

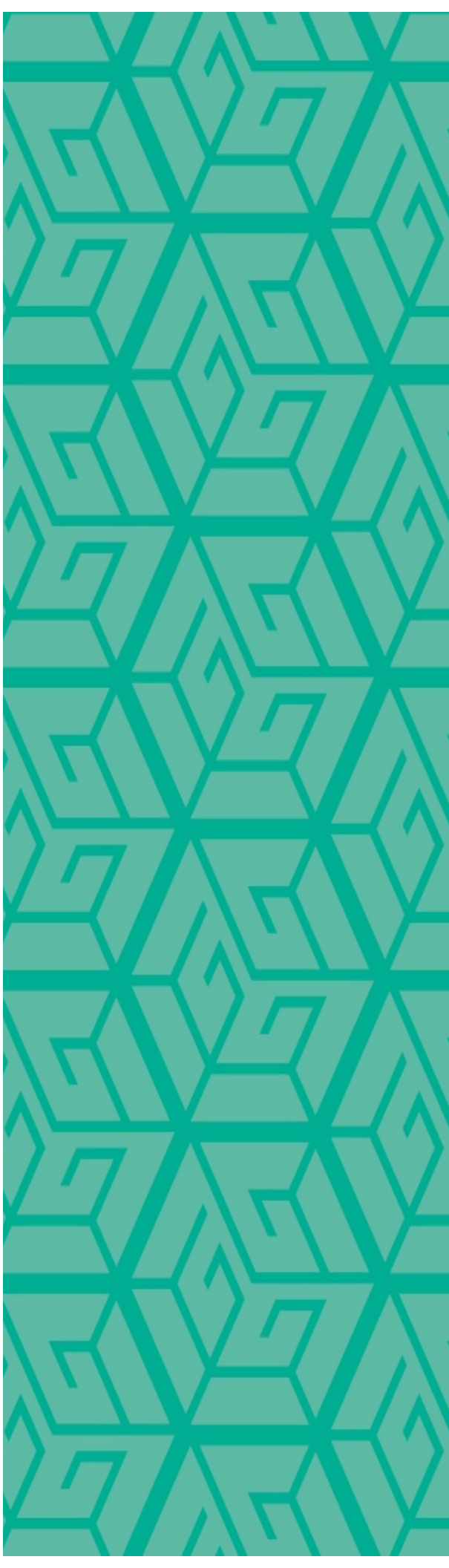


Global  
Green Growth  
Institute

# **Towards Sustainable Energy and Transport Systems: Examples from around the World**

**Kristin Deason, Ph. D.**

**Caribbean Lead**



# Global Green Growth Institute at a Glance



Helping developing country governments transition towards a model of economic growth that is **environmentally sustainable** and **socially inclusive**

**32+ members with operations in 33+ countries**

- Sustainable Energy
- Water & Sanitation
- Sustainable Landscapes
- Green Cities

Multi-Sectoral

Member Countries



# GGGI's Four Thematic Focus Areas and Strategic Objectives



Global  
Green Growth  
Institute

Sustainable Energy      Water & Sanitation      Sustainable landscapes      Green cities



# GGGI in the Latin America and the Caribbean



## Colombia

Subnational GG planning and bankable projects  
Sustainable landscapes  
Forestry / Sustainable landscapes (National and Sub-national)

## Guyana

Mine site remediation (2020)  
Renewable Energy project (GCF Readiness)  
Implementation of National Developments Plan  
Regional energy policy recommendations Support countries to adopt regional policies  
Bankable project and Accessing green/climate finance (MDBs)

## Caribbean

## Costa Rica

Meso-America regional  
Green Transportation(TBD)  
Paraguay river management

## Paraguay

(TBD)

## Chile &

## Ecuador

GGGI membership is under discussion

# GGGI and OECS



- MOU signed in February 2018 to pursue joint programs and activities (capacity building and development of green growth options for developing countries)
- GGGI office opened at OECS HQ in St. Lucia in May 2019
- Joint program objectives
  - Assist with country-level implementation of regional policy recommendations
  - Accelerate flow of climate finance
  - Identify and develop projects – both regional and in individual OECS member states
  - Focus on energy sector resilience

