



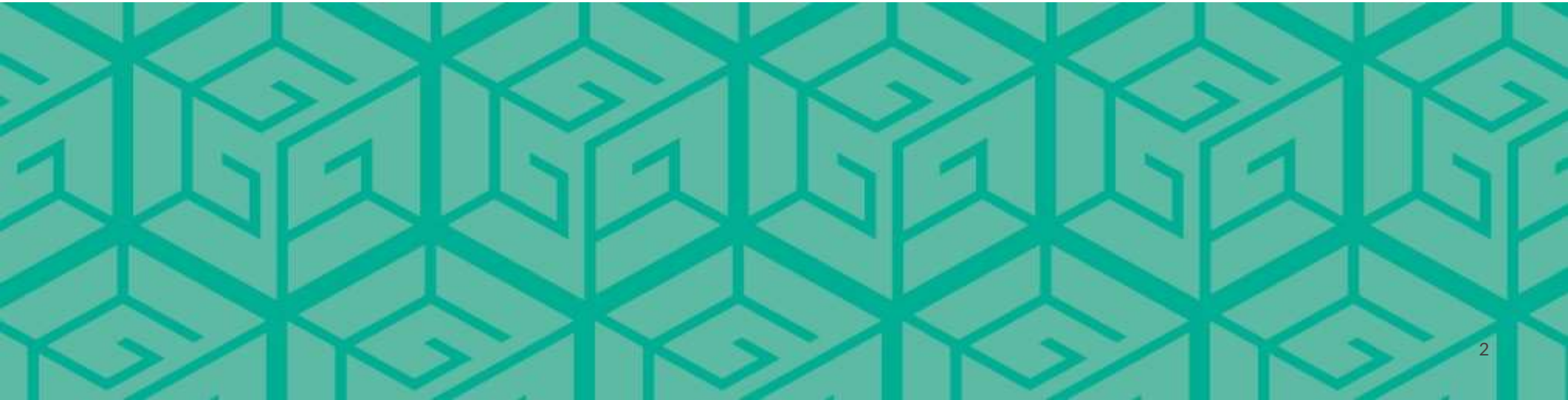
# A Low-Carbon and Resilient World of Strong, Inclusive, and Sustainable Growth

**GGGI**

December 2024

# I. GGGI :

Who are we?

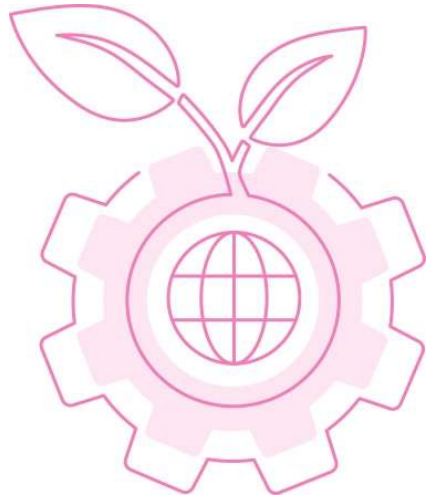
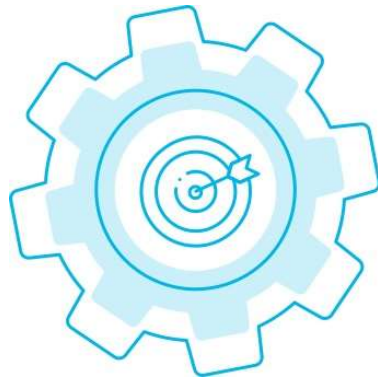


# ABOUT GGGI – intergovernmental organization



## VISION

A low-carbon resilient world of strong, inclusive, and sustainable growth.



## MISSION

GGGI supports its Member countries in the transformation of their economies to a green growth economic model.



## POSITION

A trusted advisor & development partner embedded in member & partner governments.



# GGGI At a Glance – Our Operations



**51** COUNTRY OPERATIONS    **36** PROGRAM OPERATIONS    **15** PROJECT OPERATIONS

## 2017-2023 ACHIEVEMENTS

**300+** GREEN GROWTH POLICIES adopted by GOVERNMENTS

**USD 10 BILLION** GREEN INVESTMENT COMMITMENT \$ MOBILIZED SINCE 2017

**382 MtCO<sub>2</sub>E** of potential emissions avoided

**52 MILLION PEOPLE** Built resilience to Climate change

**14 MILLION HA** OF NATURAL CAPITAL TO BE PROTECTED

**390,000** POTENTIAL GREEN JOBS CREATED

## INCREASED ACCESS TO SUSTAINABLE SERVICES

**600,000 PEOPLE** ACCESS TO ENERGY    **1.55 MILLION PEOPLE** IMPROVED SANITATION  
**4.7 MILLION PEOPLE** WASTE MANAGEMENT    **12 MILLION PEOPLE** TRANSPORT

Ratio of **USD 25** mobilized for every **USD 1** spend

## Slide 4

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**HMO** Can we say ...'jobs supported'  
14million hectares of natural capital protected' rather than 'to be'?  
Are we on more than USD10billion mobilized as we have done over  
USD1bill this year?

Helena McLeod, 2024-10-09T05:17:18.161

# GGGI'S VALUE CHAIN:

FROM POLICY TO FINANCE MOBILIZATION AND IMPLEMENTATION



Catalyzing and accelerating access to climate finance/green investments for Members' public and private sectors



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



Achieving a sustainable and circular bioeconomy while securing healthy natural systems



Making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure capital markets innovations



Accelerating progress in our country programs in poverty eradication and gender equality

## GGGI Value Chain

### Green impact assessment



### Sector/Sub-sector strategy & planning



### Design, financing & implementation



# GGGI Approach: Programmatic Interventions



**Member Countries' Green Growth Priorities**



GGGI

**GGGI** **Creating Enabling Environment to Meet the Targets**

Evidence based policy and regulatory support, and strengthening institutional capacity

Develop financially sustainable business models / financial instruments / Bankable projects with focus on replication and scale (creating templates)

Mobilize green /concessional /climate/carbon finance to bridge viability gaps to support new approaches and disruptive technologies

Facilitate stakeholder consultations, knowledge sharing with the view "Learn As you Do"



**Mobilize Resources through Partner Institutions**

Support member nations/institution through targeted Technical Assistance (TA) program with support from GGGI donor countries

Mobilize Finance from Multilateral and bilateral DFIs (WB, ADB etc.), Multilateral/Bilateral funds (GCF, GEF etc.) and Private sector and commercial banks



