and supply chains, and the potential for natural disasters to exacerbate an already catastrophic situation.

Despite the challenges they face, countries remain dedicated to fulfilling their NDC commitments, believing that developing key sectors for green growth is critical to building environmental, health, and economic resilience. Enhancing access to climate finance will pave the way for the implementation of climate resilient projects and expansion of green jobs. In this vein, GGGI is working with countries to embrace new virtual means of working to ensure that existing projects will meet their goals, and is looking for new ways to support countries as they plan and implement their COVID-19 recovery strategies. GGGI is planning a project in partnership with OECS and funded by the Qatar Fund for Development (QFFD) focused on support for early- and growth-stage green businesses that is intended to facilitate the creation of 3000 greens job in the region over a 13-year period. As the recovery progresses, GGGI will continue to work with OECS and country governments to identify areas where GGGI can assist in ensuring that economies are rebuilt in a sustainable manner.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Given GGGI's relatively young presence in the Caribbean region, the last biennium was focused on establishing GGGI's regional presence, understanding local stakeholders and decision makers, and exploring areas of high impact intervention. The priorities for the next biennium will focus on further strengthening GGGI's regional expertise, identifying and developing relationships with additional partner organizations, diversifying GGGI's donor base in the region, and expanding project activities.

OECS remains GGGI's main partner in the region, and program activities will serve to help enhance OECS's role as a regional leader in the area of climate finance and sustainable energy, in addition to providing services to the individual member countries listed above. In 2020, GGGI secured its first earmark-funded project in in the OECS region, the Climate Action Enhancement Package (CAEP) project, funded by the NDC Partnership and comprising activities in three OECS member states: Saint Lucia, Grenada, and Antigua & Barbuda. During the

⁴⁵ OECS Director General Dr. Jules statement at May 13 2020 webinar https://www.facebook.com/groups/294713088023376/wp/529996821025025/?entry_source=PERMALINK&ext=1589653216&hash=AeTAYiXb32vsuqS9

2019-2020 biennium, GGGI has worked closely on projects with other organizations working in the region, including Island Innovations, the UNFCCC MRV Hub, the GHG Management Institute, IRENA, Climate Analytics, WRI, and IISD.

In the coming biennium, GGGI will look to deepen relationships with these and other partner organizations working in our defined focus areas including the Caribbean Development Bank, GIZ, and CCCCC, in order to ensure alignment of regional work and identify project opportunities.

Going forward, the RM strategy for GGGI's Caribbean program is multi-faceted and includes the following:

- New regional programs: Given the opportunities for replication and exchanging of lessons learned in the region, multi-country regional programs offer the opportunity for efficiency and scale-up and can be developed in multiple packages. GGGI will continue to partner with OECS to develop multi-year, regional programs targeted at donor funding. Several project concepts on various topics including green entrepreneurship, NDC Implementation, and investment project development and more have been developed and are being presented to potential donors including Canada, the EU, and France.
- Country-level projects: GGGI has submitted a GCF Readiness Project with the government of Dominica to support development of a National Financing Vehicle. In the coming biennium, GGGI will look to work with other OECS member states (with short-term focus on Saint Lucia and Antigua & Barbuda) to secure additional GCF readiness funding for topics potentially including accreditation support for national Accredited Entities, or project pipeline development.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for the Eastern Caribbean for 2021-2022: **\$0.50** million; Government counterpart (OECS) contribution: **\$0.03** million; and Partner co-financing of the program is expected at **\$1.70** million in the biennium for a total of **\$2.2** million.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ⁴⁶	Partner	Gap	Total	
2019-2020										
GOP4	PS9	CAR02 Support for OECS policy analysis on energy resilience	06/2019	12/2019	0.13	0.03	0.00	0.00		Core-funded
GOP1	PS1	NDCP CAEP	1/2020	3/2021	0.20	0.00	0.55	0.00	0.78	NDCP TAF/Core-funded
		PM	01/2020	12/2020	0.03	0.00	0.00	0.00	0.03	
TOTAL					0.36	.03	.55	0.00	0.81	
2021-2022										
GOP1	PS1	NDCP CAEP	1/2020	3/2021	0.12	0	0	0	0.12	Core-funded
GOP4	PS1, PS9	Support for Solar Investment Mobilization in OECS countries	01/2021	12/2022	0.25	0.03	0.00	0.00	0.28	
GOP1	PS1, PS2	Establishment and operationalization of National Financing Vehicle in Dominica	12/2020	3/2022	0.00	0.00	0.29	0.00	0.29	GCF Readiness submitted to GCF by country government, not yet approved
GOP4	PS1	Green Growth Investment Project Development for the Eastern Caribbean	1/2021	12/2022	0.00	0.00	0.00	0.50	0.00	Potential Donors: Canada, GCF readiness (not included in the total)
GOP5	SO2	Eastern Caribbean Green Entrepreneurship Initiative	1/2021	12/2023	0.00	0.00	1.41	0.00	1.41	QFFD
Operations/Project Preparation					0.13	0.00	0.00	0.00	0.10	
TOTAL					0.50	0.03	1.70	0.50	2.2	

⁴⁶ "Government" Contribution identified here represents office space supported by OECS

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Investment Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP4	PS1, PS9	Support for Solar Investment Mobilization in OECS countries	Secured Investments in solar projects in OECS countries	Investment commitments Project monitoring, annual results, completion and evaluation reports	2.5 M	SO1 SO3	Data not available (Bankable Projects not yet defined)	Data not available (Bankable Projects not yet defined)	IO1	<u>Assumptions</u> <ul style="list-style-type: none"> Partnership commitment from OECS <u>Risks</u> <ul style="list-style-type: none"> Cannot find suitable projects
GOP1	PS1	Establishment and operationalization of National Financing Vehicle in Dominica	Framework for the establishment of a National Financing Vehicle supporting RE, EE, industrial, blue economy and transport projects developed and submitted to the government of Dominica. Concept note for NFV's capitalization developed.	National fund is established and operational Concept note Project progress and completion reports submitted to GCF.	20 M	SO1 SO2	Data not available (NFV funded projects TBC)	Data not available (NFV funded projects TBC)	IO1	<u>Assumptions</u> <ul style="list-style-type: none"> Project Approval Lessons learned from previous projects integrated <u>Risks</u> <ul style="list-style-type: none"> Difficult recruiting resources with adequate skills Program delays due to COVID-19 Political Support
GOP1 GOP4	PS1	Green Growth Investment Project Development for the Eastern Caribbean	12 bankable projects developed	Project monitoring, annual results, completion and evaluation reports	10M*	SO1	Data not available (Bankable Projects not yet defined)	Data not available (Bankable Projects not yet defined)	IO1	<u>Assumptions</u> <ul style="list-style-type: none"> Project Approval *Project is 5 years long, investment total will increase slowly, with an eventual goal of US \$120 M <u>Risks</u> <ul style="list-style-type: none"> challenges in finding suitable projects
GOP5	SO2	Eastern Caribbean Green Entrepreneurship Initiative	Green Entrepreneurship Initiative established in the Eastern Caribbean 240 entrepreneurs trained \$1.3 million in grants and reimbursable grants provided via the GGGI Innovation Fund	Project monitoring, grants dispersed	1M	SO2	3000 green jobs (direct)	12,000 green jobs (indirect)		<u>Assumptions</u> <ul style="list-style-type: none"> Project Approval <u>Risks</u> <ul style="list-style-type: none"> challenges in finding suitable entrepreneurs/businesses

COLOMBIA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI operations in Colombia started in 2013. Colombia's country program has taken off and is on track towards consolidation, providing significant support to the Colombian Government and across various regions. During 2019, under the Green Growth program supported by Norway, GGGI increased government's capacity to advance on the enabling conditions in the policy, finance and fiscal realms to reverse factors inducing forests cover loss, as well as to mobilize green growth/sustainable land use/REDD+ finance from a broad range of public and private stakeholders. A strategic partnership of GGGI-Colombia with Norway as a key cooperant on the country's Climate and Forests agenda has enabled critical support in the advancement of the Joint Declaration of Intent (JDI) on Forests Protection and Sustainable Development, as well as to set foot and actively support subnational governments of Antioquia, Meta and Nariño for the adoption of green growth approaches in policy and investments. The mainstreaming of Green Growth targets through the Duque administration's National Development Plan (NDP) 2018-2022, set the foundation for a full-on implementation agenda of this policy for the period 2018-2022, with the aim to contributing largely to Colombia's NDC and SDG targets through 2030. A mobilization of USD 48 million for renewable energy projects during 2019 is a demonstration of this advancement.

Some of the key development challenges that are relevant to the country's NDCs and SDGs implementation, which are highlighted in the National Development Plan 2018 – 2022, include:

- Deforestation rates are on the rise again from 178,597 ha in 2016, to 219,973 ha in 2017 and 197,159 ha in 2018 (IDEAM, 2019). Considering that emissions associated to deforestation account for 50% of total emissions, if this upward trend continues, Colombia will not be able to meet its NDC targets.
- Productivity of key resources, such as water, soil, materials and energy in Colombia continues to be low, significantly beyond other middle-income countries and certainly under OECD average. This reduces competitiveness and capacity for new jobs and income generation and overall economic growth.
- Although Colombia's energy matrix is clean, with 68% of power coming from hydroelectricity, the adoption of non-conventional renewable energy is meager, with only 173,4 MWs installed in 2018. Fallback technology to support hydropower is coal-based thermal, creating a big challenge for the country to comply with its mitigation efforts in the long-run.
- Other aspects such as waste disposal and re-utilization, environmental liabilities associated to illegal mining and air pollution in main cities are critical aspects of Colombia's current development model that will hinder complying with its NDC and SDGs.

In this sense, Colombia's country program choice is to focus on GOP1 - Green Investments, GOP 2 -Green Jobs, GOP3 -Climate Resilient Agriculture and Sustainable Forests and GOP 4 -Waste management and Solar PV. These are all well aligned with Government targets in the NDP 2018-2022, its Long-term Green Growth Policy, NDC and SDGs.

II. COUNTRY PROGRAM

Areas of Focus: In 2021-2022, Colombia Country Office will continue supporting in the implementation of the Long-term Green Growth Policy, as well as meeting its NDC goals and post-pandemic recovery activities. The focus will be placed on goals of the NDP 2018 – 2022:

- SO 1 (GHG emissions reductions) - Accumulated reduction of 36 MTnCO₂eq of greenhouse gases (GHG), in relation to the national point of reference;
- SO 2 (green jobs) - Reducing unemployment from 9.4% to 7.9% (these are PRE-COVID-19); and
- SO 5 (Natural Capital Protection) -Deforestation growth rate reduced to 0%, from 30% in 2018; increase areas under sustainable conservation management (restoration, agroforestry systems, sustainable forest management) from 701,000 ha to 1,402,900 ha., and increase areas under Payment for Ecosystem Services (PES) schemes and incentives for conservation from 65,000 ha to 260,000 ha, increased areas under sustainable livestock systems in 100,000 ha.

Emphasis will be placed in supporting subnational governments, with a focus on:

- GOP1, Programmatic Solution 1 - Green investments: develop a robust and high-impact pipeline through a Project Preparation Facility and the Forest Finance Incubator of public/private projects in the forestry, sustainable livestock, nature based-tourism and bioeconomy sectors, sectors with a mobilization target of USD 30 million;

- GOP2, Programmatic Solution 2 - Climate action: the program will offer technical assistance for enhanced capacities on green planning and improved decision making on key matters, such as: supporting the Carbon and Forests MRV financial sustainability, restoration MRV capacity development, green growth planning at the subnational level and preparing/facilitating policy approaches to carbon transactions under article 6 (among others);
- GOP3:
 - Programmatic Solution 3 - Climate resilient agriculture: develop the enabling conditions for promoting and implementing the sustainable livestock reconversion objectives, with an emphasis on a traceable (and deforestation free) beef value chain based on year plans implemented sub nationally and proper information systems in place;
 - Programmatic Solution 4 - Sustainable forests: create the enabling market and institutional conditions for fostering a forest-based economy (overcoming information barriers and building technical guidelines), including deployment of green financial instruments and strengthening the institutional capacity to promote forests-based investments.

GGGI's Approach to Green COVID Recovery Plans development: As COVID-19 spreads and takes a toll of Colombia's economy, government authorities start to gauge the socio-economic impacts and redefine their development agendas to address the Pandemic but also the crisis that follows it. Economic activity in the second quarter of 2020 is expected to decline in 2%, with deep recession-like figures of GDP contraction around 8% and over 2.5million new unemployed persons by the end of the year (Fedesarrollo). The low prices of oil are already slashing government revenues and public finances. In this critical scenario, GGGI can help direct recovery actions towards low carbon/carbon neutrality pathway acceleration and help the economy "bounce forward" in further support of NDC/SDG achievement. The government is announcing a series of social recovery packages for the most vulnerable, however there are important limitations to "save" employment from the broader set of corporations/enterprises and help those to cope with the recession in the coming years. In all this context, a stronger emphasis on the implementation of the Green Growth Policy approved in 2018 and with ambitious targets through 2030 becomes even more critical. The support for the Clean Growth Bill promoted by the Ministry of Finance will be key if we can tilt the focus onto green recovery package. Given all the above, GGGI's Colombia Program stands and steps up to reaffirm the urgency and relevance -even more than before- of pushing forward and accelerating green growth during 2021-2022 to promote a green economic recovery. Sectors addressed under this Program are well capable of providing a suitable platform for income generation at the subnational level, such are sustainable infrastructure for nature-based tourism as an immediate alternative for green jobs and the forest economy. Even more, GGGI is proposing a flagship strategy for the socioeconomic transition in Colombia's coal producing regions towards the forest economy that aims to accelerate re-training labor force and creating the market and investment conditions for a green economy to emerge.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

To keep and expand the current level of engagement, the country partnership and resource mobilization strategy is aimed at diversifying the number and nature of donors. These consist of mainly five work streams: First, top priority is to deliver efficiently and effectively on current commitments and particularly both the second phase of the Norway-funded green growth program, and the UK Partnering for Accelerated Climate Transition (PACT) program, in order to set the ground for potential new phases, which may lead to deeper, higher impact and longer lasting interventions. This also includes compliant and proper implementation on both multi-country GGGI programs where the country office is actively participating; namely, the Forest Finance Incubator with Conservation International and the US Department of State, and, Article 6 Policy Approaches with Norway's Ministry of Climate and Environment. Second, an extended pool of resource partners beyond Norway and the United Kingdom such as Germany's BMU on greening the financial sector, particularly institutions financing the AFOLU sectors as well as the GCF to advance FINAGRO's readiness to develop AFOLU pipeline development. Third, the program is seeking out funding to develop a flagship strategy for the socioeconomic transition in Colombia's coal-producing regions under a past-coal power and economic transition approach, including financial support from Colombia's Ministry of Finance. Fourth, building new partnerships such as with the Environmental Law Institute, to address environmental crime control in the Colombian Amazon, and corresponding local partners in the judiciary and control entities. Fifth, given early wins on mobilizing resources for solar PV, and, a growing demand for waste solutions in urban areas by many government counterparts, the program may explore potential alliances with NGOs, private sectors and academia on both these fronts during this period. Also, potentially with P4G and-or the NDC Partnership on other matters, all based on demand and proper thematic alignment with the program's priorities. The combination of all these five efforts is expected to consolidate a diversified donor base that can serve as the basis for a stable and solid program.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Colombia for 2021-2022 is: **\$0.44** million; Government counterpart contribution: **\$0.014** million; and Partner co-financing of the program is expected at **\$5.21** million in the biennium for a total of **\$5.66** million.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ⁴⁷	Partner	Gap	Total	
2019-2020										
GOP1 GOP2 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Colombia – GGGI Green Growth Project (2017-2019)	Aug 2017	Dec 2019	0.225 (CO1)	0.002	1.48	0	1.71	Grant secured from Norway’s Ministry of Climate and Environment, with 2019 core cofinancing of USD 0.225 million
GOP1 GOP2 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Second phase of GGGI/Norway’s joint green growth program with the Government of Colombia	Mar 2020	Feb 2023	0.225	0.007	2,42	0	2.65	Grant secured from Norway’s Ministry of Climate and Environment with 2020 core cofinancing of USD 0.225 million
GOP1 GOP2 GOP4	Green Investments and Climate Action and Forests	Scaling up Green Growth Policy implementation and investments via capacity building	Jul 2019	Jun 2020	0	0.002	0.54	0	0.54	Grant secured from United Kingdom Department for Business, Energy and Industrial Strategy Partnering for Accelerated Climate Transition (PACT).
GOP2 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Transforming Illegal Logging in Colombia through Judicial Education	Feb 2020	Dec 2022	0	0	0.07	0	0.071	Grant secured from Environmental Law Institute
GOP1 GOP2	Green Investments and Climate Action	Designing Policy Approaches under Article 6	Jul 2019	Sep 2021	0	0	0.023	0	0.023	Grant secured from Norway’s Ministry of Climate and Environment. Number refers to allocation for Colombia program staff time
GOP1 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Forest Finance and Investment Incubator	Oct 2019	Oct 2022	0	0	0.0085	0	0.008	Grant secured from US Department of State (Conservation International as lead). Number refers to allocation for Colombia program staff time
TOTAL					0.45	0.011	4.54	0	5.00	
2021-2022										
GOP1 GOP2 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Second phase of GGGI/Norway’s joint green growth program with the Government of Colombia	Mar 2020	Feb 2023	0.44	0.014	4,65	0	5,10	Grant secured from Norway’s Ministry of Climate and Environment with 2020 core cofinancing of USD 0.450 million over the biennium
GPO2 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Transforming Illegal Logging in Colombia through Judicial Education	Feb2020	Dec 2022	0	0	0.13	0	0.13	Grant secured from Environmental Law Institute
GOP1 GOP3	Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Forest Finance and Investment Incubator	Oct 2019	Oct 2022	0	0	0.05	0	0.05	Grant secured from US Department of State (Conservation International as lead). Number refers to allocation for Colombia program staff time
GOP1 GOP3	Green Investments and Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	DAE Support and Sustainable AFOLU Pipeline Development in Colombia	Jan 2021	July 2022	0	0	0.38	0	0.38	GCF Readiness. Currently under review.
Operations/Project Preparation										
TOTAL					0.44	0.014	5.21	0	5.66	

⁴⁷ Amounts corresponding to in-kind contributions in the form of office spaces. CO2: (1) at the Governor’s office in Meta Region, (1) at the Governor’s office in Nariño Region; CO04: (1) at the National Department of Planning in Bogota; CO05: (1) at the Ministry of Agriculture and Rural Development in Bogota, (1) at the Governor’s office in Antioquia Region, (1) at the Governor’s office in Nariño Region

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Inv. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1	PS1	CO05 - Second phase of GGGI/Norway's joint green growth program with the Government of Colombia* DAE Support and Sustainable AFOLU Pipeline Development in Colombia	8 private and 3 public project proposals developed and presented to investors Policy Approach designed for entering in an ITMO transaction DAE (Finagro) accreditation roadmap defined and implemented	<ul style="list-style-type: none"> Data room Investor pitch deck Investment proposals Financial models Technical design (if applicable) Project monitoring, annual results, completion and evaluation reports <ul style="list-style-type: none"> GAP Assessment completed Accreditation roadmap submitted Workshop reports 	30 M	SO1 SO2 SO5	Not an applicable project	Not an applicable project	IO2.	<ul style="list-style-type: none"> Risk/reward profile of projects does not match investors' targets Project identification, evaluation and structuring can be done under COVID19 and post-pandemic. Forestry, tourism, livestock and bioproducts remain of interest to investors under COVID19 and post-pandemic. Colombia gest selected to receive this TC and government conveys corresponding interest. GCF Readiness project is approved, and implementation starts within the first quarter of 2021.
GOP2	PS2	CO05 - Second phase of GGGI/Norway's joint green growth program with the Government of Colombia* CO06 - Transforming Illegal Logging in Colombia through Judicial Education	Mainstreamed green growth and zero deforestation criteria into planning instruments and policy actions Actionable and pertinent knowledge has been transferred into the judiciary subnationally and nationally to enforce deforestation control in the field	<ul style="list-style-type: none"> Green municipalities program design Proposals submission to DNP for an early warning information platform to guide public investment decisions, and, a system to score royalties projects Number of inclusive Sustainable Landscapes/deforestation reduction goals integrated into Department-level planning instruments Surveys on training events; training materials and manuals; reports and press releases on policy dialogue events. Project monitoring, annual results, completion and evaluation reports		SO1 SO5	Not an applicable project	Not an applicable project	IO1.	<ul style="list-style-type: none"> Lack of political will to integrate GG/deforestation reduction into planning instruments There is government interest in creating incentive-based approaches to conservation and political will to carry out design of the instrument. DNP continues to be interested in advancing with enhanced criteria for investment decisions to mitigate deforestation risks. Security conditions allow for working in natural forests or remote areas where forestry activities would take place. The GOC (both judiciary/ executive branches) is demanding this and agrees to advance as part of their NDP's goals associated to deforestation control (for example, CONALDEF).
GOP3	PS4	CO05 - Second phase of GGGI/Norway's joint green growth program with the	Forest economy planning, development and investment promotion delivered	<ul style="list-style-type: none"> Jurisdictional strategies published. Software design for national accounting and report of management activities in commercial forest plantations. Technical documents published with sectorial support. Documents officially submitted to 		SO1 SO2 SO5	Not an applicable project	Not an applicable project	IO1, IO2	<ul style="list-style-type: none"> Security conditions allow for working in natural forests or remote areas where forestry activities would take place. The lack of interest of the sector to be supportive to the planning and investment promotion.

	Government of Colombia*	National Financing Strategy for the Forestry sector defining the potential use of a combination of funding options from public resources	<p>FINAGRO/other financial institutions.</p> <p>Project monitoring, annual results, completion and evaluation reports</p> <ul style="list-style-type: none"> • Report on existing planning documents on forestry sector financing completed and disseminated via DNP website • Roadmap for the development of a National Financing Strategy • Conducting at least one pre-feasibility study of prioritized blended-finance instrument (see Table 2 for key information gaps to be addressed in the FS) e Forestry Sector • Developing at least one concept note aligned with Colombia's Country Program, 						<ul style="list-style-type: none"> • Allies and institutions do not have capacity or disposition to engage with these instruments as required. • GCF Readiness project is approved, and implementation starts within the first quarter of 2021.
	GCF DAE Support and Sustainable AFOLU Pipeline Development in Colombia	At least one quality concept note developed, submitted and integrated into GCF Country Programme targeting the forestry sector							

*Attributed estimates to SO's are calculated for the entire CO05 project (all outputs).

GUYANA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Since 2018, GGGI Guyana has been supporting the Government of Guyana (GoG) to increase their renewable energy share and transition to a green growth path. In the last biennium, GGGI worked with energy stakeholders in the country to remove the regulation barriers for solar PV distributed generation and developed a 14 MW pipeline of rooftop solar PV for private sector investment. GGGI also worked with the GoG developing a pipeline of utility scale renewable energy projects (solar, wind and hydro) that is expected to bring Guyana's renewable energy share to 70% by 2024 and preparing 2 concept notes for GCF funding on shortlisted projects. The investment needed for the pipeline developed is US\$ 1 billion and the two GCF concept notes have an investment value of US\$ 150 million. GGGI has become a trusted advisor to key actors within the energy sector in Guyana and has been providing technical support in their energy related projects. In 2019 GGGI assisted GoG to mobilized US\$ 10.9 million on green investments.

Guyana's key development challenges are in the following areas:

- **Oil Production:** From 2020 Guyana will become a significant global oil producer, and Guyana's development will need to be focused on stimulating sustainable economic growth while ensuring institutional transparency in order to channel oil funds towards green projects and to avoid the *resource curse*. The introduction of the associated natural gas into the energy mix can threaten Guyana's power sector commitment to become 100% renewable by 2040.
- **Economic Concentration:** The Guyana economy is concentrated around primary commodities (like bauxite, gold, rice, shrimps, sugar or timber) with inefficient industry and tertiary sector unable to compete with international markets.
- **Local Capacity:** Institutional and human capacity to manage and implement green growth projects needs improvement.
- **Low development of hinterland region:** There is a high disparity between the development of coastal and hinterland region. Despite their economic potential the population in the hinterland regions are the poorest with very low-quality services and job opportunities.

In May 2019, the Government of Guyana published a new national development strategy, the *Green State Development Strategy (GSDS): Vision 2040*. The GSDS has three primary priorities: 1) Manage natural resource wealth; 2) Support economic resilience; and 3) Build human capital and institutional capacity. GGGI will support the GoG to implement the GSDS in key priority sectors and to support green economic development. GGGI's Guyana country program aims to strengthen the development of Guyana's sustainable natural resources with the objective to enhance the forest and renewable energy sector. In the next biennium, GGGI will continue its work on circular economy and renewable energy, including Waste to Energy from agriculture and organic waste. GGGI will support the GoG to mobilize green investment, create green jobs and diversify the economy through sustainable sectoral development.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports the Government of Guyana to implement their Green State Development Strategy (GSDS): Vision 2040 which aim to provide a better quality of life for all Guyanese derived from the country's natural wealth. GGGI's Guyana country program will contribute to:

- SO1. Reduced GHG emission by implementing sustainable energy projects and incentivizing the forest protection;
- SO2. Creation of green jobs on the energy and waste management sectors;
- SO3. Increased access to sustainable services focusing on clean and affordable energy and sustainable waste management;
- SO5. Supply of ecosystem services ensured through the sustainable use of the forest.

With a focus on:

- GOP1, PS 1. Green Investment. GGGI will support the investment mobilization on renewable energy and manage the funds from GRIF. For the period 2021-2022 it is expected to support the investment of US\$ 145 Million.
- GOP2, PS 2. Climate Action. GGGI will work in Guyana's Climate Finance Strategy and improvement of their MRV systems in line with GoG's implementation of Paris Agreement and updates of NDC
- GOP3, PS 4. Sustainable Forests: GGGI will support Norway and Guyana to improve the Guyana REDD+ Investment Fund (GRIF) management.
- GOP4, PS 6.& PS9: Waste Management (PS6): GGGI will work in a waste to energy and circular economy project in Guyana with the intention to expand it to other Caribbean countries. Solar PV (PS9). GGGI will support the implementation of distributed generation solar rooftop and hybrid and off-grid Solar PV system in the Hinterland region of Guyana.

GGGI's Approach to Green COVID-19 Recovery Plans development: Guyana, like other countries in the Caribbean, is vulnerable to severe economic consequences from COVID-19. The health system in Guyana is weak and in need of considerable improvement. In the implementation plan for the GSDS this sector has been highlighted as one of the least prepared sectors to implement the policy recommended in the strategy. It is expected the COVID-19 will exacerbate the weaknesses of an already vulnerable sector, and that it will become a priority in the national budget to build the health infrastructure as well as institutional and human capacity. COVID-19 has also severely affected oil prices, which will reduce the national budget and will affect the economic feasibility of renewable energy projects. Climate projects face a serious risk to be deprioritized, which is why it is more important than ever for GGGI's approach in the next biennium to focus on boosting the economy in a post-COVID society. GGGI will seek to focus on projects that prioritize a green economic recovery including through projects in renewable energy, low-carbon tourism sector and solid waste management.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

In order to continue the momentum of the 2019-2020 biennium, GGGI will focus the Partnerships and Resource Mobilization strategy on expanding the existing resource partnership base. In early 2020, GGGI Guyana successfully completed its first GCF Readiness project in utility scale renewable energy. In order to continue this work and expand into further sectors, GGGI has submitted proposals to three projects that expect to start mid-2020: (i) a second [GCF Readiness](#) support to develop a national climate finance strategy, improve the MRV system and develop a pipeline of project to achieve the updated NDC target in different sectors; (ii) a project to support Guyana REDD+ Investment Fund (GRIF) management submitted to [Norway](#) and (iii) technical advisor to a renewable energy and energy efficiency project managed by UNDP.

In addition to the aforementioned projects, GGGI will continue supporting GoG to achieve NDC targets and recovery its economy, GGGI will explore additional funding opportunities to scale up Guyana program and develop green investment projects, especially for funding multi-year projects and strengthening partnerships with bilateral donors (Canada, EU and IKI), regional organization (CARICOM) and MDBs (InterAmerican Development Bank and Caribbean Development Bank).

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Guyana/LAC for 2021-2022: **\$0.12 million**; Government counterpart contribution: **\$0.05 million**; and Partner co-financing of the program is expected at **\$1.07 million** in the biennium for a total of **\$1.24 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ⁴⁸	Partner	Gap		Total
2019-2020										
GOP1 GOP4	PS1 PS9	Enhancing Guyana's access to GCF to transition to renewable energy	Feb-19	Feb-20	0	.01	.3		.31	GCF Readiness
GOP1 GOP4	PS1 PS9	Enabling Green Growth Investments in the Renewable Energy Sector	Jan-20	Dec-20	.03	.01			.04	Core funding
GOP1 GOP3	PS 1 PS4	Guyana REDD+ Investment Fund (GRIF) Management Support	Nov-20	Dec-21	0	.01	.08		.09	Norway Ministry of Climate and Environment ⁴⁹
GOP1GOP2G OP3 GOP4	PS 2	Readiness Support for Strategic Climate Finance in Guyana	Oct-20	Nov-22	0	.01	0.3		.30	GCF Readiness ⁵⁰
GOP1 GOP4	PS 1, 8, 9	Technical Advisor support to UNDP project	Oct-20	Jul-23	0	.01	.02		.03	UNDP ⁵¹
TOTAL					0.03	0.05	0.69		0.77	
2021-2022										
GOP1 GOP4	PS 1 and 9	Enabling Green Growth Investments in the Renewable Energy Sector	Jan-21	Dec-22	.05	.01			.06	Core funding
GOP1 GOP3	PS 1, and 4	Guyana REDD+ Investment Fund (GRIF) Management Support	Jun-20	Dec-21	0	.01	.27		.28	Norway Ministry of Climate and Environment ⁵²
GOP1GOP2G OP3 GOP4	PS1,2,3 ,6, 9	Readiness Support for Strategic Climate Finance in Guyana	Jul-20	Dec-21	0	.01	.46		.47	GCF Readiness ⁵³
GOP1 GOP4	PS 1, 8 and 9	Technical Advisor support to UNDP project	Jun-20	Jul-23	0	.01	.08		.09	UNDP ⁵⁴
GOP1 GOP4	PS 1 and 6	Building resilient infrastructure and green towns through the establishment of waste to resources facilities	Jan-22	Dec-23	0	.01	.26		.27	EU, Canada, IDB, AFD ⁵⁵
Operations/ Project Preparation						.07			.07	
TOTAL					0.12	0.05	1.07		1.24	

⁴⁸ Office space, offices supplies and 70% time of liaison officer for GGGI projects.

⁴⁹ Proposal has been submitted to Norway, but approval has not yet been secured

⁵⁰ Proposal has been submitted to the GCF, but approval has not yet been secured

⁵¹ Proposal has been submitted to UNDP, but approval has not yet been secured

⁵² Proposal has been submitted to Norway, but approval has not yet been secured

⁵³ Proposal has been submitted to the GCF, but approval has not yet been secured

⁵⁴ Proposal has been submitted to UNDP, but approval has not yet been secured

⁵⁵ Proposal has not been submitted

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Inv. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1, GOP4	PS1 PS9	Enabling Green Growth Investments in the Renewable Energy Sector	*Bankable projects developed *Technical assistance to GoG on RE implementation	*LOIs Project monitoring, annual results, completion and evaluation reports	10 M	SO1 SO2 SO3.1	*SO1: 0.1 MtCO2e *SO2: 110 FTEs *SO3.1: 0.001Mpeople	N/A. Related to project below	IO1 IO5	<p>Assumptions</p> <p>* This project will support GoG and selected AE to prepare funding proposal to GCF, based on concept note prepared under GGGI 1st Readiness (2019). Project value US\$10M for a 5MWp solar on-grid and 0.5MWp solar PV off-grid in the Hinterlands. *SO1 calculated for 5.5MWp solar PV for 20 years *SO2: Direct employments using OECD Average Employment factors in Table 1 of Rutovitz et al. (2015) *SO3.1, 1000 people with new access to electricity by installing 0.5MWp rural electrification to remote villages.</p> <p>Risks</p> <p>*Appetite of public/private financiers in current climate (reduced IRR due to lower and unpredictable prices of diesel due to COVID-19) *Continuing COVID pandemic shifts focus of government</p>
GOP1, GOP4	PS1 PS8 PS9	Technical Advisor support o UNDP project	*Business models for IPP and DG *Agreed Roadmap for RE and EE *Pilot RE and EE projects	*Annual reports to UNDP *Official policy and legal documents Project monitoring, annual results, completion and evaluation reports	5M	SO1 SO2 SO3.1	*SO1: 0.14 MtCO2e *SO2: 90 FTEs *SO3.1: 0.002 Mpeople	*SO1: 13 MtCO2e *SO2: 2400FTEs *SO3.1: 0.07 Mpeople	IO1 IO2 IO3	<p>Assumptions</p> <p>*Assumed the installation of 4.4MW RE as part of direct intervention in project, the project aim to mobilize at least US\$5M for those private projects *The project will contribute to provide 65% RE share by 2030. *SO1 & SO2 attributed for 4.4MW solar. *SO1 & SO2 contributed calculated for 65% RE share (60MW solar, 50MW Wind and 180MW hydro). *SO1 for a period of 20 year lifespan of RE systems. *SO2 using OECD Average Employment factors in Table 1 of Rutovitz et al. (2015) *Assumed 20 years lifespan of RE systems *Guyana key government decision makers and stakeholders remain committed to green growth</p> <p>Risks</p> <p>*Continuing COVID pandemic shifts focus of government</p>
GOP1, GOP3	PS1 PS4	Guyana REDD+ Investment Fund (GRIF) Management Support	*Project pipeline and proposal developed *Project implementation support *GRIF projects monitoring system developed *Communication & knowledge sharing materials	*Annual Reports to Norway *Trustee Finance reports *Official deforestation data MRVS annual reports *GRIF Result Framework, GRIF webpage Project monitoring, annual results,	130M	SO1 SO2 SO5	*SO1: 1 MtCO2e *SO2: 600 FTEs *SO5: 0 M ha	*SO1: - MtCO2e; *SO2: - FTEs; *SO5: - M ha; The project will contribute to keep same levels of deforestation as now (which are very low)	IO1 IO3	<p>Assumptions</p> <p>*Project will support GOG and Norway on the decision for the investment of US\$ 130 Million (80 million for the energy project held in IDB account + 50 new projects for a value of 50 million held in Trustee account). *SO1 and SO2: calculated for the installation of 30MW solar utility scale as part of the attributed impact. *SO5: Assumed the project will keep the deforestation rate at current rates, which is 0.05% annually, therefore not increase of area or GHG emission reduction</p> <p>Risks</p> <p>*Challenges of ensuring smooth coordination between various parties *Continuing COVID pandemic shifts focus of government</p>

				completion, and evaluation reports						
GOP1, GOP2, GOP3, GOP4	PS1 PS2 PS3 PS6 PS9	Readiness Support for Strategic Climate Finance in Guyana	*Support on preparation of Guyana's second NDC *National Climate Finance Strategy (CFS) developed *MRV in Energy and Agriculture developed *Pipeline development and Concept notes for GCF	*Project reports to GCF *CFS adopted by GoG Project monitoring, annual results, completion, and evaluation reports	Project will prepare pipeline for investment. The target cannot be defined yet, as the projects need to be consulted with GoG.	SO1 SO2	Data Not Yet Available as specific projects to be developed will be defined as part of the project	(Data Not Yet Available as specific projects to be developed will be defined as part of the project)	IO1 IO2 IO3	Assumptions *NDA provides strong leadership to support the project *Support from focal points in various ministries and agencies is adequately provided *Inputs required for project delivery are delivered without major delays *Local Job market provides expertise required to fulfill technical requirements of the project *Sufficient availability of data in agriculture, e-mobility and energy sectors *Capacity Development Activities can be delivered in a flexible context depending on local/global health situation, and stakeholders will be engaged in the process *COVID-19 is contained sufficiently to allow the focus and delivery of the project. Risks *Delays in project implementation *Lack of suitable local candidates for consultancy positions *Potential as a result of the COVID-19 pandemic *Changing Government priorities *NDA limited capacity to oversee multiple projects
GOP1, GOP4	PS1 PS6	Building resilient infrastructure and green towns through the establishment of waste to resources facilities	Guyana Circular Economy Policy developed; Guideline or implementation plan of recycling of wastes(eg. Paper and plastic) developed; 2 project concepts of waste management developed	Policy report submitted to GoG project concepts submitted to identified financiers Project monitoring, annual results, completion and evaluation reports		SO1 SO2 SO3.3	*SO1: 0.8 MtCO2e *SO2: 140 FTEs *SO3.3: 0.5 M people	*SO3.3: 0.78 M people	IO1 IO2 IO3	Assumptions *SO1 and SO2: installation of a biomass bagasse 15MW export electricity plant for 20 years lifespan of system. *Donor will be identified and will be interested in the project *GoG has appetite for recycled waste concepts *Data is available for analysis and delivery Risks *New area of work for GGGI in the country *Varying resources and data on waste in Guyana *Donor has not been identified

MEXICO

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

The biennium of 2019-2020 signified a period of consolidation and growth for the Mexico program, which started operating in 2013. GGGI cemented its role as trusted government advisor by continuing its support of the state of Sonora and helping to forge new synergies to advance green growth in the state. In partnership with the Sonora Institute of Women and the Sonora Environmental Commission, GGGI developed a capacity building course for the development of gender responsive green growth initiatives, facilitated by GGGI's SPRSI and Mexico's teams with guest experts from 10 other government, international and civil society institutions. In Sonora as well, GGGI provided capacity building and advise on the framework required for the issuance of a green bond and is now supporting the state and municipality of Hermosillo in the development of a biogas project with support from the ROK Knowledge Sharing Program (KSP). Also, in a further expansion of its climate investments portfolio, GGGI engaged with new government partners (Ministry of Finance and national development banks BANOBRAS and NAFIN), building rapport and launching a GCF Readiness Program that supports these institutions efforts to mobilize climate finance.