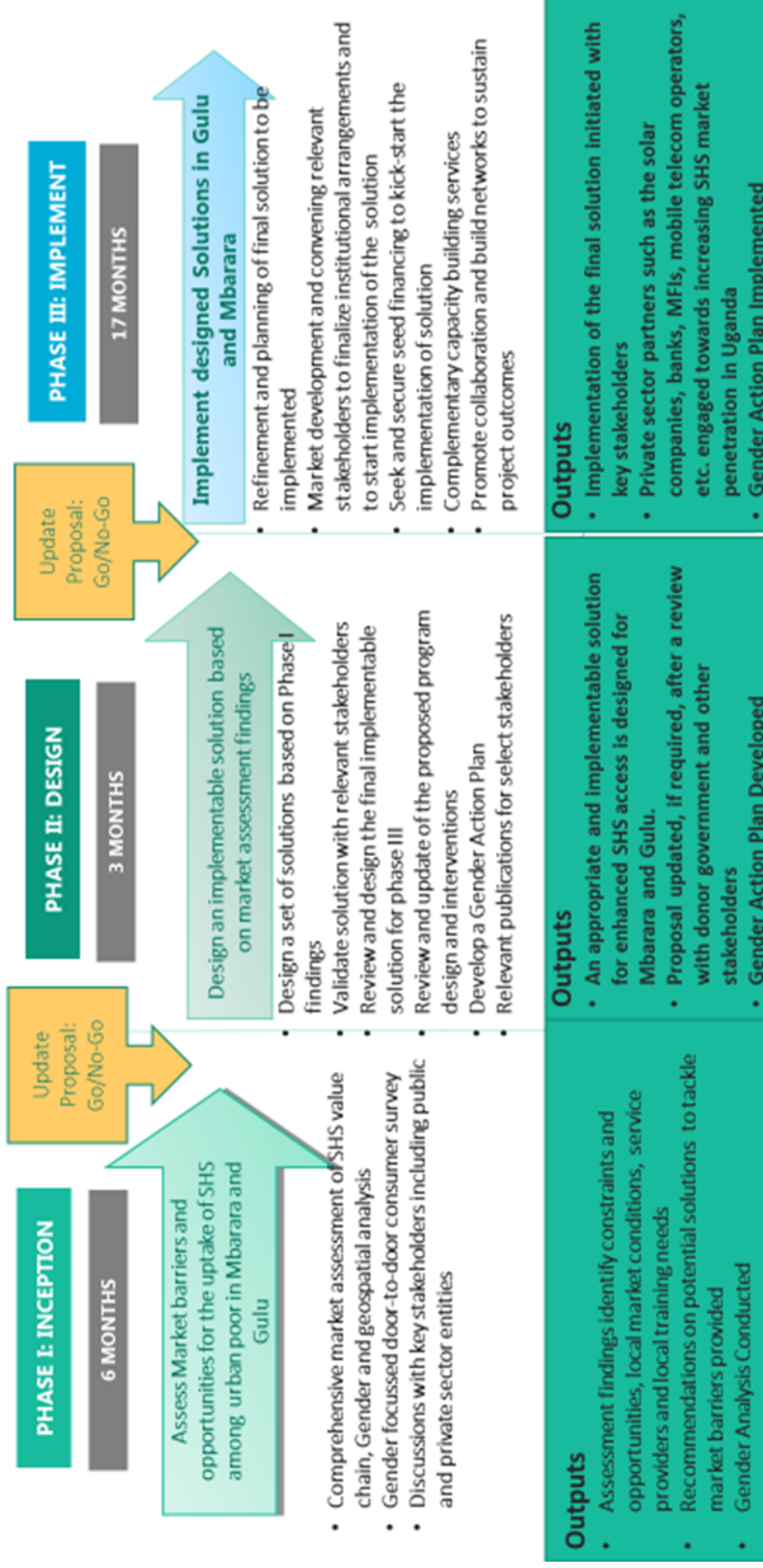


# **GGGI's Strategic Partnership with the Green Climate Fund (GCF)**



Global  
Green Growth  
Institute

# Example Project: Catalyzing the Solar Home System Market in Uganda



# Example project: Guyana Urban Sector Solar Energy program (USSEP)



Global  
Green Growth  
Institute

- **Objective:** catalyse the transformation of the energy system through private sector participation in the solar market. Focusing on roof top solar PV distributed generation for commercial and industrial buildings.
- **Four main activities:**
  - technology awareness for private sector and utility,
  - capacity building for local solar companies and government agencies,
  - create a project pipeline 10-20MW
  - develop finance solutions
- **Achieved so far:**
  - Policy and regulation assessment done to overcome barriers for solar PV
  - Solar PV pre-feasibility analysis in 44 sites
  - Pipeline of 14 MW established
  - Creation of joint venture to finance, build, own, operate solar PV projects under a lease-to-own model