**Achieve NDC targets on emission reduction, RE Integration etc.**

**Achieve Net Zero Target in the long term**

**Achieve SDG environment-energy-economic growth**

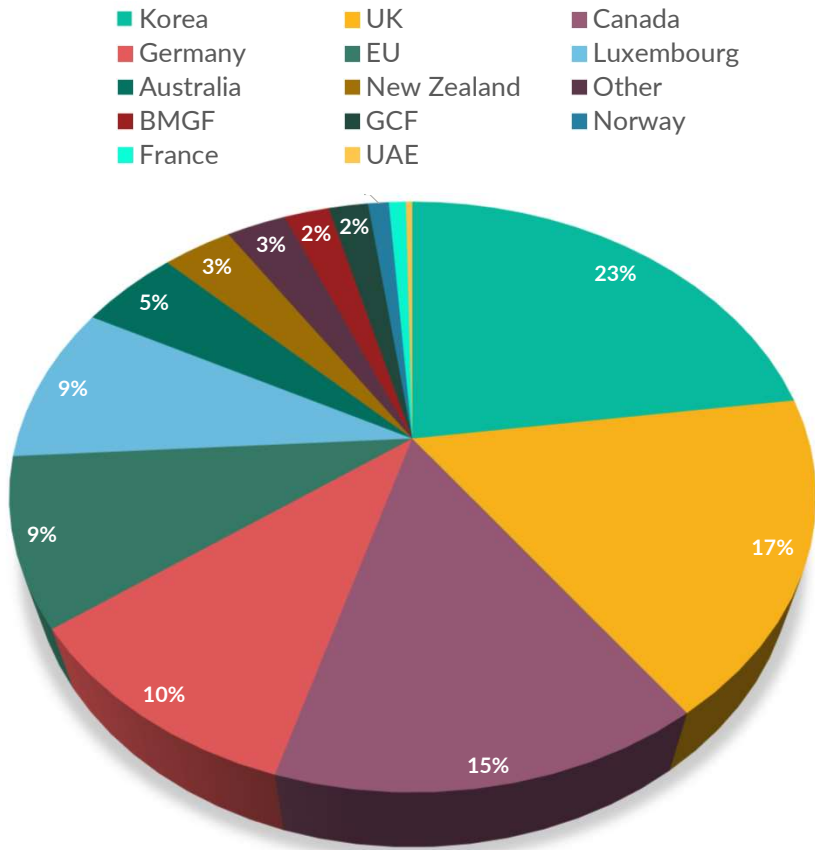
## Slide 6

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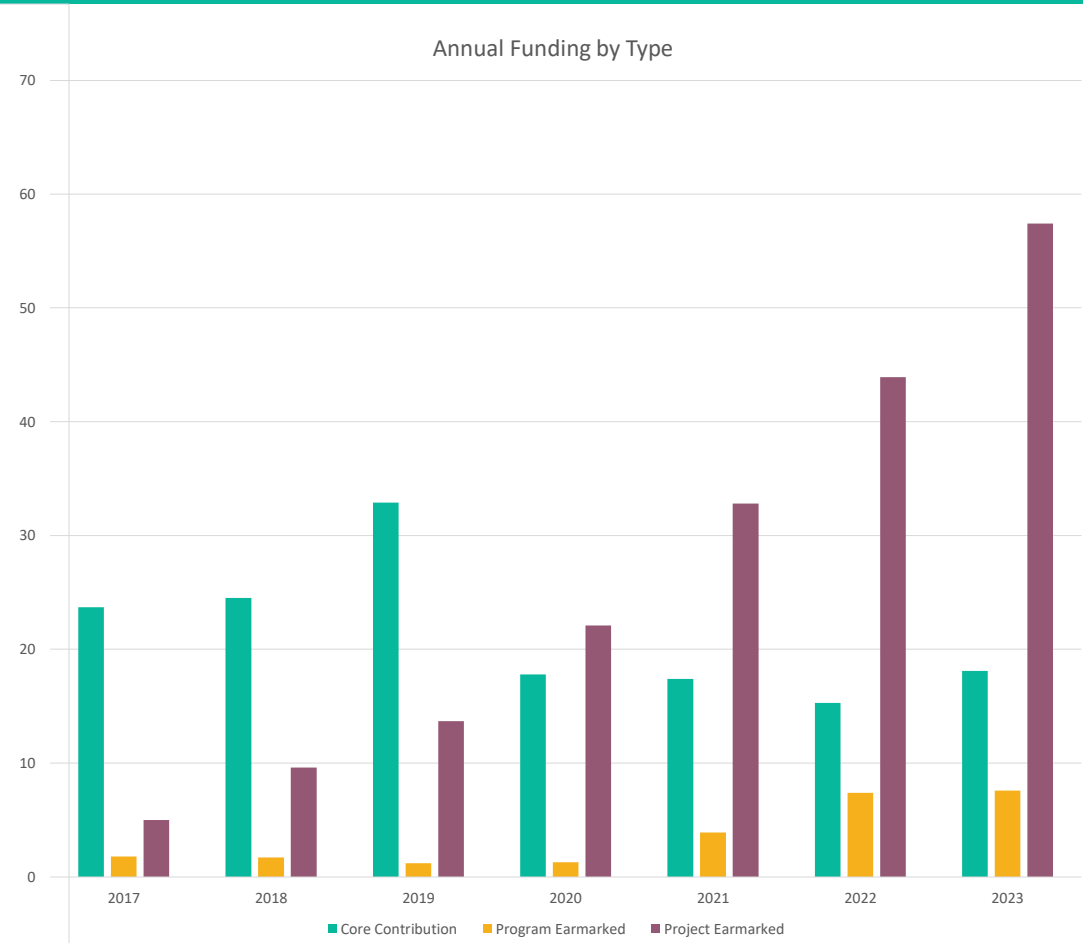
**HMO** This slide is a bit cramped what is the main point here?

Helena McLeod, 2024-10-09T05:23:37.103

# GGGI At a Glance – Our Funding



\$120m Signed Commitments in 2023



## Slide 7

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**HMO** Is this our signed commitments this year? Or our total current portfolio? GCF is the 2% correct? How much is our current GCF portfolio in USD?

Helena McLeod, 2024-10-09T05:19:16.906

## II. GGGI:

What are we doing  
to contribute to the attainment of Net Zero?

# GGGI PROGRAMMATIC SOLUTIONS



Catalyzing and accelerating access to climate finance/ green investments for Members' public and private sectors

## Green Investments

Green bankable projects, investment proposals, national financing vehicles, green and climate instruments, carbon-focused engagements.



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

## Climate Actions

Inclusive green growth plans, LT-LEDS, NDC support, MRV system design, climate diplomacy.



Achieving a sustainable and circular bioeconomy while securing healthy natural systems

## Climate Resilient Agriculture

Solar irrigations, renewable energy application in agri-value chain, resilient cropping practices, resource conservation

## Sustainable Forests

REDD+, landscapes financing mechanisms, innovation of natural capital markets.

## Coastal Resilience and Blue Economy

(1) Safeguard and strengthen coastal ecosystems resilience and biodiversity; (2) and promote a sustainable and innovative blue-economy.



Making cities and communities sustainable, livable, and resilient, supported through green jobs, services, and green infrastructure capital markets innovations

## Circular Economy and Sustainable Waste Management

(1) Optimize resource use and product lifecycles, (2) promote industrial ecology and Extended Producer Responsibility, and (3) ensure sustainable waste management, value from waste, and address plastic pollution.

## Sustainable Mobility

E-Mobility, Non-motorized transport

## Green Buildings

Green urban infrastructure norms/ standards/ policies, energy efficiency in residential and commercial buildings

## Renewable Energy

Enhance policies, regulations, and access to sustainable energy infrastructure for a just transition towards (1) renewable heating, cooling, and power systems, (2) more efficient energy systems, and (3) cleaner heat and power generation, reducing greenhouse gas-intensive fuels.

## Green Industries

Green industrial parks, green supply chains, energy efficiency in SMEs, labelling and standards.



Accelerating progress in our country programs in poverty eradication and gender equality

## Cross cutting

in all programmatic solutions



Carbon pricing

## Article 6

Article 6 readiness, policy design, transactions and trading

# GGGI's Demand Driven Approach: Global Programs



**Key Support to help countries meet NDC**

## Policy & Regulatory Framework

(ROK, UK, DEN, CAN, GER ...)

## Financially Sustainable & Bankable Projects

(ROK, QAT, FIN ...)

## Green Finance Mobilization

bridge viability gaps for project financing (ROK, LUX ...)

## Green Infra Dev., Carbon Transaction

(ROK, DEN, SWE, NOR, GER, LUX, CAN, FIN ...)

## National Inventory & MRV



## Global Programs

### Green Hydrogen

INO, IND, NEP, MOR, VIE ...

### Methane Flaring Gas

NIG, KAZ, ECU, ANG, TUR ...

### Floating Solar, Solar PV, Wind:

INO, PHI, COL, DOM ...

### Low Carbon Buildings

IND, THA, INO, VIE, CAM ...

### Low Carbon Transport

MEX, ECU, RWA, SRI, VIE ...

### Bio-CNG

IND, INO, THA ...

### Green / Sustainable Bonds

PER, MEX, VIE, CAM ...

### Plastics Initiative

INO, ETH, MEX, Pacific ...

### Bio Char

VIE, ...

Other Global Programs e.g. Resilience, Climate Forestry and Agriculture, District Cooling ...

# GGGI Global Programs Portfolio

GGGI's Demand Driven Approach: Global Programs



# Global Program on Green Hydrogen

Indonesia, India, Nepal, Morocco



Green Hydrogen Global Program support the target countries to decarbonize energy intensive industries such as fertilizers, iron and steel, petrochemicals with inclusion of green hydrogen to replace the existing use of grey hydrogen as a feed stock in the manufacturing process and create business case for use of green hydrogen as a fuel where other fossil fuels are currently used.

