



**GREEN BANK  
NETWORK**



**Green  
Investment  
Group**

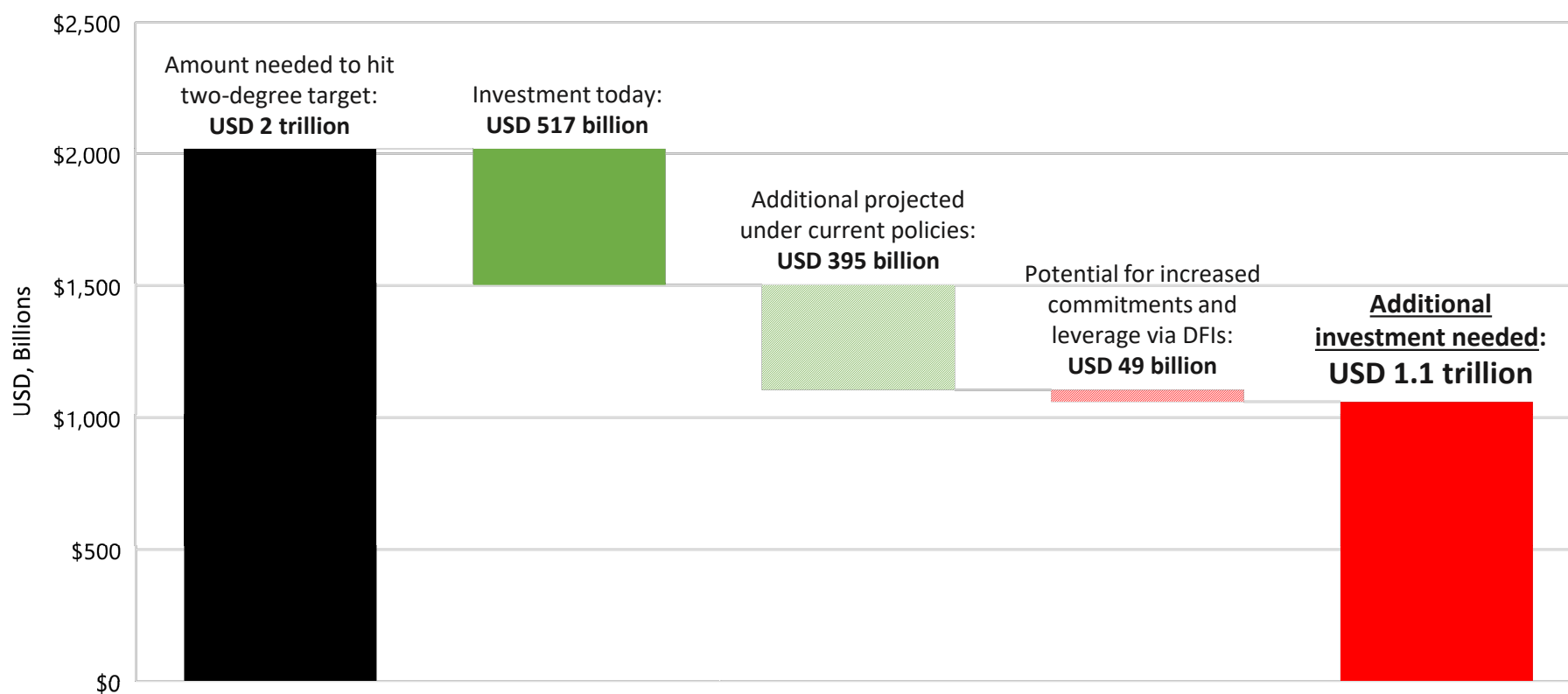
# Adapting the Green Bank model to New Countries

Sixth Annual Green Bank Congress

Approximately one trillion dollars per year of additional investment in clean energy is needed to keep warming below two degrees

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**Annual investment in clean energy under IEA scenarios with DFI commitments**



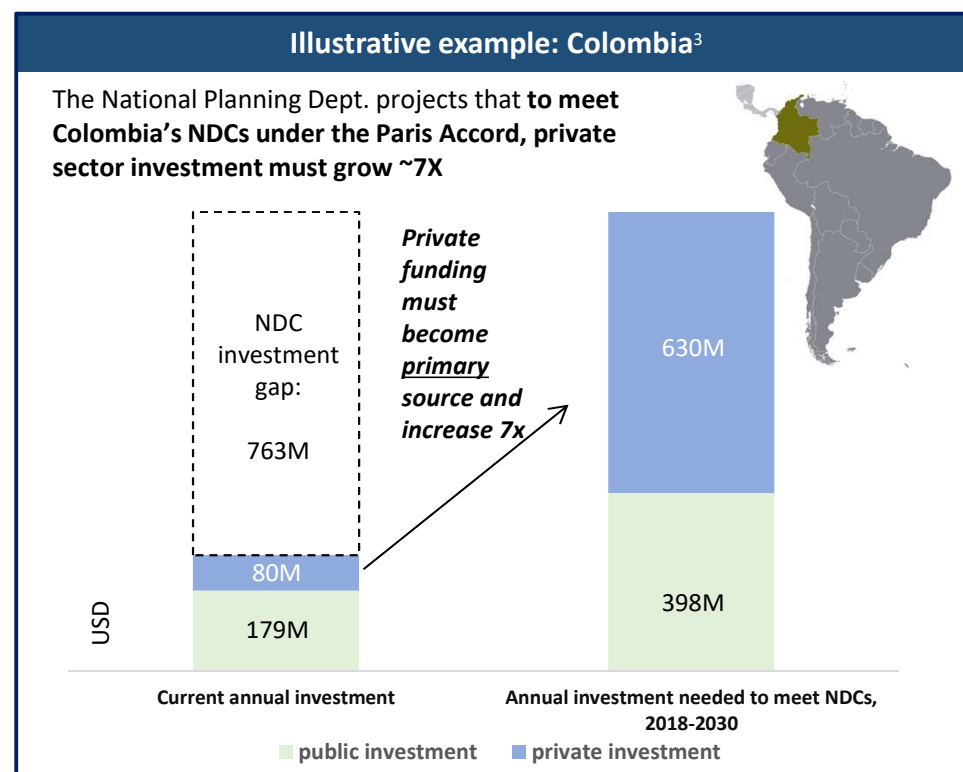
Source: Coalition for Green Capital, [National Green Banks in Developing Countries: Scaling up Private Finance to Achieve Paris Climate Goals](#), July 2017.