# Example project: Enhancing Guyana's Access to GCF to Transition to Renewable Energy



- **GCF Readiness Project**
- **Outcomes:**
  - Renewable Energy feasibility analysis
  - Crowding-in private sector investment
  - Project concept notes for at least two prioritized RE projects
  - Nomination of at least 2 Direct Access Entities (DAE)
  - Private Sector Engagement
- **Activities include:**
  - Create project pipeline of utility scale RE projects, shortlist, and pre-feasibility analysis
  - Assessment of policies and codes
  - Business model assessment

# Example projects: NDC Planning in Fiji



Supported development of Fiji’s **NDC Implementation Roadmap 2017-2030** – defines pathway to achieve 30% reduction in GHG emissions goal in NDC



Supported Fiji in development of the **Low Emissions Development Strategy, (LEDS)**, launched at COP24. Details four low-emissions scenarios 2018-2050 aimed at net-zero carbon emissions by 2050 across all sectors.



Published “**NDC Implementation Roadmap Development: Guidelines for Small Island Developing States**” available at



<https://gggi.org/report/ndc-implementation-roadmap-development-guidelines-for-small-island-developing-states/>



# Example projects: Transport

- Working with GCF DAE Fiji Development Bank to develop GCF concept note for “Promoting Decarbonization of Public Bus Transport”. Project also includes on-the-job training and capacity development.
- EV readiness studies



# Example projects: Green Bus Programs

Jordan: green the choice of fleet vehicle for Jordan's BRT plans, perform pre-feasibility study, knowledge sharing, and facilitate associated financing

Lao: green the choice of vehicles for planned BRT project in Vientiane. Pre-feasibility study and development of GCF concept note and full proposal, feasibility study and workshop, business model design and securing an investor.



## Investment Opportunity

- US\$50 million investment in the supply of electric vehicles and charging infrastructure, operation and management of the new Bus Rapid Transit (BRT) system, as per the service plan defined by Greater Amman Municipality.

## Key Investment Highlights

- Local partners: Greater Amman Municipality (GAMM), responsible for the BRT system within Amman Municipality
- Ministry of Transport, responsible for the BRT system in Jordan, Amman and Zarqa
- French Development Agency, financier of the BRT infrastructure

## Financial terms

- Financing: 100% grant payment (in USD per km). Each bus is sold on the actual total distance travelled during payment period with a floor on the minimum distance per bus.
- Revenue: 100% of the revenue per bus is pre-defined to guarantee min. revenue per bus. Expected to be 70%-80% kilometers per annum to cover the cost of the bus.
- Access to discounted power tariff which makes electric vehicles financially more attractive than diesel

Key figures	
Total investment:	\$50 million
Lending rate:	< 12% p.a.
Project duration:	10 years
IRR (NPV):	81 (2019)
IO (case of doing bus):	Medium

## Strong market fundamentals

- Flagship transport project at national level
- Potential grant financing from the UNFCCC Green Climate Fund

## Regulatory framework

- The Renewable Energy and Efficiency Law (REEEL) of 2012 allow the project to benefit from a discounted power tariff through the so-called energy wheeling scheme.

## Contact Details

### Christophe Askot

- Green Investment Specialist

[christophe.askot@ggi.org](mailto:christophe.askot@ggi.org)

- Global Green Growth Institute has been acting as an advisor to the government of Jordan to help promote sustainable green development
- Interested parties should direct all communication to GGI

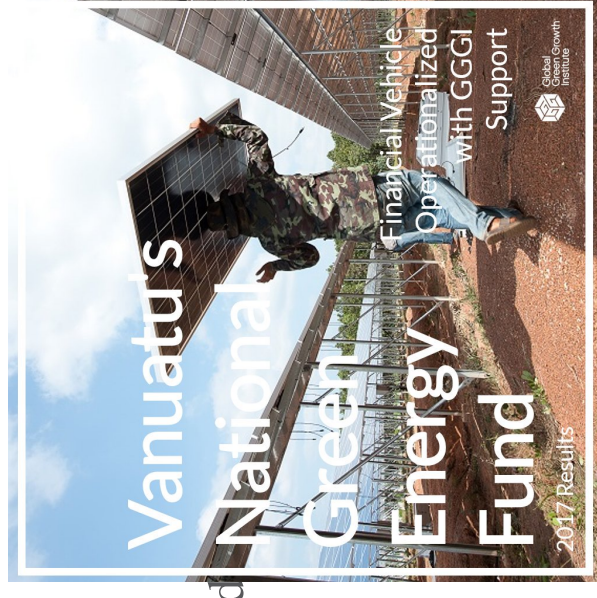
# Example projects: National Financing Vehicles



Financial tool used to accept and distribute domestic and international climate finance

Example: Vanuatu National Green Energy Fund: revolving fund which will on-lend via approved intermediaries  
GGGI provided support for consultations, development, legal establishment, operationalization and capitalization of the fund.