Hydrogen's acceptance as an energy vector is gaining prominence due to three long term trends

## Cost of Renewables

- Significant decline in cost
- Cheapest source of producing electricity

## Energy Security

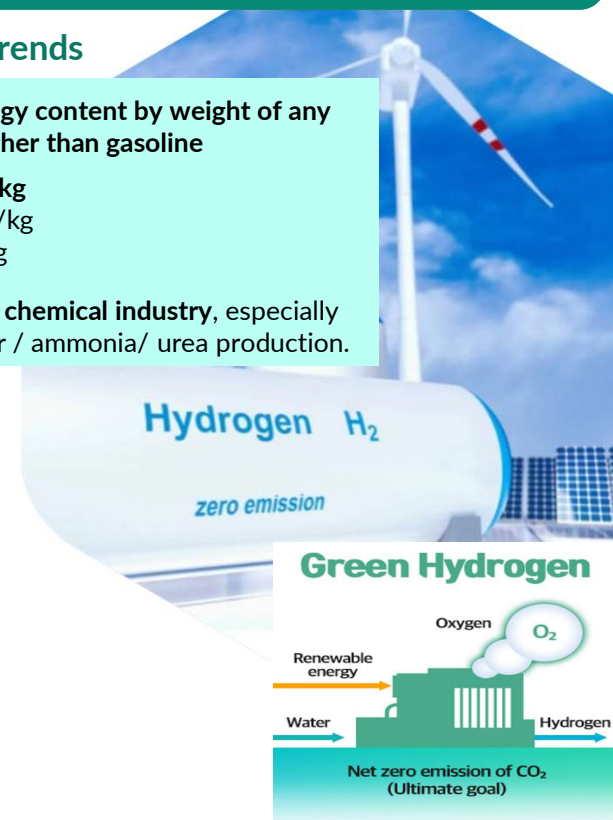
- Increasing focus towards energy security and reducing energy import
- Focus on reducing dependency on battery import
- Existing gas infrastructure can be used in the initial year of transition (up to 18% blending)

Long term trends shaping the hydrogen outlook

- Hydrogen has the highest energy content by weight of any chemical fuel – three times higher than gasoline
  - Hydrogen – 33 kWh/kg
  - Natural gas - 14 kWh/kg
  - Gasoline – 12 kWh/kg
- It is a critical feedstock for the chemical industry, especially refining and mineral N-fertilizer / ammonia/ urea production.

## Industrial Decarbonization

- Fast-growing acknowledgement that energy systems cannot be decarbonized by greening electrons alone.
- Need for industry, heavy transport and hard to abate sectors to examine and assess decarbonization strategies



# Global Methane Gas Flaring Optimization Program

## Pre-Qualifying Criteria

for GGGI to provide TA and support to its “member & partners”

- ✓ **Must have signed or intend to sign the Global Methane Pledge** as announced in COP26 and set a national target

AND

- ✓ Have a **National Energy Transition Plan** focusing on the de-carbonization of the oil and gas sector, or want to develop such a plan

OR

- ✓ Have **specific NDC goals** related to reducing emissions from energy sector

## 2 Countries: Develop and Implement MGFOP by Dec'24

- **Nigeria (Africa Region) & Kazakhstan (Asia Region)** reduction of Methane Emission from oil and gas sector under Methane Pledge Initiative

### Program Objectives: Nigeria



- Develop template for replication by identifying technology options
- Establish commercial viability, designing and implementing a competitive and transparent bid process
- Attract competent third-party investors to develop, finance, construct, and operate economically viable gas flare capture projects

### Program Objectives: Kazakhstan



- Landscape analysis of Gas sector to identify challenges, gaps and opportunities in Oil and Gas sector in relation to gas flaring and identification of potential projects
- Develop road map for scaling up gas flaring Optimization in Kazakhstan
- Detailed Feasibility Assessment of one of the identified Gas flaring projects
- Identify & develop a bankable project through RfP from potential bidders and investors

**GGGI Approach:** GGGI to support ‘Members & Partners’ for Methane emission reduction to develop and implement time-bound action plan

- **Market Readiness Assessment** by Scoping Study, policy review, areas of intervention, stakeholder and partnership mapping etc.
- **Technology deployment** through investment grade projects
- **Capacity Building** through knowledge dissemination and project outreach



Ecuador



Turkmenistan



Under discussion



# GGGI's Thematic Bond Highlights

GGGI has assisted the issuance of Selected Green, Social, Sustainability, and Sustainability-Linked Bond exceeding US\$ 5 billion



## Selected Green, Social, Sustainability, and Sustainability-Linked Bonds experience

Peru	Peru	Mexico	Africa	Mexico	Vietnam	Mexico
Nov 2021 US\$3.2bn	Nov 2021 US\$1bn	Oct 2021 US\$385mn	Nov 2022 US\$150mn	Mar 2023 US\$200mn	Jul 2022 US\$75mn	Feb 2022 US\$300mn
Sustainable Bond Sustainability Structuring Agent	Social Bond Sustainability Structuring Agent	Sustainability Bond Sustainability Structuring Agent	Green Bond Sustainability Structuring Agent	Resilience Bond Sustainability Structuring Agent	Green Bond Sustainability Structuring Agent	Green Bond Sustainability Structuring Agent

### Peru

GGGI delivered technical assistance to the Government of Peru to develop the capacity and systems to issue the country's **first sovereign Sustainable Bond**, leading to multiple issuances for USD 3.2bn and EUR 1bn.

### Mexico

GGGI's technical assistance to Nacional Financiera (NAFIN) led to the bank's **first Sustainable Bond issuance for approx. US\$ 370 million**, first ESG bond with digital focus in Mexico.

### Vietnam

GGGI is implementing the **Viet Nam Green Bond Readiness Program** funded by the Government of Luxembourg to support development of the Green Bond Market.

### Africa

GGGI is in early talks with Member countries in Africa, particularly **Rwanda, Senegal, Côte d'Ivoire** and **Uganda** who have shown keen interest for support in Green and Sustainability Bonds.

### Ecuador

GGGI provided technical and financial advisor to the Government of Ecuador in structuring the **Galapagos Debt for Nature Swap** transactions and to comply with credit enhancement requirements.

### Cambodia

GGGI is implementing the **Thematic Bond Pilot Issuance** in Partnership with the Securities and Exchange Regulator of Cambodia and UNESCAP to support development of the Sustainable Bond Market.

## Donors & Funding Partners



# Sustainable Transport

Cambodia, India, Lao PDR, Nepal, Philippines, Sri Lanka, Fiji, Ethiopia, Rwanda, Jordan, Mexico

1

## GREEN MOBILITY



Embracing green mobility including electric vehicles (BEVs & FCEVs), mass and non-motorized transport (NMT) modes can contribute to a more sustainable, healthy, and economically viable future. By integrating these options into transportation planning, GGGI Members can create a more sustainable mobility ecosystem and achieve the significant carbon reduction.

2

## GREEN INFRASTRUCTURE



Green transport infrastructure plays a vital role in adopting sustainable transport environment. Here are key options: i) massive transit systems (BRT, LRT, etc.), ii) NMT facility, and iii) EV charging stations. Implementing these infrastructure options can create a more sustainable, accessible, and efficient transport network for the Members.

3

## SMART SYSTEMS



Smart transport systems such as intelligent transport systems (ITS) leverage technology to improve the efficiency, sustainability, and safety of transportation. Implementing smart transport systems can enhance the efficiency and sustainability of urban mobility, ultimately leading to a more connected and responsive transportation network.

4

## PUBLIC TRANSPORT



Public transport is a cornerstone of sustainable urban development, fostering economic, social, and environmental benefits that contribute to healthier and more resilient communities. GGGI will support the Members to adopt a diverse set of efficient public transport services including shared mobility services, demand-responsive transport (DRT), and other alternative public transport modes.

5

## CARBON MECHANISM



The transport sector and carbon markets are closely linked in efforts to reduce greenhouse gas emissions. As the carbon market mechanism can encourage and support the rapid decarbonization of the transport system, GGGI will support the Members to create enabling environments through installing MRV system, emission inventory, and relevant policies and regulatory framework.