# Public funding is insufficient to fund the shift from brown to green: countries must drive more private investment into climate projects

*“There is a widespread recognition that governments cannot afford to bridge these growing infrastructure gaps through tax revenues and aid alone, and that **greater private investment in infrastructure is needed.**”*

OECD, [Investing in Climate, Investing in Growth](#), May 2017

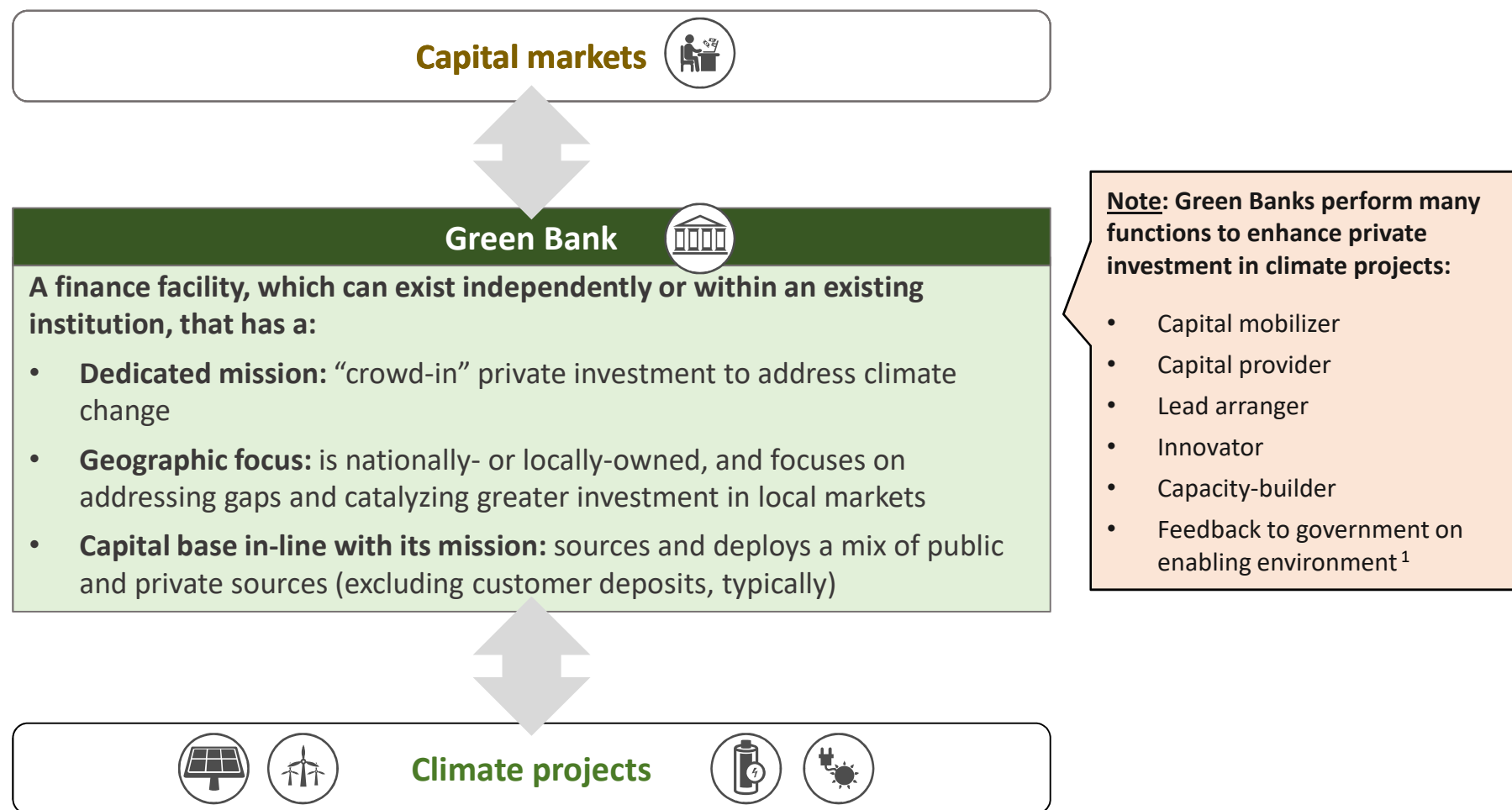
- Investors can view climate projects in developing countries as riskier
- In developing countries climate projects are largely publicly financed:
  - Asia Pacific infrastructure financing approx. 70% public
  - In 2011, the public share was:
    - >99% in China
    - ~90% in Indonesia
    - ~57% in India<sup>2</sup>



Sources: <sup>1</sup>OECD, [Risk and Return Characteristics of Infrastructure Investment in Low Income Countries](#), September 2015. <sup>2</sup>Asian Development Bank, [Catalyzing Green Finance: A Concept for Leveraging Blended Finance for Green Development](#), August 2017. <sup>3</sup>Colombia Department of National Planning (DNP), November 2017.

# Green Banks are country-driven catalytic finance facilities designed to mobilize private investment into climate projects