GGGI is well positioned to respond to development challenges preventing Mexico from steering decisively its economy towards a sustainable path, and which include the following:

- The current administration recognizes social and economic inequality as key factors affecting the wellbeing of the population. In the National Development Plan 2019-2024 the government sets poverty alleviation and inclusive economic growth as top government priorities. The work of GGGI supporting inclusive subnational green growth under GGGI's GOP 2 – PS Climate Action, and GOP 5 will support the attainment of national targets⁵⁶ to reduce by half the number of people living in poverty (52 million people, or 42% of the population in 2018⁵⁷) and to ensure no one lives in extreme poverty conditions (9.3 million people, or 7.4% of the population in 2018).
- Insufficient finance is being directed towards NDCs and SDGs implementation. The Government of Mexico (GoM) estimates at 126 billion USD the cost of implementing 30 measures identified to achieve the NDC unconditional target of 22% GHG reduction (209 MtCO_{2e}) over the BAU scenario ⁵⁸ (at 2017 USD). The National Strategy for the Implementation of the 2030 Agenda and the various climate change policies of the country call for concrete actions to mobilize green investment. GGGI actively supports these efforts through a concrete focus on programmatic solution Green Investments under GOP 1.
- Wide adoption of climate technologies remains elusive, in part due to a lack of integration of solutions considering local contexts and traditional customs. This can be seen for instance in the low collection of separated organic waste which stands currently at 6.2% nationally and which prevents its utilization in a circular economy system. The Climate Change General Law calls for an 18% reduction in emissions from waste by 2030, and the recently approved Special Climate Change Plan 2020-24 lays out actions to achieve this through waste to energy projects and an expansion and rehabilitation of water treatment plans. These documents align well with GGGI's programmatic focus on Climate Action (under GOP2), Waste Management (under GOP 4) and strengthening these solutions through activities under GOP 5.

II. COUNTRY PROGRAM

Areas of Focus: In the 2021-2022 biennium GGGI will continue supporting Mexico's NDCs and SDGs implementation with a strong emphasis on doing this inclusively. This work will be in alignment with the country's National Development Plan 2019-2024, the country's climate change policy⁵⁹, as well as with the National Strategy for the Implementation of the 2030 Agenda in Mexico.

GGGI initiatives that will contribute to these national priorities will have the following impact with regards to GGGI Strategic Objectives:

⁵⁶ Presidencia de la República (2020). *Estrategia Nacional Para La Implementación De La Agenda 2030*.

⁵⁷ CONEVAL. (2018). *Medición de la pobreza*. <https://www.coneval.org.mx/Medicion/MP/Paginas/Pobreza-2018.aspx>

⁵⁸ INECC. (2018). *Costos de las Contribuciones Nacionalmente Determinadas de México. Medidas Sectoriales No Condicionadas*. Final report. National Institute of Ecology and Climate Change (INECC), Mexico

⁵⁹ Climate Change General Law 2018, the Sectoral Plan for the Environment 2020-24, the Special Climate Change Plan 2020-24, and the Nationally Determined Contributions

- SO1 and SO2: Reduction of the country's GHG emissions and direct green jobs creation through the mobilization of finance for project implementation and the implementation of cross-cutting green policies and initiatives
- SO3.3: Increased access to sustainable services with a focus in sustainable waste management interventions

With a focus on:

- GOP1, Programmatic Solution 1 - Green Investment: By supporting the Ministry of Finance and GCF's Direct Access Entities to implement best practices, structure green bankable projects and investment proposals to mobilize 30MM USD in green finance
- GOP2, Programmatic Solution 2 - Climate Action: By assisting the government to design bold green growth plans to reactivate the local economies and support NDC implementation
- GOP4, Programmatic Solution 6 - Waste Management – By supporting implementation of biogas from wastewater and organic waste in the Mesoamerican region
- GOP5 – By mainstreaming greater social and gender inclusion as well as poverty eradication in all workstreams

GGGI's Approach to Green COVID Recovery Plans development: The supply and demand shocks caused by the global pandemic have hit the Mexican economy in 4 key sectors: oil, remittances, tourism and trade. Though it is premature to estimate the impacts of covid-19, the IMF expects a GDP contraction of 6.6%. In addition, Mexico's informal sector (comprising a third of Mexico's GDP) and vulnerable populations will be impacted from the absence of a strong, public safety net (e.g. unemployment benefits).

To counter this, the GoM recently launched a recovery plan which focuses on furthering austerity measures in the public administration. This plan has been receiving criticisms of not being bold enough (at 0.7% of GDP, Mexico's stimulus package ranks among the smallest of the G20) while at the same time the GoM carries on building a new refinery in the Southwest (estimated investment: \$10 billion USD). In parallel, recent tensions arose between the private sector and Mexico's president, who recently questioned the motivation of an accord between the IADB and a major Mexican business lobby to provide up to \$12 billion USD in loans a year to small and medium-sized businesses to help weather the crisis.

GGGI can mark a difference in greening Mexico's recovery plans. The Ministry of the Environment (GGGI's official counterpart) has urged GGGI to act as a key voice and advocate for a greener recovery. While the specifics recommendations are yet to be drafted, this would entail building resilience of local economies to shocks, fostering new/green economic activities/sectors, drafting green recovery plans/ packages and strengthening inclusive local protection mechanisms.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

In 2021-2022 GGGI aims to consolidate its program expansion and the rapport built with new stakeholders during the past biennium with a view to view to maximize the impact of its programs. To accomplish this, GGGI will seek to secure funding to maintain current level of operations, expand its donor base and forge alliances to complement its activities. Specifically, GGGI will a) continue its close engagement with the Ministry of Finance to design a second phase of support to the ongoing GCF Readiness Support project. Funding for this will be sought primarily through a multiyear GCF Readiness Support funding proposal, but funding through Direct Access Entities and other partners supporting work in the sector will also be sought; b) engage with government partners and donors to design robust proposals and deliver leveraging the skills of the expanded GGGI's country team (engaged and to be engaged donors include the Korea Environment Corporation (KECO), the UK Partnering for Accelerated Climate Transitions (UK PACT), the Danish Government and the Agence Française de Développement (AFD), among others; c) engage with government partners to provide technical assistance for the development of bankable projects through existing government financing windows (National Water Commission/CONAGUA and National Infrastructure Fund/FONADIN) and d) develop partnerships with local stakeholders to supplement project delivery, particularly in biogas through the National Council of Biogas and its members and through financing support windows such as P4G.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Mexico for 2021-2022: **\$0.32 million**; Government counterpart contribution: **\$0.06 million**; and Partner co-financing of the program is expected at **\$1.87 million** in the biennium for a total of **\$2.26 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ⁶⁰	Partner	Gap		Total
2019-2020										
GOP1	PS 1	MX07 - Readiness Support for Country Programming and Direct Access in Mexico	07/2019	01/2021	-	-	0.71	-	0.71	GCF Readiness
GOP1	PS 1	MX05 - Scaling up policy and investment for gender inclusive, subnational green growth in Mexico	01/2019	10/2020	0.23	-	-	-	0.23	Core funded
2 & 5	PS 2									
GOP1	PS 1	MX06 - Support Ministry of Finance to access green funds	06/2019	12/2020	0.007				0.007	Core funded
GOP2	PS 3	Article 6	09/2019	2/2020	0.004		.012		.016	Global earmarked proposal for activity financing with core co-funding
GOP4	PS 6	Sustainable biogas production from wastewater and organic waste in Mexico and the Mesoamerica region	01/2020	12/2021	0.11			-	0.11	Core funded +seeking funding from Denmark government, UK PACT and GoM through PROAGUA program
Operations/Project Preparation					0.24	0.06			0.30	
TOTAL					0.59	0.06	0.72	0.05	1.37	
2021-2022										
GOP1	PS 1	MX07 - Readiness Support for Country Programming and Direct Access in Mexico	07/2019	01/2021	-	-	0.09	-	0.09	GCF Readiness
GOP1	PS 1	Multi-year Readiness Support for Mexico	03/2021	03/2023	-	-	1.26	-	1.26	GCF Readiness. Proposal being developed.
GOP4	PS 6	Sustainable biogas production from wastewater and organic waste in Mexico and the Mesoamerica region	01/2021	12/2022	0.20	-	-	-	0.20	Core funded
GOP1	PS 1	Support to the National Banking Commission on greening the financial sector	01/2021	12/2022	-	-	0.53	-	0.53	Funding proposal submitted to UK Pact.
Operations/ Project Preparation					0.12	0.06			0.18	
TOTAL					0.32	0.06	1.88		2.26	

⁶⁰ In-kind contributions from the government provides office space, utilities, internet access and occasional venues for knowledge exchange

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Inv. target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1	PS1	Readiness Support for Country Programming and Direct Access in Mexico	1- 'No Objection' procedure for funding proposals and PPF applications 2- Country programme 3- Support or the accreditation of BANOBRAS and NAFIN as Direct Access Entities 4- Roadmap for Sustainable Finance 5- Prioritized pipeline of projects for GCF funding 6- One bankable project concept note to be developed for GCF funding	* GCF and GoM publications/ reports Project progress and completion report submitted to GCF, including Country Program, Roadmap for Sustainable finance, and the project concept note developed	5M	SO1 SO3 SO6	TBD	TBD	IO1	Assumptions: Current vision, rapport and working relationship improves or keeps at current pace within key counterparts from GoM (NDA/MoF and DAEs) Risks: MoF reshuffling responding to the context (economic recession; covid-19) could result in changing priorities. NDA continues to be understaffed and concentrates more on more pressing/urgent tasks (e.g. covid-19, recovery).
GOP1	PS1	Multi-year Readiness Support for Mexico	* Pipeline development * DAEs strengthening, Entity work Programmes Accreditation support, Capacity building * Climate Finance Facility * NDA support	* GCF and GoM publications/ reports; Project monitoring, annual results, completion and evaluation reports	15M	SO1 SO3 SO6	TBD	TBD	IO1	Assumption: Current vision and rapport is maintained within key counterparts at the NDA/MoF; Risk: NDA is replaced/removed; NDA divides implementation of multi-annual Readiness Program scope among additional / new delivery partners
GOP4	PS6	Sustainable biogas production from wastewater and organic waste in Mexico and the Mesoamerica region	* Biogas project a municipality of Mexico designed and investment proposal developed	* Gov. Reports/letters Project monitoring, annual results, completion and evaluation reports	10M	SO1 SO3 .3	CPI= 0.36 MTCO2e CPT = 1.08 MTCO2e	13 MTCO2e	IO1	Assumption: Interest in initiative is confirmed, championed at both federal/subnational levels. Risk: Regulatory challenges around electricity and digestate production and use from biogas reactors prevent the development of a viable economic model; Implementation is slowed down due to further covid-19 waves.
GOP1	PS1	Support to the national Banking Commission on greening the financial sector	* Recommendations on ESG integration of regulator and financial intermediaries * Establishment of governance * Capacity building on ESG and ESMS	* Gov. Reports/letters Project monitoring, annual results, completion and evaluation reports	-	SO1 SO3 SO6	NA	NA	IO1	Assumption: Current vision and rapport is maintained within key counterparts at the SHCP, CNBV; Risk: Changing governments priorities reduce support for ESG and ESMS policies implementation.

PARAGUAY

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Since 2019, GGGI has been strengthening the institution's relationship with the Government of Paraguay, particularly with the Ministry of Planning (Secretaría Técnica de Planificación del Desarrollo Económico y Social. STP) with the intention of developing projects that support the country's green development. Paraguay is a Middle Income, landlocked (vulnerable) country that has achieved a high level of economic growth (average of 5% annually) in the last decade, primarily due to its heavy reliance on natural resources. Primary development challenges in the country include:

- Limited access to long-term climate finance and insufficient technical capacity/awareness of climate finance needs and opportunities.
- Lack of strategic investment priorities in the industrial sector and limited private sector engagement in climate change adaptation and mitigation planning and investment.
- Economic concentration: The economy is highly dependent on commodities (54% of exports), the majority of which is undiversified agricultural products (soybeans, cereals and meat). The agriculture sector is particularly vulnerable to external climate and price shocks, and in order to maintain economic stability, it is crucial for the country to find new economic opportunities and to address structural barriers in line with implementation of Paraguay National Development Plan 2030
- Lack of sustainable infrastructure: Although Paraguay has one of the cleanest energy matrices in the region, 46% of the energy consumed in the country comes from the burning of biomass. Additionally, while access to electric power is high (99% in urban areas, and 96% in the countryside), service quality is substandard. The transmission and distribution network is inadequate for meeting the demand for electricity, which is rising by more than 9% per year. Access to electricity service in remote areas, populated primarily by indigenous communities is low. In terms of solid waste management, the average rate of urban solid waste generation (MSW) in Paraguay is around 1.2 kg / person / day. In Asunción and the Metropolitan Area, approximately 2,000 tons of waste is generated daily, of which 20% is recyclable material. Many municipalities in Paraguay have challenges in managing their municipal waste and in 2017, the country passed a Law on Solid waste management requiring the waste generator to minimize solid waste and pay for preventive actions or corrective measures. However, the country still has a long way to go towards moving towards a sustainable circular economy. There are a number of opportunities to improve the quantity and quality of energy services and solid waste management, particularly in the area of institutional and regulatory reforms and green investment project developments.
- Deforestation: Paraguay's expanding agricultural frontier and its heavy dependence on biofuels have contributed to globally high rates of deforestation, reducing native Atlantic Forests in Paraguay by 95%. The majority of rural households also depend on wood and charcoal to cook. Fuelwood has been identified as the primary energy source for 88% of rural households
- Poverty & Social Inclusion: More than 30 percent of the population lives in poverty, according to the central bank, and Paraguay ranks near the bottom among South American countries in reducing poverty over the last decade. Social spending for antipoverty projects is minimal, largely because taxation is lacking. Paraguay's indigenous people and female-headed households continue to be the most vulnerable social groups in Paraguay. There are about 20 different indigenous ethnic groups comprising around 115,000 people (1.7% of the country's total) with the large majority living in rural areas (around 91.5%). Most indigenous people lack legal titles to their traditional territories, only 2.5% have access to potable water and 31.2% to electricity.

To date, GGGI's work in Paraguay has primarily focused on scoping activities to develop new projects and opportunities as well as the inclusion of Paraguay in regional activities and proposals. The 2021-2022 biennium, GGGI plans to begin project implementation and scale up the country program securing financial resources. In 2020, GGGI will make its presence at STP in the Government of Paraguay once GCF Readiness is approved.

II. COUNTRY PROGRAM

Areas of Focus: GGGI aims to support Paraguay with a focus on the implementation of Paraguay's NDC, National Development Plan 2014-2030 (Plan Nacional de Desarrollo 2014-2030 or PND) and the National Climate Change Policy (Política Nacional de Cambio Climático), GGGI will contribute to:

- SO 1: GGGI will contribute to reduced GHG Emissions through the development of climate finance projects that address the goals of Paraguay's NDC and SDG goals, which includes a 10% unconditional reduction in emissions.

- SO 3: GGGI will contribute to Increased Access to Sustainable Services, particularly through the development of green investment projects with innovative climate financing mechanism

With a focus on:

- GOP 1, Programmatic Solution 1. Green investment—Through anticipated GCF Readiness Funding to the Government of Paraguay, GGGI will serve as a delivery partner to support the Government of Paraguay to gain access to climate finance, enhance gender responsive investment priorities, and develop a climate finance strategy.
- GOP 4, Programmatic Solution 6 and 7—Through the development of investment plans in key priority sectors (including waste management and sustainable mobility, GGGI aims to expand green growth policy and investment interventions in sustainable service sectors in Paraguay.

GGGI's Approach to Green COVID Recovery Plans development: Like all countries around the world, Paraguay has been regrettably affected by COVID-19, with predictions showing an expected decline in GDP of 1.2%. Sixty five percent of Paraguayans earn their living in the informal economy and are therefore impacted by economic and food insecurity and slow or very little support from the government. Indigenous workers and women are disproportionately impacted by the crisis, the consequences of which will last well beyond the coming months. Although GGGI's presence in the country is limited at the moment, proposed projects in the next biennium will ensure an emphasis on green economic recovery and the creation of green jobs in order to address the long-term, secondary effects of COVID-19.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI's partnership and Resource Mobilization Strategy in Paraguay is three-fold. First, GGGI aims to secure and deliver the first earmarked project in the country. GGGI has been nominated as the delivery partner for Paraguay's GCF Readiness project and is currently in discussions with the Government of Paraguay and the GCF on final steps for approval. In the next biennium, GGGI will focus on delivery strong results for the project and focusing on how to best leverage those results for a green economic recovery in the aftermath of COVID-19. Second, GGGI will focus on partnering with International Organizations and Multilateral Development Banks to enhance South-South cooperation and will focus on securing new donors. GGGI will target multi-year funding and will likely seek opportunities for funding in Paraguay from the GGGI member countries, EU, IADB, Germany (IKI) and France. Third, as GGGI increases its presence in the country, we will aim to expand local partner and stakeholder relationships that can support the delivery of value-added green growth interventions in the country.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Paraguay for 2021-2022: **\$0.10 million**; Government counterpart contribution: **\$0.03 million**; and anticipated Partner co-financing of the program is expected at **\$0.5 million** in the biennium for a total of **\$0.63 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ⁶¹	Partner	Gap		Total
2021-2022										
GOP 1, GOP 4	1: Green Investments 6. Waste Management 7. Sustainable Mobility	Strengthening Paraguay's capacity to access climate finance through DAEs nomination, Climate Finance Strategy development and pipeline strengthening	October 2020	April 2022		0.03	0.50		0.53	GCF Readiness. Proposal submitted, and undergoing review.
Operations/Project Development					0.10	0.00	0.00		0.10	Program development and operations
TOTAL					0.10	0.03	0.50		0.63	

⁶¹ In kind contribution of office space, supplies, and personnel from Paraguay Ministry of Planning (STP- Secretaria Técnica de Planificación del Desarrollo Económico y Social)

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Investment Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1, GOP 4	PS1 PS6 PS7	Strengthening Paraguay's capacity to access climate finance through DAEs nomination, Climate Finance Strategy development and pipeline strengthening	<p>Two candidate DAE nominated by the NDA</p> <p>Planning and programming capacity of key country stakeholders to contributed to GCF-funded Readiness Programmes improved.</p> <p>Gender responsive and participatory investment plans of selected priority sector(s) developed</p> <p>Subnational climate finance Roadmap(s) developed and being implemented</p> <p>Options analysis and recommendations for innovative financing to crowd-in and leverage private sector investments in priority sectors developed</p> <p>Feasibility analysis of selected technologies in priority sectors, and their application to the industry and urban areas aligned with Paraguay's National Development Plan and GCF Country Programme completed and incorporated into planning processes and quality concept notes.</p> <p>At least two quality concept notes developed, submitted and integrated into the GCF Country Programme</p>	<p>Two accreditation nomination letters signed and submitted by the NDA</p> <p>Workshop Report</p> <p>Sector investment plans developed, endorsed and available on the STP website</p> <p>Paraguay Subnational Climate Finance Roadmap(s) Endorsement Letter</p> <p>Report on innovative financing mechanisms</p> <p>Pre- Feasibility Reports</p> <p>Two concept notes developed and submitted to the GCF</p> <p>Project monitoring, annual results, completion and evaluation reports</p>		SO1, SO3	Data Not Available	Data Not Available	IO1, IO4	<ul style="list-style-type: none"> • Delays in project implementation, such as recruitment and in-person workshop, due to COVID 19 Pandemic • Cannot find suitable candidates for consultancy positions • Delayed delivery of GCF Country Programme by CAF • Delayed/Failed establishment of National Coordination Mechanism, due to internal consultation procedure and/or approval in Paraguay government • Uncertainties surrounding the capacity and interest of potential DAEs towards accreditation process • Affordability of the GAP Assessment • Potential impact on launching and implementation of the grant activities as a result of the COVID-19 pandemic

PERU

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Achievements to Date: GGGI supported NDC achievement through seeking solutions to attract financing for mitigation and adaptation efforts in the land use, water and solid waste sectors, as well as strengthening MRV capacity. GGGI initiated a Norway-financed project to mitigate deforestation and supported the Ministry of Energy and Mines and the National Service for Environmental Certification to submit for proposals to KOICA for remediating environmental mining damage and gender mainstreaming in the Environmental Impact Evaluation Process (respectively). Program achievements for the biennium include:

- **SO1: (a)** With the Ministry of Agriculture, GGGI worked to green public finance for smallholder farmers by proposing an Environmental and Social Management System for a large technical assistance program and ministerial-level guidelines for sustainable financing in agriculture; **(b)** With the Lima Municipality, GGGI conducted an organic waste value chain analysis and developed earmarked proposals in 2020; **(c)** With the Ministry of Environment, GGGI provided support for MRV development activities funded by NDC Partnership; **(d)** With the Ministry of Environment and Ministry of Economics and Finance, GGGI provided support for Green Bond development.
- **SO5 *Water Resources*:** Supported the National Superintendence for Sanitation Services (SUNASS) to understand the conditions necessary for international financing to feed into national-level PES tariff financed by public funds.

Key Development Challenges. In addition to NDC implementation, GGGI initiatives respond to the National Competitiveness Plan (NCP), a multisector instrument containing Priority Objectives (POs) that attend to the key country development challenges. These include:

- Key Challenge 1: Lack of financing for low carbon/sustainable agricultural activities. Due to the lack of financing in agricultural activities, the NCP prioritizes the development of national and international financing mechanisms. To support this, GGGI began support in 2019-2020 in GO1 (GOP1) and GO2 (GOP 3) to green existing technical assistance programs to provide finance opportunities for smallholder agriculture.
- Key Challenge 2: Lack of Environmental Sustainability in Economic Initiatives. The NCP also responds to a series of environmental challenges including (1) attending to the effects of climate change, (2) integrated solid waste management (3) promoting renewable energy, (4) sustainable transport, (5) MRV and (6) promotion of bioeconomy. To this end, GGGI's activities in GOP1, 2 3 4 in financing green initiatives across sectors, solid waste, MRV and possible initiatives to strengthen policy for mine site environmental damage are aligned with government priorities.

II. COUNTRY PROGRAM

Areas of Focus: GGGI will support Peru's NDC implementation as well as contribute to the following National Competitiveness Plan Priority Objectives (PO): PO 4: Develop domestic and international financing mechanisms, PO 8: Institutionality and PO 9: Environmental Sustainability

GGGI initiatives that will contribute to these Priority Objectives will have the following impact with regard to GGGI Strategic Objectives:

- SO1 Reduced GHG Emissions: (1) sustainable land use practices and financing options for smallholder farmers, (2) improved waste management and (3) financing options for COVID recovery and green initiatives
- SO2: Green Jobs: Increased jobs through integrated waste management, waste segregation programs and financing of green initiatives
- SO6: Enhanced Adaptation to Climate Change: (1) improved waste management, (2) improved policy and investment opportunities for mine sites with adverse environmental impacts

With a focus on:

- GOP1, Programmatic Solutions (PS) 1: Green investment: GGGI will work to green public investment programs for smallholder agriculture and to seek commercial opportunities for smallholders involved in sustainable land use practices to reduce deforestation and GHG emissions. Additionally, GGGI will work to support the government in issuing a green bond for COVID recovery, agriculture and green initiative sectors
- GOP2, PS: MRV support: technical assistance to improve the MRV platform for mitigation and adaptation reporting and monitoring
- GOP3, PS: Sustainable forests: improved livelihoods for smallholder farmers through improved policies, incentives and financial opportunity,
- GOP4, PS: Waste management: through financing opportunities for waste segregation and participation of the private sector,

GGGI’s Approach to Green Recovery Plans development: As part of COVID recovery, the government is currently prioritizing a series of interventions that have the potential to be aligned with GGGI actions. These include financial incentives for smallholder agriculture (addressed in GGGI Norway project), mine site environmental damage (would be addressed in potential KOICA project), sustainable transport, solid waste management and others. GGGI will monitor post-COVID recovery efforts in order to propose possible projects in:

- **Solid Waste Management.** Medical and organic waste management requires financing for sustainability and is prioritized by the government.
- **Sustainable Transport.** Exploration of policy and financing activities with the Lima Metropolitan Transport Authority for innovative transport solutions.
- **Service Access for Off-Grid Communities.** Potential opportunities for climate financing for increased adaptive resilience for off grid rural communities

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI Peru’s resource mobilization strategy includes 1) Delivering strong results for existing projects, 2) Shepherding proposals developed in 2020, and 3) expanding GGGI’s donor base for the Peru country program. In addition to implementing the Norway-funded Agroforestry Concessions project, GGGI will focus on expanding its portfolio in solid waste management and green financing as Resource Mobilization priorities. **First**, GGGI will focus on ensuring that existing donor-funded projects, including the GGGI-Norway Agroforestry Concessions, and NDC Partnership CAEP deliver high quality results. **Second**, GGGI will shepherd proposals developed in 2020 towards approval and implementation. This includes (a) GCF Simplified Approval Project for solid waste; (b) KOICA proposal for remediating mine site environmental damage, (c) regional proposal on green finance which has been submitted to BMUB-IKI. **Third**, GGGI Peru will continue to seek new opportunities to expand its portfolio. GGGI has identified the Inter-American Development Bank as a potential donor in this area and will seek other partners for this work. In terms of Partnerships, GGGI will continue to ensure the strength of existing partnerships, particularly through the Norway-funded Agroforestry Concessions project which is being delivered in consortium with ICRAF and SPDA. These two organizations, in partnership with GGGI will jointly demonstrate the value of leveraging each institutions’ comparative advantage. GGGI will continue to hone partnerships with like-minded institutions in order to jointly develop projects or proposals to deliver value to the Government of Peru.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Peru for 2021-2022: **\$0.43 million**; Government counterpart contribution: **\$0.02 million**; and Partner co-financing of the program is expected at **\$2.28million** in the biennium for a total of **\$2.73 million**.

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization	
			Inception	Completion	GGGI	Gov ⁶²	Partner	Gap	Total		
2019-2020											
GOP1	Sustainable Mobility	Support for Transport Scrapping Program	02/2019	06/2019	.04					.04	Core funded project
GOP1	Green Investments	Financing Strategy for Water PES	01/2019	06/2019	.04					.04	Core funded project
GOP1	Green Investments	Environmental Safeguards for Agricultural Financing	02/2019	12/2019	.13					.13	Core funded project
GOP1, 3	Climate Resilient Ag, Green Investments	Norway Agroforestry Concessions	3/2020	2/2023			.68			.68	Earmarked proposal for activity financing
GOP4	Waste Management	Solid Waste Management	1/2020	12/2020	.11	.01				.12	Core funded project
GOP2,3	Climate Action	NDC Partnership	1/2020	3/2021	.03		.75			.78	Global earmarked proposal for
GOP2	Climate Action	Article 6	1/2020	3/2022			.01			.01	Global earmarked proposal for activity financing
GOP1	Green Investments	Support for Peru Green Bonds Initiatives	7/2020	12/2020	.02					.02	Core funded project
TOTAL					.37	.01	1.44			1.82	
2021-2022											
GOP1, 3	Climate Resilient Ag, Green Investments	Norway Agroforestry	2/2021	2/2023			1.3			1.3	Earmarked proposal
GOP4	Waste Management	Solid Waste Management	1/2021	12/2022	.23	.02				.25	IDB, GCF SAP, other earmarked financing
GOP2,3	Climate Action	NDC Partnership	1/2021	3/2021			.03			.03	Global earmarked proposal for activity financing
GOP3	Climate Action	KOICA Minesite Project	1/2021	7/2023	.10		.95			1.05	Earmarked proposal in process
Operations/ Project Preparation					.10					.10	
TOTAL					.43	.02	2.28			2.73	

⁶² Office workspace in Lima Municipality for solid waste project

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Inv. target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attrib.	Contributed		
GOP1, 3	PS1 PS2 PS3	Norway Agroforestry Concessions	1. Agroforestry Concession Plan Implementation Plans 2. Incentive structures designed for priority agriculture incentive programs 3. Commercial opportunity for priority agroforestry concession holders	Documents submitted to Peruvian government (AC implementation Plans, incentive proposals). Commercial opportunity documents	\$150,000	SO1		1424 GgCO ₂	IO1 IO2 IO3	Assumptions: Governments prioritize agroforestry concessions as part of land formalization and market insertion. Risks: COVID19 investments and other priorities reduce importance of land use formalization at the national and regional levels.
GOP4	PS6	Integrated Solid Waste Management	Market or household waste segregation program	Project documents submitted to Lima Municipality		SO1 SO3		0.0002 MtCO ₂ of organic waste valorization ⁶³ 0,0056 MtCO ₂ of biogas valorization ⁶⁴ 225,000 people ⁶⁵ access improved waste services	IO1 IO2	Assumptions: GCF approves waste segregation project, Lima Municipality promotes waste segregation Risks: Project non-approval, Lima Municipality does not prioritize waste segregation, markets or households do not participate
GOP2, 3	PS2	NDC Partnership	2050 Low Emissions development Strategy	Project document submitted to Ministry of Environment		SO2		Approximately 34,262 GgCO ₂ eq ⁶⁶	IO1	Assumptions: Ministry of Environment (MINAM) prioritizes MRV and NDC update and development Risks: MINAM or other sectors do not support MRV and NDC update
GOP3	PS1 PS4	KOICA Mine site Environmental Damage Project	Improved mine site damage environmental policy outputs Mine site damage investment strategy	Project documents submitted to Ministry of Energy and Mines		SO5		Approximately 1.2M hectares of adequate maintenance of natural capital (degraded hectares) ⁶⁷	IO1 IO2	Assumptions: project will be awarded by KOICA to GGGI Risks: Ministry of Energy and Mines prioritizes mine site environmental damage and project implementation
GOP1	PS1	Support for Peru Green Bonds Initiatives	Peru issues a US\$ 100 million sovereign Green Bond	Green Bond Framework and Prospectus		SO1, SO2		1 MtCO ₂ (to be confirmed) 10,000 green jobs created	IO2 IO3	Assumptions: Government remains committed to issue a bond by Q4 2021. COVID induced economic slowdown does not impair the ability to raise new debt. Peru maintains current credit rating. Risks: Lack of communication and conflicting priorities between ministries might lead to delays. Government staff is not able to follow GB pre- and post-issuance processes. Government might prioritize COVID recovery packages over climate change adaptation and mitigation plans

⁶³ Mitigation potential in valorization of organic waste is 0.0002, we are contributing an estimate of 5% for Lima of the organic waste potential targeted by the Peruvian government in the Grupo de Trabajo Multisectorial de naturaleza temporal encargado de generar información técnica para orientar la implementación de las Contribuciones Nacionalmente Determinadas (GTM-NDC), pp. 771 (https://cdn.www.gob.pe/uploads/document/file/302187/Informe-final-GTM-NDC_v17dic18.pdf)

⁶⁴ Mitigation potential in valorization of biogas is 0.0056, we are contributing an estimate of 2% for Lima of biogas potential targeted by the Peruvian government in the Grupo de Trabajo Multisectorial de naturaleza temporal encargado de generar información técnica para orientar la implementación de las Contribuciones Nacionalmente Determinadas (GTM-NDC), pp. 772 (https://cdn.www.gob.pe/uploads/document/file/302187/Informe-final-GTM-NDC_v17dic18.pdf)

⁶⁵ Population of Cercado de Lima, Lima.

⁶⁶ According to the 2012 national GHG inventory, total approximate emissions from priority sectors are approximately 171,311 GgCO₂eq. Peru's unconditional reduction commitment is 20% or approximately 34,262 GgCO₂eq. A Low Emissions Strategy that orients key sectors to establish and implement NDCs will contribute to the country-level reduction commitment. <http://www.minam.gob.pe/wp-content/uploads/2016/05/Tercera-Comunicaci%C3%B3n.pdf> (p.20)

⁶⁷ According to the OECD Evaluation Performance Assessment, Peru has approximately 1.2M hectares of affected aquatic basins in the Pacific and Amazon regions. The environmental mine site damage inventory cites approximately 8,616 mine site damage areas that affect Amazon and Pacific Basins. If we posit that improve mine site damage policy and investment will reduce the damage across these sites over the next 5-10 years, we can estimate improved land conditions in both regions. OCDE Estudio de Desempeño Ambiental (p.609) <https://sinia.minam.gob.pe/documentos/estudio-desempeno-ambiental>

MIDDLE EAST REGION

GGGI'S STRATEGIC APPROACH IN THE REGION FOR 2021-2022

GGGI has been active in the Middle East since its establishment as an international organization in 2012. Qatar and the United Arab Emirates (UAE) joined GGGI as founding contributing members and Jordan became a member in 2014. Other countries in the region also expressed interest in GGGI membership. To date, Kuwait is at the final stage of completing accession to GGGI while Bahrain also has an interest in joining particularly with the launch of GGGI project of developing national adaptation investment plan – in addition to implementing other relevant actions - funded by the UAE from 2020. Oil and/or gas rich countries in this region are taking concrete steps to ensure their smooth transition to a low carbon economy through economic diversification. Adaptation to the adverse impact of climate change and improvement of air quality are also key issues in their national agenda. Jordan, which is not an oil or gas producer, was an early mover in transition toward renewable energy, but continues to face severe economic challenges due to refugee crisis and the Covid-19 pandemic. Jordan is actively building its capacity to access climate finance to address these challenges.