6

## ALTERNATIVE FUELS

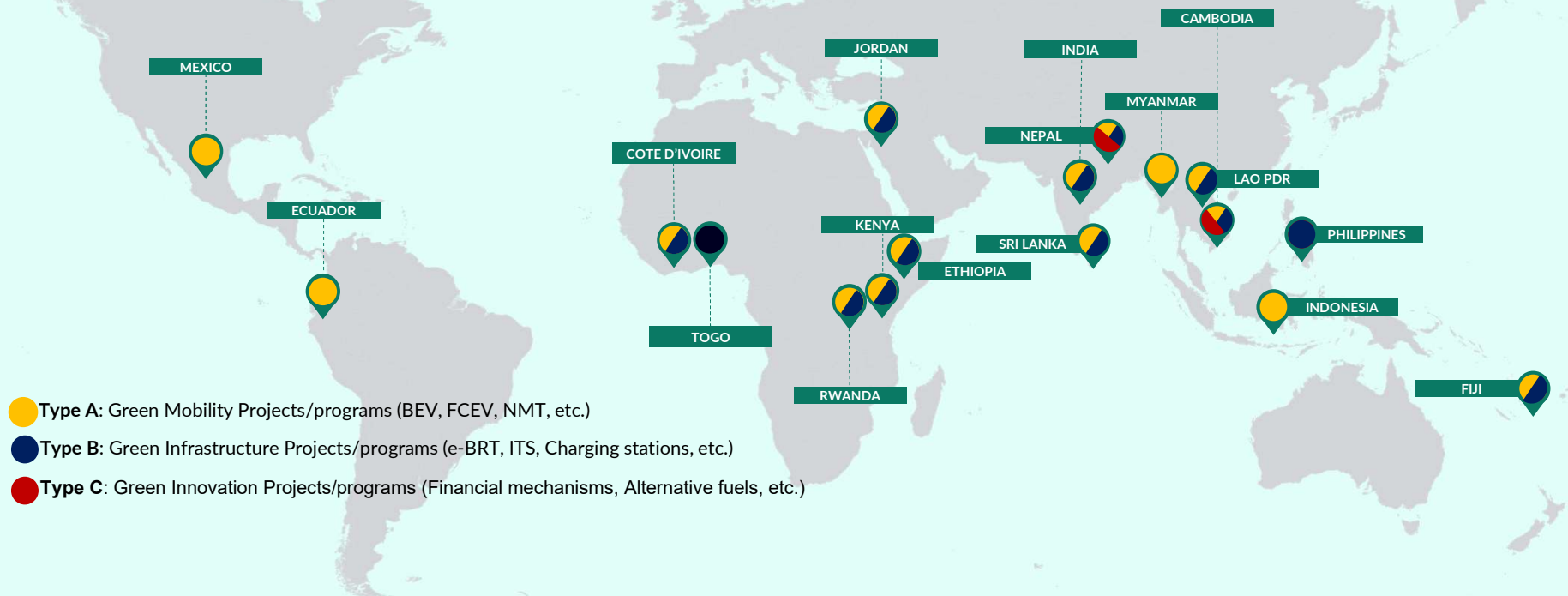


Alternative fuels have their unique advantages and challenges, and their adoption can vary based on infrastructure, cost, and regional policies. Transitioning to these fuels is essential for reducing the environmental impact and enhancing energy security. GGGI will support the Members' aviation and maritime industries lead the way toward a more sustainable future by embracing alternative fuels.

# Sustainable Transport Pipeline

## To promote the sustainable transport initiative in all members

GGGI has been currently supporting the implementation of sustainable transport projects in **20** member countries with **8** countries in Asia (Cambodia, India, Indonesia, Lao PDR, Myanmar, Nepal, Philippines, and Sri Lanka), **6** countries in Africa/Middle East (Cote d'Ivoire, Ethiopia, Jordan, Kenya, Rwanda, Togo), **2** countries in Latin America (Ecuador and Mexico), and **4** countries in Pacific (Vanuatu, Fiji, Kiribati, and Tonga)



# Global Program on BioCNG

Indonesia, India, Nepal, Morocco



**\$100+**

Million Investment target in three countries



**2.5**

Year Program Tenure



**3**

Target Countries

- India
- Indonesia
- Thailand

GGGI's Biological Compressed Natural Gas (BioCNG or CBG) program is supporting target countries to develop a vibrant BioCNG market through technical assistance to enable a supportive environment, reduce policy and technological barriers and create localized sustainable and viable business models.

Engagement with Stakeholders for Partnerships and Policy Initiatives



Creating a Potential Pipeline of Projects



Develop Bankable Business Models



Feasibility Study and Develop Investment Plan

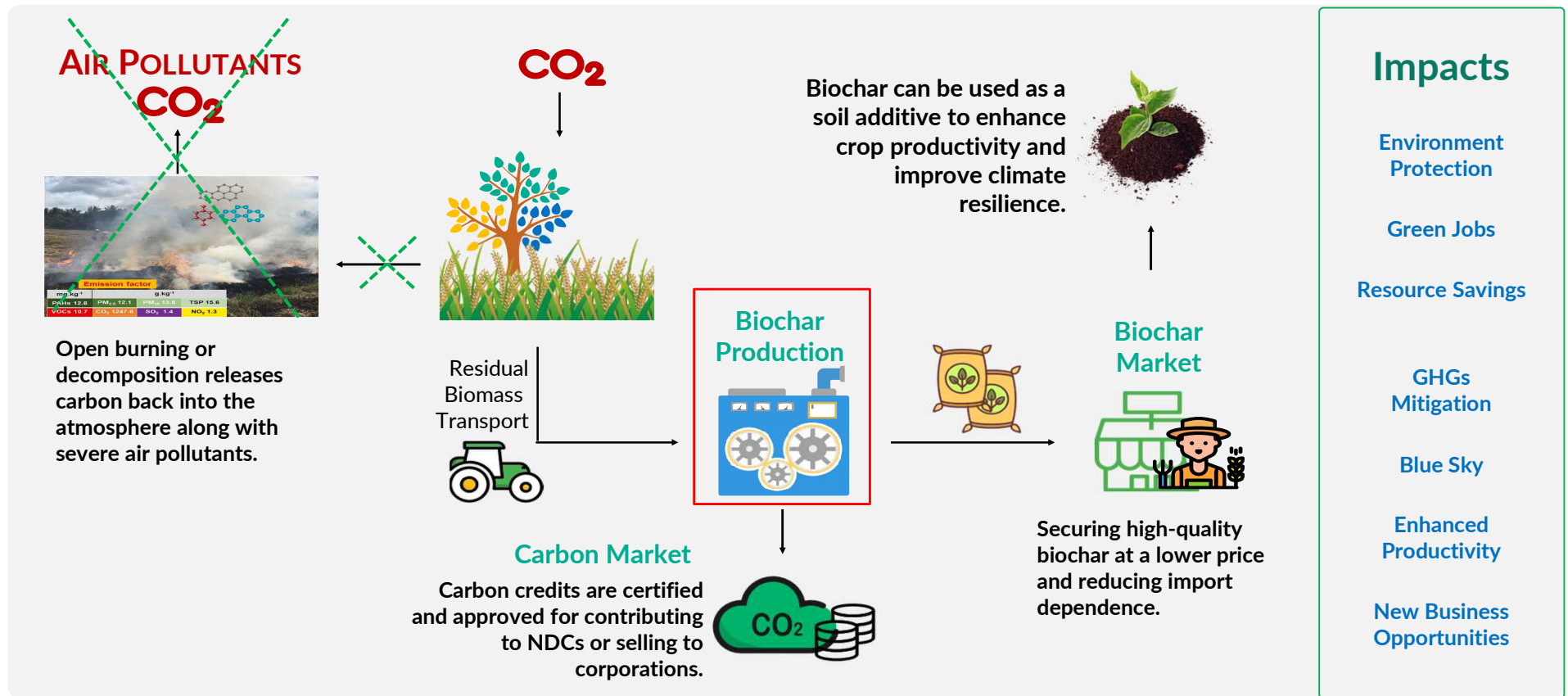


Investment Mobilization for Projects



# GGGI Biochar Projects

Vietnam, Ethiopia, etc.