*Green Banks can be placed within existing institutions or exist independently*



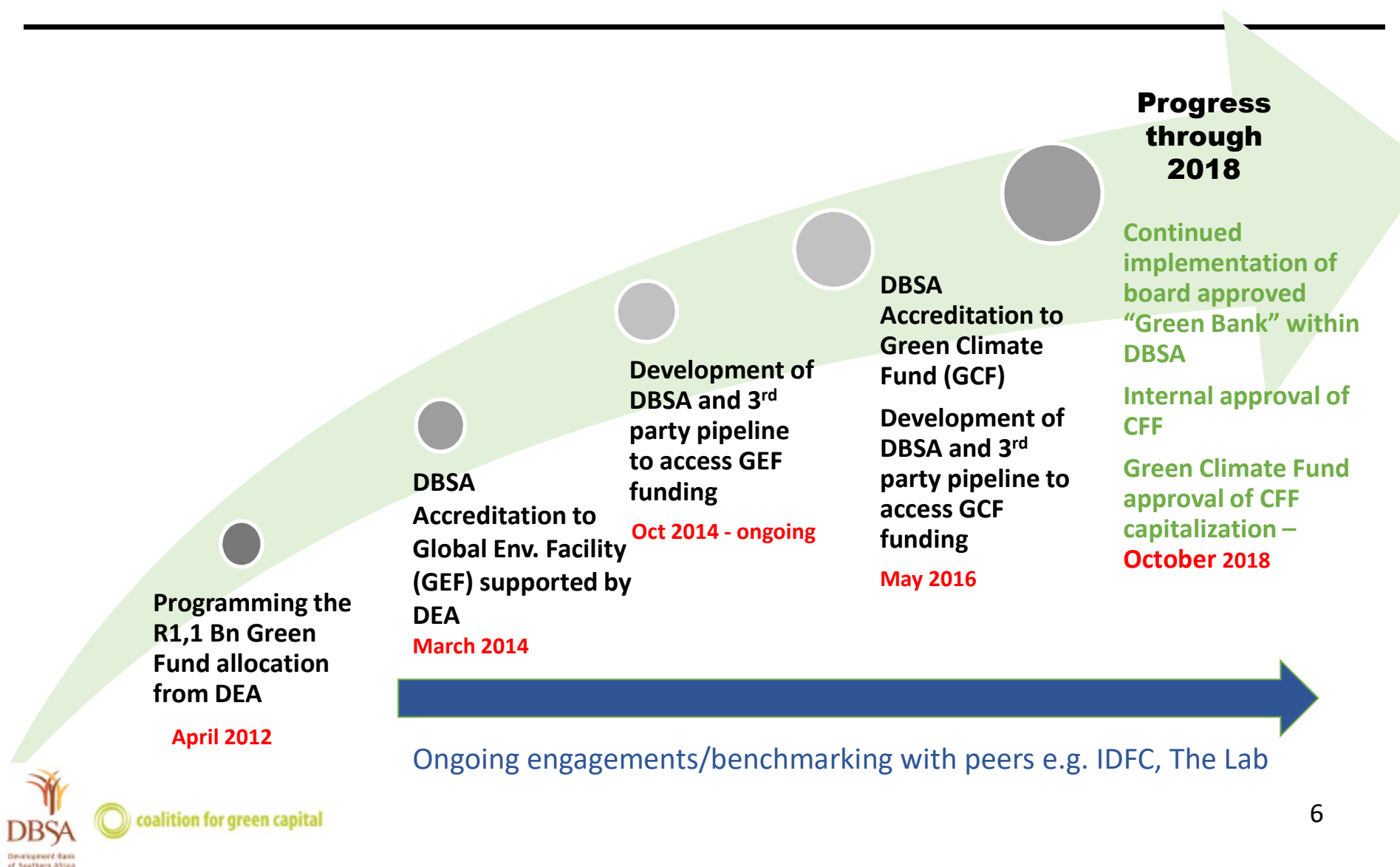
# DBSA FORMATION OF A NEW CLIMATE FINANCE FACILITY

Developed by DBSA with support from CGC



Muhammed Sayed  
Development Bank of Southern Africa

# DBSA has committed to strategic repositioning & formation of the CFF as part of its development as a Green Bank



# DBSA Climate Finance Facility has specific Mandate & Goals

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**CFF Mandate:** *The CFF is tasked with **catalyzing** greater overall climate and clean-water related investment by **providing credit enhancements**, through **blended finance** to projects that could be commercially viable but not yet bankable in the private sector.*

## Catalytic role with blended finance approach

- The CFF will address market constraints, **playing a catalytic role with a blended finance approach**, to increase climate related investment in the Southern African region.

## Subordinated debt/first loss + Tenor extension

- The CFF will focus on two main instruments: **subordinated debt / first-loss** and credit enhancements such as **tenor extension**

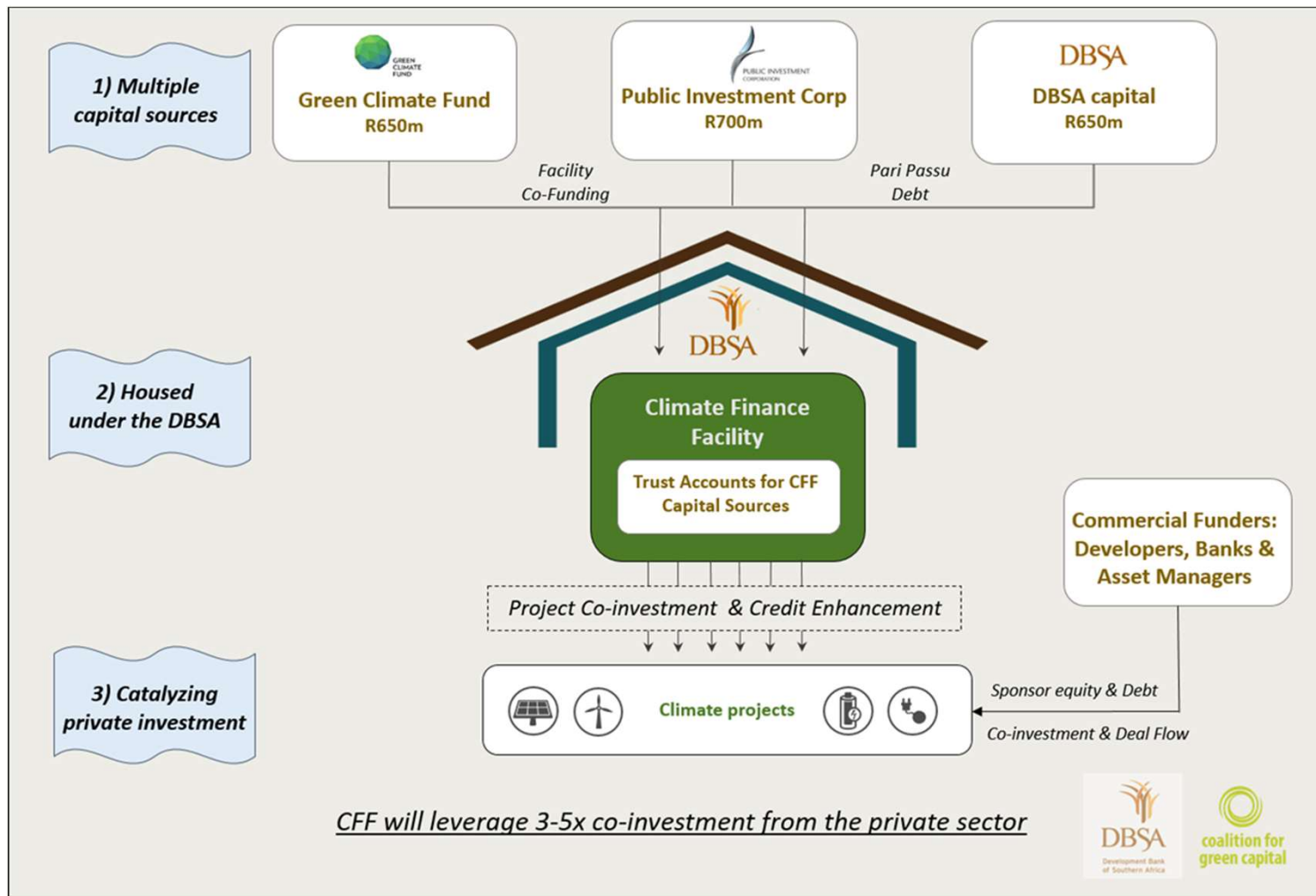
## Leveraging private investment

- The CFF is designed to **leverage private investment** with co-funders to reach an overall portfolio leverage ratio of **1:5** (project leverage ratios will vary within this range).