In the next biennium, GGGI's work in the Middle East will focus on implementation of transformational green projects and increased access to green finance, building on past achievements jointly made by the GGGI and counterpart Governments. In Jordan, GGGI will support the implementation of the Green Growth National Action Plan 2021-2025 by enhancing access to climate finance. This includes increasing public and private sector investment in electric transport, supporting the WASH infrastructure in public schools, and building the economic case for sustainable forestry. In Qatar, GGGI will focus on climate resilience and green growth planning that includes updating the NDCs, developing a national MRV system and facilitating implementation of Qatar's pledge to support climate resilience in developing countries. GGGI is also supporting Qatar to develop green growth approaches aiming at economic diversification and achieving a zero waste World Cup in 2022. In the UAE, GGGI will build on its current initiative, focusing on accelerating climate action, air quality improvement and green investment. GGGI will actively discuss with other potential member countries in the region about its expanded operation in providing capacity development service and climate finance mobilization to support transitioning to a green economy.

<i>GOPs</i>	<i>Programmatic Solutions</i>	<i>Middle East Portfolio</i>
GOP 1. Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector	1. Green Investments (green bankable projects, NFVs, green and climate instruments, carbon-focused engagements)	UAE, Jordan
GOP 2. Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes	2. Climate Action (inclusive green growth plans, LT-LEDS, NDC support, MRV system design, climate diplomacy)	UAE, Bahrain (under UAE funding), Jordan
GOP 3. Achieving a sustainable and circular bioeconomy while securing healthy natural systems	3. Climate Resilient Agriculture (solar irrigation, RE application in agri-value chain, resilient cropping practices, resource conservation)	
	4. Sustainable Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	Jordan
	5. Coastal Resilience (mangroves as ecosystem for livelihoods, aquaculture, marine issues - fisheries, flood protection and pollution)	Bahrain (under UAE funding)
GOP 4. Making cities and communities sustainable, livable, and resilient,	6. Waste Management (circular economies, urban and agricultural waste,	Qatar, Jordan

supported through green jobs, services, and green infrastructure capital markets innovations)	wastewater, FSM, waste to resource)	
	7. Sustainable Mobility (e-mobility, non-motorized transport)	Jordan
	8. Green Buildings (green urban infrastructure norms/standards/policies, energy efficiency in residential & commercial buildings)	
	9. Solar PV (energy transition access and productive use - solar water pumping, solar PV auctions, rooftop, utility scale plants, storage)	
	10. Green Industries (green industrial parks, green supply chains, EE in SMEs, labelling and standards)	
GOP 5. Accelerating progress in our country programs in poverty eradication and gender equality through our operations.	Cross cutting	UAE

APPROACH TO GREEN COVID RECOVERY PLANS DEVELOPMENT

The COVID-19 pandemic has led to significant socioeconomic impacts in the region, including reduced revenues from falling oil and gas prices and cancellation/delay of capital projects collectively posing macroeconomic threats to the region. While most countries in the region prioritize emergency efforts to contain the spread of the pandemic and mitigate the risk of economic shocks, GGGI is working with respective Governments to take this crisis as an opportunity to increase their resilience and sustainability of growth. GGGI aims to support countries in formulating and implementing Covid-19 recovery packages that include significant green elements such as renewable energy, electric mobility, smart cities, circular economy and sustainable forest and agriculture value chain.

PARTNERSHIPS AND RESOURCE MOBILIZATION

In August 2020, GGGI signed a Host Country Agreement (HCA) with Qatar to officially open an office in Doha. It is working with the Government to finalize an earmarked funding agreement to support Qatar program activities for next three years, which is expected to be signed in Q3 of 2020. GGGI has also submitted a number of project proposals to the Qatar Fund for Development (QFFD) to secure financing to implement climate resilience and covid-19 recovery projects in developing country members. The UAE is supporting not only UAE program but also Bahrain project under the 2020-2021 funding commitment. UAE's financial support for 2022 and beyond will be decided in 2021. GGGI continues to explore financial opportunities for Jordan, including GCF, GEF, UNIDO, and other bilateral and multilateral donors. Given the interest in membership by Kuwait and Bahrain, GGGI will launch new country programs in line with its country program criteria.

JORDAN

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Jordan is an Upper-Middle Income Country with a population of over 10 million as of 2020, including an estimated 755,000 refugees from around the region. Jordan has experienced substantial economic hardship due to external economic shocks and limited access to natural resources. GGGI is based in the Ministry of Environment (MoEnv), where it has worked to strengthen the country's climate and green growth policy and investment frameworks. This includes developing the National Green Growth Plan (NGGP), the Green Growth National Action Plan 2021-25, and supporting the country's climate finance readiness. Jordan program has successfully laid the foundation for green growth in Jordan, but work remains to deliver on the NGGP's vision.

Green Growth Planning and Implementation Gaps Sector-level climate change and green growth mainstreaming as well as institutional coordination are critical implementation challenges raised in the NGGP. To address these gaps, GGGI funded the development of the Green Growth National Action Plan 2021-2025 (GG-NAP), a series of six sector-level implementation plans in key areas of public investment: Agriculture, Energy, Tourism, Transport, Waste and Water. The GG-NAP was approved by the Cabinet of Ministers in early 2020, and publication is expected before year-end. Sector mainstreaming will increase stakeholder buy-in for climate action in sector-level projects and the NDC enhancement process. To further strengthen institutional capacity, GGGI is supporting MoEnv (as both the climate and green growth focal institution) with establishing a Project Management Unit. Doing so will strengthen its coordination with the Ministry of Planning and International Cooperation (MOPIC) bring the green growth and climate change work more closely in line with MOPIC's SDG implementation activities and the development of Jordan's next national development vision. MOPIC and the Prime Ministry have expressed interest in working more closely with GGGI to achieve these objectives.

Enhancing Access to Climate Finance Even before the COVID19 crisis, the Government of Jordan was suffering from crippling high national debt at a debt-to-GDP ratio of 96.6%. The government is working closely with the IMF on servicing its debt by introducing new fiscal measures to increase revenues and decrease spending. All government spending is now linked to structural benchmarks closely monitored by the Ministry of Finance. Though major development banks have provided new concessional finance, investment in necessary infrastructure for green growth has slowed substantially. Climate finance is an opportunity for the government to maintain investment in resilient infrastructure and meet its NDC target of reducing GHG emissions by 14% by 2030 (1.5% unconditional, 12.5% conditional). In 2018-2020, GGGI supported MoEnv with developing its pipeline of climate investments and selecting a candidate Direct Access Entity to the Green Climate Fund (GCF). The accreditation application for the Cities and Villages Development Bank (CVDB) is under review by the accreditation panel with positive signals received. CVDB's accreditation will provide Jordan with access to new finance for low-carbon, climate resilient local development projects. Jordan program has responded to the MoEnv's request for further support, and submitted a 24-month, \$1.0mil follow-up readiness proposal to GCF for consideration.

Sustainable Transport Jordan's struggling transport system is one of its greatest green growth challenges, restricting access to employment, markets and education, and contributing to 16% of national GHG emissions. In 2018, GGGI invested in early-stage feasibility analysis in the e-mobility sector (developing the Amman e-BRT concept and market analysis for electric vehicle charging infrastructure). These experiences showed the high potential for Jordan to be a leader in its transition towards low-carbon e-mobility. However, to achieve this impact, the government needs much more support around market development, policy and strategic planning, and project design and finance. Jordan program is in advanced discussions with UNIDO to serve as implementing entity for a \$1.3mil GEF grant intended at preparing the market for investment in EV charging infrastructure, and will continue to seek other opportunities to support the Ministry of Transport, Greater Amman Municipality and other municipalities in their efforts.

II. COUNTRY PROGRAM

Areas of Focus: GGGI Jordan's 2021-22 WBP will build on experience, knowledge, and results accumulated since 2014 in support of the country's National Green Growth Plan, and Green Growth National Action Plan 2021-2025. The projects to be implemented during 2021-2022 will contribute to greening the Jordan's post-COVID-19 recovery efforts, leading to a more resilient and sustainable future.

GGGI supports Jordan with a focus on the following development objectives:

- GHG mitigation and adaptation – 14% (1.5% unconditional vs. 12.5% conditional on external support) - NDC
- Increasing access to finance for climate and green growth (including but not limited to GCF) - NGGP
- Increasing institutional capacity to implement green growth – NGGP
- Increase access to sustainable transport to foster low-carbon and inclusive cities and communities - Vision 2025 / Long-term National Transport Strategy / Transport Sector GG-NAP 2021-2025
- Increase coverage of forests – Vision 2025 /National Agriculture Sector Development Strategy / Forest Sector Action Plan (Draft) / Agriculture Sector GG-NAP 2021-2025

But focusing on these areas, GGGI will contribute to:

- SO1 GHG emissions reduced through sustainable transport interventions and forestry interventions.
- SO2 Green jobs created through sustainable transport interventions and forestry interventions.
- SO3 Increased access to sustainable services (focus on public transport).
- SO4 Improved air quality as a result of sustainable transport interventions.
- SO5 Adequate supply of ecosystems services through forestry interventions.
- SO6 Enhanced adaptation to climate change through forestry interventions.

With a specific focus on the following Global Operational Priorities:

GOP1 – Catalyzing and accelerating access to climate finance/green investments for members' public and private sectors

- Develop e-Mobility business solutions to make investment-ready projects that will support the sustainable development of urban centers that highly depend on viable electric mobility solutions.
- Open and promote opportunities for green investments for sustainable landscapes with increased engagement with the public and private sector, particularly in the area of forestry.
- Support the development of innovative financing mechanisms to raise additional non-traditional funds for green investments, such as NFVs, bankable projects, carbon markets, green bonds, public-private partnerships, and de-risking instruments.

GOP2 – Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes

- Strengthen and support NDC planning, modeling, and implementation and capacity development of Members.
- Strengthen the climate action ability of Members to raise their ambitions in supporting and advocating climate change and actions, including support for carbon market development and capacity building for local governments.

GOP3 – Achieving a sustainable and circular bioeconomy while securing healthy natural systems

- Develop forest bioeconomy in forested landscapes, through designing investments with green and inclusive business models, optimizing value chain efficiency, and incentivizing sustainable forest and land management, including agroforestry and restoration interventions and enhancing green technologies and circularity, supported by policy and financial solutions.
- Promote innovations in natural capital markets, through the design of projects that value specific natural capital assets (carbon, water, biodiversity) and associated ecosystem services and those that value nature as organic infrastructures, which helps reduce climate risks. Projects can include protecting natural systems through insurance schemes, bonds, and results-based payments. Interventions within the Reducing Emissions from Deforestation and Forest Degradation (REDD+) framework, Article 6-related transactions, and other international and national mechanisms are relevant and will adopt a localization approach that recognizes rights and interests of local communities.

GOP4 – Making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure

- Promote e-mobility transport options in urban and rural areas — such as BRT, electric cars, and non-motorized transport (NMT) options — using enhanced technology and supportive infrastructure to utilize renewable energy, reducing reliance on fossil fuels and GHG emissions and improving air quality.

GOP 5 – Accelerating progress in our country programs in poverty eradication and gender equality through our operations

- Align NDC and SDGs objectives with poverty eradication and gender equality through green growth interventions in all Global Operational Priority areas.
- Enhance economic empowerment and livelihoods — particularly for youths, women, and informal sectors — promoting opportunities for decent green jobs and economic opportunities in transport, agriculture, forestry, eco-tourism, and waste management.

GGGI's Approach to Green COVID Recovery Plans Development: The unexpected shock of the COVID-19 pandemic adds even more pressure to the already struggling economy. In response, the Government will grapple with maintaining its control of public health while also developing a stimulus package to respond to its third major crisis in 12 years. The concept of green growth and GGGI as its flag bearer are well-placed to support the government with developing a green stimulus. From GGGI's 'home base' in the Ministry of Environment, Jordan program will work with the MoENV, mainly the Green Economy Unit, the Climate Change Directorate and the Ministry's leadership to develop and deliver strategic messages to the high-level economic and strategic planning institutions in the country, including the Ministry of Planning and International Cooperation (MOPIC), the Ministry of Finance, the Prime Minister and the Royal Court. Efforts will be taken to strengthen the linkages between the MoEnv and MOPIC, in particular.

The Government is currently working to develop a recovery strategy through the formulation of a public-private Advisory Council to the Prime Minister. By the end of 2020, MOPIC will have reviewed all national plans and strategies to undertake a prioritization exercise for the development of the post-2025 vision and strategy. Jordan program aim will be to 1) support implementation of this recovery strategy through its current and future project proposals and 2) mainstream green growth and climate change into the post-2025 development vision.

Jordan's tourism and hospitality sector, which contributes to roughly 10% of its GDP, will be particularly hard-hit by the COVID-19 crisis. GGGI's work in the forestry sector will be shaped to focus on the green job and livelihood creation potential of the sector. Additional projects in the eco-tourism sector that involve restoring degraded landscapes to create employment and accelerate recovery from post COVID-19 pandemic will be considered.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI Jordan continues to build ties with donors such as the Green Climate Fund (GCF), the Global Environment Facility (GEF) and UNIDO, and partners such as the World Food Program (WFP) and NDC Partnership to mobilize resources toward green growth implementation in Jordan, key potential contributors to the implementation of the 2021-22 country program. Other initial discussions have taken place with: AFD, UNEP, EU.

Jordan program is also working with the Ministry of Environment to improve donor coordination with development partners working in the climate change and environment space, including GIZ, World Bank, UNDP, UNEP, EBRD, NDCP, EIB, USAID and others. If implemented successfully, this will help provide some attention to GGGI's program in Jordan.

IV. INDICATIVE RESOURCE ENVELOPE (Minus Scenario)

Indicative planning figure for GGGI Core resources for Jordan for 2021-2022: Core from GGGI: **\$0.18** million; Government counterpart funding/contribution: **\$0** million, In-kind: **\$0.03** million; and Partner co-financing of the program is expected at **\$1.73** million in the biennium for a total of **\$1.94** million.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov	Partner	Gap	Total	
2019-2020										
GOP 1 GOP 2 GOP 4	PS1 Mainstreaming	NGGP Action Planning (JO02)	Aug 2018	Dec 2019	0.29	0.03	0	0	0.33	Core (JO2)
GOP 1 GOP 2	PS1 PS2	Improving Jordan's Readiness to Access Finance for Climate Change and Green Growth in Jordan (JO3)	May 2018	Dec 2020	0	0	0.66	0	0.66	Earmark – GCF Readiness (JO3)
GOP 1 GOP 2	PS1 PS2	Preparing Jordan's NDA and DAE for Partnership in Climate Action through GCF Direct Access (JO4)	Dec 2020	Dec 2020	0	0	0.27	0	0.27	Earmark – GCF Readiness (JO4)
GOP 1 GOP 2 GOP 4	PS1 Mainstreaming	Implementation Support for Jordan's GG-NAP (JO05)	Jan 2020	Dec 2020	0.18	0	0	0	0.18	Core (JO05)
TOTAL					0.47	0.03	0.93	0	1.43	
2021-2022										
GOP 1 GOP 2	PS1 PS2	Preparing Jordan's NDA and DAE for Partnership in Climate Action through GCF Direct Access (JO4)	Dec 2020	Dec 2022	0	0	0.73	0	0.73	GCF Readiness. Proposal submitted, approval pending.
GOP 1 GOP 4	PS1 PS7	Scaling up access to sustainable transportation and mobility services in Jordan	Jan 2021	Dec 2022	0.1	0.03	0.5	0	0.63	Assuming \$0.5 M grant for two-year project (UNIDO-GEF)
GOP 1 GOP 3 GOP 5	PS1 PS4	Development and Implementation of a National Afforestation Project	Jan 2021	Dec 2022	0.07	0	0.5	0	0.57	Seeking gap for funding from WFP
Unallocated core funding					0	0	0	0	0	
Operations/ Project Preparation					0.01	0.03	0	0	0.01	
TOTAL					0.18	0.03	1.73	0	1.94	

V. RESULTS FRAMEWORK

GOP	PS	Projects	Outputs	Verification	Invest. Targets	SOs	SO, Impact Estimation		IOs	Assumptions (A) and Risks (R)
							Attributed	Contributed		
GOP4	PS1 Cross-cutting	Phase II: Implementation of the NGGP for Jordan	Green jobs recommendations used in policies First report on state of green growth in Jordan published Capacity built within MoEnv and MOPIC for NGGP data collection, M&E, and reporting Jordan Environment Fund strengthened	Green Jobs policies developed Annual report validated by Higher Steering Committee for Green Economy Capacity building program assessment reports	NA	SO1, SO2	not qualifiable output	GGGI will contribute the government target	-GHG emissions reduced -Energy efficiency improved -Investment and technological innovations in low-carbon passenger vehicles scaled	A: Rely to the extent possible on the experience of the UAE, support of TL/ILO/WANA R: Managing stakeholder expectations challenging R: WANA Inst. will perform baseline assessment
GOP1	PS1 Cross-cutting	Phase II: GCF Readiness Program	One institution strengthened/capacity built and application for its DAE accreditation approved by GCF Private sector stakeholders pledge to increase investment in green projects in line with NDC	Updated operations manual reflects GCF requirements and standards for accreditation NDA letter submitting DAE app. 1 SAP or PPF approved	NA	SO1, SO6	Not qualifiable output	GGGI will contribute to the government target		A: Support program builds on Phase I activities R: DAE App. process may take longer than anticipated R: No private sector consortium
GOP4	PS7 PS8	Scaling up access to sustainable transportation and mobility services in Jordan	Policy and regulatory recommendations to support EV charging infrastructure market approved to govt EV charging infrastructure projects prepared for bankability Government capacity to improve electric mobility in Jordan strengthened BRT ridership campaign and strategic comms plan implemented Up to 2 Bankable projects	Policy recommendations approved by relevant govt bodies Capacity building program results report PTD staff hired to support public outreach of BRT project full time Finance is secured for bankable projects; SES applied Project monitoring, annual results, completion and evaluation reports	15M	SO1, SO2, SO3.4, SO5	To be estimated when the projects get defined.	To be estimated when the projects get defined.	-GHG emissions reduced -Energy efficiency improved -Investment and technological innovations in low-carbon passenger vehicles scaled	A: Relationship with National Commission for EVs critical A: Impact of transport work on women, youth and the poor must be carefully mainstreamed R: GGGI does not have in-house expertise on EVs R: Roles in govt around e-mobility are not clear A: Government/donor funding allocation for infrastructure

			developed in the sustainable transport/e-mobility sector							component R: Implementation delays relating to COVID-19 pandemic
GOP1	Green Cities: SWM / Low-Carbon Cities PS8	Technology and knowledge transfer facility for private sector investment in smart urban development	Capacity built for private sector stakeholders around technologies and business models in key sectors (energy and waste) Business case for relevant services or technologies developed and transferred Up to 2 Bankable projects developed in the waste and/or energy sectors	Capacity building results report Businesses (SMEs) in Jordan integrate technologies and/or services for waste separation, recycling, collection, energy efficiency, renewable energy Finance secured for bankable projects in the waste and/or energy sectors; SES applied Project monitoring, annual results, completion, and evaluation reports	20M	SO1, SO3.1, SO3.3	To be estimated when the projects get defined.	To be estimated when the projects get defined.	- Strengthened national, sub national local green growth planning and institutional frameworks -Increased to sustainable services	A: Private sector actors are interested in participating in tech/knowledge transfer A: Tech./knowledge is linked to green jobs and social inclusion goals R: Private sector actors do not want to invest in technologies or business models after program is delivered
GOP3	PS 4	Develop and Implement a National Afforestation program in Jordan investments with green and inclusive business models	Capacity built for key stakeholders, including government partners, civil society etc. around CO ₂ sequestration and financing solutions for sustainable forests Developed concept notes and policy documents for forest restoration fund. Designed a proper financing mechanism to support project implementation Assessed on funding opportunities.	Capacity building program results report Policy recommendations approved by relevant govt bodies Project monitoring, annual results, completion, and evaluation reports	18M	SO1, SO2, SO5, SO6	Not qualifiable output	Not qualifiable output	- Strengthened national, sub-national local green growth planning and institutional framework -National, regional, and global capacity improved	A: Donor funds available; government commitment;

QATAR

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Qatar National Vision 2030 (QNV) indicates diversification of the economy from a fossil-fuel based model as one of the priority goals. Green economy approaches, including investments in areas contributing to food self-sufficiency, knowledge economy, and environmental sustainability, are considered among means of economic diversification. Climate action, especially climate “adaptation with mitigation co-benefits” is of strategic importance for their strong interlinks to pollution, health and economy. The current National Development Plan states: “adapting to and mitigating the impact of climate change has become imperative for, and central to, the national sustainable development policy as climate change is already affecting Qatar”. The average temperature in Qatar has risen 0.3 °C over the past 40 years and projected to increase 1.5-3 °C by 2050 and 2.3-5.9°C by 2100. Negative effects from climate change, such as greater water stress, extreme rainfall events, and heat waves, would adversely affect the health and quality of life of the population and the economy. With more than 95% of the population living in shallow coastal areas, a 5-meter rise in sea level would lead to ~20% of Qatar flooded by the end of the century with implications on built infrastructure and industrial plants.

A number of major corporations, government agencies and academia in Qatar have sustainability or climate change strategies and initiatives. The country is pursuing a Zero Carbon World Cup in 2022. However, initiatives are not guided by a strong shared national vision, and institutional readiness around climate change planning and implementation need strengthening. With this backdrop, GGGI’s counterpart Ministry of Municipality and Environment (MME) sought the Institute’s support in 2019 to strengthen the policy, institutional and monitoring readiness in national climate change and green growth planning and implementation. Limited technical capacity and relevant capacity-building need for the ministry was highlighted.

GGGI opened its Qatar Program officed in Jan 2019 based out of MME, and following start-up and first phase of activities with the MME and the Ministry of Foreign Affairs (MOFA) were carried out:

- Agreed on a multi-year MoU and earmarked funding agreement and Host Country Agreement (HCA). The HCA is officially approved and will likely to be signed soon (as of July 31). The MoU is in final stage of approval.
- Developed relationship with key Qatari entities including the Qatar Fund for Development (QFFD) – major development donor – and submitted of 7 proposals worth close to \$15 for funding projects in several GGGI SIDS and LDC member countries – 5 proposals have been selected for submission of full proposals to QFFD (as of July 31)
-
- Developed a 3-year work program for the Qatar Program by consulting with MME, key stakeholders and other ministries to support the State of Qatar in 7 major areas of green growth planning and implementation.
- Conducted a scoping assessment to formulate a roadmap to develop a national MRV system for Qatar.
- Conducted a Green Growth Potential Assessment (GGPA) of Qatar for prioritizing options for a national green growth strategy.
- Conducted three capacity development and national policy dialogue workshops to support NDC revision, greenhouse gas MRV system development and climate negotiations.
- Advising the State of Qatar in the process to submit a revised NDC in 2020 or early 2021.

II. COUNTRY PROGRAM

Areas of Focus: GGGI Qatar’s activities in 2021-22 will be guided by the jointly agreed GGGI-Qatar 3-year Work Program with a focus on climate resilience and green growth planning and implementation in the State of Qatar (SoQ). Activities delivered are subject to the receipt of earmarked funding and should be considered tentative. These will support and will contribute to:

- SO 1: Greenhouse gas reduction, through an enhanced climate change plan (NDC), NDC governance framework, and GHG monitoring system (MRV) implementation
- SO 3.3: Enhanced access to sustainable waste Management, through implementation of a Zero Waste World Cup 2022 strategy and formulation of investment proposals
- SO 6: Enhanced adaptation to Climate Change, through formulation and implementation of a national adaptation action plan

With a focus on:

- GOP 1 – Programmatic solution 1. Green Investments, through investment proposals for waste management projects inside Qatar, and securing Qatari funding for climate resilience projects in other GGGI LDCs and SIDS.
- GOP 2 - Programmatic solution 2. Climate action, through supports towards Qatar NDC revision and adaptation action plan development, development of a Qatar Green Growth Strategy, and development of a Qatar national MRV system.
- GOP 4 - Programmatic solution 6. Waste Management through development and implementation of a Zero-waste World Cup 2022 strategy.

Qatar is also included in GGGI's Building Efficiency global program. However, this will be confirmed once the MoU is signed with the State of Qatar.

GGGI's Approach to Green COVID Recovery Plans development: Qatar is better positioned than its peers in the Middle Eastern region due to its solid fiscal base, efficient governance system, and successful handling of the pandemic. Nevertheless, its economy will be hurt like many countries. Economic impact in Qatar will stem from reduced revenues from a short-term fall in natural gas sales and prices, fall in tourism, and delay/cancellation of capital projects within the country. Specific COVID recovery packages are yet to be announced but likely to be around enhancing efforts in self-sufficiency in food production, and enhancing international diplomacy through various means including Qatari funding to humanitarian and climate efforts in SIDS and LDCs, and bolstering image-boosting efforts at international stage through a revised NDC and World Cup related sustainability initiatives. GGGI aims to get directly involved in climate-smart health and economic diversification policymaking.

Other notable measures include customs duty exemption for food and medical equipment items, and government's partnership with Microsoft to implement modern workplace solutions such as Microsoft Teams to enhance productivity. GGGI also uses Microsoft teams and this will likely foster better communication and collaboration with GGGI and other government entities.

Activities, particularly the green growth strategy and adaptation planning will need to be scoped around minimizing impacts on public health by aligning with smart city approaches and urban health strategies.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI's Resource mobilization and Partnerships strategy in Qatar is as follows: First, secure earmarked funding from the SoQ and deliver high quality results that directly satisfies national sustainability and economic diversification goals. While an earmarked funding agreement with the SoQ is now expected in mid-2020, the key to ensuring long-term engagement in the country will be to demonstrate value of the cooperation program for Qatar and delivering on the agreed activities with focal ministries in 2021 and 2022– exact activities will be decided closer to funding agreement signing. The scoping phase in 2019 has already delivered satisfactory outputs and will build on this experiences and expanded network. Second, GGGI will explore potential sources of earmarked funding from other entities in Qatar such as the Supreme Committee for Delivery and Legacy and Qatar Foundation. Third, GGGI will work with the Qatar Fund for Development (QFFD) to identify opportunities of international cooperation on green growth and climate resilience between Qatar and other developing member countries. Fourth, GGGI will work with stakeholders across the government entities, multilateral agencies, academia and the private sector to identify synergy in delivering green growth interventions in Qatar. The GGGI Qatar's 3-year Work Program outlines MME as the primary partner and more than 10 other ministries, government agencies, corporations and universities as project or knowledge partners.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for in-Qatar activities for 2021-2022: **\$0** million; Government contribution: **\$5** million; and Partner in-kind contribution to the program is expected at **\$0.1** million in the biennium for a total of **\$5.1** million. In addition, **\$1.2** million of staff salary is targeted to be mobilized from successful funding from Qatari entities such as QFFD for project proposals in GGGI countries. Other investment mobilization targets will be made available after concluding the GGGI-SoQ MoU.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding				Resource Mobilization	
			Inception	Completion	GGGI	Gov ¹	Partner	Gap		Total
2019-2020										
GOP2	PS2	Qatar Green Growth Program – scoping (NDC, MRV, green growth strategy)	01/2019	12/2020	0.34	0.8	0.05	0	1.19	Government resource estimate is approximate likely earmarked funding by SoQ apportioned for 2020. This amount will arrive after GGGI-SoQ MoU/earmarked funding agreement is concluded, assumed to be by mid-2020.
GOP1	PS1	Resource mobilization from QFFD for projects in GGGI countries	01/2020	09/2020	0	0.8		0	0.8	Govt. funding here is the target GGGI staff salary mobilization from projects supported by the QFFD. This assumes that QFFD selects a number of GGGI-submitted project proposal, worth USD 2 M for 2020, and 40% is for GGGI staff salary (USD 2M x 0.4)
TOTAL					0.34	0.8	0.05		1.19	The TOTAL only includes amount for activities within Qatar (first line item). The TOTAL consists of operational and staff costs.
2021-2022										
GOP2	PS2	Qatar Climate Resilience and Green Growth Program	01/2021	12/2022	0	0.1	5.0	0	5.1	Govt funding is approximate likely earmarked funding by the SoQ. This amount will be confirmed after GGGI-SoQ MoU/earmarked funding agreement is concluded, assumed to be by mid-2020. In-kind contributions from focal ministry MME contributing to GGGI activities is listed in partner funding.
GOP4	PS6									
GOP1	PS1	Resource mobilization for projects outside of projects	01/2021	12/2022	0	0	1.2		1.2	Govt. Funding here is the target GGGI staff salary mobilized from projects financed by the QFFD. This assumes that QFFD selects a number of GGGI-submitted project proposals worth USD 3 M for 2021-22, and 40% is for GGGI staff salary (USD 3M x 0.4) (part of this]amount has likely been also reflected in y CBPs where projects are implemented.
Operations/Project Preparation						--	--		--	
TOTAL					0	0.1	5.0	0	5.1	The TOTAL only includes amount for activities within Qatar (first line item). The TOTAL consists of operational and staff costs.

V. RESULTS FRAMEWORK

GOP	PSs	Project	Output	Verification	Investment Target	SOs	SO Impact Estimation		IOS	Assumptions and Risks
							Attributed	Contributed		
GOP2	PS2	Qatar NDC implementation	NDC revision/institutional structure Adaptation plan – assessments and consultation	NDC revised Workshops completed and report prepared	NA	SO1 SO5 SO6	NA	N/A	IO2	COVID-19 situation Earmarked funding agreement delay
GOP2	PS2	Qatar MRV development	MRV sector guideline for 1 sector	Guidelines developed	NA	SO1	NA	N/A	IO1	Same as above
GOP2	PS2	Qatar green growth strategy	GGPA full completed, and national shared vision developed	GGPA report National vision statement	NA	SO1 SO3.3, SO4, SO5, SO6	NA	N/A	IO1	Same as above
GOP3	PS6	Zero Waste World Cup	Zero waste world cup strategy draft Waste management investment proposal	Draft strategy Proposal in GO	\$ USD 20 million ⁶⁸	SO3.3, SO1	1.2 million tCO ₂ e ⁶⁹	N/A ⁷⁰ ,	IO2	Same as above
GOP1	PS1	Resource mobilization for ex-Qatar projects	Proposals	Signed Funding Agreement(s)	NA		NA	N/A ⁷¹	IO1	NA

⁶⁸ This target would need to be revised after conclusion of the MoU/ earmarked funding agreement. The assumption is based on a 150 tonne/day capacity MSW plant.

⁶⁹ High level estimate based on only avoided landfill (rounded estimate of assumed landfill emission of 1.3 tCO₂e/tMSW, operating 365 days at 80% capacity for 20 years = 1.3*150*0.8*365*20).

⁷⁰ Qatar doesn't have an economy-wide or waste-sector GHG emissions reduction target.

⁷¹ This will be incorporated in respective country CBPs where the projects will be implemented.

UAE

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Since 2011, GGGI has been playing a key role in supporting the UAE's transition toward a green economy. Through the development of the National Green Growth Strategy and the National Climate Change Plan, which were both approved by the UAE Cabinet in 2015 and 2017, respectively, GGGI has helped establish a solid enabling policy framework for green growth in the UAE, thereby setting an example for other hydrocarbon-based economies in the Gulf region. To implement these policies, GGGI's 2019-2020 work program focused on developing the national air emissions inventory and air quality strategy; carrying out climate risk assessment and sectoral adaptation action plans; and fostering international cooperation on climate action with Morocco and Bahrain.

Going forward, the principle of sustainable development still underpins the UAE's post-Vision 2021 national development strategies. Thus, the UAE strives to achieve their SDG and NDC commitments as key development outcomes throughout the decade. Against this backdrop, GGGI hopes to help fill the following gaps by further strengthening its core activities in GOP 1 (Green Investments) and GOP 2 (Climate Action). The UAE's biggest development challenges related to SDG and NDC implementation are as follows:

- The UAE ranks the highest in the Gulf region in achieving the SDGs, specifically SDG 1 (ending poverty), SDG 10 (reduced inequalities), SDG 16 (peace and justice), and SDG 17 (partnerships for the goals); however, the country needs to catch up globally in SDG 6 (water), SDG 12 (responsible consumption and production), and SDG 13 (climate action).
- The UAE's economic foundation is still heavily reliant on revenues from fossil fuel exports although economic diversification efforts are also underway. Amid the material prosperity, the country is facing tremendous environmental pressures such as water scarcity and increasing vulnerability to extreme weather and climate events due to its hyper-arid geography. The high living standards and levels of energy and material consumption have resulted in excessive inefficiencies and waste. Rapid urbanization and increasing population are compromising air quality, which is further exacerbated by dust and desert sandstorms. Given these challenges, the UAE needs to raise its ambitions to accelerate the transition toward green growth.

II. COUNTRY PROGRAM

Areas of Focus: In partnership with the Ministry of Climate Change and Environment (MOCCA) and other relevant stakeholders, GGGI will continue to support the UAE in adopting a more sustainable development model through green economy, focusing on accelerating climate action and green investments. In support of the UAE Vision 2021 and the UAE Centennial 2071, GGGI will contribute to:

- SO 1, GHG emission reduction: Building upon the National Climate Change Plan and the National Air Quality Strategy, an implementation of national/sub-national emission monitoring and mitigation measures in the key polluting sectors can contribute to GHG emission reduction.
- SO 2, Creation of green jobs: Implementation of green finance framework and development of the private sector and youth capacity can promote development of green investment projects and green jobs.
- SO 4, Improved air quality: Implementing the National Air Quality Strategy and sectoral action plans can strengthen the UAE's capacity to mitigate air pollutions and improve air quality, as well as associated health and well-being of the people of the UAE.
- SO 6, Enhanced adaptation to climate change: Implementing adaptation measures can increase the adaptive capacity of the UAE to cope with climate risks, thus strengthening long-term resilience.

With a focus on:

- GOP1, Green Investment: GGGI will support the UAE's capacity to develop, mobilize, and implement green investments that will support realizing green growth policies and

strategies, as well as the UAE's NDCs and SDGs.

- **GOP 2, Climate Action:** GGGI will shift the focus of adaptation interventions in the UAE from planning to implementation of tangible adaptation measures in critical sectors, including support to Bahrain as part of the UAE's global adaptation efforts.

GGGI's Approach to Green Recovery Plans development: The COVID-19 pandemic has led to unprecedented socioeconomic impacts in the UAE affecting multiple sectors. Business activities in the non-oil private sector declined as firms suffered from significant output reduction, supply chain disruptions, and unemployment. To address the negative impacts of COVID-19 on the national economy, the UAE government set up an Interim Committee led by the Ministry of Economy. Initially, the UAE Central Bank committed USD 35 billion as stimulus economic package, which was then doubled to USD 70 billion considering the widespread impacts of the pandemic. The UAE Cabinet also approved an additional USD 4.3 billion to sustain businesses.

As the government prioritizes emergency relief efforts to contain the spread of the pandemic and mitigate the risks of economic shocks, GGGI-UAE's approach is not to waste the opportunity to support planning for a sustainable, just, and resilient recovery through its own project portfolio. For example, GGGI's adaptation work with the UAE Ministry of Health and Prevention (MOHAP) identifies the risk of increased mortality or morbidity from the aggravation of respiratory problems, including infectious viral diseases. Adaptation measures going forward to address this risk should thus serve as an impetus for a more resilient healthcare system characterized by stronger absorptive capacity, social protection instruments, renewable energy, and disaster-proof hospital buildings. GGGI will also continue to boost efforts to improve air quality as it can relieve the burden on healthcare system through reduced incidences of respiratory diseases including COVID-19. As soon as the UAE government starts to design a comprehensive recovery plan, GGGI-UAE will further identify strategic entry points for a greener recovery by doubling down on low-carbon activities integrated with broader socioeconomic and environmental sustainability goals.