Other National Financing Vehicle projects in Mongolia, Jordan, Rwanda, Philippines



# Working with OECS Member States



- We are looking to:
  - Understand country priorities in the areas of energy, resilience, transport
  - Identify project ideas, best if pre-feasibility study has been done or project is well-defined
  - Work with partners to make projects happen!

Thank you!

---

Kristin.Deason@ggg  
i.org

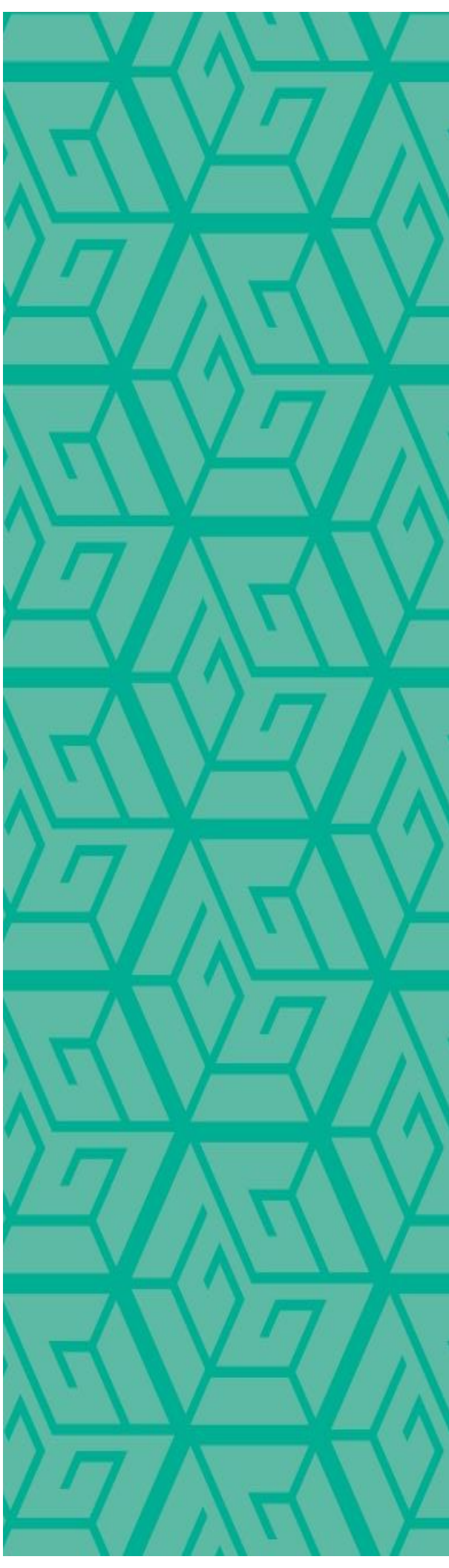


Global Green Growth Institute



GGGI

# Back up





# GGGI/OECS Joint Program – Initial Work Plan

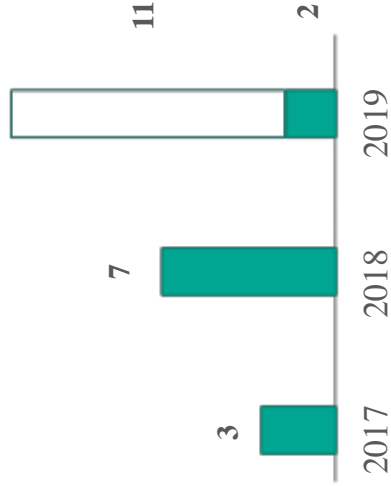


Global  
Green Growth  
Institute

Focus Area	Initial Interventions
Improved regulatory and fiscal policy frameworks at regional and country levels to increase private sector participation and investments in resilient energy infrastructure projects	<ul style="list-style-type: none"><li>• Support for OECS studies</li><li>• Support for implementation of policy recommendations in specific OECS member states</li></ul>
Capacity of state and non-state actors to understand, identify and develop energy resilience opportunities and projects increased	<ul style="list-style-type: none"><li>• Energy resilience review</li><li>• Knowledge sharing across OECS countries</li></ul>
Energy resilient project designed, and funding secured	<ul style="list-style-type: none"><li>• Identification of possible projects and funders</li><li>• Development of proposals</li></ul>