## Multiple co-funding sources

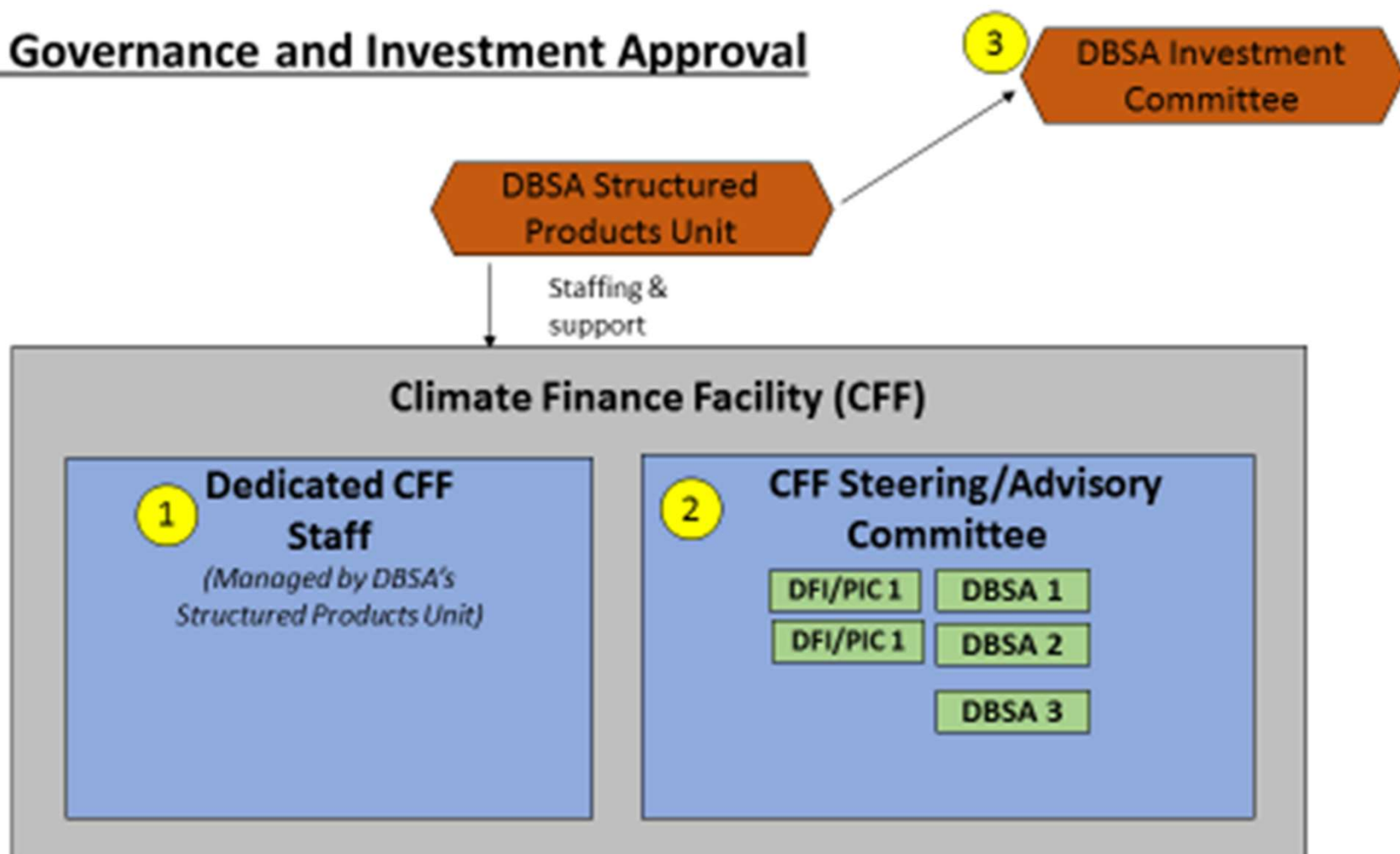
- The **CFF will raise co-funding from multiple sources** to be deployed in innovative structures and products, to support projects across South Africa and certain SADC countries