The UAE is setting a great example for other countries in responding to the COVID-19 pandemic through its massive testing laboratories, nationwide sterilization program, strict reinforcement of quarantine and social distancing measures, and quality healthcare for its citizens and residents. The UAE is thus in a favorable position to turn this crisis into an opportunity, in which green growth is well integrated into its COVID-19 recovery efforts. In May 2020, the Ministry of Economy announced a two-phased strategic framework to address the impacts of COVID-19. The first phase is the short-term massive stimulus plans targeting the most affected sectors including SMEs. The second phase is the long-term recovery package to accelerate sustainable economic growth in areas with high growth potential including renewable energy, electric cars, smart cities, circular economy, Artificial Intelligence, blockchain, 3D printing, robotics, biotechnology, and genetic engineering.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

The UAE government provides earmarked funding to the UAE Country Program through MOCCA. UAE's current funding commitment will continue until 2021. The funding decision for 2022 is yet to be confirmed by MOCCA, but GGGI trusts that a strong partnership will continue with UAE.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for UAE for 2021-2022: **\$0** million; Partner co-financing of the program is expected at **\$3.0** million in the biennium for a total of **\$3.0** million.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding			Resource Mobilization	
			Inception	Completion	GGGI	Partner	Gap		Total
2019-2020									
GOP 2	PS2	National Air Quality Program	Jan 2019	Dec 2020		0.5		0.5	Full earmarked budget from MOCCAЕ
GOP 2	PS2	National Framework for Action on Climate Change Adaptation	Jan 2019	Dec 2020		0.6		0.6	Full earmarked budget from MOCCAЕ
GOP 5	Cross-cutting	Green Agenda Policy Advisory	Jan 2019	Dec 2020		0.3		0.3	Full earmarked budget from MOCCAЕ
GOP 1 GOP 2	PS1 PS2	Private Sector Engagement and Green Investment Mobilization	Jan 2020	Dec 2020		0.1		0.1	Full earmarked budget from MOCCAЕ
GOP 2 GOP 3	PS2 PS5	International Cooperation with Morocco Bahrain	Jan 2019 Jan 2020	Dec 2019 Dec 2020		0.3 0.3		0.3 0.3	Full earmarked budget from MOCCAЕ: Morocco (2019) Bahrain (2020)
		Project Management	Jan 2019	Dec 2020		0.9		0.9	Full earmarked budget from MOCCAЕ
TOTAL					0.0	3.0	0.0	3.0	
2021-2022									
GOP 1 GOP 2	PS1 PS2	TBD	Jan 2021	Dec 2022		3.0		3.0	Full earmarked budget from MOCCAЕ (2021 confirmed; 2022 TBD)
Operations/Project Preparation									
TOTAL					0.0	3.0	0.0	3.0	

V. RESULTS FRAMEWORK

The planning process for the UAE Country Program follows the ministerial planning activity of MOCCAЕ, which is conducted on an annual basis. Hence, the details for 2021 and 2022 work program will be discussed with and confirmed by MOCCAЕ at the start of 2021 and 2022, respectively.

HUNGARY

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI operation in Hungary started in 2017. Working with the Government of Hungary (GoH) - and more specifically the Ministry for Innovation and Technology (GGGI focal point) - GGGI has supported the development of the Western Balkans Green Center (WBGC) and mobilized about USD 6M for project preparation in the Western Balkans (WB). GGGI is also facilitating climate cooperation between Hungary and Serbia working at city level. In 2020, GGGI started working on Hungary's long-term low emissions development strategies (LTS) and supporting policy development under the European Green Deal.

While the focus of the CBP is on the Hungary program, the Office also supports liaison with the EU, members and development partners in the region. The network established in the region is growing. It is planned to continue building our presence in the region and strengthening cooperation with Central European and Western Balkans countries during 2020-21-22⁷².

Hungary has set the goal to achieve climate neutrality by 2050. GGGI is supporting the GoH developing the vision and plan to achieve climate neutrality by 2050. GGGI is also supporting the GoH under the European Green Deal with the policy support. In 2021 onwards, GGGI aims to continue working with Western Balkans countries with the development of a portfolio of green projects under the WBGC and the scaling-up of the climate work in other Serbian cities⁷³.

The program in Hungary and the region focuses on the Global Operational Priorities (GOPs) 1, 2 and 4, respectively: GOP 1. Catalyzing and accelerating access to climate finance / green investments for members' public and private sector; GOP 2. Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes; GOP 4. Making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure.

The choices of GOPs are aligned with Hungary's national priorities as well as EU directives and obligations of EU Member States which are required to develop national long-term strategies under the Paris Agreement. In the WB, the GOPs are aligned with the enlargement agenda of the EU.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Hungary and partner countries in the region the following Strategic Outcomes: SO1: Reduction of GHG emissions, at national and city level; and SO2: Green jobs creation. With a focus on:

- GOP1, Programmatic Solution 1. Green Investments – with support the development of bankable projects under the WBGC; bankable projects in cities in Serbia (with focus on waste management and energy efficiency in buildings); just transition plan in Hungary (mobilize 10M).
- GOP2. Programmatic Solution 2. Climate Action - with the delivery of the LTS in Hungary and climate actions plans in cities in Serbia.
- GOP 4. Programmatic Solutions 6 and 8. Waste Management and green buildings -with bankable projects in Serbian cities in the waste sector and energy efficiency/renewable energy in building.

GGGI's Approach to COVID Green Recovery Plans development: The COVID crisis has brought unprecedented challenge in Europe with very severe economic consequences. While elaborating the LTS, GGGI will be looking at the economic dimension, assessing green jobs creation potential at macroeconomic level and formulating policy recommendations for climate neutrality by 2050. The development of the portfolio under the WBGC and the scaling-up of the low-carbon and climate resilient cities program in Serbia will also be framed in the context of the COVID-19 recovery, aiming at scaling-up green jobs creation in relevant sectors (with focus on renewable energy and energy efficiency in buildings and waste sectors).

⁷² Since in Q4 of 2019, GGGI established its European Office in Budapest, thanks to the support and in-kind contributions of the Ministry for Innovation and Technology.

⁷³ Under discussion

III. PARTNERSHIP AND RESOURCE MOBILIZATION

The Partnership between the Ministry for Innovation and Technology (MIT) and GGGI has expanded over the years, starting in 2017 with a project office, to the establishment of the European Office in Budapest in Q4 of 2019. Recently, GGGI was selected by MIT to develop Hungary's long-term low emissions development strategy (LTS) and support policy development under the European Green Deal. With this new earmarked project, GGGI is building partnership at country level with other ministries, professional organizations, agencies, clusters and research institutes. GGGI also aims to increase its visibility at national level and European level.

GGGI is working on strengthening cooperation with the Ministry of Finance to design measures to accelerate investments in green projects (under discussion). GGGI is also maintaining an active dialogue with the Ministry of Foreign Affairs and Trade of Hungary and the Hungarian Export Promotion Agency (HEPA) which are both following closely GGGI's work in Serbia. Discussion are progressing for cooperation in the Western Balkans.

GGGI has recently joined forces with the WBGC to mobilize resources to scale-up green investments in the WB as a response to the COVID pandemic. Discussions are ongoing with EBRD for a tri-party cooperation (WBGC, EBRD, GGGI). GGGI is also connected with the Energy Community and plan to enhance cooperation with the Vienna based organization and V4 governments.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for HUNGARY PROGRAMME for 2021-2022: **\$0.14 million**; Government counterpart contribution: **\$0.million**; and Partner co-financing of the program is expected at **\$0.49 million** in the biennium for a total of **\$0.63 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOP	PS	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov	Partner	Gap	Total	
2019-2020										
GOP 2	LTS document	Support development of the Hungarian LTS and policy support under European Green Deal	05/2020	06/2021	0.05 M	--	0.28 M			Ministry for Innovation and Technology
GOP 1 GOP 2	Climate action plan/bankable projects	Low-Carbon and Resilient Cities Program in Serbia	09/2019	12/2020	0.05 M		0.15 M			Ministry for Innovation and Technology
TOTAL					0.10 M		0.43 M		0.53 M	
2021-2022										
GOP 2	Support under the European Green Deal	Support development of the Hungarian LTS and policy support under European Green Deal	05/2020	06/2021	--	--	0.05 M		0.05 M	Ministry for Innovation and Technology
GOP 1 GOP 2	Climate action plan/bankable projects (focus on energy efficiency in building sector and waste sector)	Expansion of the Low-Carbon and Resilient Cities Program in Serbia	01/2021	12/2022	0.07 M		0.22 M		0.29 M	Assumption: WBGC, EBRD and/or V4 Governments
GOP 1	Green investment	WBGC: Support the development of portfolio	01/2021	12/2021	0.07 M		0.22 M		0.29 M	Assumption: WBGC, EBRD and/or V4 Governments
TOTAL					0.14 M		0.49 M		0.63 M	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Investment Targets	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 2	Just Transition Plan under European Green Deal	Support development of the Hungarian LTS and policy support under European Green Deal	Just transition plan	Just transition plan submitted to EU Project monitoring, annual results, completion and evaluation reports		SO1 SO2	NA--	NA	--IO2	1. European Green Deal processes may be delayed due to the COVID 19 crisis. 2. Challenge in coordination among ministries given the shared competencies.
GOP 1 GOP 2	Climate action plan/Green Investment	Expansion of the Low-Carbon and Resilient Cities Program in Serbia	- Climate action plan at city level; - Bankable projects (building sector, renewable energy and energy efficiency)	Funds mobilized as a result of the GGGI work; Project monitoring, annual results, completion and evaluation reports	4 million	SO1	143,369tCO ₂ e/10 years 23 green jobs	Does Serbia have a national target for GHG reduction which can be used to calculate TCI?	IO1	1. Low level of financial resources mobilized due to international economic context, after the pandemic. 2. Lack of communication between the stakeholders and lack of ownership at city level.
GOP 2	Green Investment	WBGC: Support the development of portfolio	Bankable projects	Project monitoring, annual results, completion and evaluation reports	10 million	SO1 SO2	66tCO ₂ e/10y	In which country will this project be implemented	IO1`	1. Low level of financial resources mobilized due to international economic context, after the pandemic. 2. Lack of communication between the stakeholders and lack of ownership.

PACIFIC REGION

GGGI'S STRATEGIC APPROACH IN THE REGION FOR 2021-2022

Pacific Island countries and their 10 million inhabitants share many of the same development challenges; extreme vulnerability to climate change and associated sea level rise and severe weather; vulnerability to global economic shocks due the distance and relatively small market size; barriers to economic activity which impacts households access to improved sanitation, quality education and health care, and employment or income earning opportunities; poor nutrition, health and food insecurity; and dependence on imported fossil fuels for energy and transportation. To help address these challenges, the Global Green Growth Institute (GGGI) has been working in the Pacific since 2014 to mainstream green growth planning and mobilize climate finance that supports green, resilient, inclusive investments. GGGI has established full country programs in Fiji, Kiribati, Papua New Guinea, Tonga, and Vanuatu, and through its regional programs and initiatives has delivered services in a further 10 Pacific countries and territories. In the biennium WPB 2021-2022 minus scenario, the Pacific Region will provide support to its Member countries through a programmatic budget totaling USD 16.06 million, comprising of USD 0.38 million core funding (2.2%) and USD 15.67 million (98%) earmarked funding. Three countries, Fiji, Vanuatu and PNG will account for bulk (over 80%) of the region's budget at 40%, 22% and 20% respectively

GGGI's country programs and regional programs activities in 2021-22 consists of will deliver 30 green growth projects and solutions focusing on inclusive green growth planning, renewable energy, energy efficiency, and green economy capacity building, climate resilience, green infrastructure financing, and NDC enhancement and implementation, and green entrepreneurship. The overall regional operation is projected to grow by 38% in budget size in the next biennium from 2019-20, and GGGI is positioned to mobilize USD 70m in climate finance and green investment in the Pacific over the course of 2021-22. In Fiji, GGGI will continue to support the country to access reliable, secure and sustainable energy and mobilize green, climate finance, and also look for new opportunities to support coastal resilience. In Kiribati, GGGI will help continue to strengthen the countries food security and nutrition and improve health outcomes and income generate opportunities through the development of a strong agriculture sector. In Papua New Guinea GGGI will focus on strengthening national and provincial planning through mainstreaming green growth, climate resilience, gender equality and social inclusion approaches, as well as supporting the accessing and scaling up of green finance, through bankable projects and innovative financial instruments. In Tonga, GGGI will support the country to access reliable, secure and sustainable energy in order to unlock its development potential and achieve national goals and targets. In Vanuatu, GGGI will continue to support the country to secure sustainable energy, access water and follow a low-emissions development pathway. Across the region and through the Pacific NDC Hub, GGGI will continue to develop NDC implementation roadmaps, investment plans and project pipelines for energy efficiency and transport, and support countries to develop MRV systems. GGGI will also continue to deliver renewable energy and energy efficiency capacity building interventions in rural communities. in the Pacific countries.

GGGI's engagement in the Pacific seeks works to help achieve GGGI's Strategic Outcomes focused on reducing GHG emissions; creating green jobs; increasing access to sustainable services; enhancing the supply of ecosystem services; and strengthening climate resilience and adaptation. Programmatic delivery in the Pacific is aligned to the GGGI GOPs and will prioritize programmatic solutions that are lobal Operational Priorities focused on achieving a sustainable circulate bioeconomy, accelerating poverty eradication and gender equality, making communities sustainable, livable and resilient through green gobs, services and infrastructure, accelerating climate finance and green investments in the public and private sectors, and strengthening policy, planning and regulatory frameworks to achieve green growth goals and deliver effective climate actions. To address these priorities GGGI's Programmatic Solutions in the Pacific will focused on catalyzing green investments, climate action, climate resilient agriculture, coastal resilience, sustainable mobility, green buildings and solar PV.

TABLE Priorities under WPB 2021-2022

<i>GOPs</i>	<i>Programmatic Solutions</i>	<i>Pacific Portfolio</i>
GOP 1. Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector	1. Green Investments (green bankable projects, NFPs, green and climate instruments, carbon-focused engagements)	All programs

GOP 2. Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes	2. Climate Action (inclusive green growth plans, LT-LEDS, NDC support, MRV system design, climate diplomacy)	All programs
GOP 3. Achieving a sustainable and circular bioeconomy while securing healthy natural systems	3. Climate Resilient Agriculture (solar irrigation, RE application in agri-value chain, resilient cropping practices, resource conservation)	Fiji, Kiribati, PNG
	4. Sustainable Forests (REDD+, landscapes financing mechanisms, natural capital markets innovations)	N/A
	5. Coastal Resilience (mangroves as ecosystem for livelihoods, aquaculture, marine issues - fisheries, flood protection and pollution)	Fiji, PNG
GOP 4. Making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure capital markets innovations)	6. Waste Management (circular economies, urban and agricultural waste, wastewater, FSM, waste to resource)	N/A
	7. Sustainable Mobility (e-mobility, non-motorized transport)	Tonga
	8. Green Buildings (green urban infrastructure norms/standards/policies, energy efficiency in residential & commercial buildings)	N/A
	9. Solar PV (energy transition access and productive use - solar water pumping, solar PV auctions, rooftop, utility scale plants, storage)	Fiji, Kiribati, PNG, Tonga, Vanuatu
GOP 5. Accelerating progress in our country programs in poverty eradication and gender equality through our operations.	Cross cutting	Fiji, Kiribati, PNG, Vanuatu
	10. Green Industries (green industrial parks, green supply chains, EE in SMEs, labelling and standards)	N/A

APPROACH TO GREEN COVID RECOVERY PLANS DEVELOPMENT

GGGI support for a Green COVID-19 Recovery in the Pacific works to align existing and future programs to country recovery priorities, while at the same time developing innovative, green solutions for those sectors most impacted by the COVID pandemic. Tourism, in particular, has been severely affected by the crisis and is a critical economic sector throughout the Pacific region. In Fiji, tourism contributes, directly and indirectly, an estimated 38% of GDP⁷⁴. The total contribution of travel and tourism to Vanuatu's GDP was estimated to be 48% in 2018⁷⁵. However, the COVID-19 crisis has led to an unprecedented collapse in tourism globally due to international travel restrictions and fears over public health. This has placed an incredible strain on the economies of Pacific SIDS, with thousands of tourism workers suddenly unemployed and hundreds of businesses impacted. COVID-19 impacts to Pacific tourism will reverberate to other critical socio-economic sectors and affect countries' ability to achieve national development goals and international climate action commitments.

To mitigate COVID-19 impacts in the Pacific, and building on the organization's experience working within the countries tourism sectors, GGGI will direct its focus and mobilize resources to respond to the immediate needs of tourism workers and ensure that the recovery of the tourism sector is a green one as well as support the development of other sustainable industries to diversify and

⁷⁴ World Bank, 2020

⁷⁵ WTTC, 2025

broaden countries economic base. In partnership with governments and private sector stakeholders, GGGI will make available services that coordinate green tourism planning, provide income earning opportunities to tourism workers and low/non-skilled workers through alternative livelihoods, online trainings and public works initiatives, and develop schemes that finance green infrastructure investments in tourism related properties and businesses.

PARTNERSHIPS AND RESOURCE MOBILIZATION

In the Pacific, GGGI works closely with its partner governments, serving as a neutral and trusted advisor and providing services based on government requests. As well as working with its partner Ministries, GGGI also works closely with donors to identify financing options for projects and activities for its country and regional programs. Australia, Germany, Luxembourg, New Zealand, Republic of Korea and the United Kingdom support GGGI to deliver programs and targeted projects in the Pacific. Leveraging its experience and strategic partnership with the Green Climate Fund (GCF), GGGI has delivered and continues to implement a number of GCF Readiness Support projects across the region, and will continue to mobilize GCF resources through Readiness proposals developed and submitted in partnership with country partners. In 2020, New Zealand approved a multi-country, multi-year, NZ\$ 4.7m program to support Pacific countries to transition to low carbon, climate resilient futures through the development of long-term low emissions development strategies, sectoral roadmaps, and relevant policies and legislation.

GGGI has also signed MoUs with a number of regional institutions and development partners including ESCAP, GIZ, PIDF, SPC and SPREP and others. Alongside GIZ, SPC and SPREP, GGGI is a delivery partner of the Regional Pacific NDC Hub launched by the Fiji Prime Minister Hon. Bainimarama in February 2020. GGGI has secured USD 1.1M in funding from GIZ to implement NDC Hub activities in 2020-2021 and in 2021 will commence discussions with GIZ regarding future programming. GGGI is currently delivering a USD 1.5M KOICA funded regional capacity building project for sustainable energy, and will also engage the Korean development partner on project scale-up, or new project opportunities in 2021.

As a response to COVID-19 impacts on vulnerable Small Island Developing States (SIDS) in developing island countries, GGGI has developed a concept note on Green Tourism Recovery in Pacific and Caribbean SIDS, which includes a number of Pacific countries for implementation. GGGI has also developed proposals for the Qatar Fund For Development (QFFD) focusing on food security and climate smart agriculture in Kiribati and green entrepreneurship in countries across the Pacific. GGGI has also secured funding from the NDC Partnership (NDCP) to deliver Climate Action Enhancement Package activities in the Marshall Islands, PNG and Tonga, and will look to engage NDCP on new opportunities to provide Pacific countries with NDC support. Furthermore, to enhance the mobilization of climate finance into the Pacific, GGGI is working with the Rocky Mountain Institute to develop a program funded by Canada that will position Climate Finance Advisors in countries across the region.

FIJI & PACIFIC

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI operations in Fiji started in 2015. GGGI support and results delivered during 2019-2020 and the programming for 2021-2022 have been designed to help Fiji achieve national goals prioritized in Fiji's National Development Plan (NDP) 2017-2036, the Fiji NDC Implementation Roadmap 2017-2030, and the Fiji Low Emissions Development Strategy (LEDS) 2018-2050 and address critical development challenges – particularly 1) vulnerability to climate change and to economic shocks due the distance and relatively small size of Fiji's markets, 2) community and household access to improved sanitation, quality education and health care, and employment or income earning opportunities, and 3) reliance on imported fossil fuels for electricity and transportation, which negatively affects balance of payments and impacts negatively on Fiji's energy security and environment. GGGI's engagement in Fiji has aligned to GGGI's Global Operational Priorities focused on accelerating climate finance and green investments for Fiji's public and private sectors, strengthening policy, planning and regulatory frameworks, achieving a sustainable circular bioeconomy, and making communities sustainable, livable and resilient through green jobs, services and infrastructure.

In 2019-2020, in line with the Country Planning Framework (CPF) 2019-2023 (<https://gggi.org/site/assets/uploads/2020/02/WEB-Fiji-CPF-191218.pdf>) GGGI continued to support expanded access to sustainable energy services for rural households, businesses and public institutions. Building on its previous work to mainstream the Green Growth Framework (GGF) into Fiji's NDP and promote solar PV use throughout the country's islands, GGGI supported the development of two bankable projects that secured USD 20M for solar plant investments on the islands Ovalau and Taveuni. At the same time, GGGI supported the Fiji Development Bank to build its capacity as a Direct Access Entity to the GCF, and carried out a market assessment and financial product design for solar for off-grid hotels, including securing financing for projects worth USD 5M. In 2019, GGGI collaborated with the Ministry of Economy to produce the Fiji Green Jobs Assessment. A first of its kind in the Pacific region, the report estimates the green employment generation potential in Fiji based on scenarios detailed in the Fiji LEDS. Also supporting LEDS transportation targets and e-mobility actions, GGGI undertook two studies on the effects to the electricity grid under various scenarios for the electrification of the transport sector and increased use of electric vehicles. Adopted by government in 2020, the recommendations in the studies are providing inputs to the revision of Fiji's National Energy Policy.

Fiji is also the base for GGGI's activities in the broader Pacific region where, in 2019-2020, GGGI continued to scale-up regional activities and projects focused on renewable energy, energy efficiency and green economy capacity building, climate resilient, green infrastructure financing, and NDC enhancement and implementation. GGGI is a core delivery partner of the Pacific NDC Hub alongside GIZ, SPC and SPREP. Through the Pacific NDC Hub, GGGI developed NDC implementation roadmaps, investment Plans and project pipelines in Fiji, Kiribati and Tuvalu for energy efficiency and transport, and supported the Solomon Islands and the Marshall Islands to develop and strengthen their monitoring, reporting and verification (MRV) systems. GGGI also began supporting the Marshall Islands, PNG and Tonga on MRV and NDC enhancement. In addition, GGGI put together guidelines on green entrepreneurship and NDC implementation roadmap development and organized green entrepreneur events in Fiji through the NDC Hub and working with local private sector partners. In 2019-2020, GGGI's regional project on capacity building for renewable energy for energy access in rural communities in Fiji, Papua New Guinea (PNG), Solomon Islands, and Vanuatu also made significant progress. A suite of 10 training modules were developed and a diverse team of trainers in each country were trained and then engaged to carryout multiple local government and community-level trainings which will continue into 2021.

II. COUNTRY PROGRAM

Areas of Focus (Fiji) GGGI supports Fiji to access reliable, secure and sustainable energy and mobilize green, climate finance in order to unlock the country's development potential and achieve national goals and targets in the National Development Plan (NDP) 2017-2036, the Fiji NDC Implementation Roadmap 2017-2030, the Low Emissions Development Strategy 2018-2050, Fiji's National Adaptation Plan and Fiji's Nationally Determined Contribution (NDC). GGGI's support will continue to mobilize finance for energy services that power economic and social sectors and for climate action which recognizes the importance of climate change adaptation for Fiji as a small island developing state. GGGI's work will contribute to Fiji's development goals of reducing reliance on imported fossil fuel for transportation to around 32%, increasing renewable electricity to 100% and reducing GHG emissions by 30% by 2030 with a target of net-zero emissions by 2050, while achieving climate resilient green growth through targeted adaptation actions and investment planning. GGGI will contribute to:

- SO1 & SO3: Rural electrification through renewable energy for households, businesses and public institutions
- SO2: Green jobs through low-emission development actions
- SO3: Renewable energy for agriculture, tourism and fisheries and sustainable transport systems

S06: Climate resilience through national adaptation planning

With a focus on:

- GOP1, Programmatic Solution 1 – Green Investment: Mobilization of green and climate fund through national financial institutions and mechanisms and the accreditation of Direct Access Entities
- GOP2, Programmatic Solution 2 – Climate Action: Development of national energy policies, sustainable and modern energy roadmaps, e-mobility strategies, NDC and low-emission development actions, and private sector engagement and planning
- GOP3, Programmatic Solution 5 – Coastal Resilience: Development of sustainable coastal ecosystems and communities through local level adaptation planning
- GOP4, Programmatic Solution 9 – On-grid and off-grid Solar PV solutions and Programmatic Solution 7 – sustainable mobility
- GOP5 - Accelerating progress in income earning opportunities and gender equality through GGGI operations

Areas of Focus (Pacific Region) GGGI supports Pacific countries to strengthen NDC implementation and build capacities to enhance the application of renewable energy and sustainable transport solutions. GGGI's support will continue to strengthen NDC planning and mobilize resources for NDC implementation, while strengthening green innovation and capacity building across the Pacific region. GGGI will contribute to:

- SO1: Emissions reductions through NDC implementation
- SO2: Green jobs through green entrepreneurship and training
- SO3: Renewable energy and electrification for rural communities and sustainable transport services

With a focus on:

- GOP1, Programmatic Solution 1 – Green Investment: Mobilization of green and climate resources through project pipelines and development of national financial institutions and mechanisms
- GOP2, Programmatic Solution 2 – Climate Action: Development of NDC implementation roadmaps
- GOP4, Programmatic Solution 9 – On-grid and off-grid Solar PV solutions and Programmatic Solution 7 – sustainable mobility
- GOP5 - Accelerating progress in gender equality through inclusive training delivery

GGGI's Approach to Green COVID Recovery Plans development Tourism is a key sector in many Pacific countries, providing as much as 50% of some nations' overall GDP. In Fiji, tourism contributes, directly and indirectly, an estimated 38% of GDP⁷⁶. However, the COVID-19 crisis has led to an unprecedented collapse in tourism globally due to international travel restrictions and fears over public health. This has placed an incredible strain on Fiji's tourism sector with thousands of Fijian workers already laid off and more jobs increasingly also affected.⁷⁷ Further, a more than 40% drop in hotel bookings immediately following the COVID-19⁷⁸ outbreak caused 279 tourism businesses to close temporarily. COVID-19 impacts to Fiji's tourism sector will reverberate to other critical socio-economic sectors and affect the ability to achieve national development goals and international climate action commitments.

To mitigate COVID-19 impacts in Fiji and other Pacific countries, GGGI will build on its experience working within Pacific tourism sectors, including Fiji's, to mobilize resources to respond to the immediate needs of tourism workers and ensure that the recovery of the tourism sector is a green one, promoting training and investments in sustainable energy, organic agriculture and local supply chains, ecosystem based approaches, etc. In partnership with government and private sector stakeholders, GGGI will make available services that coordinate green tourism planning, provide income earning opportunities to tourism workers and low/non-skilled workers through small-scale agriculture schemes, online trainings and public works initiatives and develop schemes that finance green infrastructure investments in tourism related properties and businesses.

⁷⁶ World Bank, 2020

⁷⁷ Fiji Hotels and Tourism Association, March 2020

⁷⁸ <https://www.fbcnews.com.fj/news/tourism/tourism-number-drop-by-40/>

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI is embedded within Fiji's Ministry of Economy, which is also the NDA for the GCF. In 2019, GGGI helped secure a USD 1M GCF Readiness Project to enhance Fiji's access to climate finance, and in 2021 will begin a GCF funded National Adaptation Plan project working closely with the Climate Change Division. GGGI also secured funds from UN-ESCAP in 2020 to support the development of Fiji's SDG7 Roadmap and revise the country's National Energy Policy, and will seek to continue this partnership for technical assistance in 2021. GGGI is also engaging with UNEP on work to strengthen transparency and MRV systems for the Paris Agreement.

GGGI is one of five partners that supports the Regional Pacific NDC Hub launched by the Fiji Prime Minister Hon. Bainimarama in February 2020. The Regional Pacific NDC Hub is funded by Germany, the United Kingdom, Australia and New Zealand and is administered by GIZ, with implementation carried out by GIZ, GGGI, the SPC and SPREP in coordination with the NDC Partnership. GGGI has secured USD 1.1M in funding from GIZ to implement NDC Hub activities in 2020-2021, and in 2021 will commence discussions with GIZ regarding future programming. At the regional level, GGGI will also work with New Zealand Aid, which in 2020 approved a multi-country NZD 5M program to be implemented by GGGI, to support Pacific countries to transition to low carbon, climate resilient futures, including the development of long-term low emissions development strategies, sectoral roadmaps, and relevant policies and legislation. In partnership with New Zealand Aid, GGGI intends to co-design the program in 2020 with implementation commencing in 2021. GGGI is also working the Qatar Fund For Development (QFFD) to design and deliver a multi-year Pacific program targeting entrepreneurs in the region. In partnership with the Rocky Mountain Institute and with support from Canada, GGGI is developing a regional program to train and position Climate Finance Advisors in countries across the Pacific.

Activities under the regional program will also build upon GGGI's programming in 2020 in the Marshall Islands, Papua New Guinea, and Tonga, funded through the NDC Partnership's Climate Action Enhancement Package (CAEP). These regional activities allow GGGI to provide targeted support to Pacific SIDS to strengthen climate action, particularly on adaptation, with a view to inform regional knowledge sharing and position GGGI as a key partner within the region. Beyond the projects expected to commence in 2020, and in response to COVID-19, GGGI has engaged with a number of development partners on ideas for greening the tourism sector, solar solutions for Fiji's off-grid hotels, and green entrepreneurship; and is exploring a partnership under Germany's International Climate Initiative (IKI) to build Fiji's capacity to meet requirements under the Paris Agreement. Discussions are also underway with the Australian Aid Program to explore synergies and complementarities with the AIFFP and the forthcoming new Australian Aid strategy that is expected to be released in 2020.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Fiji/Pacific Region for 2021–2022: **\$0.18 million**; Government counterpart contribution: **\$0.09 million**; and Partner co-financing of the program is expected at **\$6.51 million** in the biennium for a total of **\$6.73 million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ⁷⁹	Partner	Gap	Total	
2019-2020										
GOP1	PS1	Supporting the Implementation of the Green Growth Framework for Fiji - Phase 2	Jan 2017	Dec 2021	0.115	0.09	0.036	0.00	0.160	Grant signed with United Nation Economic and Social Commission for Asia and the Pacific.
GOP2	PS2									
GOP1	PS1	Secondment to Fiji Development Bank for support with GCF projects	Feb 2019	Aug 2019	0.013	0.00	0.013	0.00	0.026	Agreement signed with Fiji Development Bank for \$13K co-financing
GOP1	PS1	Enhancing Access to Climate Finance in Fiji	Oct 2019	Apr 2021	0.00	0.00	0.827	0.00	0.827	GCF Readiness and Preparatory Support
GOP1	PS1	Enabling Sustainable Rural Electrification Investment in Fiji	Jun 2020	Dec 2022	0.057	0.00	0.00	0.00	0.057	GGGI funding
GOP4	PS9									
GOP1	PS1	Mainstreaming sustainable energy infrastructure in Fiji and Vanuatu ⁸⁰	Jun 2020	Dec 2022	0.056	0.00	0.00	0.00	0.056	GGGI funding
GOP4	PS9									
REGIONAL										
GOP4	PS7	Evidence-based policies for the sustainable use of energy resources in the Asia-Pacific Region	Jan 2019	Dec 2019	0.018	0.00	0.076	0.00	0.094	Grant signed with United Nation Economic and Social Commission for Asia and the Pacific.
GOP2	PS2	Pacific NDC Hub - Phase I	Oct 2019	Mar 2020	0.00	0.00	0.463	0.00	0.463	Grant signed with GIZ – USD 0.463M
GOP2	PS2	Pacific NDC Hub - Phase 2	Apr 2020	Nov 2021	0.00	0.00	0.5	0.00	0.5	Grant signed with GIZ – 1.1M USD
GOP4	PS9	Capacity Building to Strengthen Sustainable Implementation of Renewable Energy Technologies for Rural Energy Access	Jan 2019	Dec 2021	0.152	0.00	1.12	0.00	1.272	Grant signed with Korea International Cooperation Agency (KOICA)
GOP5	PS9									
GOP2	PS2	Climate Action Enhancement Package – Marshall Islands	Mar 2020	Feb 2021	0.025	0.00	0.250	0.00	0.275	Grant agreement signed with NDC Partnership.
TOTAL					0.436	0.09	3.285	0.00	3.73	
2021-2022⁸¹										
GOP1	PS1	Supporting the Implementation of the Green Growth Framework for Fiji - Phase 2	Jan 2017	Dec 2021	0.00	0.09	0.1	0.00	0.109	New Zealand MFAT – USD 100K
GOP2	PS2									
GOP1	PS1	Enhancing Access to Climate Finance in Fiji	Oct 2019	Apr 2021	0.00	0.00	0.173	0.00	0.173	GCF Readiness and Preparatory Support
GOP1	PS1	GCF NAP Fiji	March 2021	March 2023	0.00	0.00	0.00	1.50	1.50	GCF Readiness Adaptation proposal to be submitted in 2020
GOP3	PS5									
GOP1	PS1	Enhancing Access to Climate Finance in Fiji – Phase 2	June 2021	Dec 2022	0.00	0.00	0.00	0.62	0.62	GCF Readiness and Preparatory Support to be submitted in 2020
REGIONAL										
GOP4	PS9	Capacity Building to Strengthen Sustainable Implementation of Renewable Energy Technologies	January 2019	December 2021	0.057	0.00	0.38	0.00	0.437	Grant signed with Korea International Cooperation Agency (KOICA)
GOP5	Cross									

⁷⁹ Government in-kind contribution including office space, furniture, utilities and meeting rooms.

⁸⁰ The project commenced in June 2020 and is delivering activities and outputs in both Fiji and Vanuatu. The budget is the core allocation for Fiji in 2020.