### III. GGGI: What are other Initiatives in achieving Net Zero?

## III-A. GGGI's Green Investment Services

Increasing Private Sector Participation for climate action

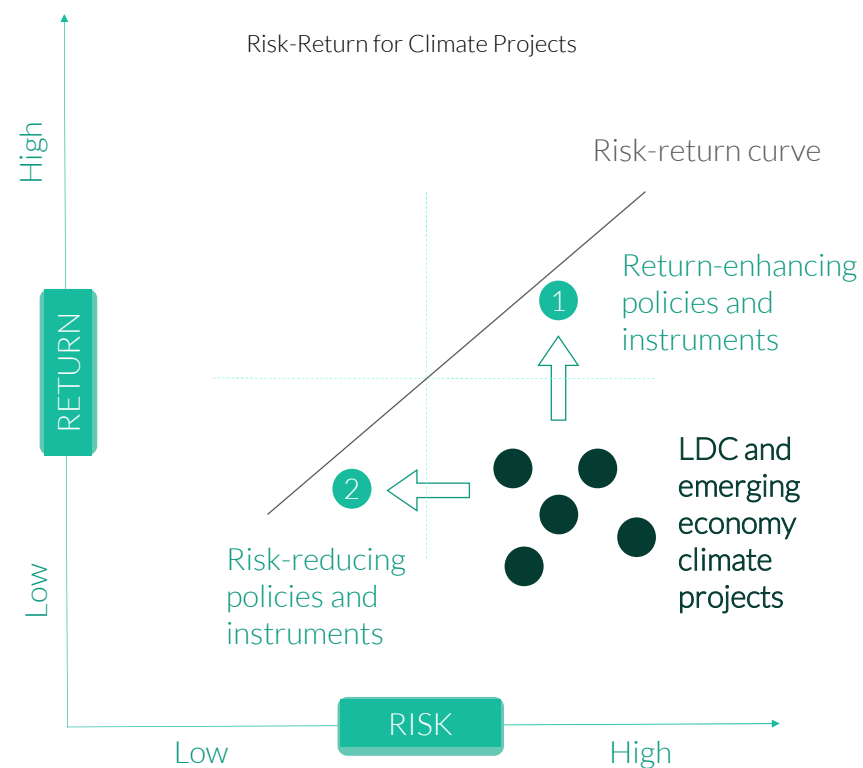


# Increasing Private Sector Participation



- **Return-enhancing** instruments: make projects more attractive, increase IRR
  - Feed-in tariffs, generation-based incentives, carbon credits, tax incentives, etc.
- **Risk-reducing** instruments: lower the investment risks
  - Transparent investment policies, bankruptcy codes, guarantees, etc.
- Important to understand what the project/sector needs

Without appropriate market and regulatory conditions, risk reduction through financial structuring is ineffective.



# Examples of Green Investment Work



## Green Infrastructure Finance



GGGI provides technical assistance to create enabling investment environments, design bankable & sustainable projects, and facilitate public & private sector participation.



### Project Development

Building bankable pipelines of sustainable infrastructure projects through end-to-end advisory services.



### Market Solutions

Designing, structuring, and marketing high-quality, sustainable infrastructure projects from the pre-development phase.

## Sustainable Finance



GGGI offers specialized support in facilitating the green transition through a variety of financial instruments, including but not limited to:

Thematic Bonds

Debt for Nature Swaps

National Financing Vehicles

Results-based Financing

First-loss Capital

Lines of Credit



## III-B. Carbon Neutrality Blended Finance Facility (CNBFF):

Accelerating NDC implementation in developing countries



# Carbon Neutrality Blended Finance Facility(CNBFF)

CNBFF is a financial tool designed to **address market barriers** and help **mobilize private investment at-scale** by combining public, private, and philanthropic capital to fund GHG mitigation projects aligned with NDC goals in critical sectors.



## Blended Finance Model

Leverages concessional capital to **mitigate initial risk** and **attracts commercial investors** with higher risk-aversion by enhancing project bankability



## Climate-action Oriented

Encourages participation in sustainable development initiatives aligned with **Nationally Determined Contribution (NDC)** goals in critical sectors

GGGI is seeking the support of development partners to refine the CNBFF design and support the capitalization of the first window.

W1

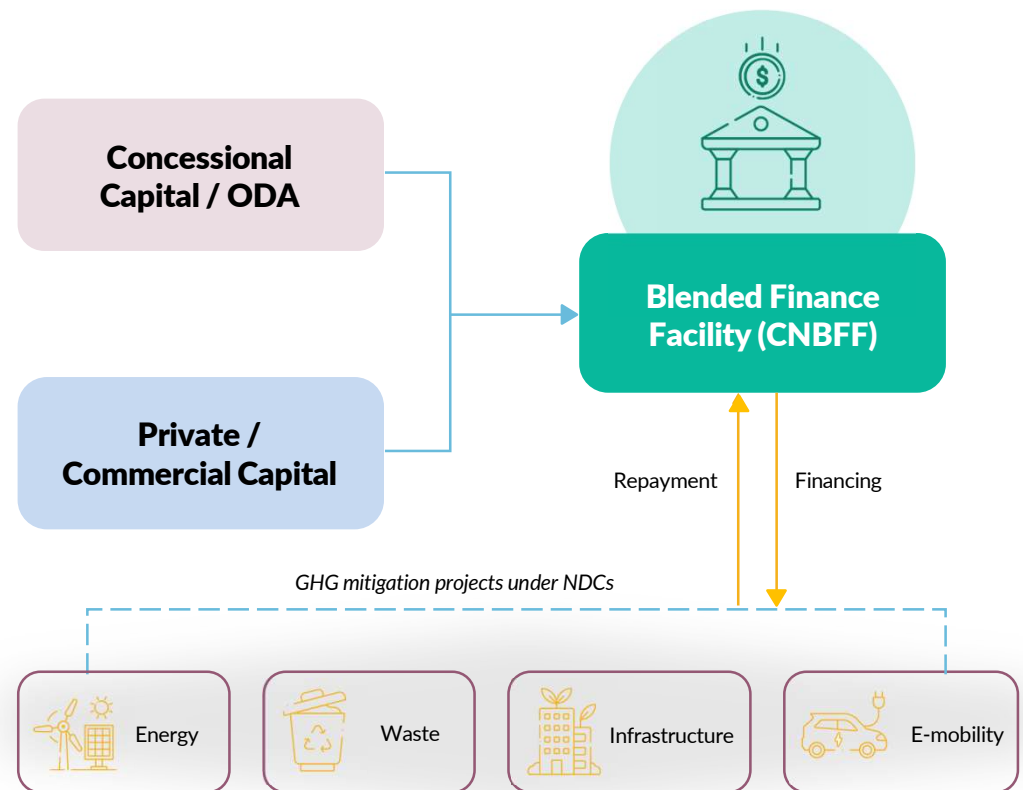
Technical Assistance

W2

Senior Equity Financing

W3

Junior Equity/ Guarantee



# Challenges Facing NDC Implementation



## NDC Implementation Challenges

Strong need for targeted financial support to increase the pace of NDC implementation



### MAIN CHALLENGES

#### Pipeline of investment-ready projects

The absence of professionally structure projects, lack of well-informed criteria for project selection, and private sector hesitancy to fund early-stage projects hinders NDC progress.

#### Enabling environment for investment

Poor regulatory frameworks in developing countries make it challenges to create attractive investments. Building institutional capacity is necessary to increase investor confidence.

#### Flexible and targeted blended financing approach

Blending concessional and commercial finance adds flexibility to the project risk profile, encouraging investor participation and accelerating NDC implementation.