# Overview of the Climate Finance Facility Structure





## CFF Governance and Investment Approval

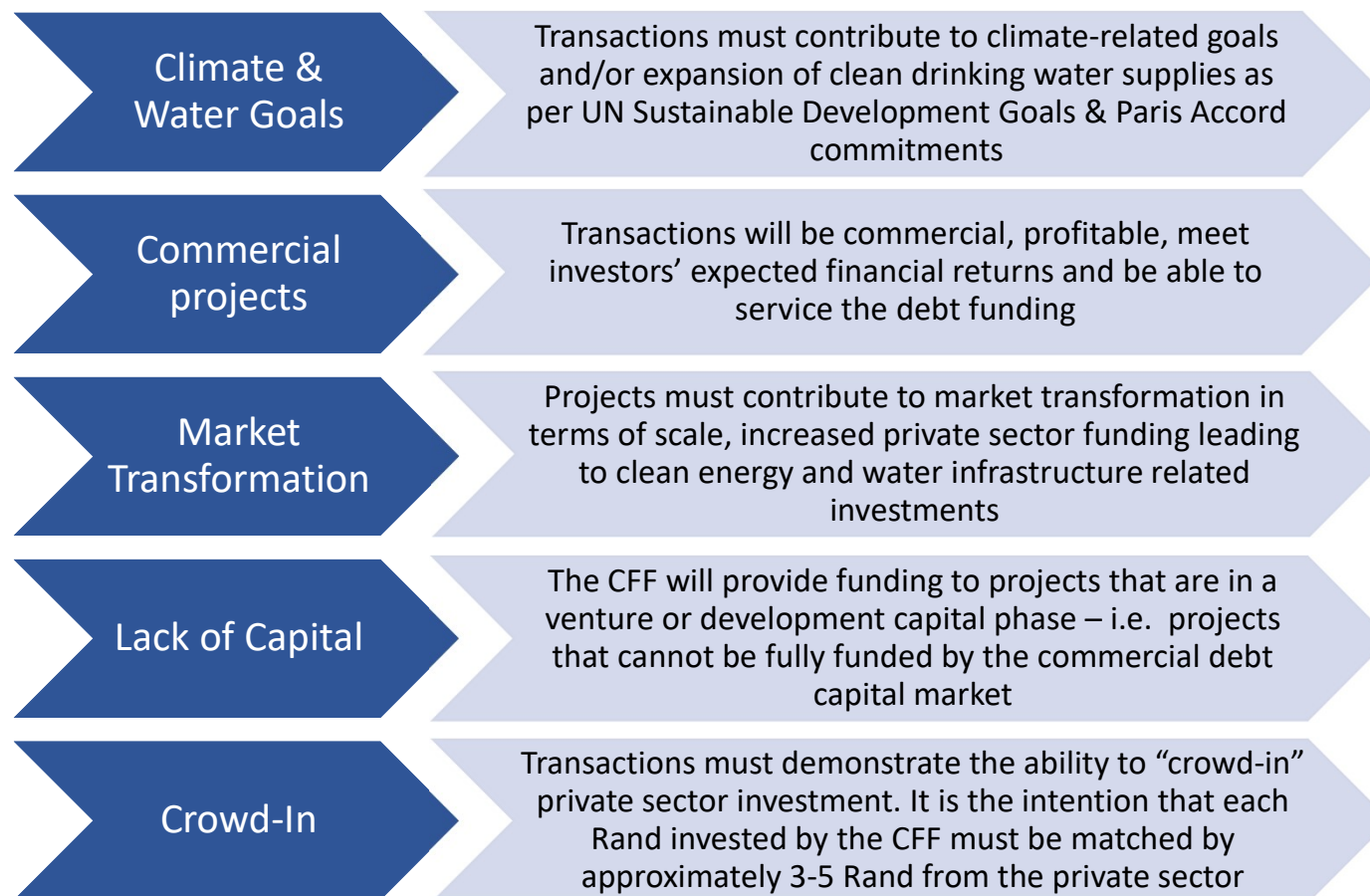


### Project investment approval flow:

- 1** Project diligence by CFF staff, and assessment against pre-determined investment criteria
- 2** Project presented to CFF Project Steercom for further assessment and oversight
- 3** Project presented to DBSA IC for final approval

# Investment Criteria of the Climate Finance Facility

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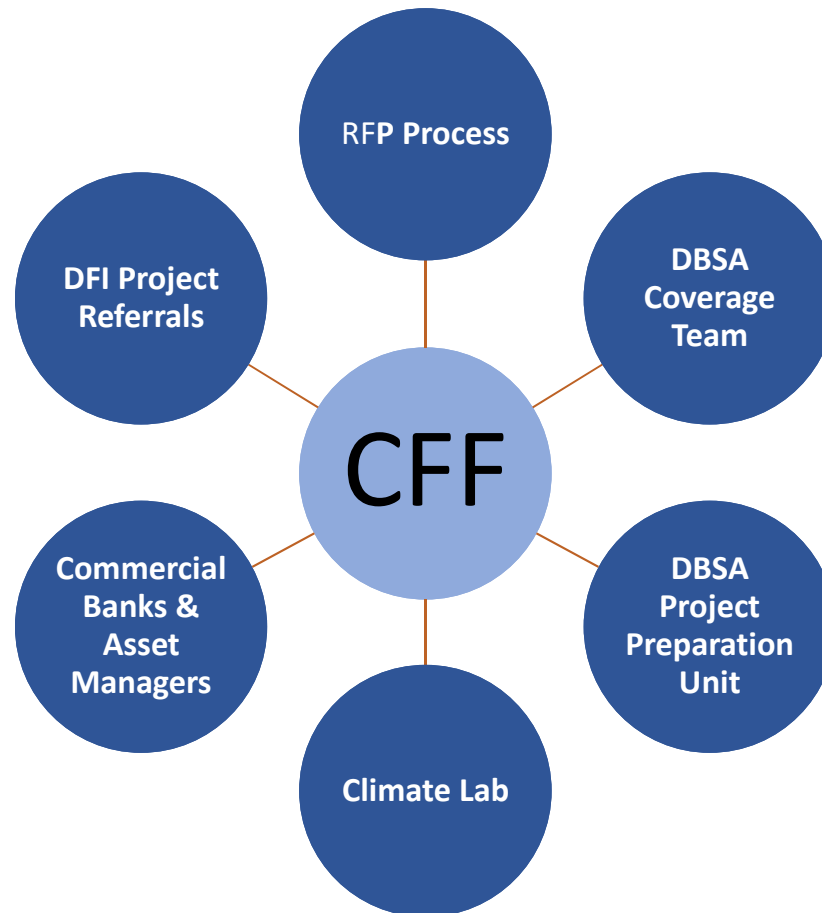


# Overview of the Climate Finance Facility Sectors

|  |   |                       |                      |                            |
|--|---|-----------------------|----------------------|----------------------------|
| Project Financing :<br>providing credit<br>enhancements and<br>debt financing to<br>climate change<br>mitigation and<br>adaptation<br>projects | Sub-components  |                       |                      |                            |
|  | 2.1 Mitigation Sectors  | % of CFF<br>Portfolio | Amount (million USD) | GCF Funding million<br>USD |
|  | Renewable Energy<br>Generation Renewable<br>Energy Generation | 31                    | 52.31                | 17.0                       |
|  | Waste to Energy   | 10                    | 16.9                 | 5.5                        |
|  | Energy Efficiency   | 22                    | 37.18                | 12.1                       |
|  | Low emission Transport  | 7                     | 11.83                | 3.9                        |
|  | Sub-total Mitigation  | 70                    | 118.22               | 38.5                       |
|  |   |                       |                      |                            |
|  | 2.2 Adaptation Sectors  | % of CFF<br>Portfolio | Amount (million USD) | GCF Funding million<br>USD |
|  | Water efficiency  | 3                     | 5.07                 | 1.70                       |
|  | Water Treatment   | 12                    | 20.28                | 6.60                       |
|  | New clean water<br>sources (Eg. Aquifer,<br>desalination)     | 15                    | 25.35                | 8.30                       |
|  | Sub-total Adaptation  | 30                    | 50.70                | 16.50                      |
|  |   |                       |                      |                            |
|  | Total Debt financing<br>(Mitigation and<br>Adaptation)        | 100                   | 169.00               | 55.00 11                   |