⁸¹ Additional project under development but not included: "Forest Finance Incubator project which is seeking USD 30K from the USA and CI. GGGI has also submitted a proposal to the International Climate Initiative (IKI) for a "Capacity building program to meet the transparency requirement of the Paris Agreement" project.

		for Rural Energy Access									
GOP2	PS2	Pacific NDC Hub - Phase 2	April 2020	Nov 2021	0.00	0.00	0.6	0.00	0.6	Grant signed with GIZ – 1.1M USD	
GOP2	PS2	Low Emissions Climate Resilient regional program	Jan 2021	Dec 2023	0.00	0.00	0.96	0.00	0.96	Regional program with funding from New Zealand MFAT – USD 3.1M over 3 years ⁸²	
GOP2	PS2	Pacific Green Entrepreneurs Network	Jan 2021	Dec 2022	0.00	0.00	0.00	0.98	0.98	Regional program with funding from Qatar QFFD – USD 2.475M over 3 years	
GOP5	Cross										
GOP1	PS1	Pacific Climate Finance Advisors	January 2021	December 2022	0.00	0.00	0.00	1.2	1.2	Regional program delivered in partnership with the Rocky Mountain Institute with funding from Canada GAC – USD 2.7M over 2 years	
GOP2	PS2										
Operations/Project Preparation					0.123				0.123		
TOTAL					0.180	0.09	2.21	4.30	6.73		

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Investment target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1 GOP2	PS1 PS2	Supporting the Implementation of the Green Growth Framework for Fiji - Phase 2	<ul style="list-style-type: none"> SDG7 Roadmap Clean cookstove workshop Revised National Energy Policy 	Policy adoption Roadmap document Workshop reports Project monitoring, annual results, completion and evaluation reports		SO1SO2 SO3	N/A	N/A N/A N/A	IO1, IO3	Changes in government that can lead to changes in policy priorities
GOP1	PS1	Enhancing Access to Climate Finance in Fiji	<ul style="list-style-type: none"> NDA inter-institutional coordination mechanism No Objection' procedure for funding proposals Accreditation of Direct Access Entities Bankable project concept notes developed with national direct access entity, and submitted for GCF funding (or other climate finance sources) 	Correspondence from GCF No Objection Procedure approved. Project progress and completion reports submitted to GCF		SO1SO6	TBD SO3, 25 companies gain access to clean energy (infratec project), and 600,000 people (all inhabitants of viti levu, if support to an on-grid project).	SO1 SO6 SO3	IO1, IO2	Delays due to data availability and/or government approval process
GOP1 GOP3	PS1 PS5	GCF NAP Fiji	<ul style="list-style-type: none"> Blue Town Framework developed Workshop delivered to the tourism industry and to stakeholders at the town council level, Revised local planning documents adaptation 	Training materials and reports Local planning guideline Action plans Feasibility study Investment plans Project monitoring, annual results, completion and evaluation reports	USD 10M finance mobilized	SO1SO2 SO3SO5 SO6	SO1, 3MW of solar will be installed, which corresponds to 4,350 tCO2 eq/year of emissions reduction SO3, 5 businesses install solar energy. SO5 Ha of land preserved. The entire island of Vanua levu is 5,587km2. The surroundings of Savusavu	SO1 Used same methodology as above, contribution to NDC GHG emissions reduction target of Fiji is 0.6% SO3 SO5	IO1, IO2, IO3	Delays due to the absence of a managing director from the Climate change division team;

⁸² Approx. 970K allocated for 2021: 500K for Fiji (Supporting the Implementation of the GGF); 150K for Tonga (LEDS and TERM), and 200K for Vanuatu (LEDS); 120K for Kiribati

							would be around 279.35 km2 (1/20)			
							SO6, 331,126 (inhabitants from the 8 towns and 2 cities benefiting from the project).	SO6		
GOP4 GOP5	PS9 Cross cutting	Pacific Regional KOICA Project	<ul style="list-style-type: none"> 10 Training materials developed in RE and EE and training of trainers Trained local government officials and community leaders, small businesses, youths, women, and vulnerable persons Local technicians trained on O&M of RE Installations of knowledge platform on GE and RE 			SO1SO3	N/A	N/A N/A	IO3	Trainer mobility IT/virtual workshops Effects of COVID-19 on training participations.
GOP1 GOP2	PS1 PS2	Pacific NDC Hub	<ul style="list-style-type: none"> NDC implementation roadmaps in Kiribati, Tuvalu and Samoa NDC investment plans in Fiji, Kiribati and Tuvalu, NDC project pipelines in Fiji, Kiribati and Tuvalu MRV support in Marshall Islands NDC review and enhancement in Tonga Promote knowledge sharing 			SO1	SO1: 1) Kiribati: - 2022: 1,179t CO2e - 2030: 21,751t CO2e 2) Fiji: results to be incl in Aug with the first draft NDC investment plan 3) Tuvalu, Samoa, Tonga: results to be incl. in Jan 2021	SO1: 1) Kiribati: - 2022: 4.6% of 2030 NDC target 2030: 85.3% of 2030 NDC target 2) Fiji: results to be incl in Aug with the first draft NDC investment plan 3) Tuvalu, Samoa, Tonga: results to be incl. in Jan 2021	IO1, IO3	Risks: Slow responses by governments Low level of stakeholder engagement and Covid-19 crisis may lead to delays.
GOP2	PS2	Low Emissions Climate Resilient regional program	<ul style="list-style-type: none"> Policies, legislation and regulations in place to guide public and private sector investment in low-emission, climate resilient development 			SO1SO2 SO3	SO1 SO2 SO3	SO1 SO2 SO3	IO1,	Buy-in from target countries
GOP2 GOP5	PS2	Pacific Green Entrepreneurs Network	<ul style="list-style-type: none"> 360 Pacific entrepreneurs trained 90 seed-grants disbursed 10 growth loans disbursed 			SO2	N/A	1,000 green jobs across the Pacific	IO2, IO3	Sufficient engagement by entrepreneurs
GOP1 GOP2	PS1 PS2	Pacific Climate Finance Advisors	<ul style="list-style-type: none"> Climate finance advisory support provided in 9 Pacific Island Countries Bankable project concept notes developed 		20M	SO1SO2 SO3SO5 SO6	TBD	TBD	IO1, IO2, IO3	Buy-in from target countries

KIRIBATI

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI's program in Kiribati started in 2017. GGGI support and results delivered during 2019-2020 and the programming for 2021-22 have been designed to help Kiribati address critical development challenges – particularly 1) extreme vulnerability to climate change and associated sea level rise, severe weather, and food security impacts, 2) a constrained agriculture sector which in turn is closely linked to poor nutrition, health and food security, and 3) limited institutional capacity to address market distance and size – and achieve goals prioritized in the Kiribati 20-Year Vision 2016-2036 (KV20), the Joint Implementation Plan for Climate Change and Disaster Risk Reduction (KJIP), and NDC. GGGI's engagement in Kiribati is aligned to GGGI Global Operational Priorities focused on achieving a sustainable circular bioeconomy, making communities sustainable, livable and resilient through green jobs, services and infrastructure, accelerating climate finance and green investments for Kiribati's public and private sectors, and strengthening policy, planning and regulatory frameworks to achieve green growth goals and deliver effective climate actions.

In 2019-2020, in line with the Country Planning Framework (CPF) 2019-2023 (<https://gggi.org/site/assets/uploads/2019/08/Kiribati-Signed-CPF-Final.pdf>), GGGI supported agriculture sector planning and development for improved food security and public health outcomes and achieving green growth led by micro, small and medium size enterprises. Engaging with diverse Kiribati public and private sector stakeholders saw GGGI develop and secure the adoption of the Kiribati CPF in July 2019. The CPF outlines climate resilient and inclusive green growth pathways for Kiribati to achieve green job development, improved livelihoods, reduced poverty, and contributes to achieving the NDC and SDGs. The CPF guides GGGI's interventions in Kiribati to help establish climate-resilient agriculture and food systems, as well as a climate-resilient private sector that thrives on green jobs. A 2019 analysis on income generation opportunities in the agriculture sector was a result of GGGI's work with the Ministry of Environment, Land and Agriculture (MELAD) and the Ministry of Commerce, Industry and Cooperatives (MCIC). The analysis contributed to GGGI's support to MELAD to develop the Kiribati Agriculture Strategy (KAS) 2020-2030. The KAS was approved as an addendum to the KV20 by the Cabinet of Ministers in March 2020. The KAS outlines strategic goals and project initiatives that aim to diversify and increase agriculture production, productivity, livelihoods, jobs, food security, and improve nutrition and health for the Kiribati people. To facilitate implementation of the KAS, GGGI is now developing and facilitating the adoption of a KAS Action Plan, which will identify key milestones, activities, timelines and responsibilities, as well as further develop prioritized projects.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Kiribati to strengthen its food security and nutrition and improve health outcomes and income generation opportunities, through the development of a strong agriculture sector, in order to unlock the country's development potential and achieve national goals and targets. Based on the Kiribati Country Planning Framework 2019-2023, which aligns to and supports the KV20, the KAS, the Kiribati Development Plan (KDP 2020-2023), the KJIP, and NDC, GGGI's support will continue to strengthen policy and planning frameworks and mobilize finance to strengthen Kiribati's agriculture sector. Helping to develop a sustainable and circular bioeconomy and making communities sustainable, livable and resilient through green jobs and services will contribute to Kiribati's development goals to increase the volume of domestic trade to 81 metric tons by 2036, increase private sector contribution to GDP to 65% by 2036, reduce national unemployment 5% by 2036, and meet NDC targets of reducing emissions by 13.7% by 2025, and 12.8% by 2030. GGGI will contribute to:

- SO1: NDC implementation and transparency through small-scale renewables and capacity building
- SO2 & SO6: Green jobs that support and grow a sustainable agriculture section
- SO5: Sustainable ecosystems that supports health and food security
- SO6: Climate resilient agriculture through planning, financing and implementation of prioritized projects

With a focus on:

- GOP1, Programmatic Solution 1 – Green Investment: Mobilization of green and climate finance to fund and scale-up projects that strengthen the agriculture sector and create green jobs
- GOP2, Programmatic Solution 2 – Climate Action: Development of action plans that align to national agriculture strategies, support the agriculture sector and implementation of prioritized projects
- GOP3, Programmatic Solution 3 – Climate Resilient Agriculture: Delivering projects that build resilience across the agriculture value chain

GGGI's Approach to Green COVID Recovery Plans development: Though as of May 2020, Kiribati had not recorded any confirmed cases of COVID-19, the impact of the global crisis has been severe on the country's supply chains and international transport. Imports are a very large share of GDP in most Pacific countries, and Kiribati is no exception. Slowing trade and disruptions to trade routes, will impact Kiribati's already fragile food security and consequently health and nutrition status. Though small in comparison to regional neighbors, tourism is an important economic sector in Kiribati. Annually, the island nation hosts a little over 5,000 international visitors, but by mid-March 2020, total room nights cancellations across Kiribati exceeded 3,500.⁸³

To mitigate COVID-19 impacts in Kiribati, GGGI will work to support COVID-19 response and recovery planning and initiatives in the Pacific region. GGGI will work with its Kiribati partners, particularly MELAD, to ensure the response and recovery resources coming into the country address immediate food security needs, and also contribute to the growth of a resilient agriculture sector that is better able to absorb future global shocks. Leveraging GGGI's experience working in tourism sectors across the Pacific region, GGGI will work to support and green Kiribati's response and recovery schemes for its tourism sector. GGGI can make available services that coordinate green tourism planning, provide income earning opportunities to tourism workers and low/non-skilled workers through online trainings and public works initiatives, and develop schemes that finance green infrastructure investments in tourism related properties and businesses.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI works in close partnership with MELAD on agriculture, green income-generating activities and waste management. Other Ministries and government offices that are key partners include the Office of the President through its Climate Change Unit, the Ministry of Infrastructure and Sustainable Energy, the Ministry of Commerce, Industry and Cooperatives and the Ministry of Finance and Economic Development. GGGI continues to explore partnerships with development partners active in Kiribati and also working on agriculture, income generation, green infrastructure and capacity building and youth entrepreneurship. These development partners include the Pacific Community (SPC), the Secretariat of the Pacific Regional Environment Programme (SPREP), Australian High Commission, and New Zealand High Commission. Leveraging GGGI's strategic partnership with the Green Climate Fund, GGGI will work with stakeholders to develop a GCF Readiness project to strengthen national adaptation planning and develop a pipeline of projects to enhance resilience and support the implementation of the Kiribati Agriculture Strategy. GGGI is also working with the Qatar Fund For Development (QFFD) to develop and implement a multi-year Climate Smart Agriculture project in Kiribati to enhance capacity and economic activity within the agriculture sector.

GGGI's programming in Kiribati will also be supported by GGGI's Pacific regional program. GGGI is one of five partners that supports the Regional Pacific NDC Hub launched by the Fiji Prime Minister Hon. Bainimarama in February 2020. The Regional Pacific NDC Hub is funded by Germany, the United Kingdom, Australia and New Zealand and is administered by GIZ, with implementation carried out by GIZ, GGGI, the SPC and SPREP in coordination with the NDC Partnership. GGGI has secured USD 1.1M in funding from GIZ to implement NDC Hub activities in 2020-2021, and in 2021 will commence discussions with GIZ regarding future programming. At the regional level, GGGI will also work with New Zealand Aid which in 2020 approved a multi-country NZD 5M program to be implemented by GGGI to support Pacific countries to transition to low carbon, climate resilient futures, including the development of long-term low emissions development strategies, sectoral roadmaps, and relevant policies and legislation. In partnership with New Zealand Aid, GGGI intends to co-design the program in 2020 with implementation commencing in 2021. GGGI is also working the Qatar Fund For Development (QFFD) to design and deliver a multi-year Pacific program targeting entrepreneurs in the region. In partnership with the Rocky Mountain Institute and with support from Canada, GGGI is developing a regional program to train and position Climate Finance Advisors in countries across the Pacific.

In addition, and in response to COVID-19, GGGI has engaged with several development partners on ideas for supplementing livelihoods, greening the tourism sector, and green entrepreneurship. For Kiribati, the focus of these discussions is on enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change in Kiribati island communities through a technology, education and capacity building and livelihoods development program for the agriculture sector. Discussions are also underway with the Australian Aid Program to explore synergies and complementarities with the forthcoming new Australian Aid strategy that is expected to be released in 2020.

⁸³ <https://www.pata.org/covid-19-impacts-kiribati-tourism/>

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Kiribati for 2021-2022: **\$0.02 million** counterpart contribution: **\$0.01 million**; and Partner co-financing of the program is expected at **\$1.48 million** in the biennium for a total of **\$1.75million**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ⁸⁴	Partner	Gap	Total	
2019-2020										
GOP2	Climate Action	Green and Climate Resilient Island Development	January 2017	December 2019	0.008	0.01	0.00	0.00	0.018	SPC and GIZ provided in-kind contributions
GOP2 GOP3	Climate Action Climate Resilient Agriculture	Development of an Agricultural Strategy as an Addendum to Kiribati 20 Year Vision (KV20)	January 2019	December 2021	0.250	0.01	0.00	0.00	0.251	Ministry of Environment, Lands and Agriculture Development provided in-kind contributions
TOTAL					0.258	0.02	0.0	0.00	0.278	
2021-2022⁸⁵										
GOP2 GOP3	Climate Action Climate Resilient Agriculture	Development of an Agricultural Strategy as an Addendum to Kiribati 20 Year Vision (KV20)	January 2019	December 2022	0.00	0.01	0.24	0.00	0.25	Funding from regional New Zealand MFAT program
GOP3	Climate Resilient Agriculture	Climate Smart Agriculture	January 2020	December 2023	0.00	0.00	0.00	1.2	1.2	Funding from Qatar QFFD – USD 1.8M over 3 years
GOP1 GOP2	Green Investment Climate Action	Pacific Climate Finance Advisors	January 2021	December 2022	0.00	0.00	0.00	0.28	0.28	GGGI resources and GCF Readiness funding to be sought in 2020. Other avenues for funding will also be explored as appropriate.
Operations/Project Preparation					0.02				0.02	
TOTAL					0.02M	0.01M	0.24M	1.48M	1.75M	

⁸⁴ Government in-kind contribution including office space, utilities & meeting rooms

⁸⁵ Additional projects under development but not included: "Capacity building program to meet the transparency requirement of the Paris Agreement" – funding from the International Climate Initiative (IKI).GGGI is also exploring a Small Islands Food and Water project with International Fund for Agriculture Development (IFAD).

V. RESULTS FRAMEWORK

GOPs	Programmatic Solutions	Project	Output	Verification	Investment Size	Strategic Outcomes	SO Impact Estimation		Intermediate Outcomes	Assumptions and Risks
							Attributed	Contributed		
GOP2 GOP3	Climate Action Resilient Agriculture	Development of an Agricultural Strategy as an Addendum to Kiribati 20 Year Vision (KV20)	<ul style="list-style-type: none"> • KAS Action Plan • Investment plans • Bankable project concept notes 	<ul style="list-style-type: none"> • Reports • Concept Notes • Project monitoring, annual results, completion and evaluation reports 		SO5, SO6	TBD	TBD	IO1, IO2	Government buy-in
							TBD	TBD		
GOP3	PS3: Climate Resilient Agriculture	Climate Smart Agriculture	<ul style="list-style-type: none"> • 200 agriculture entrepreneurs trained • 50 agri-food micro-enterprises established • 50 green, climate smart agriculture technology solutions implemented 	<ul style="list-style-type: none"> • Reports • Certificates issued • Project monitoring, annual results, completion and evaluation reports 		SO2, SO6	N/A	N/A	IO2, IO3	Youth enroll in the trainings Availability of equipment
							N/A	N/A		
GOP1 GOP2	PS1 Green Investment PS2 Climate Action	Pacific Climate Finance Advisors	<ul style="list-style-type: none"> • Climate finance advisory support provided to Kiribati • Bankable project concept notes developed 	<ul style="list-style-type: none"> • Adopted policies, strategies and action plans • Project monitoring, annual results, completion and evaluation reports 	5M	SO1, SO2, SO3, SO5, SO6	TBD	TBD	IO1, IO2, IO3	Buy-in from government counterparts

PAPUA NEW GUINEA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

Country Strategic Framework and Key Development Challenges Papua New Guinea (PNG) is a founding member of GGGI and its commitment to green growth can be seen through key strategic documents such as the Vision 2050, the National Climate Compatible Development Management Policy (NCCDMP), the National Strategy for Responsible Sustainable Development (StaRS) and the Medium-Term Development Plan III (MTDP III), for the period of 2018-2022. These strategies highlight PNG's ambition to shift towards a sustainable development pathway through renewable resources that mainstreams climate resilience and move away from the current extractive activities. Further, PNG aims to swiftly shift to renewable energy sources with a focus to reducing current emissions to 12 MtCO_{2e} per annum by 2022⁸⁶ and the PNG NDC has a commendable target of 100% renewable energy generation by 2030.⁸⁷ Also, considered as one of the world's biodiversity rich countries, Papua New Guinea ranks among the megadiverse countries and the last frontiers for biodiversity conservation. As such, protecting the existing forest cover and promoting nature-based solutions are a key focus in PNG's development strategies.⁸⁸ Furthermore, as PNG has the fourth largest area of mangrove ecosystems on the planet, mangrove protection and restoration to build on coastal resilience of communities is a key priority for the country. Overall, StaRS and the MTDP have mainstreamed green growth into long-term planning, which provided the impetus for the adoption of many policy and legislative frameworks in the country.⁸⁹

While PNG has demonstrated strong political will and adopted strategic frameworks towards a green growth pathway, the country faces many ongoing challenges. Some of those challenges are highlighted below:

- low access to electricity at only 13% of the population due to socio-economic and geographic factors despite abundance of renewable energy opportunities;^{90,91}
- high unemployment and widespread poverty. Even though the energy and extractives sectors drive country's majority of export earnings and GDP growth, they do not create adequate and sustained employment opportunities (employing only about 1% of the formal workforce), with over 85% of people depending on subsistence farming workforce is engaged in informal sectors;
- large scale of deforestation in the country with close to 90% (over 200,000 hectares) of deforestation between 2000 and 2015 being the result of converting forestland to cropland, of which approximately two thirds are due to subsistence farming.
- low capacity and lack of coordination amongst the Government departments of PNG to translate green growth and climate resilience commitments into green investments and project implementation;
- lack of business-friendly environment to attract new investments. Based on the recent World Bank's Ease of Doing Business Index PNG ranks at 120 in 2019⁹²

Key achievements in 2019 Since 2018, GGGI has partnered with the Government of PNG (GoPNG) to support the achievement of key strategic aims in the Vision 2050, the NCCDMP, the StaRS

⁸⁶ An indicative reduction of 2mtCO_{2e} based on MDTP data.

⁸⁷ Biennial Update Report.

⁸⁸ This land of diversity hosts 6-8% of the global species, hosts one-sixth of known languages, and rivals Borneo, the Amazon and the Congo in terms of biodiversity wealth. PNG comprises the eastern half of the largest tropical island on earth, along with hundreds of smaller outlying islands, and its land mass only occupying less than 0.5% of the world's total. Recognized as one of the mega-diverse countries of the world, PNG hosts 4.5% of the world's known land mammals including home to more than 800 species of birds, and 25,000-30,000 vascular plant species. Much of the electricity of PNG is generated from hydropower from two major dams within the country; namely the 62MW Rouna in Central province and the 77MW Yonki in the Eastern Highlands.

⁸⁹ PNG REDD+ Strategy

⁹⁰ PNG Second National Communication.

⁹¹ For renewable energy, barriers include: The financial costs of grid extension, accentuated by the country's rugged terrain and dispersed population; the dismal state of the existing electricity grid; low disposable incomes, lack of skilled labor in the energy sector, lack of an enabling policy environment, including a national electricity tariff that does not cover generation and distribution costs, and a lack of incentives for renewable energy technologies, such as tax rebates for investment in renewable energies, lack of macroeconomic policy certainty with an adverse impact on employment and investment, a complex system of customary land tenure, legislative and regularity uncertainty, institutions suffering from lack of interagency coordination and limited capacity and resources for planning and analysis, project development, and implementation, lack of a mature private sector and financial services for renewable energy, lack of reliable data and surveys, vandalism and theft of renewable energy installations

⁹² <https://data.worldbank.org/indicator/IC.BUS.EASE.XQ?locations=4E-PG>

and the MTDP III. As a critical first step of our operations, GGGI delivered PNG's Green Growth Potential Assessment (GGPA).⁹³ This shows that the energy, agriculture, forestry and climate resilience should be key areas of focus for green growth in PNG.

In 2018-2019, GGGI established an office with currently eight staff members in PNG offices. The main office is established at the Climate Change and Development Authority (CCDA) while three officers are based in Enga, Milne Bay and New Ireland provincial administrations. The country team kicked off GGGI's work with number of earmarked projects including the GCF Readiness and preparatory Support project (US\$667,427) and the four-year Climate Resilient Green Growth (CRGG) Project funded by Australia (US \$4.41 million). The Team has delivered numerous regional and national workshops under the GCF project culminating in delivering the GCF Country Program, the No Objection Procedure, GCF operations manual, private sector engagement and mobilization report, stakeholder and policy report, the NDA capacity needs assessment, the gender guidelines, the sectoral training manuals and trainings on climate finance monitoring and evaluation. Under the CRGG project, three MoUs have been signed with the three focus provinces Enga, Milne Bay and New Ireland, and three scoping assessments conducted. This initial work has facilitated further activities such as provincial CRGG assessments, identification of potential green, climate resilient investment projects and initial discussions with Bank of PNG to establish a green credit guarantee corporation. The CRGG project will contribute to GGGI global operational priorities of catalyzing and accelerating access to climate finance (GOP1) by developing bankable projects, investment proposals and National Financing Vehicles (NFVs) and supporting PNG in strengthening its policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes (GOP2) by mainstreaming CRGG into provincial planning and budgets.

II. COUNTRY PROGRAM

Areas of Focus: In 2021-2022, PNG country program will continue to focus on strengthening national and provincial planning through mainstreaming green growth, climate resilience, gender equality and social inclusion approaches, as well as supporting the accessing and scaling up of green finance, through bankable projects and innovative financial instruments, with an aim to mobilize a minimum of US \$20 million in green finance in sectors such as energy, agriculture and forestry sectors and to ensure climate resilience. GGGI has identified a clear niche given our value proposition, and government demand, of supporting the scaling up of renewable energy, with a focus on improving the access to energy, to work on enhancing ecosystem services and the blue economy through mangrove restoration and forest protection. Capacity building for provincial and local government, communities and other civil society stakeholders is also a key feature of GGGI's work in PNG. A replication plan based on lessons learned and successes of projects in the first 3 focus provinces will be developed to be adopted in 2022 for the remaining 19 provinces in PNG to enable transformational impact of the joint work between GGGI and the GoPNG.

Key strategic outcomes and programmatic solutions include:

- SO1. Contributing to PNGs GHG emission reduction targets through green investments under the CRGG project
- SO2. Creation of green jobs and reducing current unemployment in PNG through bankable projects in three PNG provinces
- SO4. Policy recommendations and investments for PNG's energy transition access and productive use through solar PVs
- SO6. Building resilience of the most vulnerable sectors and communities to adverse effects of climate change by strengthening the country's capacity and system to implement CRGG plans, strategies and related projects, coastal resilience increased through protection of mangroves

GGGI PNG will contribute to above SOs and with a focus on GOPs and programmatic solutions as follows:

GOP 1, PS1 Green investments GGGI, under the DFAT funded CRGG project, will develop bankable projects and mobilize green investments (up to USD 20 Million) for the three selected provinces while establishing financial mechanisms that support sustainability and project funding for such investments. Also, GGGI will contribute to the design and establishment of a Credit Guarantee Corporation to improve the flow of finance towards CRGG activities, by targeting SMEs in agriculture sector with the best potential for success and scalability. This work will contribute to GGGI's strategic objective of creating green jobs.

GOP2, PS2 Strengthening PNGs green growth planning, enhancing the NDC GGGI partners with PNG to enhance its Nationally Determined Contribution (NDC) by raising ambition. Further, through in-country technical expertise and capacity building GGGI supports PNG's commitment to developing sustainably through mainstreaming green growth and climate resilience into provincial

⁹³ *Green Growth Potential Assessment - Papua New Guinea Country Report*. (2019). Retrieved from Global Green Growth Institute website: <https://gggi.org/report/green-growth-potential-assessment-of-papua-new-guinea/>

planning and budgets. Our work on raising climate ambition is starting this year under the Climate Action Enhancement Package and expected to grow in the coming years, for example, if funding allows, GGGI aims to support the development of Low Emission Development Strategy (LEDS) in PNG.

GOP4, PS8 and 9: Accelerating access to sustainable energy, especially for the most vulnerable in society Based on PNG's GGPA recommendations, GGGI will focus on projects promoting electricity access and energy for productive use in PNG. This focus area is particularly relevant given the low energy access rate in the country (10%). Energy for productive use is particularly important because such interventions will provide opportunity for reliable power to increase productivity and efficiency. Potential options to be explored include solar home systems and solar mini grids given their clear price advantage in PNG. GGGI supports PNG's commitment to creating green jobs by catalyzing and accelerating access to climate finance and mobilizing green investments.

GOP3 PS4 and 5: Achieving a sustainable and circular bioeconomy while securing healthy natural systems GGGI PNG aim to develop a mangrove protection and restoration program to build on coastal resilience of communities. This will be developed as part of an Asia-Pacific regional project.

GGGI's Approach to Green COVID Recovery Plans development: COVID-19 requires GGGI to step up our efforts to catalyze green investments to relaunch the PNG economy towards a low carbon and a climate resilient trajectory. The global pandemic is already negatively affecting livelihoods of PNG communities and has worsened the high unemployment and widespread poverty situation in the country. Prior to COVID-19, PNG's GDP growth was predicted to be around 3 percent for the period 2020-2294 but achieving this scenario is now less likely due to long lasting impacts of the pandemic. GGGI, as already a trusted in-country implementing partner, is well positioned to provide technical assistance to develop ambitious investment plans and mobilize finance for greening the recovery package.

GGGI-PNG team has already completed a comprehensive risk assessment and taken a proactive risk mitigation approach to minimize current project implementation challenges during the COVID-19 response phase. As to the next steps, GGGI-PNG will initiate discussions with the government of PNG to accelerate post COVID-19 recovery in a greener and more sustainable manner, with a focus on mobilizing critical green investments in sectors such as health, agriculture, energy, tourism, and forestry, all of which are essential in overcoming the immediate economic downturn and creating sustainable green jobs. Initial discussions will focus on bringing such investments through ongoing projects such as the CRGG. GGGI will also focus on involving the private sector through the financing mechanisms we are developing under the CRGG project to ensure the solutions are inclusive and sustainable. The people with low incomes are most affected from the economic downturn given they have limited access to social protection, we will therefore ensure our interventions focus on social inclusion and addressing those existing and increasing social inequalities. In terms of new project activities for both COVID-19 response and recovery phases, GGGI has developed a concept note on Greening the Tourism Sector's COVID-19 Recovery in Pacific and Caribbean Small Islands Developing States which includes PNG as a potential target country. We will also initiate discussions with potential donors to initiate ideas for further actions.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI's work in PNG is carried out under the guidance and leadership of the Government, and in close collaboration with the CCDA, who is also the NDA to the GCF. GGGI's work is also guided by PNG's Department of National Planning and Monitoring (DNPM) and the Department of Provincial and Local Government Affairs. GGGI has good established relationships with three key provinces in PNG- Enga, Milne Bay and New Ireland-covering highlands, lowlands and islands which are three key geographical locations of PNG and also has an MoU with the Central Province. Also, GGGI is currently exploring further partnership opportunities with other government ministries and agencies such as the Ministry of Finance, Treasury, Energy, Commerce, Trade, Rural Development and the Conservation and Environmental Protection Authority. In addition, GGGI has been coordinating with the Central Bank of PNG, PNG Business Council, the Port Moresby Chamber of Commerce & Industry Ltd and Lae Chamber of Commerce to facilitate private sector engagement in climate change action.

Beyond funding from the Australian Aid Program for the CRGG project, GGGI is exploring opportunities for a second GCF Readiness and Preparatory Support grant targeting long-term low carbon, resilient planning and further engagement with the private sector, building on the first GCF Readiness project implemented by GGGI in 2018-2020. GGGI is also working closely with other development partners such as UNDP, FAO and USAIDCR for ongoing projects, especially the GCF and the NDC Partnership projects.

⁹⁴ World Bank Economic Update: Papua New Guinea – Facing Economic Headwinds, 2019 <https://www.worldbank.org/en/country/png/publication/papua-new-guinea---facing-economic-headwinds> . These figures do not take into account the economic upheaval due to the COVI-19 Pandemic.

GGGI's programming in Papua New Guinea will also be supported by the Pacific regional program. GGGI is one of five partners that supports the Regional Pacific NDC Hub launched by the Fiji Prime Minister Hon. Bainimarama in February 2020. The Regional Pacific NDC Hub funded by Germany, the United Kingdom, Australia and New Zealand and is administered by GIZ, with implementation carried out by GIZ, GGGI, the SPC and SPREP in coordination with the NDC Partnership. GGGI has secured USD 1.1M in funding from GIZ to implement NDC Hub activities in 2020-2021, and in 2021 will commence discussions with GIZ regarding future programming. At the regional level, GGGI will also work with New Zealand Aid which in 2020 approved a multi-country NZD 5M program to be implemented by GGGI to support Pacific countries to transition to low carbon, climate resilient futures, including the development of long-term low emissions development strategies, sectoral roadmaps, and relevant policies and legislation. In partnership with New Zealand Aid, GGGI intends to co-design of the program in 2020 with implementation commencing in 2021. Activities under the regional program will also build upon GGGI's programming in 2020 in the Marshall Islands, Papua New Guinea, and Tonga, funded through the NDC Partnership's Climate Action Enhancement Package (CAEP). These regional activities allow GGGI to provide targeted support to Pacific SIDS to strengthen climate action, particularly on adaptation, with a view to inform regional knowledge sharing and position GGGI as a key partner within the region. In addition, and in response to COVID-19, GGGI has engaged with a number of development partners on ideas for greening the tourism sector, and green entrepreneurship. Discussions are also underway with the Australian Aid Program to explore synergies and complementarities with the AIFFP and the forthcoming new Australian Aid strategy that is expected to be released in 2020. GGGI is also exploring potential partnership and funding opportunities with other development partners such as the Republic of Korea and the United Kingdom. Although not a Norway priority country, GGGI will seek partnership with Norway's International Climate and Forest Initiative (NICFI), supporting knowledge sharing and lessons learning with Indonesia among others.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core and Programmatic Earmarked resources for PNG Country Program for 2021-2022: \$ **0.12** million; Government counterpart contribution: **\$0.16** million; and Partner co-financing of the program is expected at **\$2.52** million in the biennium for a total of **\$3.36**.

TABLE Current and Planned 2021-2022 Country Program (\$, million)

GOP	PSs	Project Title	Implementation		GGGI		Funding			Resource Mobilization	
			Inception	Completion	core	Gov	Partner (Project)	Partner (Program)	Gap	Total	
2019-2020											
GOP1 GOP2	PS1 PS2	Climate Resilient Green Growth in Papua New Guinea	Feb 2019	Feb 2022	0.01	0.11 ⁹⁵	1.9			2.02	Grant agreement signed with Australian Aid Program
GOP5 GOP 1	PS1	Readiness Support to Strengthen PNG's Engagement with the GCF	Feb 2018	Jun 2020	0.03		0.57			0.6	GCF funded project
GOP 2	PS2	Climate Action Enhancement Package	Feb 2020	May 2021	0.04		0.04			0.18	Grant agreement signed with NDC Partnership
GOP1	PS1	Greening 1000 telecommunication towers for Papua New Guinea – a Fuel Switch Project	Jan 2020	May 2021	0.05					0.05	
TOTAL					0.16	0.11	2.51	0		2.85	
2021-2022											
GOP1 GOP2	PS1 PS2	Climate Resilient Green Growth in Papua New Guinea	Feb 2019	Feb 2022		0.16	1.5			1.66	Grant agreement signed with Australian Aid Program
GOP2	PS2	Climate Action Enhancement Package	Jan 2021	May 2021	0.03 ⁹⁶					0.03	Core funding allocated from 2021 budget to fill the gap of CAEP project
GOP4	PS9	Renewable Energy for Productive Use including for Solar irrigation, Water pumping, Tourism and Industrial applications	Jan 2022	Dec 2022	0.01 ⁹⁷					0.01	Some initial work may be covered as part of CRGG project. Likely to submit a proposal to powerim community initiative of Australia DFAT
GOP3	PS5	Mangrove protection and restoration program to build on coastal resilience of communities	Jan 2022	Dec 2022	0.01 ⁹⁸					0.01	PIN to be developed soon
GOP1	PS1	Climate Finance Advisory Network	Jan 2021	Dec 2022				0.31		0.31	
GOP2	PS2	Inclusive Green Finance Strategy for Banking Sector (NZ funding)	Jan 2021- Dec 2022					0.1		0.1	
Operations/Project Preparation					0.06		1.02	0.15		1.23	
TOTAL					0.12	0.16	2.52	0.56		3.36	

⁹⁵ Based on 2019 PNG government in kind support audit. For 2019, we used a pro-rata amount as government in-kind support was calculated from Sept 2019. Support is provided through CCDA and provincial government office space and staff engagement.

⁹⁶ From 2021 budget

⁹⁷ From 2022 budget

⁹⁸ From 2022 budget

V. RESULTS FRAMEWORK

Indicative Investment Mobilization figure for PNG Country Program for 2021-2022:US\$ 25 million.⁹⁹

GOP	PSs	Projects	Outputs	Verification	Invest. Target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP 1	PS1	CRGG	Bankable projects up to \$20M Credit Guarantee Cooperation	EOI for investments; Project monitoring, annual results, completion and evaluation reports	20M	SO1 SO2	TBD (as per IEU's recommendation)	80,000100	IO2	National government agencies and provincial governments are proactive in identifying project priorities for three provinces; Bank of PNG follows guidelines of Department of National Planning and Monitoring to work with GGGI to finalize establishment of the Credit Guarantee Corporation; High operational costs due to high security risks; COVID 19 economic recovery risks green growth aspirations of PNG
GOP 2	PS2	CRGG for Strengthening PNGs green growth planning; enhancing the NDC through MRV systems; PNG LEDS	Three provincial plans with GG, resilience and gender and social inclusion mainstreamed; Guidance on mainstreaming GG, resilience and gender and social inclusion into provincial budgeting and planning; Enhanced NDC; LED Strategy	Provincial plans adopted by government; Guidelines adopted by government; NDC submitted to UNFCC; LED Strategy submitted to UNFCC; Project monitoring, annual results, completion and evaluation reports		SO1 SO2 SO6	NA	NA	IO3	National government agencies and provincial governments are proactive in mainstreaming CRGG priorities in three provincial plans and budgets; PNG Government and other stakeholders remain committed to enhancing NDC and developing a LEDS in the next two years; High operational costs due to high security risks; COVID 19 economic recovery risks green growth aspirations of PNG
GOP 4	PS9 PS8	Renewable Energy for Productive Use	Assessment of new / increased FIT for solar energy for irrigation, water pumping, tourism and industrial applications; Policy and regulatory recommendations for increasing private sector investment; Bankable projects for RE for productive use.	FIT policy launched; Policy and regulatory recommendations given to government; Signed term sheets; Project monitoring, annual results, completion and evaluation reports		SO1 SO2	T.B.D	T.B.D101	IO1, IO2	PNG Government and other stakeholders remain committed to REEE targets; GGGI is successful in raising necessary financial resources to implement the project; High operational costs due to high security risks; COVID 19 economic recovery risks green growth aspirations of PNG
GOP 4	PS8 PS9	Renewable Energy Access in off-grids Areas for health sector in PNG	Feasibility studies; Policy & regulatory recommendations; pipeline of projects	FIT policy launched; Policy and regulatory recommendations given to government; Signed term sheets; Project monitoring, annual results, completion and		SO1 SO2	T.B.D	T.B.D102	IO1, IO2	PNG Government and other stakeholders remain committed to REEE targets; GGGI is successful in raising necessary financial resources to implement the project; High operational costs due to high security risks; COVID 19 economic recovery risks green

⁹⁹ Total investment figure is calculated based on CRGG Project's USD 20 million target and an estimated target for three new projects (2 solar projects and one mangrove project).