# GCF Portfolio Overview

12 approved Readiness proposals



**4 countries supported with**

- **NAP**
- Sri Lanka
- Ethiopia
- Rwanda
- Laos
- PDR

## Support for 6 Project Funding Proposals



Country	Project Title	Status	Total project investment	GCF financing
Ethiopia	Responding to the Increasing Risk of Drought: Building Gender-responsive Resilience of the Most Vulnerable Communities (FP58)	FP Approved	\$50M	\$45M
Rwanda	Strengthening climate resilience of rural communities in Northern Rwanda (SCRNRP) (FP73)	FP Approved	\$33.2M	\$32.8
India	Access to Clean Energy (ACE) Fund for Off-Grid Energy	FP Submitted	\$120M	\$60M
Mongolia	Mongolia Green Finance Corporation (National Financing Vehicle)	PPF Approved		\$40M
Nigeria, Senegal, Tanzania, Tunisia	Renewable and Efficient Energy Fund (REEF)	Submitted		\$25M
Rwanda	Climate smart smallholder tea development in Rwanda	• Mozambique Design • Burkina Faso		100% Coast \$10M \$63M Morocco
<b>TOTAL</b>				<b>\$212.8 M</b>
• Lao PDR	• Guyana	• Senegal		Mexico
		• Fiji		

# Pipeline of Readiness Proposals with GGGI as Deliverer Partner



Global Green Growth Institute

## Approved

- **Vanuatu (\$370,000):** National Green Energy Fund (NGEF) development
- **Mongolia (\$350,000):** Mongolia Green Credit Fund (MGCF) development
- **Papua New Guinea (\$677,427):** Readiness support to strengthen PNG's engagement with GCF
- **Thailand (\$340,000):** Advancing Thailand's Access to GCF by strengthening project evaluation and developing sectoral investment plan
- **Lao PDR (\$476,485):** Developing concept notes for climate resilient cities in Laos, and engaging private sector
- **Rwanda (\$600,000):** Development of detailed master plan for secondary cities
- **Jordan (\$660,000):** Accreditation support and project preparation
- **Indonesia (\$860,000):** Strengthen NDA and Indonesia's engagement with the GCF
- **Myanmar (\$850,220):** Readiness Support for Developing Myanmar's Green Cities Investment Plans
- **Ethiopia (\$827,203):** Building the Project/Program development, coordination and delivery capacity of the NIE and strengthening Ethiopia's engagement with the GCF
- **Uganda (\$700,593):** Readiness Support to strengthen Uganda's engagement with the GCF
- **Guyana (\$300,000):** Enhancing Guyana's Access to GCF to Transition to Renewable Energy

**12 proposals, 12 countries, USD 7,011,928**

## Submitted

- **Mozambique (\$600,717):** Implementing the NDC to promote low-carbon growth in Mozambique
- **Burkina Faso (\$461,554):** Support for accreditation of direct access entities, pipeline development and private sector mobilization in Burkina Faso
- **Lao PDR (\$610,026):** Enhancing NDA Capacity and Access to the GCF in Lao PDR
- **Vanuatu (\$350,000):** Mobilizing the Vanuatu Private Sector towards climate change action
- **Vanuatu (\$650,000):** Enhancing Vanuatu's Ability to Seek Accreditation and Direct Access to the GCF
- **Philippines (\$300,000):** Readiness Support to Strengthen Philippines Capacity and Knowledge on Accessing GCF
- **Ethiopia NAP (\$2,230,499):** Building Capacity to Facilitate the Integration of the National Adaptation Planning Process in Ethiopia
- **Mexico (\$756,700):** Readiness Support for Country Programming and Direct Access in Mexico
- **Cote d'Ivoire (628,375):** Supporting Direct Access in the Republic of Cote d'Ivoire

**9 proposals, 8 countries, USD 6,587,871**

**21 proposals, 17 countries, USD 13,599,799**

## Scoping

- **Sri Lanka (NAP)**
- **Rwanda (NAP)**
- **Lao PDR (NAP)**
- **Morocco**
- **Senegal**
- **Fiji**
- **Peru**
- **Zambia**
- **Fiji (NAP)**
- **FSM (NAP)**
- **Togo (NAP)**