# CFF will utilize Multiple Origination Channels to develop “deal flow”

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# Initiatives in Green Financing & SDG Indonesia One

**Victor Edward S.**  
Division Head for Center of Competencies

**PT Sarana Multi Infrastruktur (Persero)**

*GBN Congress - Adapting the Green Bank Model to New Countries*

Shanghai, 29 November 2018

# PT Sarana Multi Infrastruktur (Persero)

as a Catalyst in Accelerating Infrastructure Development

**Non Bank Financial Institution for Infrastructure Financing,  
100% owned by Government of Republic of Indonesia through Ministry of Finance**

## Business Pillars & Strategic Partnership

**Innovative, Unique & Flexible Financing Products** in “closing the gap” and as complementary to other financing

- Senior Loan,
- Subordinate/Mezzanine,
- Equity,
- Municipal Finance,
- Sustainable Financing,
- Sharia Financing

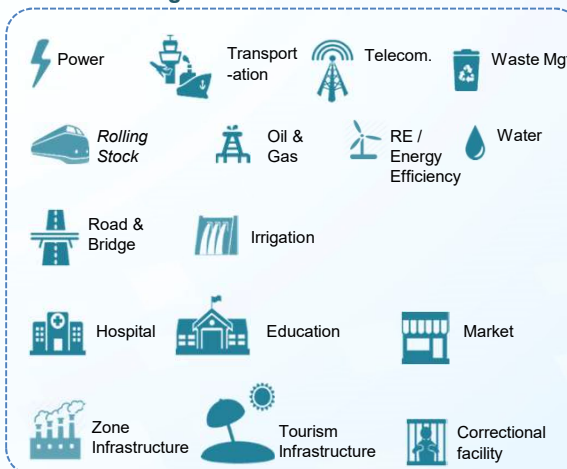
**Advisory & Project Development** as enabler for infrastructure investment

- Financial/Transaction Advisory, Financing Arranger,
- PPP Development, Technical Assistance, *Capacity Building*,
- Renewable Energy Project Development, Geothermal Fund Management

**Strategic Partners** for domestic and international institutions in accelerating infrastructure development in Indonesia

- Ministries/Governmental Offices, Municipalities
- Private / State Owned Entities
- FI/Banks/Private Equity, Multilateral/Bilateral, Sovereign Wealth Fund
- Capital Market, Institutional Investors (Pension Fund, Insurance, Social Security Funds, Hajj Funds, etc)

## Sector Coverage



## Portfolio Distribution (September 2018)



## Performance (September 2018)<sup>1</sup>

**AAA/Stable** Highest rating for local company  
National Rating

**BBB/Stable** similar with sovereign rating  
International Rating

**USD 4.1 billion** Total Asset

**USD 2.5 billion** Total Equity

**USD 34.6 billion** Total Project Value

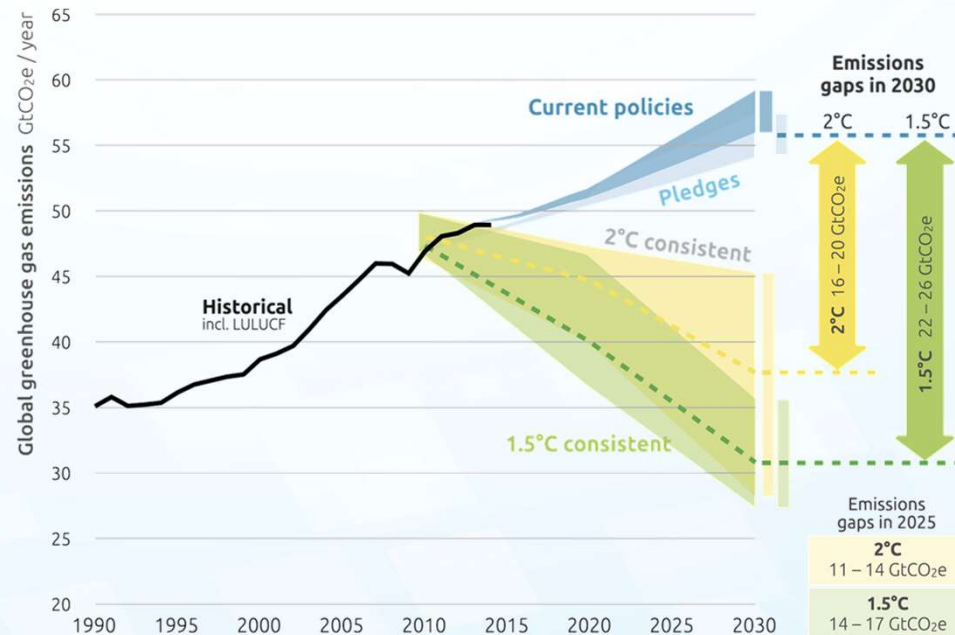
**15.9 times** Multiplier effect To paid up capital

**“unqualified opinion”** FS Opinion for 9 consecutive years

## Indonesia's Commitment in Addressing Climate Change Issues

Indonesia is committed to reduce Green House Gasses (GHG) emission through National Action Plan on GHG Reduction ("RAN GRK")

### Emission Gap Projection in Complying Paris Agreement



Source: *The Climate Action Tracker*

### Paris Agreement 2015

Maintaining the increase in global average temperature to below 2°C above pre-industrial level and aim to limit the increase to 1.5°C

### Indonesia's Commitment

- The Law of the Republic of Indonesia Number 16/Year 2016 concerning Ratification of Paris Agreement to the United Nations Framework Convention on Climate Change
- Nationally Determined Contributions (NDC) which require a huge amount of fund and investment
- POJK 60 (2017) which regulates procedure in Green Bond Issuance



The importance of private participation and investment

Emission reduction of around 16-20 GtCO<sub>2</sub>e is required to meet the target as specified in Paris Agreement 2015



# PT SMI's Concrete Steps to Support Sustainable Development





## Huge Supports for SDG Indonesia One

USD 2.34 Billion Commitment obtained



USD 2.34 Billion

**6** Government Agency   
 **7** Development Bank   
 **2** Climate Funds   
 **2** Local Philanthropist  
**2** International Philanthropist   
**1** Equity Investor   
**3** Commercial Bank   
**1** Insurance Company

## SDG Indonesia One : Transforming Needs into Opportunities

### Public

1

Mobilize private investments to tackle sustainability issues (poverty, climate change, infrastructure, etc.)