¹⁰⁰ Creation of Green jobs via Credit Guarantee Corporation. Reduced GHG emissions can only be calculated once the project priorities for bankable projects are identified by the government counterparts

¹⁰¹ Contributed and attributed impacts can only be calculated once the project concept note is properly developed.

¹⁰² Contributed and attributed impacts can only be calculated once the project concept note is properly developed.

				evaluation reports.						growth aspirations of PNG
GOP 1	PS8 PS9	Solarizing the telecom sector in PNG – Creating first in-line solar PV examples for implementation of off-grid power solutions.	Investment deal structuring; Getting competitive bids for the project owners; Getting a bankable service level agreement signed	Signed term sheets and investment letter of intent		SO1 SO2 Investment mobilization – estimated \$30M	Green jobs created – Circa 1000 green jobs GHG emissions reduction – 720million tCO2e reduced over the project lifetime	-	IO2	The project is bankable, and investor is interested in taking the investment risk for PNG Risk – Digicel management decides to not invest in Solar PV CCDA does not engage with Digicel
GOP 3	PS4 PS5	Achieving a sustainable and circular bioeconomy while securing healthy natural systems	Feasibility studies; Policy and Investment; Support for long term mangrove protection and restoration program; Biodiversity offsets crediting system; Trust funds and National financing vehicle;	Offset system launched / \$ raised; NFV launched / \$ raised; Project monitoring, annual results, completion and evaluation reports		SO5 SO6	T.B.D	T.B.D103	IO1, IO2	PNG Government and other stakeholders remain committed securing healthy natural systems through; mangrove protection and restoration program and biodiversity offsets crediting system; GGGI is successful in raising necessary financial resources to implement the project; High operational costs due to high security risks; COVID 19 economic recovery risks green growth aspirations of PNG

¹⁰³ Contributed and attributed impacts can only be calculated once the project concept note is properly developed.

TONGA

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI operations in Tonga started in 2019. GGGI support and results delivered during 2019-2020 and the programming for 2021-22 have been designed to help Tonga address critical development challenges – particularly 1) access to reliable, secure and sustainable energy, 2) vulnerability to climate change and natural disasters, and 3) market distance and lack of economies of scale that attract investment – and achieve national goals prioritized in the Tonga Strategic Development Framework 2015-2025 (TSDF) and the Nationally Determined Contribution (NDC). GGGI's engagement in Tonga has aligned to GGGI's Global Operational Priorities focused on accelerating climate finance and green investments for Tonga's public and private sectors, strengthening policy, planning and regulatory frameworks, and making communities sustainable, livable and resilient through green jobs, services and infrastructure.

Tonga became the 29th Member country of GGGI at the end of 2018. In 2018-2019, GGGI carried out multiple missions to meet with stakeholders and to develop a program of work aligned to Tonga's sustainable development priorities and Paris Agreement commitments. The results of these engagements were agreement to work together to develop two national-level policy outputs: the Tonga Energy Roadmap PLUS 2021-2035 (TERM PLUS); and the Tonga Low Emission Development Strategy (LEDS). During 2019-2020, GGGI worked closely with government counterparts, particularly the Ministry of Meteorology, Energy, Information, Disaster Management, Climate Change and Communications (MEIDECC) to initiate work on these two policies, as well as supporting the enhancement of Tonga's NDC. GGGI has started work with the Department of Energy to review the TERM 2010-2020, assess progress on targets, consult with stakeholders and develop the TERM PLUS, which will be the key national strategy document guiding the reduction of Tonga's dependency on fossil fuels and increasing access to affordable and sustainable energy services. GGGI conducted an analysis of the original Tonga Energy Roadmap, organized a series of comprehensive stakeholder consultations and drafted chapters for the TERM PLUS. This work will also lead to the development of project concepts to support TERM PLUS implementation in the areas of renewable energy and energy efficiency. In 2019-2020, GGGI also began work with the Department of Climate Change on the Tonga LEDS, which will facilitate the shift towards inclusive, low-carbon green growth pathways by prioritizing low-emissions development in Tonga's energy, transport, agriculture and forestry, waste and circular economy sectors. As part of the Tonga LEDS work and through the support of the Pacific NDC Hub, GGGI will also review Tonga's current NDC and support the development of an enhanced NDC for submission to the UNFCCC. In 2020, GGGI is also delivering activities to support Tonga's NDC implementation by establishing a national greenhouse gas emission database, strengthening Tonga's monitoring, reporting and verification systems, streamlining and integrating NDCs into National and regional plans and processes, and developing NDC awareness materials and resources.

II. COUNTRY PROGRAM

Areas of Focus GGGI supports Tonga to access reliable, secure and sustainable energy in order to unlock the country's low-emission development potential and achieve national goals and targets based on the Tonga Strategic Development Framework 2015-2025 (TSDF), and NDC. GGGI's support will help to provide energy services that power Tonga's economic and social sectors, while achieving climate action and contribute to Tonga's development goals to shift to 70% renewable energy by 2030 and reach net-zero emissions by 2050. GGGI will contribute to:

- SO1: GHG emissions reductions through low-emissions development
- SO3: Secure, affordable energy services through renewable energy

With a focus on:

- GOP1, Programmatic Solution 1 – Green Investment: Mobilization of green and climate funds to national financing mechanisms
- GOP2, Programmatic Solution 2 – Climate Action: Development of national energy policies and low-emission development strategies
- GOP4, Programmatic Solution 9 – Solar PV: Implementing solar solutions to increase access to sustainable energy and achieve renewables targets; and Programmatic Solution 7: Sustainable mobility for the land transport sector

GGGI's Approach to Green COVID Recovery Plans development The COVID-19 crisis generated considerable negative impacts in Tonga. Though no cases were confirmed, the economy suffered losses worth nearly USD 15M in the first months of the crisis¹⁰⁴. To mitigate against these impacts Tonga's government passed a USD 25M stimulus package to aid vulnerable groups and people most affected by the crisis, and to revive the most affected economic sectors such as fisheries, agriculture and tourism. GGGI will work with government partners to identify opportunities

¹⁰⁴ <https://www.rnz.co.nz/international/pacific-news/413292/tonga-announces-covid-19-stimulus-package>

to green response activities and align recovery programs with the development of the Tonga LEDS.

Supporting a green response and recovery in Tonga’s tourism sector is a particular role GGGI can play. The value of international tourism receipts in Tonga was USD 48M in 2018¹⁰⁵; a figure that will severely decline as a result of COVID-19. Therefore, GGGI will leverage its experience working in the tourism sectors of other Pacific countries to focus and mobilize resources that respond to the immediate needs of tourism workers and ensure that the recovery of the tourism sector is a green one. In partnership with government and private sector stakeholders, GGGI will make available services that coordinate green tourism planning, provide income earning opportunities to tourism workers and low/non-skilled workers through online trainings and public works initiatives, and develop schemes that finance green infrastructure investments in tourism related properties and businesses.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI’s counterpart Ministry is MEIDECC, through which GGGI is working closely with the Department of Energy and the Department of Climate Change, which is also the NDA to the GCF. GGGI continues to explore and establish partnerships with development partners active in Tonga who are also working on renewable energy and low-carbon development including the Pacific Community (SPC) and its Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE) and Climate Works Australia (CWA). In 2019, GGGI secured funds from the European Climate Foundation through and in partnership with CWA to carry-out initial scoping and consultations supporting the development of the Tonga LEDS. From the NDC Partnership, GGGI received USD 0.16M in funding to deliver Climate Action Enhancement Package (CAEP) activities that enhance Tonga’s NDC as well as complement the development of the Tonga LEDS.

GGGI will explore opportunities to support Tonga through GCF Readiness and development of SAP proposals to the GCF, potentially linked to the concept notes that will be developed as part of the TERM Plus work. GGGI’s programming in Tonga will also be supported by the Pacific regional program. GGGI is one of five partners that supports the Regional Pacific NDC Hub launched by the Fiji Prime Minister Hon. Bainimarama in February 2020. The Regional Pacific NDC Hub is funded by Germany, the United Kingdom, Australia and New Zealand and is administered by GIZ, with implementation carried out by GIZ, GGGI, the SPC and SPREP in coordination with the NDC Partnership. GGGI has secured USD 1.1M in funding from GIZ to implement NDC Hub activities in 2020-2021, and in 2021 will commence discussions with GIZ regarding future programming. At the regional level, GGGI will also work with New Zealand Aid which in 2020 approved a multi-country NZD 5M program to be implemented by GGGI to support Pacific countries to transition to low carbon, climate resilient futures, including the development of long-term low emissions development strategies, sectoral roadmaps, and relevant policies and legislation. In partnership with New Zealand Aid, GGGI intends to co-design the program in 2020 with implementation commencing in 2021. GGGI is also working the Qatar Fund For Development (QFFD) to design and deliver a multi-year Pacific program targeting entrepreneurs in the region. In partnership with the Rocky Mountain Institute and with support from Canada, GGGI is developing a regional program to train and position Climate Finance Advisors in countries across the Pacific.

In addition, and in response to COVID-19, GGGI has engaged with a number of development partners on ideas for supplementing livelihoods, greening the tourism sector, and green entrepreneurship. Discussions are also underway with the Australian Aid Program to explore synergies and complementarities with the forthcoming new Australian Aid strategy that is expected to be released in 2020.

¹⁰⁵ <https://data.worldbank.org/indicator/ST.INT.RCPT.CD?locations=TO>

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Tonga for 2021-2022: **\$0.02 million** Government counterpart contribution: **\$0.02 million**; and Partner co-financing of the program is expected at **\$0.78 million** in the biennium for a total of **\$0.80 million**

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ¹⁰⁶	Partner	Gap	Total	
2019-2020										
GOP1 GOP2	PS1 PS2	Low-Emissions Development Strategy (LEDS) for Tonga	July 2019	June 2021	0.082	0.00	0.027	0.3	0.409	Initial resources mobilized from the European Climate Fund, with additional resources forthcoming from New Zealand regional program.
GOP2	PS2	Tonga Energy Road Map (TERM) Review and Development of TERM-Plus	August 2019	April 2021	0.135	0.00	0.00	0.1	0.235	GGGI funding and exploring additional resources with development partners operating in the pacific
GOP2	PS2	Climate Action Enhancement Package (CAEP)	July 2020	June 2021	0.00	0.00	0.158	0.00	0.158	Funding agreement signed with NDC Partnership
GOP1 GOP2	PS1 PS2	Project Initiation	Jan 2019	Dec 2019	0.121	0.00	0.00	0.00	0.121	GGGI funding
TOTAL					0.338	0.00	0.185	0.4	0.923	
2021-2022¹⁰⁷										
GOP1 GOP2	PS1 PS2	Low-Emissions Development Strategy (LEDS) for Tonga	July 2019	June 2021	0.00	0.00	0.15	0.00	0.15	European Climate Fund, with additional resources from New Zealand
GOP2	PS2	Tonga Energy Road Map (TERM) Review and Development of TERM-Plus	August 2019	April 2021	0.00	0.02	0.15	0.00	0.15	Funding from regional New Zealand MFAT program
GOP2	PS2	Climate Action Support	July 2020	December 2022	0.00	0.00	0.05	0.00	0.05	GGGI funding and exploring additional resources with development partners operating in the pacific.
GOP1 GOP2 GOP4	PS1 PS2 PS7 PS9	NDC Implementation with focus on Energy & Transport sectors	April 2021	December 2022	0.00	0.00	0.150	0.00	0.150	Core funding and exploring additional resources with development partners operating in the pacific
GOP1 GOP2	PS1 PS2	Pacific Climate Finance Advisors	January 2021	December 2022	0.00	0.00	0.00	0.28	0.28	Regional program delivered in partnership with the Rocky Mountain Institute with funding from Canada GAC – USD 2.7M over 2 years
Operations/Project Preparation					0.02				0.02	
TOTAL					0.02	0.02	0.50	0.28	0.80	

¹⁰⁶ [Insert footnote describing in-kind contribution]

¹⁰⁷ The New Zealand-funded Regional low carbon, resilient green growth development program will support delivery of activities and new projects in Tonga.

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Investment target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1 GOP2	PS1 PS2	Low-Emissions Development Strategy (LEDS) for Tonga	<ul style="list-style-type: none"> Develop process design and workplan, including a stakeholder engagement plan Collect and assess baseline information for at least 4 sectors: energy, transport, agriculture and forestry, waste and circular economy Produce a Long-Term Low Emissions Development Strategy (LEDS) for Tonga 	<p>Government adoption of strategy, plans, and regulations</p> <p>Project monitoring, annual results, completion and evaluation reports</p>		SO1, SO3	SO1 TBD	SO1 TBD	IO1	Availability of quality data
							SO3 TBD	SO3 TBD		
GOP2	PS2	Tonga Energy Road Map (TERM) Review and Development of TERM-Plus	<ul style="list-style-type: none"> Review TERM 2010-2020 Recommendations on the scope/priorities for TERM Plus 2020-2035 Develop draft chapters for TERM Plus 2020-2035 Draft project concept proposal 	<p>Government adoption of strategy, plans, and regulations.</p> <p>Project monitoring, annual results, completion and evaluation reports</p>		SO1, SO3	SO1 TBD	SO1 TBD	IO1	Changes in government that can lead to changes in policy priorities
							SO3 TBD	SO3 TBD		
GOP2	PS2	Climate Action Support	<ul style="list-style-type: none"> Produce NDC awareness materials and resources Establish NGHGI database. Train Mitigation Technical Working group to use database. Produce tools produced to streamline and integrate NDCs into National and regional plans and processes 	<p>Approval of materials and database</p> <p>Training reports</p> <p>Project monitoring, annual results, completion and evaluation reports</p>		SO1	N/A	N/A	IO1, IO3	Ability to resource and deliver as scheduled given COVID-19 travel restrictions.
GOP1 GOP2 GOP4	PS1 PS2 PS7 PS9	NDC Implementation with focus on Energy & Transport sectors	<ul style="list-style-type: none"> Sectoral action plans Investment plans 	<p>Government approval and implementation,</p> <p>Project monitoring, annual results, completion and evaluation reports</p>		SO1, SO3	SO1 TBD	SO1 TBD	IO1, IO2	Changing government priorities
							SO3 TBD	SO3 TDB		
GOP1 GOP2	PS1 PS2	Pacific Climate Finance Advisors	<ul style="list-style-type: none"> Climate finance advisory support provided to Tonga Bankable project concept notes developed 	<p>Adopted policies, strategies and action plans.</p> <p>Project monitoring, annual results, completion and evaluation reports</p>		SO1, SO2, SO3, SO5, SO6	TBD	TBD	IO1, IO2, IO3	Buy-in from government stakeholders

VANUATU

I. COUNTRY STRATEGIC FRAMEWORK AND ACHIEVEMENTS

GGGI started operations in Vanuatu in 2014. GGGI support and results delivered during 2019-2020 and the programming for 2021-2022 have been designed to help Vanuatu address critical development challenges – particularly 1) access to reliable, secure and sustainable energy and water 2) severe vulnerability to climate change and natural disasters, and 3) market distance and lack of economies of scale that can attract investment – and achieve national goals prioritized in the Vanuatu’s National Sustainable Development Plan (NSDP), National Energy Road Map (NERM) and NDC. GGGI’s engagement in Vanuatu has aligned to GGGI’s Global Operational Priorities focused on accelerating climate finance and green investments for Vanuatu’s public and private sectors, strengthening policy, planning and regulatory frameworks, achieving a sustainable circular bioeconomy, and making communities sustainable, livable and resilient through green jobs, services and infrastructure.

In 2019-2020, in line with the Country Planning Framework (CPF) 2017-2021 (<http://gggi.org/report/vanuatu-country-planning-framework-2017-2021/>), GGGI continued to support on expanded access to inclusive, affordable and sustainable energy services for rural households, businesses and public institutions. Building on its previous work to update Vanuatu’s NERM, GGGI provided technical support to the Department of Energy (DoE) to develop and launch the NERM Implementation Plan (NERM-IP) in October 2019. The NERM-IP streamlines and prioritizes energy projects that strategically contribute to achievement of the NSDP goals, NDC and NERM targets to generate 100% of electricity with renewable resources by 2030 and achieve 100% rural electrification. To assist implementation of such projects, GGGI continued to support the operationalization of the National Green Energy Fund (NGEF), which GGGI helped establish in 2018. GGGI provided technical support to the NGEF to develop project concepts and funding proposals. In 2019, the NGEF raised USD 0.28M domestically with a portion disbursed to 6 pilot projects supporting solar off-grid electrification. Government also took the decision to allocate USD 0.83M to the NGEF on an annual basis for 5 years. To further capitalize the NGEF and strengthen the Fund’s ability to mobilize climate finance, GGGI and the DoE developed and submitted a Simplified Approval Process concept note to the Green Climate Fund (GCF).

GGGI is also implementing two GCF Readiness projects focusing on climate action and enhancing access to climate finance for both the public and private sectors. These GCF Readiness projects are focused on supporting the accreditation of the Ministry of Finance and Economic Management as a Direct Access Entity to the GCF, and enabling the private sector to contribute to the country’s long-term climate change disaster risk reduction and climate finance goals by providing trainings on project preparation and resilience building for business and industry. This latter GCF Readiness project is being delivered in partnership with the Vanuatu Business Resilience Council and is a first of its kind in the Pacific for its engagement of the private sector. GGGI also submitted a third GCF Readiness proposal in 2020, which will begin in 2021 and aims to assist the government in the development of a national energy efficiency strategy and action plan for Vanuatu.

Continuing to support Vanuatu’s tourism sector and building on previous work to successfully install solar-powered freezers in outer island tourist bungalows, GGGI produced in partnership with the Department of Tourism, the Renewable Energy and Energy Efficiency Guide for Bungalow Operators. GGGI also took concrete steps to support rural communities to sustainably access water through solar-powered water pumps. Funded by the Government of Luxembourg, and delivered in partnership with the Department of Water Resources (DoWR), GGGI is managing the installation of solar water pumping systems in over 20 rural and outer island communities including developing operational and maintenance guidelines for solar water pumps and delivering trainings to these communities, village water committees and sub-national government officials to ensure the maintenance and sustainability of the systems.

II. COUNTRY PROGRAM

Areas of Focus: GGGI supports Vanuatu to access reliable, secure and sustainable energy in order to unlock the country’s development potential and achieve national goals and targets based on the Vanuatu CPF 2017-2021, which aligns to and supports the Vanuatu NSDP, the NDC and the NERM 2016-2030. GGGI’s support will continue to provide energy services that power Vanuatu’s economic and social sectors, while achieving climate action and contributing to Vanuatu’s development goals of 100% electrification by 2030 and 65% of rural bungalows using solar by 2030, and Paris Commitment of close to 100% renewable electricity by 2030. GGGI will contribute to:

- SO1 & SO3: Rural electrification through renewable energy for households, businesses and public institutions
- SO3: Renewable energy for water and sanitation, agriculture, tourism and fisheries
- SO1 & SO6: Energy efficiency for tourism and industry

With a focus on:

- GOP1, Programmatic Solution 1 – Green Investment: Mobilization of green and climate funds through the National Green Energy Fund and the accreditation of Direct Access Entities
- GOP2, Programmatic Solution 2 – Climate Action: Development of national energy efficiency policies, low-emission development strategies, and private sector engagement and planning
- GOP4, Programmatic Solution 9 – Solar PV: Implementing solar powered water pumps in rural communities and solar solutions, including freezers and PV, on tourism bungalows, rural schools and health centers

GGGI's Approach to Green COVID Recovery Plans development Tourism is a critical economic sector in Vanuatu. The total contribution of travel and tourism to Vanuatu's GDP was estimated to be 48% in 2018, and this was expected to increase to 52% of GDP by 2025¹⁰⁸. However, the COVID-19 crisis has led to an unprecedented collapse in tourism globally due to international travel restrictions and fears over public health. This has placed an incredible strain on the economy of Pacific SIDS, and Vanuatu is no exception with thousands of tourism workers suddenly unemployed and hundreds of businesses impacted. COVID-19 impacts to Vanuatu's tourism will reverberate to other critical socio-economic sectors and affect the country's ability to achieve national development goals and international climate action commitments.

To mitigate COVID-19 impacts in Vanuatu, and building on the organization's experience working within the country's tourism sector, GGGI will direct its focus and mobilize resources to respond to the immediate needs of tourism workers and ensure that the recovery of the tourism sector is a green one. In partnership with government and private sector stakeholders, GGGI will make available services that coordinate green tourism planning, provide income earning opportunities to tourism workers and low/non-skilled workers through online trainings and public works initiatives, and develop schemes that finance green infrastructure investments in tourism related properties and businesses.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

GGGI works closely with the Ministry of Climate Change (MoCC) which is also the NDA for the GCF. As part of the program's partnership and resource mobilization strategy, GGGI outputs are closely aligned to the NERM and the NGEF, as well as the Vanuatu Climate Finance Roadmap. GGGI completed its first GCF Readiness Project in Vanuatu to support the development of the NGEF in 2018, and is currently implementing two GCF Readiness projects which started in 2019 on mobilizing the private sector for climate action and in 2020 to enhance the country's direct access to the GCF. A Readiness project to commence in 2021 has been submitted which aims to support the development of Vanuatu's National Energy Efficiency Strategy and Action Plan. GGGI is also working with the DoE and DoWR to install solar powered water pumps in over 20 rural communities in 2020 as part of a Luxembourg Government funded project, and will commence exploration with Luxembourg and other development partners on opportunities to scale-up the project from 2021. Agence Française de Développement (AFD) is a potential partner that has expressed interest in supporting LEDS development in Vanuatu, as well as programmatic interventions aligned with GGGI's global priorities.

GGGI's programming in Vanuatu will also be supported by GGGI's Pacific regional program. GGGI is one of five partners that supports the Regional Pacific NDC Hub launched by the Fiji Prime Minister Hon. Bainimarama in February 2020. The Regional Pacific NDC Hub is funded by Germany, the United Kingdom, Australia and New Zealand and is administered by GIZ, with implementation carried out by GIZ, GGGI, the SPC and SPREP in coordination with the NDC Partnership. GGGI has secured USD 1.1M in funding from GIZ to implement NDC Hub activities in 2020-2021 and in 2021 will commence discussions with GIZ regarding future programming. At the regional level, GGGI will also work with New Zealand Aid, which in 2020 approved a multi-country NZD 5M program to be implemented by GGGI to support Pacific countries to transition to low carbon, climate resilient futures, including the development of long-term low emissions development strategies, sectoral roadmaps, and relevant policies and legislation. In partnership with New Zealand Aid, GGGI intends to co-design the program in 2020 with implementation commencing in 2021. GGGI is also working the Qatar Fund For Development (QFFD) to design and deliver a multi-year Pacific program targeting entrepreneurs in the region. In partnership with the Rocky Mountain Institute and with support from Canada, GGGI is developing a regional program to train and position Climate Finance Advisors in countries across the Pacific. GGGI is also working the Qatar Fund For Development (QFFD) to design and deliver a multi-year Pacific program targeting entrepreneurs in the region. In partnership with the Rocky Mountain Institute and with support from Canada, GGGI is developing a regional program to train and position Climate Finance Advisors in countries across the Pacific.

In addition, and in response to COVID-19, GGGI has engaged with a number of development partners on ideas for greening the tourism sector - including the scale-up and implementation of approximately 100 solar-powered freezers in tourist bungalows throughout Vanuatu's remote, outer islands - and green entrepreneurship. Discussions are also underway with the Australian Aid Program to explore synergies and complementarities with the forthcoming new Australian Aid strategy that is expected to be released in 2020.

¹⁰⁸ WTTC, 2025

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Vanuatu for 2021-2022: **\$0.02 million**; Government counterpart contribution: **\$0.01 million**; and Partner co-financing of the program is expected at **\$3.57 million** in the biennium for a total of **\$3.6 million**.

TABLE Current and Planned 2021-2022 Country Program (million USD)

GOPs	PSs	Project Title	Implementation		GGGI	Funding				Resource Mobilization
			Inception	Completion		Gov ¹⁰⁹	Partner	Gap	Total	
2019-2020¹¹⁰										
GOP4	PS9	Enhancing resilience to climate change through solar power driven access to water in rural areas	January 2019	December 2020	0.00	0.01	1.7 (EUR 1.5)	0.00	1.71	Luxembourg Ministry of Environment, Climate and Sustainable Development
GOP1	PS1	Phase 3 - Support to the Vanuatu National Green Energy Fund	January 2019	December 2020	0.12	0.15	0.02	0.00	0.30	GGGI funding with USD 27,000 contribution in-kind from UNDP
GOP1 GOP2	PS1 PS2	Mobilizing the Vanuatu Private Sector Towards Climate Change Action	April 2019	December 2020	0.00	0.00	0.35	0.00	0.35	GCF approved Readiness and Preparatory Support grant
GOP1	PS1	Enhancing Vanuatu's Ability to Seek Accreditation and Direct Access to the GCF	Dec 2019	September 2021	0.00	0.00	0.45	0.00	0.45	GCF approved Readiness and Preparatory Support grant
GOP1 GOP4	PS1 PS9	Mainstreaming sustainable energy infrastructure in Fiji and Vanuatu ¹¹¹	June 2020	December 2022	0.011	0.00	0.00	0.00	0.011	Allocation of core resources approved in April 2020. Total budget under the project for 2020 is 0.56m
TOTAL					0.131	0.16	2.53	0.0	2.81	
2021-2022										
GOP1	PS1	Enhancing Vanuatu's Ability to Seek Accreditation and Direct Access to the GCF	Dec 2019	September 2021	0.00	0.00	0.20	0.00	0.20	GCF approved Readiness and Preparatory Support grant
GOP2	PS2	Support for Development of Vanuatu National Energy Efficiency Strategy and Action Plan	January 2021	June 2022	0.00	0.00	0.29	0.00	0.29	GCF Readiness proposal was submitted in March 2020
GOP4	PS9	Phase 2 - Enhancing resilience to climate change through solar power driven access to water in rural areas	March 2021	December 2022	0.00	0.01	0.00	1.7 (EUR 1.5)	1.71 (EUR 1.5)	Initial proposal to be developed for Government of Luxembourg, though other donors could also be engaged
GOP1 GOP2	PS1 PS2	Phase 2 - Mobilizing the Vanuatu Private Sector Towards Climate Change Action	June 2021	December 2022	0.00	0.00	0.00	0.35	0.35	GCF Readiness to be submitted in 2020
GOP1 GOP2	PS1 PS2	Vanuatu Low-Emissions Development Strategy (LEDS)	January 2021	December 2022	0.00	0.00	0.30	0.45	0.75	Regional program funds from New Zealand, with support from AFD sought
GOP1 GOP2	PS1 PS2	Pacific Climate Finance Advisors	January 2021	December 2022	0.00	0.00	0.00	0.28	0.28	Regional program delivered in partnership with the Rocky Mountain Institute with funding from Canada GAC – USD 2.7M over 2 years
Operations/Project Preparation					0.02				0.02	
TOTAL					0.02	0.01	0.79	2.78	3.6	

¹⁰⁹ In-kind contribution towards GGGI office space and furniture, utilities, telephone bills and printing services from the Department of Energy and Department of Water Resources.

¹¹⁰ The KOICA regional capacity building program to strengthen sustainable implementation of renewable energy technologies for rural energy began in 2019 and expected to end in December 2020. This project provided funding to Vanuatu. However, this funding is reflected in the Pacific Regional activities under the Fiji CBP.

¹¹¹ This project commenced in June 2020 and is delivering activities and outputs in both Fiji and Vanuatu. The budget is the core allocation for Vanuatu in 2020.

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Invest. target	SOs	SO Impact Estimation		IOs	Assumptions and Risks
							Attributed	Contributed		
GOP1	PS1	Enhancing Vanuatu's Ability to Seek Accreditation and Direct Access to the GCF	1. Complete MFEM accreditation application 2. Institutional Support to MFEM i.e. financial management, procurement, gender and ESS standards 3. NDA/MCCA NDA inter-institutional coordination mechanism developed 5. Enhanced direct access (EDA) project concept note	Ministry of Finance and Economic Management (MFEM) applications, reports Project progress and completion reports submitted to GCF		SO1 SO6	N/A	N/A	IO1, IO2, IO3	Lack of cooperation by stakeholders No processes/ coordination mechanisms in place for project screening/ approval.
							N/A	N/A		
GOP2	PS2	Support for Development of Vanuatu National Energy Efficiency Strategy and Action Plan	1. National Energy Efficiency Strategy and Action Plan 2. Options on EE enforcement 3. On-bill Financing (OBF) program 4. Recommendations on relevant fiscal reforms and incentives to promote EE upscaling	Government adoption of strategy, plans, and regulations Project progress and completion reports submitted to GCF		SO1 SO3	N/A	N/A	IO1	Changes in government that can lead to changes in policy priorities New regulatory framework for appliances labelling
							N/A	N/A		
GOP4	PS9	Phase 2 - Enhancing resilience to climate change through solar power driven access to water in rural areas	1. solar irrigation schemes Climate Smart Agriculture interventions. 2. Supply and installation of solar Powered Water Systems in other communities and further technical support to the Department of Water Resources 3. Standards for "solar waste" safe disposal.	Installation reports Project monitoring, annual results, completion and evaluation reports		SO1 SO3 SO6	SO1	SO1	IO1, IO2, IO3	Logistics very expensive due to remoteness
							70,644 tCO2e emissions avoided over lifespan of the systems	0.0000013456 Gg, or 0.0000019 % contribution to the NDC		
							SO3 7,500 beneficiaries	SO3 TBD		
							SO6 7,500 beneficiaries	SO6 2.71% of total population		
GOP1 GOP2	PS1 PS2	Phase 2 - Mobilizing the Vanuatu Private Sector Towards Climate Change Action	1. Build private sector capacity 2. Develop pipeline of private sector project 3. Bankable project concept note developed with the private sector and submitted for GCF funding (or other climate finance sources)	Development of concept notes for private sector financing Project progress and completion reports submitted to GCF		SO1 SO6	SO1	SO1	IO2, IO3	Continued partnership and close collaboration with VCCI/VBRC
							TBD	TBD		
GOP1 GOP2	PS1 PS2	Vanuatu Low-Emissions Development Strategy (LEDS)	1. Develop process design and workplan, including a stakeholder engagement plan 2. Collect and assess baseline information for at least 4 sectors 3. Produce a Long-Term Low Emissions Development Strategy (LEDS)	Government adoption of strategy, plans, and regulations Project monitoring, annual results, completion and evaluation reports		SO1	SO1	SO1	IO1	Availability of quality data
							TBD	TBD		
GOP1 GOP2	PS1 PS2	Pacific Climate Finance Advisors	Climate finance advisory support provided in 9 Pacific Island Countries Bankable project concept notes developed	Adopted policies, strategies and action plans. Project monitoring, annual results, completion and evaluation reports.		SO1 SO2 SO3 SO5 SO6	TBD	TBD	IO1, IO2, IO3	Buy-in from target countries

GLOBAL PROGRAMS

GLOBAL PROGRAM STRATEGY FOR 2021-2022

The Global Program is a framework to streamline GGGI interventions in certain strategic solution-focused areas consistent with GGGI GOP and PSs under Strategy 2030. The Global Program aims to: 1) accelerate delivery of results within and across GGGI country programs; 2) promote scaling up and replication of successful solutions; 3) prepare knowledge products to share lessons learned or experiences around the solutions; and 4) contribute to solution-focused resource mobilization. The Global Program will focus on what has been identified as high-priority, high-impact solution areas aligned to Strategy 2030's Programmatic Solutions. Over the biennium 2021-2022, there are a total of six Global Programs to be implemented.

1. Global Program on Energy Efficiency in Buildings is in line with GOP 4 (making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure), and Programmatic Solution 8 (green buildings). It seeks to create enabling environments in GGGI member countries to cost-effectively deploy large amounts of energy efficiency upgrades in buildings in larger cities, with the longer-term vision of reaching typically hard-to-reach segments such as low-income housing and multi-family units. In five years, GGGI aims to deploy at least \$100 million of building energy efficiency upgrades through a mix of public and private funds, across countries such as Mongolia, Rwanda and potentially others, such as Cambodia, Uganda, Lao PDR, Indonesia, and Qatar.
2. Global Program on Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes place emphasis on GOP 3 (achieving a sustainable and circular bioeconomy while securing healthy natural systems) and Programmatic Solutions 4 (sustainable forests). The Program is designed to consolidate lessons learned in GGGI country programs and to develop solutions to mobilize finance for the restoration and protection of forest landscapes. The Program will build on GGGI's existing expertise and initiatives in Colombia, Indonesia, and Peru during the first phase to document innovative financing mechanisms that have been developed or will be by existing sustainable landscape projects. The Program aims to consolidate and develop financing solutions in conjunction with existing pipeline projects in India, Guyana, Ethiopia, Sri Lanka, Myanmar, and Vietnam during the Work Program and Budget 2021-2022. The program will aim to document existing portfolio and solutions and utilize this for communication to external stakeholders with emphasis placed upon the World Forestry Congress to be held in Seoul in May 2021.
3. Global Program on Renewable Energy Auction is in line with GOP 1 (catalyzing and accelerating access to climate finance /green investments for members' public and private sector), and 2 (Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes), . The Program focuses on designing appropriate renewable energy procurement mechanism with clear focus on auction mechanisms by building an appropriate underlying approach and methodology. In close coordination with government agencies, GGGI will provide technical assistance support for design and implementation of targeted policies, regulatory support tools, and develop renewable energy procurement mechanisms that would be the most successful in accelerating deployment of renewable energy. Target countries includes Lao PDR, Mongolia, the Philippines, and Guyana.
4. Global Program on Solar Irrigation Pumping Systems is in line with GOP 1 (catalyzing and accelerating access to climate finance /green investments for members' public and private sector), 2 (Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes), and 4 (making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure). The Program focuses on designing appropriate business models and mobilizing green finance for scaling up solar irrigation in the target countries. In close coordination with government agencies, GGGI will provide technical assistance support for design and implementation of targeted policies, regulatory support tools, and appropriate business models for deployment of solar irrigation at scale. Target countries includes Senegal, Burkina Faso, Uganda, and Ethiopia.
5. Global Program on Transport and Sustainable Mobility is in line with GOP 1 (catalyzing and accelerating access to climate finance /green investments for members' public and private sector), 2 (Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes), and 4 (making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure), and Programmatic Solution 1 (green

investments), 2 (climate action), and 7 (sustainable mobility). The Program is designed to support GGGI member countries in the transition of their transport sector to sustainable and low-carbon models, including non-motorized transport. It aims to 1) scale up existing initiatives, including but not limited to feasibility assessments for electric buses and policy recommendations to accelerate e-mobility transition, 2) expand its scope towards Non-Motorized Transport (forms of travel that do not rely on an engine or motor for movement, such as walking and bicycling, and supporting urban design), and 3) step up the results into impacts that will be measured primarily through the Strategic Outcomes defined in GGGI's 2030 Strategy. Target countries consist of Cambodia, Lao PDR, Morocco, Ethiopia, Jordan, Senegal, Uganda, Rwanda, Mongolia, Nepal, and Sri Lanka.