### SOLUTIONS REQUIRED

Strong project pipelines

Risk mitigation measures

Attractive investment environment

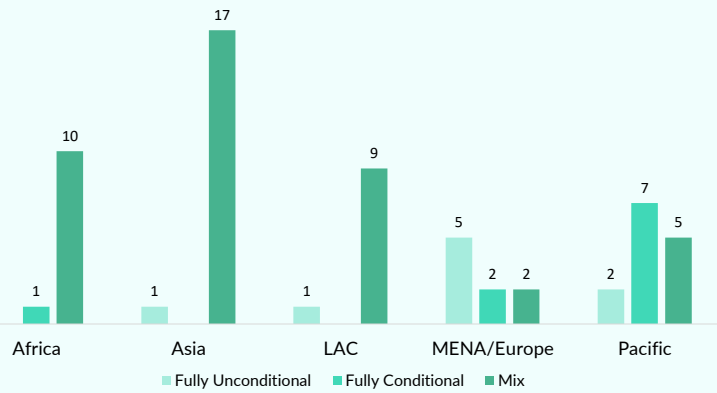
Building institutional capacity

Flexibility for different risk appetites

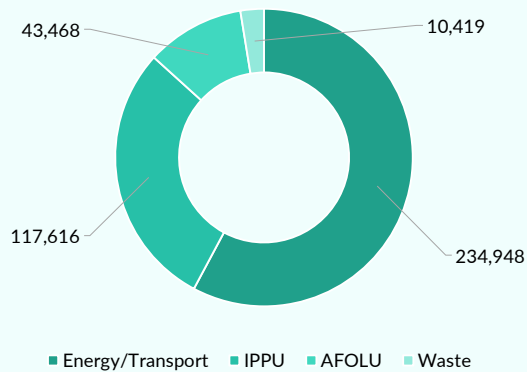
Blended financing model

# Financing GAP for NDC Implementatoin

Unconditional vs. Conditional NDCs by Region

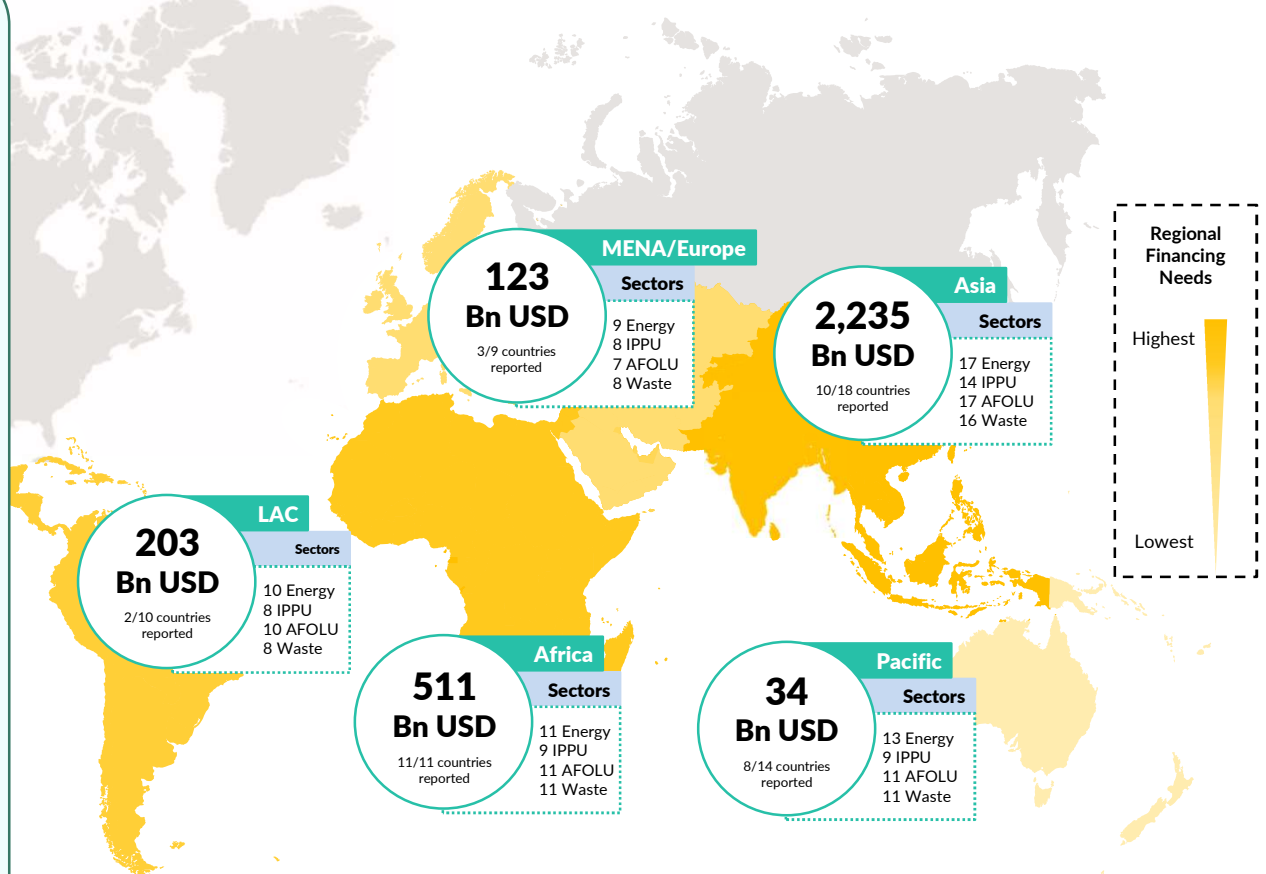


Financing Needs by Sector (Mn USD)



Energy/Transport: 19 countries; IPPU: 9 countries; AFOLU: 14 countries; Waste: 13 countries

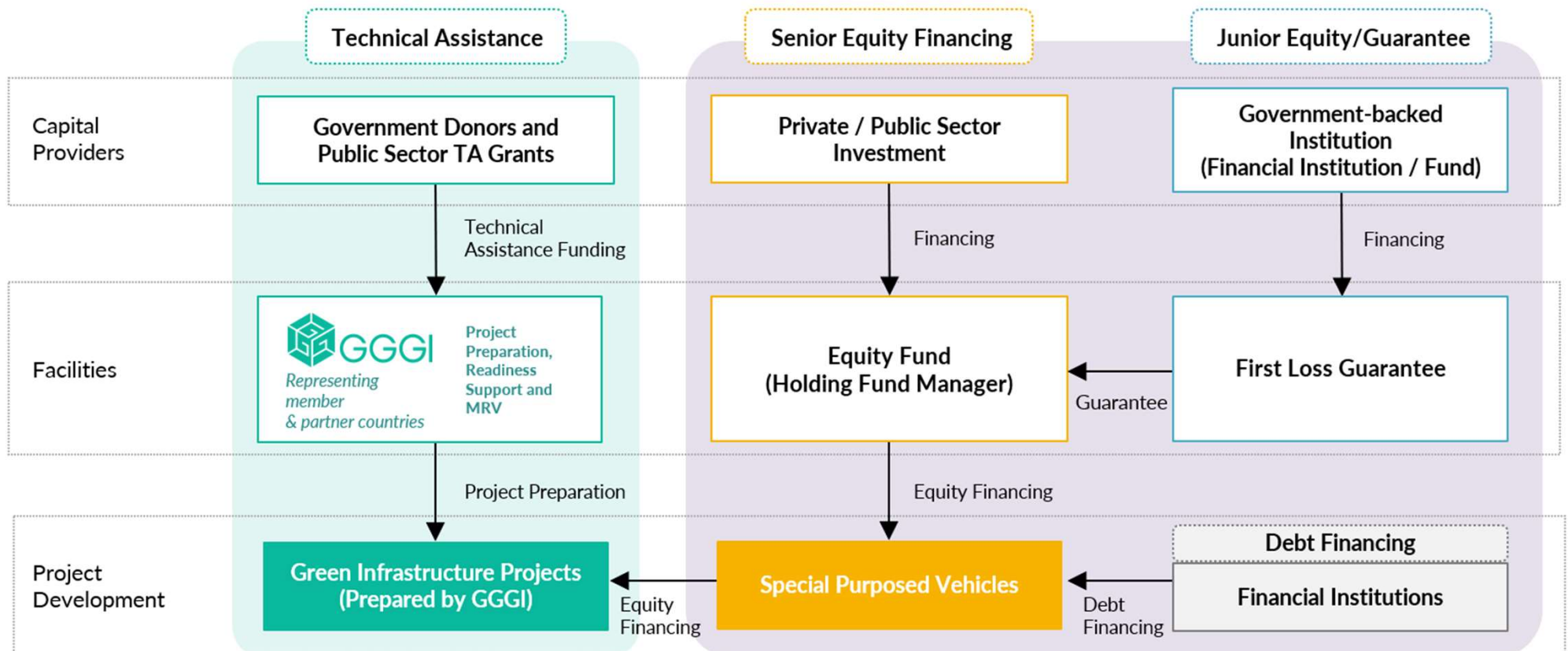
Climate Financing Needs by Region



\*Regional investment opportunity calculated based on total cost of implementation required, considering only (34) countries that explicitly specified their financing needs within their NDCs.