2

Increase access of to financial resources to finance development

3

Reducing fiscal burden to finance SDG related projects



## SDG Indonesia One

### Private/Donor/Philanthropist

1

Gain access to rapidly growing markets in Indonesia

2

Mitigate exposures and accelerate implementation by engaging PT SMI as a local strategic partner


3

Take advantage of the risk mitigation measures offered by blended finance

4

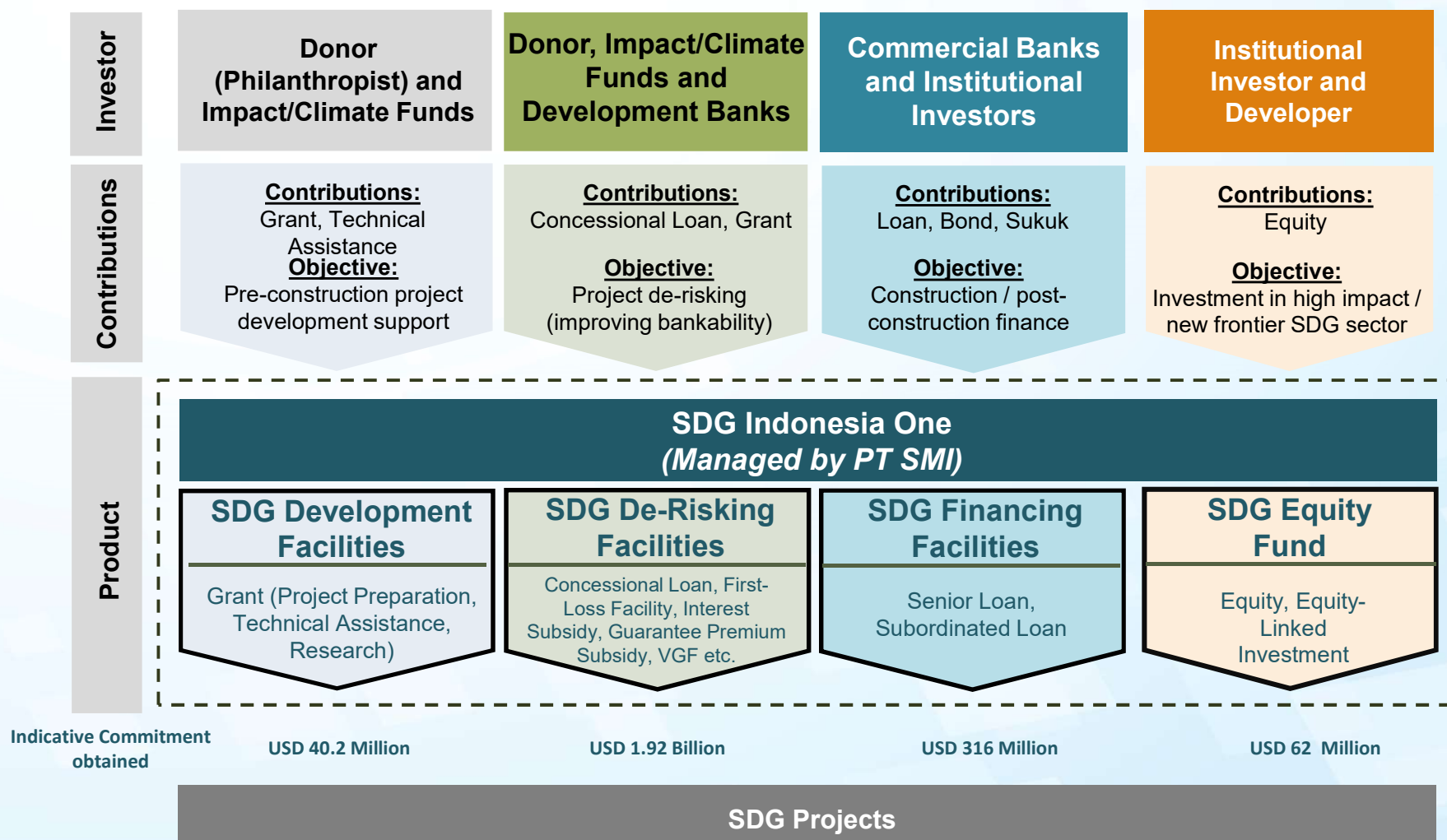
Leverage financing capacity and the socio-economic outcome

## SDG Indonesia One Concept Note

|                             |   |
|-----------------------------|---|
| <b>Platform Name</b>        | <b>SDG Indonesia One</b>  |
| <b>Use of Proceeds</b>      | <p>15 Sustainable Development Goals<br/> <i>Today PT SMI obtain the mandate to focus only on infrastructure sector; therefore, it is permitted only to get involved in the 15 out of 17 SDGs</i></p>   |
| <b>Priority Sector</b>      | Health, education, renewable energy and urban infrastructure (transportation, water and waste management)*  |
| <b>Role of the Platform</b> | <ul style="list-style-type: none"> <li>• Integrated platform support to projects (development, de-risking, construction)</li> <li>• Link project activity with the most suitable investors</li> <li>• Channel development finance via integrated-managed facilities</li> </ul>  |
| <b>Project Location</b>     | Indonesia   |
| <b>Product Type</b>         | Grant, Loan and Equity, Technical Assistance, Capacity Building, Research   |
| <b>Structure</b>            | PT SMI as the intermediary, partners, fund manager, co-financier, sponsor, investor and implementing agency   |
| <b>Value Proposition</b>    | <ul style="list-style-type: none"> <li>• PT SMI as a non-bank financial institution, 100% owned by the Government of Indonesia.</li> <li>• Extensive experience and strong track record investing in Indonesia.</li> <li>• The first financial institution accredited in Southeast Asia by the Green Climate Fund (GCF).</li> </ul> |
| <b>Source of Capital</b>    | Philanthropist, donor, climate funds, green investors, multilateral development bank, international agencies, commercial banks, sovereign wealth funds, institutional investors.  |