6. Global Program on Waste is in line with GOP 1 (catalyzing and accelerating access to climate finance/green investments for members' public and private sector), 2 (Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes), 4 (making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure), and 5 (acceleration progress of GGGI country programs in poverty eradication and gender quality through organizational operations) and Programmatic Solutions 1 (green investments), 2 (climate action), and 6 (waste management). The Program focuses on evaluating and valorizing waste value chains, shifting from landfill dependent systems, supporting local solutions and responsibility, engaging all stakeholders in change, and providing a role for and supporting the private sector along with strengthening the link to climate finance, public health and quality of life through effective and inclusive waste management systems. Target countries consist of Senegal, Cambodia, Lao PDR, Peru, and potentially others through project development

Under the Minus-Case-Scenario of the biennial work program and budget 2021-2022, above mentioned six Global Programs are expected to be carried out with decreased core funding support and accordingly reduced scope of the activities. The Global Programs will be sharpened to cope with the budgetary constraints while remaining to maximize the impacts by gearing the limited amount of core funding support to mobilizing earmarked resources.

PARTNERSHIP AND RESOURCE MOBILIZATION

The Global Programs will kick off by utilizing the existing core resources to establish partnerships and initial groundwork in the pilot countries. Global Programs will leverage GGGI's membership in global coalitions to foster strategic partnerships such as Green Growth Knowledge Platform with organizations engaged in complementary work. Both global and local partnerships will be explored to deliver the program, in conjunction with relevant government agencies, development partners, GCF accredited entities, financial institutions, and other stakeholder groups.

The Programs will target to mobilize earmarked resources from one or multiple sources for expanding program in the existing countries and include new countries. Once achieved, country specific earmarked funding will be utilized in implementing the country specific activities that constitute Global Programs. Global Program Teams in close coordination with Country Teams will develop earmarked proposals based on the mandate of the Program, donor expectations, and country needs. Considering the global approach of the program, the earmarked funding will devote a percentage of expenditures for global coordination activities.

BUILDING ENERGY EFFICIENT GLOBAL PROGRAM

I. GLOBAL PROGRAM STRATEGY

Across the globe more than 30 % of greenhouse gas emissions derive from energy use in buildings. By 2050 global building energy demand could increase by 50% if no action is taken. Reaching the Paris Climate goals requires investing in renovation of the existing building stock. Increasing the energy efficiency of buildings is not only the most significant and cost effective investment cities can make to reduce their impact on climate, it is also the backbone to a future prosperous society. This is about people's right to live, learn, work, and recover in buildings that are comfortable and in which they feel, safe.

Building Energy Efficient Global Program (BEEGP) seeks to create enabling environments in GGGI member countries to cost-effectively deploy large amounts of energy efficiency upgrades in buildings in larger cities, with the longer-term vision of reaching typically hard-to-reach segments such as low-income housing and multi-family units. In five years, GGGI aims to deploy at least \$100 million of building energy efficiency upgrades through a mix of public and private funds, across five different countries. GGGI will develop a consistent framework, methodology, and tools for evaluating and linking in-country building stocks with potential energy savings measures. This will allow governments, development partners, and private sector to have agreed upon market standards, with greater transparency on measurement and verification, allowing the more efficient use of capital to achieve the greatest impact. The choices in BEEGP we make today will define the cities of tomorrow. Homes and buildings are a major part of our everyday lives and are important to the finances and wellbeing of our families.

BEEGP will build on achievements and existing initiatives in GGGI member countries, particularly in Mongolia and Rwanda. These country programs currently have engagements in country with governments to assist with implementing energy efficiency in public buildings. In Rwanda, GGGI worked with local and global partners to support the Rwanda Housing Authority in developing the Green Building Minimum Compliance System (GBMCS), which was integrated into the National Building Code. Through the adoption of the GBMCS, Rwanda became the first African country to mandate the decarbonization and improved resource efficiency throughout the building and construction value chain. In 2019, the GGGI team in Mongolia mobilized an initial earmarked funding from KOICA to support the Municipality of Ulaanbaatar in project preparation. The project aims to mobilize €18 million to fund the retrofitting of 375 aged residential blocks in the city, enhancing thermal comfort for over 136,000 residents.

BEEGP's goal in supporting Mongolia and Rwanda country teams will be first to step-up results, progressing from interventions in a handful of public buildings, to establish a sustainable platform to fund deployments across all public buildings. BEEGP will provide a methodological framework such that interventions can be applied more broadly, which ultimately can lead to replication to other sectors, such as commercial and residential buildings, and the establishment of higher efficiency standards in building performance regulations and appliance requirements. BEEGP will also strategically link learnings across the countries, ensuring that practices applied are in-line with international standards. BEEGP will use the methodologies and tools developed for public buildings in Rwanda and Mongolia to demonstrate how systematic and coherent energy efficiency programs can be developed to deploy upgrades across a wide sector. Stakeholder sensitization and capacity development are also critical to ensuring that efficiency savings do not result in net increase in energy demand.

Circular principles provide both a more sustainable product, and an opportunity to accelerate the energy transition. By developing a design which consists of modules, an initial renovation could be expanded in the future. Renovations could take place in different cycles, going towards energy neutrality step-by-step. In addition, circular business models offer opportunities to keep initial investments low.

II. GLOBAL PROGRAM

The BEEGP aligns with GOP 4, Programmatic Solution 8. Energy efficiency is an essential first step towards green buildings and net zero buildings, both of which are gaining momentum as climate change mitigation initiatives. Through the multi-sectoral approach of the BEEGP, an enabling environment can be created to support mainstreaming of energy efficiency in buildings across sectors.

The BEEGP will consist of four components:

- (1) Assess current practices in country to establish baseline conditions, identify gaps and challenges in implementing stricter standards, and identify target markets and sectors, focusing on hard-to-reach segments and/or segments that can have the most impact for reducing emissions.
- (2) Establish target technical standards for upgrading the efficiency of building envelopes
- (3) Structure financial incentive program to promote the adoption of building upgrades to meet target standards

Capacity building efforts to promote a sustainable marketplace to mainstream the adoption of more efficient building materials and/or appliances.

- (4) Constructions from re-used materials;
- (5) Construction from recycled materials;

The program contributes to GGGI's strategic outcomes, particularly:

SO1: Improved energy efficiency in space heating, cooling and lighting in buildings reduce energy consumption from the main areas of building energy usage. These translate directly to GHG emission reductions in countries where energy supply is not fully decarbonized. The actual attributable GHG reduction depends on the extent of program implementation as well as the degree of dependency on fossil fuels for power generation. With increasing temperatures globally, improved thermal comfort in buildings, especially affordable housing, contributes directly to increased resilience of vulnerable populations to climate change.

SO2: Investing in building energy efficiency also creates jobs in manufacturing, construction and standardization and certification. The initial investments create a first stimulus in job creation, with the goal to develop a stable marketplace for implementing energy savings.

IFC estimates that the green buildings sector represents a **\$24.7 trillion** investment opportunity across emerging markets until 2030, with more than half of this opportunity in the residential sector, particularly in multi-family units. The initial focus of BEEGP will be to enhance the existing initiatives in **Mongolia** and **Rwanda**, where there are established energy efficiency programs and networks. BEEGP's goal in supporting Mongolia and Rwanda will be first to step-up results, progressing from interventions in a handful of public buildings, to establish a sustainable platform to fund deployments across all public buildings. BEEGP will provide a methodological framework such that interventions can be applied more broadly, which ultimately can lead to replication to other sectors, such as commercial and residential buildings, and the establishment of higher efficiency standards in building performance regulations and appliance requirements. BEEGP will also strategically link learnings across the countries, ensuring that practices applied are in-line with international standards.

In 2021-22, it is anticipated that BEEGP will expand to 2-3 additional countries. **Cambodia** and **Uganda** have new projects in energy efficiency, **Lao PDR** and **Indonesia** have also commenced exploring working in the area with government partners. **Qatar** has also expressed interest in the program, through participation depends on the progression of the country program. As more country programs enter under the global program, more synergies can also be achieved, with more countries of similar climatic conditions and energy efficiency needs. Joint funding proposals can also be developed when the opportunities arise.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

BEEGP leverages GGGI's membership in global coalitions such as the IRENA, Cool Coalition and the One Planet Network (Sustainable Building & Construction Group) to foster strategic partnerships with organizations engaged in complementary work. These networks provide a platform for showcasing results from GGGI's interventions and for sharing lessons learnt with partners. In 2020, BEEGP will partner with sustainability consultancy, Gauge (<https://gauge.co.za/>), on assessment tool development. At the national level, it will build on existing relationships with the government and private sector to enhance partnerships in country with government officials, industry groups, suppliers, vendors, contractors, verifiers, and financial institutions. In order to build the proper enabling environment, a well-designed market ecosystem must exist. BEEGP will need to mobilize resources to move beyond its initial stages. In-country assessments and structuring will require more funding than is currently committed to the global programs. Potential co-financing partners and international donor organizations are constantly being assessed. Danish MFA is currently discussing a \$10M proposal with C40 Cities Alliance specific on "Accelerating climate action in large cities in developing countries".

In March 2020, a concept note on building energy efficiency was jointly developed with UNEP and submitted to the 2020 thematic IKI call with. Mid-2020, GGGI, under the leadership of the Global Program team, is planning to submit multi-country proposals to the NDC Cooling Support Facility, under the Kigali Cooling Efficiency Program (KCEP). Joint efforts with Partnerships are also made to identify funding opportunities and mobilize funding in support of the global program.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for BEEGP for 2021-2022: **\$0.26 million**; Partner co-financing of the program in the biennium is as yet undetermined, for a total of **\$0.7 million**.

TABLE Global Program Budget 2021-2022 (\$, million)

GOPs	Programmatic Solutions	Project Title	Implementation		Funding				Resource Mobilization
			Inception	Completion	GGGI	Partner	Gap	Total	
2021-2022									
GOP 1	1, 8	Rwanda, Mongolia – Financing EE at national scale	02-2021	12-2022	\$80,000	-	100,000	180,000	Government partners in both countries are committed to supporting EE. Specifics of co-contribution reflected in CBPs
GOP 2	2, 8	Rwanda, Mongolia – Building capacity to monitor and report on EE outcomes	01-2021	12-2022	\$80,000	-	200,000	280,000	MRV system to be integrated with Target Setting and Capacity Development plan. As this links to NDC reporting, country governments will be requested to allocate human resources to collect and analyze the data. Government co-financing to be reflected in CBPs.
GOP 4	8	Lao PDRs, Qatar – Building EE & green jobs assessments and pilots	02-2021	12-2022	\$60,000	-	140,000	200,000	Qatar – contingent on host government financing. Laos – KOICA/GCF funding confirmed.
GOP 5		Knowledge consolidation and exchange between countries	06-2021	12-2222	\$40,000	-	-	40,000	Where activities are located within a single country, co-financing support will be sought.
Operations									
TOTAL					0.26	-	0.44	0.7	

V. RESULTS FRAMEWORK

GOP	PS	Project	Output	Verification	SOs	SO Impact Estimation		Intermediate Outcomes	Assumptions and Risks
						Attributed	Contributed		
GOP 1	1, 8	Rwanda, Mongolia – Financing EE at national scale	Structuring of financial incentive program for implementing energy efficiency upgrades. Capacity development for key stakeholders to manage and sustain program.	\$40 million investment mobilized for energy efficiency program. Workshops delivered for capacity building. Project monitoring, annual results, completion, and evaluation reports	SO1, SO2			Increased Green Investment Flows.	Assumes ecosystem in country is sufficiently developed for administration and implementation of energy efficiency program (e.g. trusted contractors and verifiers)
GOP 2	2, 8	Rwanda, Mongolia – Building capacity to monitor and report on EE outcomes	Baseline conditions for lighting, heating, and cooling of building, including employment assessment. Target energy efficiency standards and identify target markets and sectors. Capacity institutionalized for MRV for building EE.	Government and industry stakeholders accept baseline report. Government owns target standards. Public officials trained in program MRV. Project monitoring, annual results, completion, and evaluation reports	SO1, SO2			Strengthened national, subnational, local green growth policy planning, and institutional frameworks.	Assumes resources are sufficient to deliver the program. Assumes there are commitment and resources by government to implement energy efficiency upgrades to reduce emissions. Risk resistance to change from supply chain, developers and end users. Mitigate through public sensitization.
GOP 4	8	Lao PDR, Qatar – Building EE & green jobs assessments and pilots	Baseline conditions for lighting, heating, and cooling of building, including employment assessment. Target energy efficiency standards and identify target markets and sectors.	Government and industry stakeholders accept baseline report. Government owns target standards. Project monitoring, annual results, completion, and evaluation reports	SO1, SO2			Strengthened national, subnational, local green growth policy planning, and institutional frameworks.	As above.
GOP 5		Knowledge consolidation and exchange between countries	Virtual or physical knowledge exchange between GGGI country teams and country stakeholders. Case studies/success stories documented and shared.	Regular exchanges facilitated. Case study files and videos shared. Project monitoring, annual results, completion, and evaluation reports				Improved Multi-directional Knowledge Sharing and Learning between Countries on Green Growth	Assume there is interest to learn from other countries' experiences. Risk of promoting an inflexible standardized approaches to EE. Mitigate by validating project relevance with local partners during planning.

DEVELOPING SOLUTIONS FOR FINANCING THE PROTECTION AND RESTORATION OF WORLD'S FOREST LANDSCAPES

I. GLOBAL PROGRAM STRATEGY

The purpose of the Global Program is to consolidate lessons-learned in country programs and to develop solutions to mobilize finance for the restoration and protection of forest landscapes.

Forests play a key role in climate change mitigation; agriculture, forestry, and other land uses are responsible for 23% of annual global greenhouse gas emissions. At the same time forest conservation and restoration are among the most cost-effective options to reduce those emissions. In adaptation, forest landscapes play a crucial role through water provisioning services for agriculture, hydropower, and cities. Forest landscapes play a significant role in meeting sustainable development goals, as their role is pertinent to most goals, including climate action, life on earth, clean water, life below water, no poverty, zero hunger, decent work, reduced inequality, gender equality, good health and well-being, and peacebuilding. Forests and trees make vital contributions both to people and the planet, bolstering livelihoods, providing clean air and water, conserving biodiversity, and responding to climate change. Forests act as a source of food, medicine, construction materials and fuel for more than a billion people. In addition to helping to respond to climate change and protect soils and water, forests hold more than three-quarters of the world's terrestrial biodiversity, are the most productive land ecosystems and provide many products and services that contribute to socio-economic development, and are particularly important for hundreds of millions of people in rural areas, including many of the world's poorest people.

The Global Program on Sustainable Landscapes aims to utilize GGGI's existing programs and expertise to develop solutions, models and provide advisory services towards the 'development of innovative financing mechanisms' for sustainable landscapes. The approach will document past and on-going programs to develop a toolkit of solutions that can be expanded to meet global forest restoration and protection targets. GGGI's niche will be conceptualizing, structuring, and mobilizing investment for the restoration and protection of sustainable forest landscapes. The Global Program builds on our strengths and utilizes skills and lessons learnt from existing projects. The Global Program will focus on the development of socially inclusive financial mobilization tools for sustaining and restoring forests. This has been identified as a niche where we are more likely to be competitive with other development partners who have more technical personnel in countries at the ground level.

Objective 1.0 Developing Financing Solutions

The aim is to develop financing solutions through continued support, stock-taking, and development of financing solutions for forest landscape restoration and conservation. In consultation with the leadership of Country Programs, support to forest solutions will be tested and upscaled. Existing programs provide opportunities to test and build portfolios of demonstratable solutions that are aligned with existing project objectives. Lessons learned will be documented and shared to promote forest restoration, and to mobilize resources and investments for member countries and enhance international visibility.

Objective 2.0 Facilitate International Visibility of Sustainable Landscape Programmatic Solutions

Communication is an important tool for program expansion, sharing lessons and in promoting work that has been financially supported by donors and member countries. The aim is to build a global knowledge base, communicate between GGGI countries and international fora at the start of the Decade of Forest Restoration, and to mobilize resources for member countries. A platform for landscape projects to set communication targets and share materials will be undertaken between country programs both internally at GGGI and to external partners. The Global Program will actively participate in communication events in 2021, and start to build upon lessons learned. The pipeline projects will be supported with technical advice focusing on the development and implementation of financing solutions for member countries. Sustainable landscape projects and counterparts will actively participate in regional and international forum to promote solutions at the start of the decade of Forest Restoration and SDG Action, particularly in contributing to the World Forest Congress in Seoul, 2022, a six – yearly forestry event that will be supported by GGGI through work with Korean Forest Service.

Objective 3.0 Capacity Building of Member Countries

The Bonn Challenge aims to restore 150 million hectares of land by 2020 and 350 million hectares by 2030. Lack of financing is one of the major limitation factors preventing countries to meet global forest restoration and conservation targets. An estimated 300 to 400 billion USD is needed annually for forest conservation and restoration alone. Tools will be used to support member countries and country programs to mobilize resources for meeting national forest restoration targets, countries selected will have existing GGGI GCF or NAP projects to build upon existing funding opportunities. It should be noted that some countries, whilst having Country Programs, have considerable competition from existing organizations working there, so careful prioritization of countries will be undertaken to identify opportunities. Table 2.0 indicates Bonn Challenge targets for selected member countries, additional analysis will be undertaken to analyze the potential GHG emission reduction from AFOLU sector in each target country.

The Global Program will actively participate in communication events in 2021, and start to build upon lessons learned. The pipeline projects will be supported with technical advice focusing on the development and implementation of financing solutions for member countries. GGGI will actively participate in regional and international forum to promote solutions at the start of the decade of Forest Restoration and SDG Action, particularly in contributing to the World Forest Congress in Seoul, 2022, a six – yearly forestry event that will be supported by GGGI through work with Korean Forest Service. For 2021-2022 the Global Program will leverage the work from 2020 to implement the Financing Solution tools in existing and pipeline countries. The Global program will develop funding mechanisms and secure funding for forest landscape management, enable knowledge transfer and capacity building delivered through south-south cooperation; and contribute to the mobilization of 100 million USD for new countries by 2025. The Global program will work with other GGGI member countries as well during this time period to bring them into the global program; at least two new countries will be added by the end of 2022.

II. GLOBAL PROGRAM

The Global Program is aligned to GOP3 – Achieving a sustainable and circular bioeconomy while securing healthy natural systems. The Global Program is mainly focused on delivering results for Global Operational Priority (GOP 3) - Achieving a sustainable and circular bioeconomy while securing healthy natural systems, while at the same time supports GGGI's progress towards the two following Global Operational Priorities; **GOP 1:** Catalyzing and accelerating access to climate finance/ green investments for members' public and private sectors and, **GOP 5:** Accelerating progress in our country programs in poverty eradication and gender equality through our operations. Figure 1.0 summarizes the alignment of the "Sustainable Forest Landscapes" global program with GGGI's Global Operational Priorities and Strategic Outcomes.

The Global Program builds on our strengths and utilizes skills and lessons learnt from existing projects. The Global Program will focus on the development of socially inclusive financial mobilization tools for sustaining and restoring forests. This has been identified as a niche where we are more likely to be competitive with other development partners who have more technical personnel in countries at the ground level.

GOP 3: Achieving a sustainable and circular bioeconomy while securing healthy natural systems					
PS3 Climate Resilient Agriculture		PS4 Sustainable Forests		PS5 Coastal Resilience	
Cross-cutting - Natural Capital Markets Innovation (carbon, water and biodiversity)					
Supporting and Cross-cutting Global Operational Priorities					
GOP 1: Catalyzing and accelerating access to climate finance/ green investments for members' public and private sectors		GOP 2: Supporting our members in strengthening policy, planning and regulatory frameworks and institutional capacity to achieve green growth outcomes		GOP 5: Accelerating progress in our country programs in poverty eradication and gender equality through our operations	
Strategic Outcomes (SO)					
SO1	SO2	SO3	SO4	SO5	SO6
Greenhouse Gas Mitigation	Creation of green jobs			Ecosystem adequate supply of ecosystem services	Enhanced adaptation

IV. PARTNERSHIP AND RESOURCE MOBILIZATION

Existing partnerships will be explored and enhanced to deliver the program, in conjunction with relevant government agencies, development partners, GCF accredited entities and financial institutions. Particular emphasis will be placed upon existing core donors such as Government of Norway, Norway's International Climate and Forest Initiative (NICFI), P4G and UK government's Department of Foreign and International Development (DFID), and technical partners such as Korean Forestry Service, Grundfos, Arla (and Green Digital Finance Alliance). Country Programs will take the lead in implementing and designing investment solutions through existing earmarked projects, this is a fantastic opportunity to develop and document these achievements. GGGI's role as a Green Climate Fund partner in forest landscape programs will be explored and in regards the new orientation of the readiness support towards multiannual projects and towards a programmatic approach with regional as an option. Partnerships will be established to ensure National Adaptation Strategies integrate Sustainable Forest Landscapes (and agriculture) and devise strategies to implement the national plans, and to mobilize additional resources. Qatar National Food Security Program (QNFSP) would be a relevant resource mobilization partner to collaborated with.

Indicative planning figure for GGGI Core resources for Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes for 2021-2022: 240,000 USD; Partner co-financing of the program is expected from existing ear-marked programs who will be implementing and documenting financing solutions to achieve strategic objectives in the biennium.

GGGI Core resources required for 2021-2022: \$240,000; Partner co-financing of the program is expected at \$320,000

- Partner co-financing is derived from earmarked staff contribution from Indonesia, Colombia, FFI, Sri Lanka, Nepal; (and Ethiopia in 2022).
- Discussion with Peru should be undertaken to ensure contributions are made for SL team to support private sector engagement.
- Interest from country programs such as Papua New Guinea, Angola, Uganda and Cambodia will be explored during country program planning.
- Country programs operate and implement partner projects, this will be used by country programs to develop and test financing models in REDD+; Private Sector; Agri-business; Payments for Ecosystem Services. Earmarked program budgets are indicated in table below (Implemented by Country Programs)

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for [Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes] for 2021-2022: **\$0.24 million**. Partner co-financing of the program is expected at \$0.32 million in the biennium for a total of **0.56 million**.

GOPs	Programmatic Solutions	Project Title	Implementation		Funding				Resource Mobilization
			Inception	Completion	GGGI	Partner	Gap	Total	
2021-2022									
GOP1; GOP3 GOP5	PS 4. Sustainable Forests; PS 1. Green Investments	Analysis, oversight of the Global Program	January 2021	December 2022	0.24	0.0	0.0	0.24	Core
Total					0.24	0.0	0.0	0.24	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	Strategic Outcomes	SO Impact Estimation		IOs	Assumptions and Risks
						Attributed	Contributed		
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Sustainable Landscape Portfolio Document (final)	Report	SO1; SO2, SO5; SO6	N/A	N/A		Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined Assumptions: The global program will support both core and earmarked funded projects, in addition to building on to the knowledge.
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Toolkit of Financing Solutions (Final)	Report	SO1; SO2, SO5; SO6	N/A	N/A		Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined Assumptions: The global program will support both core and earmarked funded projects, in addition to building on to the knowledge.
GOP1, GOP3, GOP5	PS 4, Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Policy Briefs – writing / reviewing four policy briefs: 1. Mangroves/Myanmar; 2. Palm Oil Sustainability/Indonesia; 3. Peatlands/Indonesia; 4. Livestock/Colombia	Report	SO1; SO2, SO5; SO6	N/A	N/A		Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined Assumptions: The global program will support both core and earmarked funded projects, in addition to building on to the knowledge.
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Participate in International Conferences: World Forestry Congress, Seoul, South Korea – 2021; Promotion of Peace Forest Initiative, Seoul, South Korea – 2021; UN Council - 2021/2; Global Landscapes Forum: TBD – 2021, 2022; REDD+ Exchange: Norway – 2021; Natural Capital Workshop: TBD – 2021, 2022	Report	SO1; SO2, SO5; SO6	N/A	N/A		Conferences cancelled
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	National / Regional Financing Workshops: National Financing Workshop: India, Ethiopia, Sri Lanka, Vietnam – 2022; National Financing Workshop: Indonesia, Colombia – 2021, 2022	Report	SO1; SO2, SO5; SO6	N/A	N/A		Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined Assumptions: The global program will support both core and earmarked funded projects, in addition to building on to the knowledge.
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Capacity Building in Development of Financing Solutions for Member Countries (four countries)	Report	SO1; SO2, SO5; SO6	N/A	N/A		Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined Assumptions: The global program will support both core and earmarked funded projects, in addition to building on to the knowledge.

GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Bankable integrated and inclusive business solutions for forest landscape restoration opportunities, including concept note for Forest Restoration Fund.	Report	SO1; SO2, SO5; SO6	N/A	N/A		Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined Assumptions: The global program will support both core and earmarked funded projects, in addition to building on to the knowledge.
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Green Climate Fund REDD+ / SAP concept note – Uganda for forest restoration financing solutions	Report	SO1; SO2, SO5; SO6	N/A	N/A		Country do not support; inadequate resources
GOP1, GOP3, GOP5	PS 4. Sustainable Forests; PS 1. Green Investment	Developing Solutions for Financing the Protection and Restoration of World's Forest Landscapes	Angola Highlands Watershed concept note in line with country Green Climate Fund objectives	Report	SO1; SO2, SO5; SO6	N/A	N/A		Country do not support; inadequate resources

RENEWABLE ENERGY AUCTION GLOBAL PROGRAM (REAP)

I. GLOBAL PROGRAM STRATEGY

The electricity & heat sector accounts for 25% of total anthropogenic greenhouse gas (GHG) emissions¹. This makes it the highest global GHG contributor of all sectors. Coal-fired thermal power plants still provide around 40% of the World's electricity supply and, as the most carbon intensive fuel, accounts for a disproportionate amount of total emissions¹. To achieve the 2 degree Paris target it's estimated that over 80 per cent of known global coal reserves must remain in the ground unutilized¹. The coal-fired generation capacity predicted to double by 2040 the scale of the challenge magnifies¹. Developing nations will need to take a leading role in the energy transition if climate targets are to be achieved. Energy demand in OECD nations has plateaued for the last 5 years and over the coming decades 85% of energy demand growth across the world is predicted to arise in developing economies¹. For these economies, the challenge is not only to deploy enough renewable capacity to displace aging fossil-fuel plants, but also to service their growing energy demand needs. Several GGGI Countries have mitigation targets under NDCs and commitments to increase the share of renewable energy in the electricity mix to meet SDG goals (SDG7). Although technology advancements have driven down the cost of renewable energy, especially in the form of solar and wind power, there is still need for support in many countries to compete against conventional generation. Establishing appropriate policies and regulations that reduce risks, create transparent governance, and streamline procurement processes will help increase the pace toward scaling up RE deployment by providing an attractive environment for public and private investments.

The GGGI Renewable Energy Auction Global Program (REAP) is designed to accelerate Renewable Energy deployment in GGGI member countries by facilitating establishment of credible Renewable Energy Auction mechanism. Many countries have established feed in tariffs (FITs) to scale renewable energy deployment. FITs with an administratively set price, do not adapt well to changing market conditions, particularly when technology costs are rapidly decreasing, leading to costlier renewable energy procurement and subsidy burden. Countries that have established auction programs rose from 6 in 2005 to 67 in 2017¹, while countries offering a FIT dropped by 22% since 2014¹. Auctions have been successfully implemented in many countries including Chile, UAE, India, and the world has seen record level of low prices for especially solar projects. However, in the case of Indonesia, failed auction led to the reintroduction of FITs. It is important to note that the success of an auction relies on its design. Poorly designed auctions can easily result in insufficient competition, disappointing prices, use of low-quality equipment and delays for implementation.

The GGGI REAP in next 5 years intends to deliver a credible approach to establish renewable energy procurement mechanism in at least 5 GGGI member countries, to support accelerated deployment of renewable energy through private sector participation mobilising USD 500 million green financing commitments in Renewable Energy projects.

II. GLOBAL PROGRAM

The GGGI REAP will focus on designing appropriate auction mechanisms to fit the needs of each target country by building a common underlying approach and methodology. In close coordination with government agencies, GGGI will assess the technical, regulatory, and commercial capacity of each target country to implement renewable energy policy, and identify procurement mechanisms that would be the most successful. The REAP will consist of four components:

- Policy, regulatory and governance component targets to create enabling regulatory environment for RE projects/investments. In order to do that, existing policy and regulatory framework will be assessed to identify the gaps and recommend the most appropriate policy instruments based on country specific needs. Within the scope of policy component, auction design report will be delivered together with all necessary standard tender templates and documents for bid submission, evaluation, and contracting stages.
- Technical component aims to help governments to identify potential regions/areas and conduct technical assessment. Site selection is one of the major auction design elements and determined based on several decision parameters. Technical component will also support the development/revision of RE grid codes and the preparation of technical standards which will be then used as technical qualification requirements for auction participants.
- Commercial and financial component aims to help governments analyze the costs and benefits of procuring renewable energy. This includes assessing reasonable market prices and allocating risks properly between buyer and seller, such that sellers can appropriately price their offers.
- Knowledge sharing and capacity building component will increase the synergy between countries through workshops and tailored trainings. Public and private sector stakeholder consultations at the global and national level will be organized to identify common challenges and opportunities, share ideas for potential approaches.

For GGGI, Solar PV deployment for energy transition, energy access and sustainable energy for productive use in member countries is one of the 10 key programmatic solution areas of Strategy 2030. The Global program will contribute towards three GGGI Global Operational Priorities (GOP).

- GOP 1: Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector: The global program will catalyse green finance at scale for accelerated deployment of renewable energy (solar PV) through establishing a transparent governance, and streamline procurement processes (Programmatic Solution 1. Green Investment).
- GOP 2: Strengthening Policy, Planning and Regulatory framework and institutional capacity in delivering Green Growth Priorities: The global program will create enabling policy and regulatory environment for RE investments, establish institutional capacity to manage RE sources and make RE based generation affordable and realistic solution in GGGI member countries (Programmatic Solution 2. Climate Action).
- GOP 4: Making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure: The global program will facilitate phasing out of coal based electricity generation assets by promoting RE based generation, improve air quality to make cities more sustainable and livable, and generate more green jobs through supply chains and construction work (Programmatic Solution 9. Renewable Energy).

In addition, the Renewable Energy Auction Global program will create linkages between GOP 1, GOP 2 and GOP 4 in support of Strategy 2030.

The Renewable Energy Auction Global Program shall contribute/attribute to the following Strategic Outcomes:

- SO1 – Reduced GHG Emission
- SO3 – Increased access to improved sustainable energy service
- SO4 – Improved air quality

Within the scope of program, GGGI will support Government of Laos PDR on pilot auction design scheme with the aim of contributing to the mobilization of approximately USD 40 million for 40 MW of Solar PV project. This project is the first of its kind and it has a potential for expansion considering GOL's ambitious target to increase the share of RE to 30% of energy consumption by 2025. Mongolia is another target country, the Parliament of Mongolia introduced competitive procurement for RE by approving the amendments to the Renewable Energy Law on 6 June 2019. Competitive procurement will be held to increase the installed capacity of renewable energy and replace the previous FIT mechanism. The planned RE projects are expected to attract USD2.5 billion investment in total that Solar PV contributes to half of the estimated amount of USD1.2 billion¹. GGGI will support Ministry of Energy to increase institutional capacity to run the competitive auction mechanism. In Philippines, Solar PV especially in the form of rooftop applications are gradually gaining momentum and the potential of this technology has yet to be fully realized among local government units (LGUs). Given the decentralized government structure of the Philippines and considering that LGUs in the country comprise of 81 provinces, 146 cities and 1,488 municipalities, LGU facilities are seen as an untapped institutional markets for installing rooftop Solar PV and alleviating the demand for fossil-based power, particularly among off-grid island provinces.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

The program will use the core funding to establish partnerships and initial groundwork in 5 pilot countries. Partnerships will be explored to deliver the program, in conjunction with relevant government agencies Like the Danish Energy Agency and the Swedish Energy Agency, development partners, GCF accredited entities and financial institutions like WB, AFDB, IFU, Danish Pension Fond. The program will target to secure earmarked funding from one or multiple sources for expanding program in the existing countries and include new countries. Once it is achieved, country specific earmarked funding will be utilized in implementing the country specific activities. IPSD Sustainable Energy team in close coordination with Country Teams will develop earmarked proposal based on donor's expectations and country needs. Considering the global approach of the program, the earmarked funding will include an expenditure head of global activities to ensure coherence with the target region.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for **GGGI Core resources for Global Program on RE Auction for 2021-2022: 0.36 million; Partner Co-financing** of the program is expected at **5 million** in the biennium for a **total of 5.36million**.

TABLE Global Program Budget 2021-2022 (\$, million)

Global Operational Priorities	Programmatic Solutions	Project Title	Implementation		Funding				Resource Mobilization
			Inception	Completion	GGGI	Partner	Gap	Total	
2021-2022									
GOP1, GOP2, GOP4	1, 9	REAP Global program in Laos PDR, Philippines, Mongolia and 2 additional countries	01-2021	12-2022	0.36 0.24 (IPSD) + 0.12 (CTs)		-	-	-
GOP1, GOP2, GOP4	1, 9	Expanding Scaling UP Global program activities in target countries (to be secured)	01-2022	12-2025			5		EU, Denmark, Norway, DFID, FCO, P4G Partnerships and Others
Operations									
2021-2022 TOTAL					0.36		5	536	

1. REAP Global program in **Laos PDR, Philippines, Mongolia and two additional countries (2021 and 2022)**

- **IPSD Contributions:** 2021: USD 120,000 and 2022: USD 120,000
- Break Up for Country Core funding contribution (2-year: 2021 and 2022)- Under discussion with Countries:
- Laos PDR core budget: USD 30,000(2021) and USD 30,000 (2022)
- Mongolia core budget: USD USDXX,000 (2021) and USD XX, 000 (2022)-TBD
- Philippines core budget: USD30,000 (2021) and USD 30,000(2022)
- Guyana core Budget: USD XX,000 (2021) and USD XX, 000 (2022)- TBD
- One additional Country: USD XX,000 (2021) and USD XX, 000 (2022)-TBD
- Earmarked resource country allocation breakup will be decided upon securing funding

V. RESULTS FRAMEWORK

GOPs	PSs	Projects	Outputs	Verification	Strategic Outcomes	SO Impact Estimation		IOs	Assumptions and Risks
						Attributed	Contributed		
GOP1, GOP2, GOP4	PS1 and PS9	Renewable Energy Auction Global Program (REAP)	<ol style="list-style-type: none"> 1. Policy assessment report / baseline report and Policy recommendation report 2. Policy design report / Auction design report 3. Site Selection Assessment /Site Investigation Study 4. Technical Assessment of the Grid, RE technologies, RE grid codes 5. Energy market assessment report 6. Standard PPA template and term sheet 7. Reference price model / ceiling price model 8. Support to run the pilot Auction in 5 countries (2025) 9. Knowledge products (Workshop reports, notes, presentations) 	<p>Acceptance of Report by concerned authorities and Letter of endorsement from at least one country</p> <p>Acceptance of technical Grid codes by Transmission and Distribution operators</p> <p>Acceptance of PPA by the government agencies and stakeholders</p> <p>Successful selection of Bidder</p> <p>Proceedings of workshop and capacity building programs</p> <p>Project monitoring, annual results, completion, and evaluation reports</p>	SO1, SO2, SO3 and SO4			1	<p>Assumption: Clear Buy-in from Govt. agencies</p> <p>Risk: Delay in government buy-in, reluctance in sharing data and information</p> <p>Assumption: Risk: Required technical data is not available Risk: Delays due to lack of coordination among agencies to provide critical data</p> <p>Assumption: Government willing to address critical risk</p> <p>Risk: Delay in PPA negotiations, government reluctance to share information and data, identification of developers and lenders</p>

SOLAR IRRIGATION PUMPING SYSTEMS (SIPS)

I. GLOBAL PROGRAM STRATEGY

Many developing countries in Africa, Asia, Latin America and Pacific regions face challenges in meeting the growing demands of food, water, and energy. Meeting these demands forms the basis of sustainable, economic and environmental development of a country or a region. Nevertheless, the discussed sectors i.e. food, water and energy form a nexus of high correlation. A change in one sector will certainly have direct or indirect impact on the other. According to United Nation Food and Agriculture Organization (FAO), the global demand for food will rise by 60% by 2050. The rising food demand is putting a great strain on existing water and energy systems (need for irrigation, fertilizers etc.). Agriculture, being one of the world's largest economic sectors, accounts for about 70% of global freshwater and 5% of global energy consumption¹. Supply of sufficient water is key for successful irrigation which eventually results in better yield of agriculture. At the same time, supply of water from the source to the irrigation field requires energy. Surface water bodies are the most common source of water due to ease of transportation. However, underground water is also commonly tapped for irrigation where surface water is not available. Around 57% of current irrigation water demand is covered by surface water, the remaining 43% by the underground sources. Irrespective of type of water sources irrigation requires significant amount of energy. While electric pumps are common and reliable in grid areas, a large part of the demand in off-grid areas is met through fossil fuel-based generators. The disadvantages of this fossil energy supply are known and are attributed as high operating costs and frequent maintenance, environmental damage through ground water soiling with fuels and lubricants or CO₂ emissions. Total greenhouse gas emissions from the agri-food chain (excluding land use) are over 20% of global GHG emissions per year¹. Replacing the same with Renewable Energy (RE) sources is an attractive alternative as they feature several economic, managerial and ecological advantages.