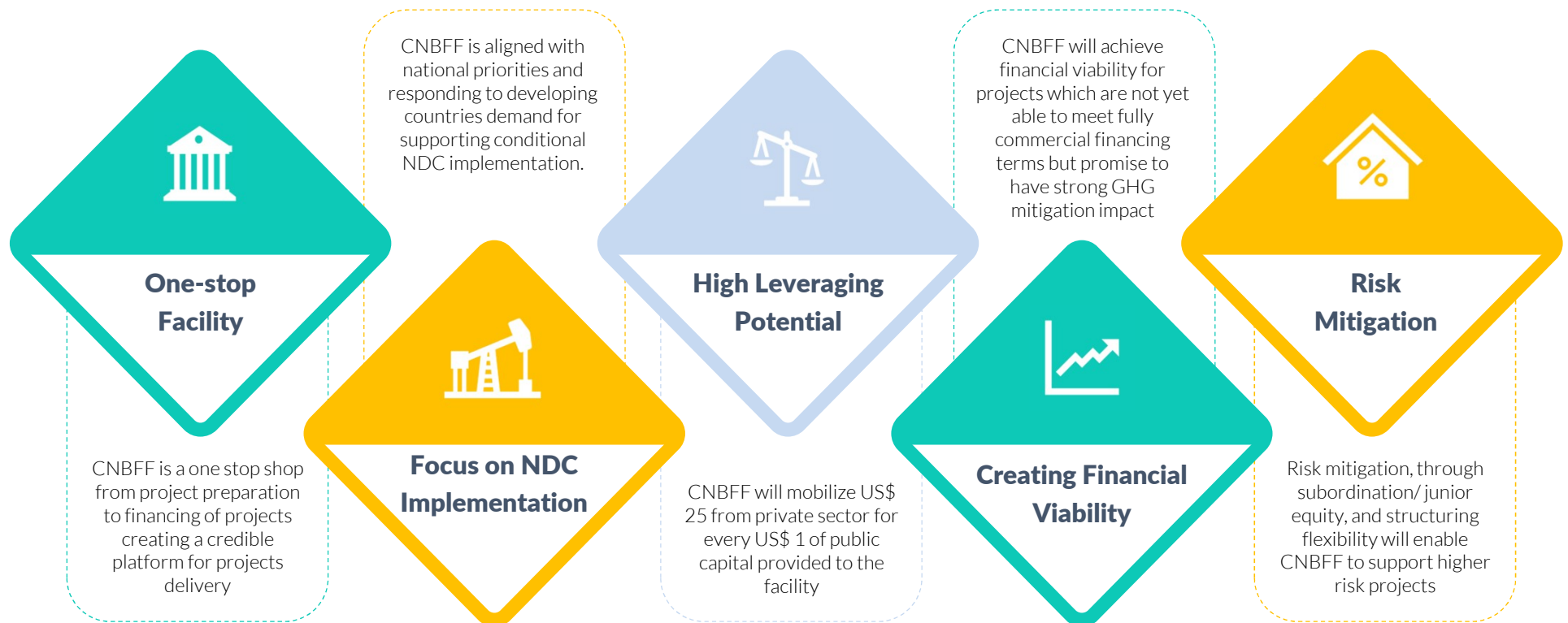
# BLENDING FINANCE FACILITY – Structure

PUBLIC – PRIVATE PARTNERSHIP FUND



# ADVANTAGES OF CNBFF

The CNBFF is an **agile blended finance facility** designed to respond to urgent needs on the ground by innovating the model for **demand-led climate finance** aligned with NDC targets.



# Investment Approach



Emerging economies would require ~USD 2 trillion per year transition financing to meet the climate targets

Member Countries' Green Growth Priorities



Achieve Net Zero Target in the long-term

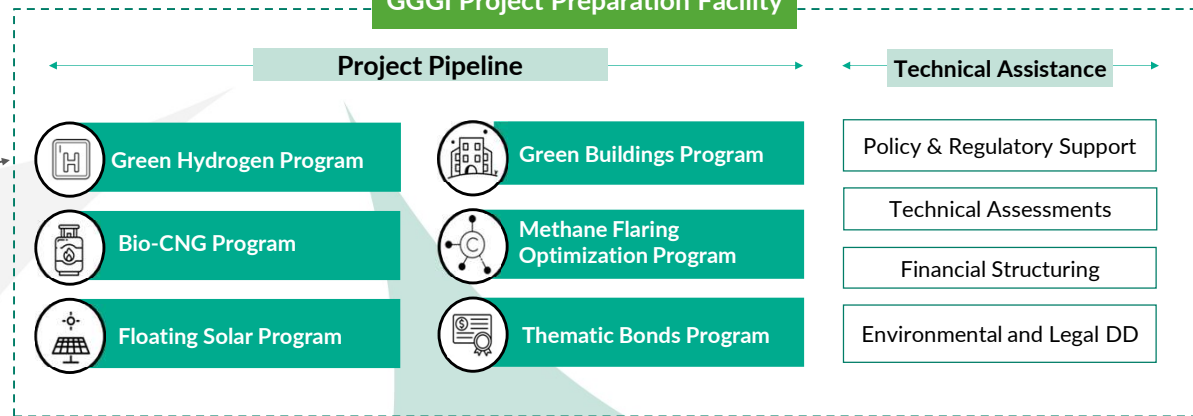


Achieve SDG targets for environment-energy-economic growth



Achieve NDC targets on emissions reduction, RE Integration, etc.