GGGI Global program of Solar Irrigation Pumping Systems (SIPS) is designed to accelerate deployment of solar power irrigation system contributing towards climate smart agriculture practices. Among the renewables, Solar Irrigation Pumping System (SIPS) is the most attractive alternative to address the above stated problem. It is characterized as low operating cost, minimum maintenance, ease of use and most importantly environment friendly. An off-grid solar pumping system that replaces a typical diesel generator unit will save about 1 kg of CO₂ per kilowatt-hour of output¹. Given the continuous fall in cost of solar PV, SIPS is becoming more economically viable option for water supply for agriculture. However, proper policy and infrastructural framework are key for successful scaling-up. Besides, many farmers in remote areas of the world are not aware of the advantages of solar powered pumps, or if they do, non-technical barriers such as access to finance hinder an increased adoption of such systems. Since there is no requirement of fuel, unregulated operation of SIPS may also lead to exploitation of ground water usage. Incentive mechanism backed by policy and regulatory support can address the issue effectively. Solar irrigation has a direct impact on woman empowerment since women are the backbone of rural agriculture in Asia and Africa, although invisible because their work is often uncounted. Therefore, the said intervention has significant potential impact on food yield, environment, ground water resource management, gender and of course access to energy.

The Global Program intends to deliver a credible strategy, approach and business models towards accelerated deployment of solar pumping systems in at least 5 GGGI member countries, through public and private sector participation. GGGI will facilitate deployment of 1 million solar irrigation pumping systems in target countries in next 5 years (2021-2015).

II. GLOBAL PROGRAM

SIPS will focus on designing appropriate business model supported by policy and regulatory framework to fit the needs of each target country by building a common underlying approach. In close coordination with government agencies, GGGI will assess the technical, regulatory, and commercial capacity of each target country to implement solar irrigation policy, and develop business models consistent with political economy in the country. SIPS will consist of four components:

- **Policy, regulatory and governance component** targets to create enabling regulatory environment for investments in solar irrigation. In order to do that, existing policy and regulatory framework will be assessed to identify the gaps and recommend the most appropriate policy instruments based on country specific needs. Within the scope of policy component, a set of evidence-based compelling policy and regulatory recommendations will be presented to policy makers for adoption.
- **Technical component** aims to help governments to identify potential regions/areas and conduct technical assessment. Market segmentation, specifying technical standards and developing institutional capacity on technical aspects. Technical component will also support the preparation of minimal technical standards for offgrid and on-grid solar irrigation systems. The focus will be to create an ecosystem of service providers and technology suppliers in the target countries and regions.

- **Commercial and financial component** aims to help developing a credible business model that will attract investors and green finance at scale. This includes finding ways to reduce the capital cost of pumping systems, increase the size of investment to attract serious investors, identify risk and risk mitigation instruments, and balancing the risk return profile for investors.
- **Knowledge sharing and capacity building component** will increase the synergy between countries through workshops and tailored trainings. Public and private sector stakeholder consultations at the global and national level will be organized to identify common challenges and opportunities, share ideas for potential approaches.

For GGGI, Solar PV deployment for energy access and sustainable energy for productive use in member countries is one of the 10 key programmatic solution areas of Strategy 2030. SIPS will contribute towards three GGGI Global Operational Priorities (GOP) and Climate Smart Agriculture Programmatic Solutions :

- **GOP 1: Catalyzing and accelerating access to climate finance/ green investments for members' public and private sector:** SIPS will catalyse green finance at scale for accelerated deployment of SIPS through establishing a credible business model that will attract finance at scale.
- **GOP 2: Strengthening Policy, Planning and Regulatory framework and institutional capacity in delivering Green Growth Priorities:** SIPS will create enabling policy and regulatory environment for attracting investment in solar irrigation, establish institutional capacity and make solar based irrigation pumps affordable and realistic solution in GGGI member countries through demand aggregation.
- **GOP 4: Making cities and communities sustainable, livable and resilient, supported through green jobs, services and green infrastructure:** SIPS will introduce sustainable energy in the agro value chain and hereby will enhance sustainability in the villages and communities. This will also create direct and indirect green jobs through an ecosystem of different service providers.

In addition, the said Global Program will create linkages between GOP 1, GOP 2 and GOP 4 in support of Strategy 2030.

Programmatic solutions to be delivered under this global program are listed below:

Programmatic Solution 1: Green Investments (green bankable projects, investment proposals, NFVs, green and climate instruments, carbon-focused engagements)

Programmatic Solution 3: Climate Resilient Agriculture (solar irrigation, RE application in agri value chain, resilient cropping practices, resource conservation)

Programmatic Solution 9: Solar PV (energy transition access and productive use, solar water pumping, solar auction, solar roof-top, utility scale solar project, storage)

The Global Program on Solar Irrigation shall contribute/attribute to the following Strategic Outcomes:

- SO1 – Reduced GHG Emission
- SO2 – Creation of Green Jobs
- SO3 – Increased access to improved sustainable energy service
- SO4 – Improved air quality
- SO6 – Enhanced adaptation to climate change

III. PARTNERSHIP AND RESOURCE MOBILIZATION

The program will use the core funding to establish partnerships and initial groundwork in 5 pilot countries. Partnerships will be explored to deliver the program, in conjunction with relevant government agencies i.e. Qatar Fund for Development, Denmark, Norway, DFID, FCO, development partners , P4G Partnerships, Grundfos, Arla and others, GCF accredited entities and financial institutions. The program will target to secure earmarked funding from one or multiple sources for expanding program in the existing countries and include new countries. Once it is achieved, country specific earmarked funding will be utilized in implementing the country specific activities. IPSD Sustainable Energy team in close coordination with Country Teams will develop earmarked proposal based on donor's expectations and country needs. Considering the global approach of the program, the earmarked funding will include an expenditure head of global activities to ensure coherence with the target region.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Global Program on Solar Irrigation for 2021-2022: 0.4 million; Partner Co-financing of the program is expected at **5 million** in the biennium for a total of **5.4 million**.

TABLE Global Program Budget 2021-2022 (\$, million)

Global Operational Priorities	Programmatic Solutions	Project Title	Implementation		Funding				Resource Mobilization
			Inception	Completion	GGGI	Partner	Gap	Total	
2021-2022									
GOP1, GOP2, GOP4	1, 3, 9	SIPS Global program in Ethiopia, Senegal, Burkina Faso and Uganda	01-2021	12-2022	0.4 (0.24 (IPSD)+0.16 (CTs))	-	-	-	-
GOP1, GOP2, GOP4	1, 3, 9	Expanding Scaling UP Global program activities in target countries (to be secured)	01-2022	12-2025			5		Denmark, Norway, DFID, FCO, P4G Partnerships and others
Operations									
TOTAL					0.4		5	5.4	

1. SIPS Global program in **Ethiopia, Senegal, Burkina Faso, and Uganda (2021 and 2022)**

- **IPSD Contributions (core):** 2021: USD 120,000 and 2022: USD 120,000

Break Up for core funding contribution (2-year: 2021 and 2022)

- Senegal: USD 55,763 (2021) and 00 (2022)
- Burkina Faso: USD 56,988 (2021) and 00 (2022)
- Uganda: USD XX,000(2021) and 00 (2022)
- Ethiopia: USD 25,000 (2021) USD 25,000 (2022)

Earmarked country Break up will be decided upon securing the funds

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	SOs	SO Impact Estimation		IOs	Assumptions and Risks
						Attributed	Contributed		
GOP1, GOP2, GOP4	PS1, PS3, PS9	<p><i>Global Program on Solar Irrigation Pumping</i></p> <p><i>(Creating an enabling environment (policy, business model, technology, knowledge sharing) for solar based irrigation systems leading to a total 1 million solar pump installation in target countries)</i></p>	<p>Barrier analysis on enabling environment for SIPS in each country completed</p> <p>A policy guideline report for each country is developed</p> <p>Policy instrument including incentive schemes for multisector resource conservation is designed</p> <p>Country specific business model (for private sector participation) developed</p> <p>Technical design (on-grid, off-grid) either developed/reviewed/recommended</p> <p>Green finance has been mobilized</p> <p>One pilot project in each country implemented</p> <p>Capacity of regional SIPS stakeholders have been enhanced</p> <p>Three capacity development programs Regional platforms for P2P learning formalized</p>	<p>Country endorsement on the barrier analysis and policy recommendation reports</p> <p>Policy instrument/s design report and Business model and technical design endorsed by the country</p> <p>Technical design report accepted by competent Authority</p> <p>Lol/Term Sheet issued by banks and FIs</p> <p>Installation report as provided by Government agency</p> <p>Capacity Building framework endorsement for countries and actual proceedings of capacity building programs</p> <p>Project monitoring, annual results, completion, and evaluation reports</p>	SO1, SO2, SO3, SO4, SO6			IO1, IO2, IO3	<p>Risk: Failure to start and conduct the program activities, change in government priorities as planned due to COVID-19 pandemic situation.</p> <p>Assumptions: Kick-off meetings and physical mission will not take place. These will be compensated by online meetings and interviews. Government priorities in agriculture in the target countries will increase.</p> <p>Risk: Reluctance and unwillingness of data sources and approval authorities</p> <p>Assumption: Relevant stakeholders will respond honestly and proactively</p> <p>Risk: lack of support and capacity from relevant stakeholders</p> <p>Assumption: All required support from public, private stakeholders will be availed duly and capacity development programs for different stakeholders will be conducted</p> <p>Risk: Lack of support and reluctance of stakeholders</p> <p>Assumption: Buy-in from all relevant stakeholders will be achieved with the help of public authorities</p>

TRANSPORT & SUSTAINABLE MOBILITY

I. GLOBAL PROGRAM STRATEGY

The 5-year vision of the sustainable transport global program is to support member countries in the transition of their transport sector to sustainable modes, including low carbon mobility and non-motorized transport. Sustainable transport has been a focus area for GGGI since its inception. The objectives of this global program are to 1) scale up existing initiatives, including but not limited to feasibility assessments for electric buses and policy recommendations to accelerate e-mobility transition, 2) expand its scope towards Non-Motorized Transport (forms of travel that do not rely on an engine or motor for movement, such as walking and bicycling), and 3) step up the results into impacts that will be measured primarily through the Strategic Outcomes defined in GGGI's 2030 Strategy.

As per Strategic Outcomes Guidelines (SOG), GGGI's ambition level in e-mobility and sustainable transport infrastructure between 2017 and 2030 is to achieve USD 2.5 billion cumulated green investments mobilized. Targeted Attributed Impact (TAI) by 2030 is 188 MtCO₂ for SO1 (Reduced GHG emissions), 0.13 million jobs for SO2 (Creation of Green Jobs), 21.47 million passenger-km for SO3.4 (Sustainable public transport). Applying a linear increase between 2017 and 2030 as per SOG, the sustainable transport global program is thus estimated to achieve USD 1.1 billion cumulated green investments mobilized by 2025 and around USD 190M for year 2025. Targeted Attributed Impact (TAI) by 2025 are then estimated at around 82 MtCO₂ for SO1 (Reduced GHG emissions), 50,000 jobs for SO2 (Creation of Green Jobs), 9.4 million passenger-km for SO3.4 (Sustainable public transport). Targeted Contributed Impact (TCI) have not estimated for the transport sector.

To date GGGI has actively supported partnerships and country implementation in more than 13 member countries. Specifically, feasibility studies on the introduction of electric buses were completed in Jordan, Nepal, Lao PDR, Fiji and India. Policy recommendations and/or project preparatory studies that support e-mobility, public and sustainable transport have been developed in cooperation with governments in Mexico, Morocco, Ethiopia, Cambodia, Mongolia, Rwanda, Myanmar and Peru, such as for example recommendations on technical standards for electric vehicles in Lao PDR, or Low Emission Development Strategy (LEDS) for land transport in Fiji. Earmarked funding successfully secured to date amounts to approximately 700,000 USD in total from two donors, Korean International Cooperation Agency (KOICA) and the Global Climate Fund, for e-mobility projects in Lao PDR and Cambodia.

II. GLOBAL PROGRAM

The program will contribute to GGGI's strategic outcomes:

- SO1: 'reduced GHG emissions' through displacing the use of fossil fuels by electric vehicles and non-motorized transport,
- SO2: 'creation of green jobs' in public transport,
- SO3.4: 'increased access to sustainable transport', and
- SO4: improved air quality through the reduction local pollutants including Particle Matter (PM_{2.5}) and NO_x resulting from engine combustion.

The sustainable transport global program is aligned with GGGI's Global Operational Priorities (GOP) 1, 2 and 4 as well as associated Programmatic Solutions (PS) 1, 2 and 7:

- GOP 1: The program will catalyze and accelerate access to climate finance/green investments for GGGI, with reference to both public and private sectors through the development of sustainable mobility solutions into investment-ready projects (PS1). The focus is primarily on improving transport and sustainable mobility options in support of green, healthy and inclusive cities.
- GOP 2: The program will strengthen policy planning, regulatory frameworks, and institutional capacity to achieve green growth outcomes through mainstreaming sustainable mobility into national, sub-national, regional, local, and sectoral policies and development plans (PS2) and decision-making. This effort is critical, in order to support a much stronger and more dynamic/responsive policy and regulatory environment for sustainable transport implementation.
- GOP 4: The program will contribute to making cities and communities sustainable, livable, inclusive and resilient, through supporting green jobs, services, and green infrastructure with the promotion sustainable transport options – such as non-motorized transport (NMT), Bus Rapid Transit (BRT) systems and electric vehicles (PS7), using innovative technologies and supportive

infrastructure to utilize renewable energy, reduce GHG emissions and reliance on fossil fuels as well as to improve air quality. It addresses significant anticipated shifts in transport planning and investment as a result of COVID-19 by balancing the program towards NMT (Non-motorised Transport), as well as addressing safe public transport solutions.

According to Climate Policy Initiative¹ in 2017/2018 global public spending on low carbon transport totaled USD 94 billion on average annually, while private sector investments in the sector reached USD 45 billion. As per Strategic Outcomes Guidelines, GGGI's ambition level in e-mobility and sustainable transport infrastructure between 2017 and 2030 is to achieve USD 2.5 billion green investments mobilized, i.e. around USD 190M on average per year during the period. This would lead to 188 MtCO₂ emission reductions as well as 21.47 million passenger-km of sustainable public transport. Passenger-kilometer is defined as the transport of one passenger by a mode of transport (road, rail, air, sea, inland waterways etc.) over the distance of one kilometer. Moreover, 30 jobs are to be created for each \$1.4 million invested in public transport infrastructure, and 57 jobs for the same level of investment on the transit operations side, i.e. a total of 155,000 jobs based on investment mobilized.

GGGI occupies a niche space in the market providing a combination of policy and investment services through in-country teams embedded in government. The GP will then substantially contribute to the clearer articulation and development of a program which defines GGGI through the provision of technical expertise and long term support to governments, understanding of local needs, and our ability to coordinate stakeholders. The GP will also allow a more focussed assessment of key partners for GGGI, in which it is able to define its goals, value and impact. Compared to most larger-scale intergovernmental organizations, GGGI has flexibility, size and structure to engage into, promote and scale up innovative solutions that can support the transition of developing member countries towards low carbon and/or non-motorized transport infrastructure. It is also able to link these to a focus on green, healthy and inclusive urban environments.

Based on existing pipeline of sustainable transport projects and country programmatic priorities in GGGI's 5-year Roadmap (2021-2025) which assumes 38 member countries by 2025, the global program expects to engage a minimum of 14 countries over the 5-year period. A tentative list as of April 2020 consists of Cambodia, Lao PDR, Morocco, Ethiopia, Jordan, Senegal, Uganda, Rwanda, Myanmar, Mongolia, Indonesia, Mexico, Fiji and Sri Lanka.

III. PARTNERSHIP AND RESOURCE MOBILIZATION

Strategic partnerships for resources mobilization under the sustainable transport program include the Green Climate Fund's Readiness program, French Development Agency through the global MoU which places e-mobility as one of the five priority cooperation areas, Korean Development Bank which expressed interest in cooperating with GGGI for the development of GCF proposals and has built expertise and track record in sustainable mobility, as well as UNIDO, Asian Infrastructure Investment Bank through their Sustainable Cities Strategies and AIIB's Special Fund for project preparation. Partnerships with regard to knowledge sharing activities include 'Partnerships for Growth' (P4G) and C40's Zero Emission Bus Rapid-deployment Accelerator (ZEBRA), The Partnership on Sustainable, Low Carbon Transport (SLOCAT) and International Transport Forum/OECD. Partnerships, including those related to finance, will also very specifically identify post-COVID-19 stimulus packages which will clearly be linked to a transport/mobility+health agenda. This engagement will also provide clearer guidance to GGGI in more clearly identifying its program under the 2030 Strategy.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for **Transport & Sustainable Mobility** for 2021-2022: **USD 0.24 million**; Partner co-financing of the program is expected at **USD13 million** in the biennium for a total of **USD 1.54 million**.

TABLE Global Program Budget 2021-2022 (\$, million)

GOPs	PSs	Project Title	Implementation		Funding					Resource Mobilization
			Inception	Completion	GGGI	Gov ¹	Partner	Gap	Total	
2019-2020										
GOP1	PS1	LA04 - Business Case for Electric Vehicle Dissemination in Vientiane, Lao PDR	01.01.2019	30.12.2020	0.06		0.1		0.16	KOICA, secured
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	KH11 - Promoting Green Mobility through Electric Motorcycles in Cambodia	19.09.2019	18.12.2020	-	-	0.2		0.2	GCF Readiness, secured
GOP2	PS2									
GOP4	PS7									
GOP2	PS2	MA-04 Redesign of the scrapping and renewal premium program for the vehicle fleet in Morocco	01.01.2020	31.12.2021	-	-	0.27		0.27	AFD Global MOU, to be secured
GOP4	PS7									
GOP2	PS1	MA-03 Policy development of a CO2 based Bonus-Malus system for new passengers' vehicles	01.01.2020	31.12.2021	-	-	0.24		0.24	AFD Global MOU, to be secured
GOP4	PS2									
	PS7									
GOP1	PS1	MA-09 - Support for the transition from the Emission Standard Euro 4/IV to Euro 6/VI in Morocco	01.01.2020	31.12.2021	-		0.35		0.35	AFD Global MOU, to be secured
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	NP03 Electric Mobility Program, Phase II, Nepal	01.01.2019	30.12.2020	0.02		-		0.02	Core - secured
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	JO-05 Green Growth Action Plan Implementation Support, Jordan	01.01.2020	30.12.2020	0.2		-		0.2	Transport is one of the key sectors of GG Action Plan in Jordan. At least one green growth project proposal from the GGAP (up to USD10M) developed and submitted for financing.
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	New- Electric vehicles for the Bus Rapid Transit system in Addis Ababa, Ethiopia (Project idea)	01.05.2020	31.12.2021	-		0.15		0.15	AFD Global MOU, to be secured
GOP2	PS2									
GOP4	PS7									
GOP2	PS2	New - Capacity building and regulatory framework for sustainable transport, Mongolia	01.07.20	31.12.2021	0.05		-		0.05	Core - requested
GOP4	PS7									
GOP1	PS1	New- Electric buses for UNESCO World Heritage city of Siem Reap, Cambodia	01.07.20	31.12.2021	0.05		-		0.05	Core - requested
GOP2	PS2									
GOP4	PS7									
TOTAL					0.4		1.3		1.7	

2021-2022										
GOP1	PS1	Greening the Kampala Bus Rapid Transit System, Uganda	01.01.2021	01.01.2022	0.07	-	0.13	-	0.2	Core – requested AFD Global MoU
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	Designing & financing sustainable transport in Diamniadio new city, Senegal	01.01.2021	01.01.2022	0.08	-	0.47	-	0.55	Core – requested AFD Global MoU
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	Support the transition to sustainable transport in Kigali, Rwanda	01.01.2021	01.01.2022	0.05	-	0.2	-	0.25	TBD
GOP2	PS2									
GOP4	PS7									
GOP1	PS1	Sri Lanka sustainable transport solutions	01.01.2021	01.01.2022	-	-	0.5	-	0.5	GCF Readiness
GOP2	PS2									
GOP4	PS7									
GOP4	PS7	Transport and Sustainable Mobility Knowledge product (to be defined)	01.01.2021	01.01.2022	0.04	-	-	-	0.04	Core - requested
Operations/Project Preparation										
TOTAL					0.24		1.3		1.54	

V. RESULTS FRAMEWORK

GOP	PS	Projects	Outputs	Verification	SOs	SO Impact Estimation		IOs	Assumptions and Risks
						Attributed	Contributed		
GOP 2	PS2	Support the transition to sustainable transport in Kigali, Rwanda	Feasibility study on low carbon and NMT options	Study submitted to Government Project monitoring, annual results, completion, and evaluation reports	SO1, SO2, SO3.4	-	Targeted Contributed Impact (TCI) have not estimated for the transport sector	IO 2	Risks: high upfront costs of low carbon options Assumptions: earmarked financing is identified
GOP 2	PS2	Sri Lanka sustainable transport solutions	Feasibility study on low carbon and NMT options	Study submitted to Government Project monitoring, annual results, completion, and evaluation reports	SO1, SO2, SO3.4	-	Targeted Contributed Impact (TCI) have not estimated for the transport sector	IO 2	Risks: Economic recession Assumptions: Earmarked funding is secured
GOP 1	PS1	Greening the Kampala Bus Rapid Transit System, Uganda	Investment mobilized in low carbon infrastructure	Green investments committed Project monitoring, annual results, completion, and evaluation reports	SO1, SO2, SO3.4	SO1: 150,000 tCO2 (2020-2030) SO2: 6,000 green jobs SO3: 3 million passenger/km	Targeted Contributed Impact (TCI) have not estimated for the transport sector	IO 1	Risks: Economic recession Assumptions: AFD funding is secured
GOP 1	PS1	Designing & financing sustainable transport in Diarnadio new city, Senegal	Investment mobilized in low carbon infrastructure	Green investment commitments Project monitoring, annual results, completion, and evaluation reports	SO1, SO2, SO3.4	SO1: 150,000 tCO2 (2020-2030) SO2: 5,000 green jobs SO3: 3 million passenger/km	Targeted Contributed Impact (TCI) have not estimated for the transport sector	IO 1	Risks: Economic recession Assumptions: AFD funding is secured
GOP 4	PS4	New - Capacity building and regulatory framework for sustainable transport, Mongolia	Enhanced capacity of government stakeholders in sustainable transport	Gap analysis and needs assessment report submitted to Government Project monitoring, annual results, completion, and evaluation reports	SO1, SO2, SO3.4	-	Targeted Contributed Impact (TCI) have not estimated for the transport sector	IO 3	Risks: low, online training can be provided in case of COVID restrictions Assumptions: Government agrees to receive support from GGGI in the transport sector.
GOP 4	PS4	New – Knowledge Product on transport and sustainable mobility, Global	Enhanced capacity of government stakeholders in sustainable transport	Knowledge product published Project monitoring, annual results, completion, and evaluation reports	SO1, SO2, SO3.4	-	Targeted Contributed Impact (TCI) have not estimated for the transport sector	IO 3	Risks: low; knowledge product to be developed in-house Assumptions: GGGI Transport team has been rebuilt

WASTE GLOBAL PROGRAM

I. GLOBAL PROGRAM STRATEGY

The waste program will continue its focus on evaluating and valorizing waste value chains, shifting from landfill dependent systems, supporting local solutions and responsibility, engaging all stakeholders in change (with a focus on inclusive approaches engaging the informal sector), and providing a role for and supporting the private sector. In 2021/22 it will additional link climate actions/finance to its strategy, and develop stronger links with public health and quality of life through effective and inclusive waste management systems.

The key approaches to the Waste Global Program are summarized here:

GGGI has been working in developing countries to support waste transitions in a holistic and inclusive manner. Through support of planning, implementation of projects, and financing (with a focus on secondary and emerging cities). The following summarizes key foundations of the global program on waste which will continue to be the basis of the global portfolio.

Evaluating & Valorizing Waste Value Chains: All materials have a value chain which provides both opportunities and threats to value capture and resource utilization. GGGI has completed detailed value chain assessments which have sought to identify distinct economies, stakeholders, infrastructure, behaviors, and markets for waste materials. Key lessons have been that waste streams are unique and are both highly localized and globalized. That is, their relationship to consumers and stakeholders can be specific, while waste generation and end-markets are more globally defined. Understanding such dynamics is critical to success in waste-to-resource approaches and investments. No material has the same value chain – and therefore solutions need to be tailored to the type of waste and its specific life cycle. GGGI has established its experience in undertaking analysis of waste chains, and providing options to governments based on approaches which are fit for purpose (for organic waste, plastics etc). Key countries of offering to date have included Lao PDR, Peru, Uganda and Senegal.

Shifting from landfill dependent- or based systems: Waste systems can no longer operate on linear-managed systems typified by ‘collect and dump’ and landfill-dependence. Cities increasingly realize that deriving value (including lessening costs) of waste management is a high priority, as waste management accounts for a high proportion of budgets. Materials recovery, valorization and value capture, reducing costs of collection etc are all sought by municipal authorities that, more than ever, are open to circular economy strategies and solutions. Nevertheless, most authorities in developing countries have limited expertise beyond business-as-usual approaches, including limited experience in working private/informal actors and investors. GGGI, with experience gained from working especially in secondary cities, in Senegal, Rwanda and Cambodia have assisted member countries to understand the need to shift from land-based waste systems, and to more effectively valorize their waste streams (including waste to energy, RDF etc). Such assessments and planning advisories have been and remain very important to our program of work.

Supporting Local Solutions & Responsibility: With many export options now closed, there is greater necessity to plan for local and/or regional solutions and investments in collection, storage and processing infrastructure. This is placing greater urgency on supporting decentralized collection systems and ‘near place’ responsibility and infrastructure. Utmost, it is about lessening landfill dependence, capturing materials closest to source, and investing in the (missing) infrastructure to support that. Thought has to be given to whether a business would seek to establish processing facilities in-country and find markets for those products/materials. What are the national laws and regulations on recycled materials and their use? Some countries have disincentives – with the preference to export pellets etc overseas and no procurement incentives for recycled materials etc. Where are those markets, and what is needed to create and secure them? It is evident that, as has been observed with plastics, even where there is value and supply, there is not a cookie cutter approach. In Lao PDR in particular, the project is looking to establish a stronger decentralized approach to waste management (including technologies), Uganda has explored the same, while Peru is also looking at specific infrastructure and technology solutions for market waste closest to source.

Employment Generation and Engaging Stakeholders: A fundamental issue is effective mapping, understanding and engagement with all stakeholders in the waste system – both formal and informal. This relates to collection, reliable access to materials for recycling companies (relating to quality, price, but also physical access, including seasonal volumes/waste), and communication issues. To ensure access to (clean) materials, buyers at scale have tried decentralized purchasing and storage and setting fixed prices that encourage consistent access and pricing for collectors. Ironically, many recyclers are under capacity, so there are clear lessons here in that access to feedstock is not easy. GGGI’s approach, embedded in all waste programs, has been to engage with all stakeholders, inclusive of informal sector actors, but also working with private sector (recycling, collection) companies to generate both support for, and investment in waste-to-resource approaches.

Providing a Role for & Supporting the Private Sector: Outside of PPPs, which have an uneven record in supporting waste-to-resource goals, many municipalities in countries where GGGI works do not have much experience working with the private sector, or capacity to do so. There is a significant governance and relationship gap in evidence which contributes to a dysfunctional and less-effective waste system, and waste-to-resource transformation. GGGI has therefore been working with several countries to strengthen PPPs in practice and help align PPP contracts with different ways of doing business (encouraging new actors, waste-to-resource approaches and infrastructure). This includes linking waste entrepreneurs to households and business sources of waste, but also in waste-to-energy projects (Cambodia, Peru, Viet Nam) and in dealing with e-Waste (Thailand). There are several localized innovations engaging the private sector, but at scale, these continue to struggle against prevailing norms and business-as-usual systems. Where we see examples of positive change, it is in linking new policy visions to waste management of progressive cities at a city-wide vision level, to the private sector which wishes to engage. In large part, this association is important to demonstrate to government that new investments can immediately come from policy change. Beyond formal PPPs, GGGI should encourage multi-stakeholder engagement and encouragement of sustainable financial models for waste management, including opportunities for creative entrepreneurship and new investment.

Utilizing and encouraging adoption and investment in smart systems and infrastructure: GGGI is increasingly engaged in partnerships around smart cities¹. There are emerging approaches and technologies relevant to waste management which span low-cost options which engage households and the informal sector (such as through the use of Apps and smartphones); in service delivery, collection and recycling; to the employment of smart sensors on bins, GPS systems on collection, transport and disposal infrastructure; and the development of smart 'waste banks'. With respect to the intersection of improving waste management through employment of technology, improved governance, communication and management systems cannot be overstated – answers do not come from technology in isolation, but technology can support smarter solutions and approaches. GGGI is embedded in key public and private partnerships in developing ideas for its projects.

Leveraging Public Private Partnerships (PPP) in the waste sector: GGGI through its Green Investment Services (GIS) team has advised several government agencies to develop contractual PPP models and technical specifications for waste solutions to achieve greener, pro-poor applications. In Viet Nam, GGGI supported Thang Long Energy Environment JSC, a private enterprise to develop a municipal solid waste to energy project in Bac Ninh province. The GIS team has successfully helped mobilize USD 20 million in senior debt financing for this project. In Thailand, in partnership with Udon Thani City Municipality, GGGI is working to establish the systematic e-waste management system and scalable material recycling center. A pilot e-waste treatment plant of waste up to 500 kg/day is being evaluated. Preliminary analysis of the project suggests that break even can be achieved by processing high grade e-waste greater than 100 tons per year.

Waste and Climate Change

In addition to these successful areas there is clear demand for GGGI to support but also extend its work on waste management and link it to climate and climate finance.

As countries increasingly start to focus on delivering their NDCs while undergoing the immediate impacts of climate change, the linkages between waste and climate change are becoming obvious. At a global level, waste (including wastewater, fecal sludge and solid waste) makes up about 4% of the global greenhouse gas emissions but a much higher proportion of dangerous methane emissions.

As part of the BMGF project GGGI has calculated estimated GHG gases from the sanitation sector and has, in the case of Nepal, included a suite of infrastructure projects for sanitation to be included as mitigation and adaptation measures. For Senegal GHG emission calculations and institutional capacity building on sanitation climate metrics and policies will be carried out this year. Key countries of implementation in the past have included Fiji (LEDS), Kiribati, Vanuatu, Peru, Nepal, Senegal.

II. GLOBAL PROGRAM

For 2021 – 2022, the waste program will continue to deliver on the existing earmarked programs for both waste and sanitation. These are summarized in the annexes and following tables. There are also opportunities to support scale up. Approximately 12 country teams have indicated that they will include waste management/sanitation as part of their WPB for 2021/22. These are in line, and support implementation of the GGGI approach summarized above.

While the existing program provides a very strong base for country teams, this proposal addresses a stronger value add with respect to climate action/finance. Much more can be achieved for country programs in linking their waste actions to climate actions/finance. Of those countries submitting their NDCs to the UNFCCC, 116 noted waste (especially indicating impacts of methane emissions). Of these 116, fourteen are GGGI member countries. As the programs develop and as countries submit the revised version of their NDCs, it is highly likely that more countries will want to focus more on waste.

The waste global program will contribute to:

- SO2 – Creation of Green Jobs in the waste sector
- SO3.2 – Increased access to improved sanitation
- SO3.3 – Increased access to waste services
- SO5 – Adequate maintenance of natural capital through proper management of waste and sanitation services
- SO6 – Adaptation through limiting the negative impact on ecosystems

Alignment with Global Operational Priorities under Strategy 2030:

- GOP 1: Catalyzing and accelerating access to climate finance/ green investments for Members' public and private sectors
- GOP 2: Supporting GGGI members in strengthening policy planning, regulatory frameworks, and institutional capacity to achieve green growth outcomes
- GOP 4: Making cities and communities sustainable, livable and resilient, through supporting green jobs, services, and green infrastructure
- GOP 5: Acceleration progress of GGGI country programs in poverty eradication and gender quality through organizational operations
- GOP 6: Adaptation

Alignment with Programmatic Solutions:

- Programmatic Solution 1: Green Investments
- Programmatic Solution 2: Climate Action
- Programmatic Solution 6: Waste Management

III. PARTNERSHIP AND RESOURCE MOBILIZATION

The Green Cities team has been strengthening and leveraging its partnerships in the waste program at over the last five years. At a partnership level, GGGI is a member of the UN Waste Wise coalition, NCE Coalition for Urban Transitions, and ISWA. At a programmatic level, GGGI has successfully leveraged its partnerships with KOICA through funding for waste programs in Lao PDR and Uganda. Additional earmarked funding has been received from Bill and Melinda Gates Foundation for Nepal and Senegal, and from Luxembourg for Senegal. Additional programs are in process, to be supported by the EU. GGGI has also submitted several waste concept notes to AFD.

IV. INDICATIVE RESOURCE ENVELOPE

Indicative planning figure for GGGI Core resources for Waste for 2021-2022: **\$0.24 million**; Partner co-financing of the program is expected at **\$0 million** in the biennium for a total of **\$0.24 million**.

TABLE Global Program Budget 2021-2022 (\$, million)

Global Operational Priorities	Programmatic Solutions	Project Title	Implementation		Funding				Resource Mobilization
			Inception	Completion	GGGI	Partner	Gap	Total	
2021-2022									
Operations					0.036	0	0	0.036	
TOTAL					00.24			00.24	

V. RESULTS FRAMEWORK

GOPs	PSs	Project	Output	Verification	SOs	SO Impact Estimation		IOs	Assumptions and Risks
						Attributed	Contributed		
GOP 1 GOP 2 GOP 3 GOP 4 GOP 5	PS6	Countries contributing to the waste global program will likely be ones with existing waste programs to supplement the work	Build upon 2020 waste global outputs to strengthen linkages between waste and climate across waste value chains such as organic waste, plastic waste and electronic waste	TBD Green investment commitments Project monitoring, annual results, completion, and evaluation reports	SO 1 SO 2 SO 3 SO 6	TBD		IO1, IO2	Risks: Funding for global program is yet to be confirmed, countries working on global program for 2020 is yet to be determined, ability of country teams to carry out activities as a result of COVID19 Assumptions: The waste global program will support both core and earmarked funded projects in the waste sector, in addition to building on to the knowledge gaps