## GGGI Project Preparation Facility



## Investment for green project pipeline

### PUBLIC

Development ODA

Public Finance

Philanthropic Capital

Concessional Capital

BLENDED FINANCE

Commercial Banks

Fund of Funds

NBFCs

Net-Work Individuals

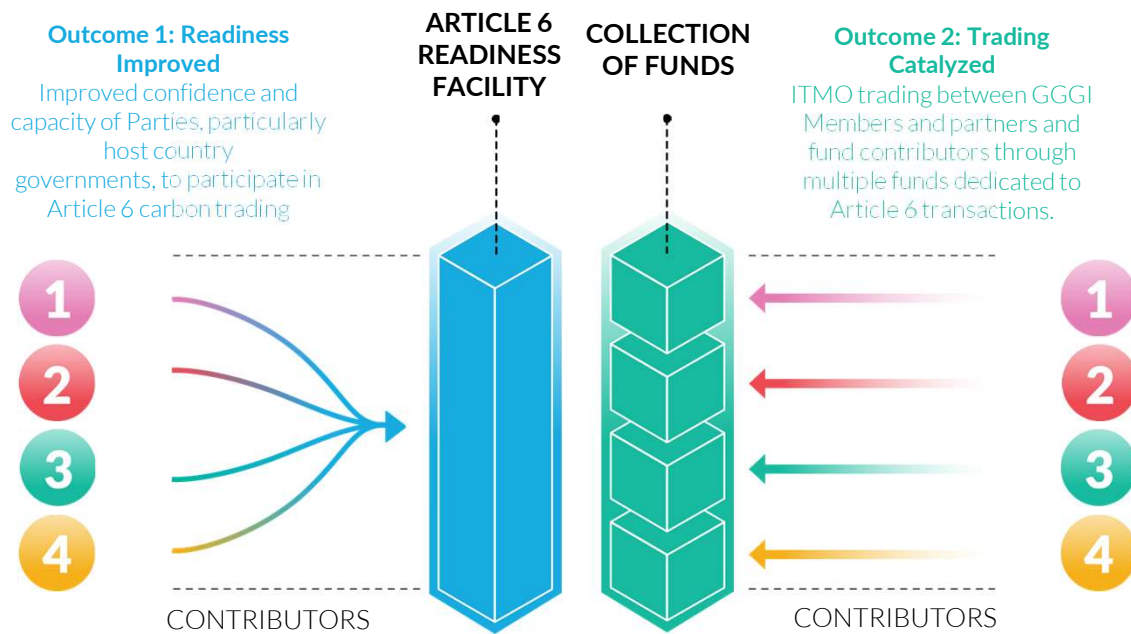
PRIVATE

## III-C. Carbon Transaction Facility (CTF)



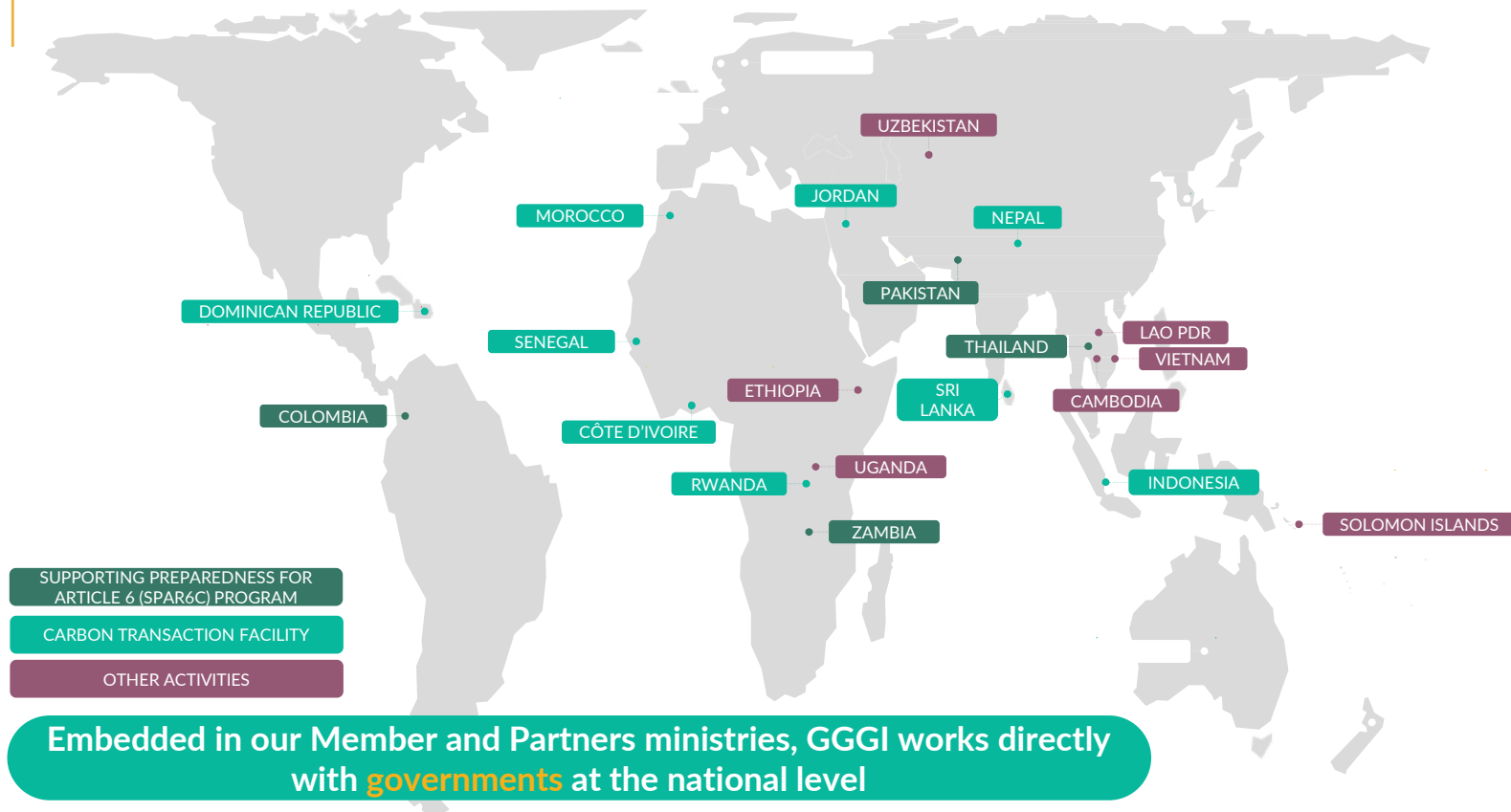
# The Carbon Transaction Facility

GGGI's solution to scale up international carbon trading



The Carbon Transaction Facility was launched by GGGI President & Chair, H.E. Ban Ki-moon on October 16<sup>th</sup>, 2024.

# Glance at GGGI's carbon activities



Institutional Strengthening



Market Awareness and Understanding



Transaction Support



Knowledge Sharing

# Activities of the Carbon Transaction Facility



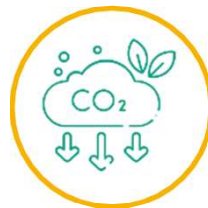
Stakeholder Mapping, Market Understanding & Awareness Raising



Supporting Governance Frameworks & Institutional Strengthening



Global Knowledge Sharing & Exchange

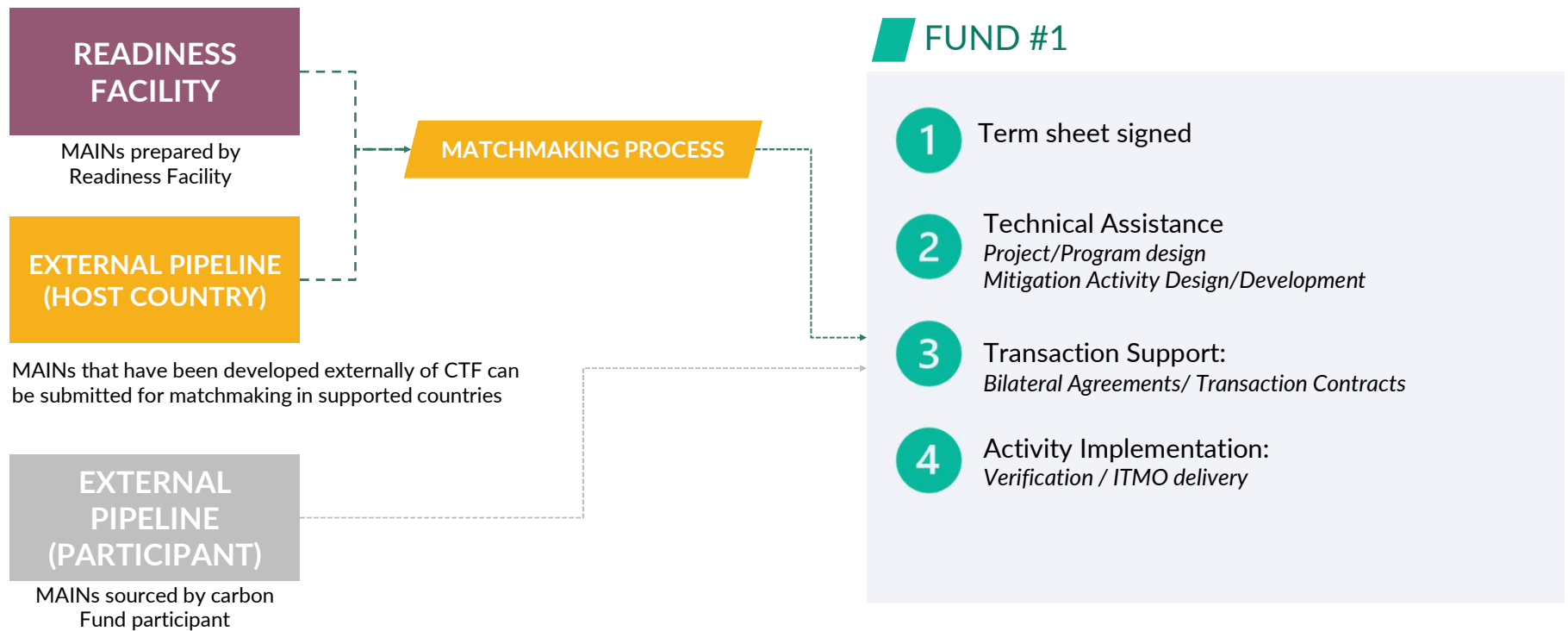


Designing & Originating Mitigation Activities



Carbon Transaction Facilitation & Buyer-Seller Matchmaking

# Transaction Development in the Carbon Transaction Facility



MAIN: Mitigation Activity Idea Note

Taking Sustainable Finance to Scale

## OUR RESULTS



**\$3.2 Billion**  
in 2021  
First sovereign  
sustainability  
bond in Peru



**\$160 million**  
in 2023  
First Resilience  
Bond in Mexico



**\$366 million**  
in 2023  
Largest floating solar  
project for 600MW in  
India



**\$450 million**  
in 2023  
Largest Debt for  
Nature Swap for  
the Galapagos,  
Ecuador



**\$75 million**  
in 2021  
First onshore, local  
currency green bond  
issued in Vietnam



**\$204 million**  
in 2023  
Largest Geothermal  
project  
in Indonesia



# THANK YOU!



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Republic of Korea 04518

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