\*Potentially Can Be Expanded

## SDG Indonesia One Provides End-to-End Financing Support to Project Development





### Development Facilities

|   |  |  |
|---|--|--|
|  <p><b>Global Green Growth Institute</b><br/><b>GGGI</b><br/>USD 200,000<br/>Direct Grant to PT SMI<br/><b>Sector:</b> Renewable Energy, Energy Efficiency</p> |  <p><b>CLIMATE POLICY INITIATIVE</b><br/><b>Climate Policy Initiative</b><br/>USD 200,000<br/>Direct Grant to PT SMI<br/><b>Sector:</b> Renewable Energy, Energy Efficiency</p> |  <p><b>NEW ZEALAND</b><br/>MINISTRY OF FOREIGN AFFAIRS &amp; TRADE<br/><b>Aid Programme</b><br/><b>New Zealand Aid</b><br/>USD 10 million<br/>Grant to MEMR<br/><b>Sector:</b> Renewable Energy</p> |
|  <p><b>adaro</b><br/><b>Adaro Energy</b><br/>USD 1 million<br/>Direct Grant to PT SMI<br/><b>Sector:</b> Renewable Energy, Energy Efficiency</p>               |  <p><b>UNDP</b><br/>USD 1 million<br/>Grant to MEMR<br/><b>Sector:</b> Renewable Energy, Energy Efficiency</p>   |  |
|  <p><b>CK HUTCHISON</b><br/><b>CK Hutchison</b><br/>USD 5 million<br/>Grant to PT SMI<br/><b>Sector:</b> Reconstruction of Palu (Social Infrastructure)</p>  |  <p><b>MEDCOENERGI</b><br/><b>Medco Energy</b><br/>Grant to PT SMI<br/><b>Sector:</b> Renewable Energy, Energy Efficiency</p>   |  <p><b>JICA</b><br/><b>JICA</b><br/>USD 2 million<br/>Direct grant to project<br/><b>Sector:</b> PPP Urban Transport</p>  |

### De-risking Facilities

|   |
|---|
|  <p><b>IsDB</b><br/><b>Islamic Development Bank</b><br/>USD 500 million<br/>Direct Financing to PT SMI<br/><b>Sector:</b> Shariah Compliance</p>                           |
|  <p><b>AIIB</b><br/><b>ASIAN INFRASTRUCTURE INVESTMENT BANK</b><br/><b>AIIB</b><br/>USD 100 million<br/>Subsidiary Loan Agreement<br/><b>Sector:</b> Municipal Finance</p> |
|  <p><b>IFU</b><br/><b>INVESTMENT FUND FOR DEVELOPING COUNTRIES</b><br/><b>IFU</b><br/>Direct Lending<br/><b>Sector:</b> SDG-related Sector</p>                           |

### Development and De-risking Facilities



**AFD**  
**Development Facilities**  
 USD 5-10 million  
 Grant related to Loan Facility  
**De-risking Facilities**  
 USD 150 million  
 Direct Financing to PT SMI  
**Sector:** Renewable Energy, Energy Efficiency



**ADB**  
**Asian Development Bank**  
**Development Facilities**  
 USD 1 million  
 Direct Grant to PT SMI  
**De-risking Facilities**  
 USD 600 million  
 Subsidiary Loan Agreement  
**Sector:** Green Finance

**FMO**

**FMO**  
**Development Facilities**  
 EUR 1 million  
 Grant through Dutch Content  
**De-risking Facilities**  
 USD 100 million  
 Direct Financing to PT SMI  
**Sector:** Water, Health, Climate Change, Food

**KfW**

**KfW**  
**Development Facilities**  
 EUR 10 million  
 Direct Grant to PT SMI  
**De-risking Facilities**  
 EUR 400 million  
 Subsidiary Loan Agreement  
**Sector:** Renewable Energy & Municipal Finance

### Equity Fund



**Asuransi WanaArtha**  
 IDR 500 billion  
 Direct Investment  
**Sector:** SDG-related Sector



**China Communications Construction**  
 USD 30 million  
 Direct Investment  
**Sector:** SDG-related Sector

### Financing Facilities



**Standard Chartered Bank**  
 USD 250 million  
 Direct Financing to PT SMI  
**Sector:** SDG-related Sector



**United Overseas Bank**  
 IDR 1 Trillion  
 Direct Financing to PT SMI  
**Sector:** SDG-related Sector



**Bank Central Asia**  
 Direct Financing to PT SMI  
**Sector:** SDG-related Sector

## Geothermal Fund Management:

### Scheme for Geothermal Energy Upstream Development Projects (GEUDP)

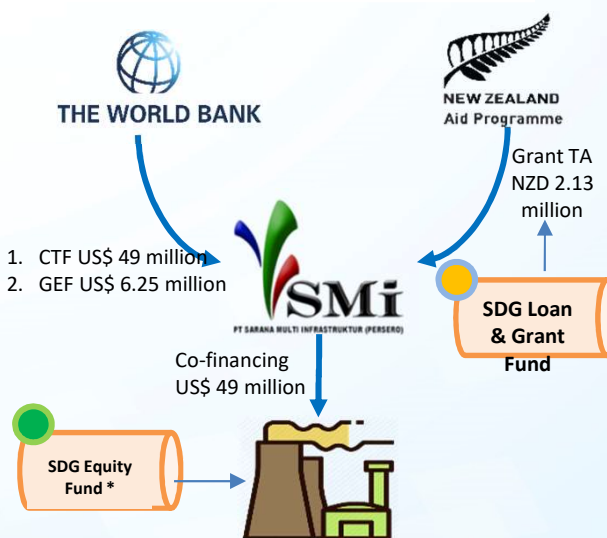
#### Indicative Project Structure

|                        |   |
|------------------------|---|
| Project Description    | Exploration project in geothermal energy to increase the electrification ratio of East Nusa Tenggara Province |
| Geothermal Area        | Wae Sano  |
| Province               | East Nusa Tenggara  |
| Potential              | 30 MW   |
| Estimated Project Cost | USD 27.5 million  |

#### Social & Economic Benefits

1. Illuminate approximately 33,000 houses in the surrounding area.
2. Increase the electrification ratio of East Nusa Tenggara Province. Currently the ratio is only at 59%.
3. Improve the regional economy with the potential of increased tourism development and create jobs opportunity.

#### Time Frame and Project Status

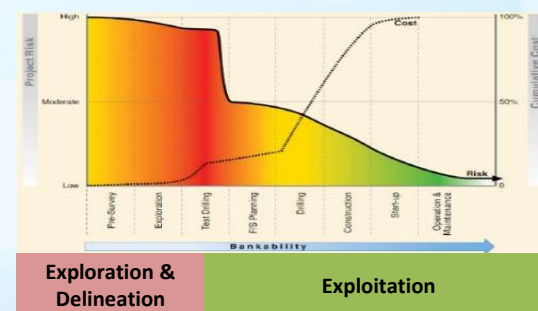
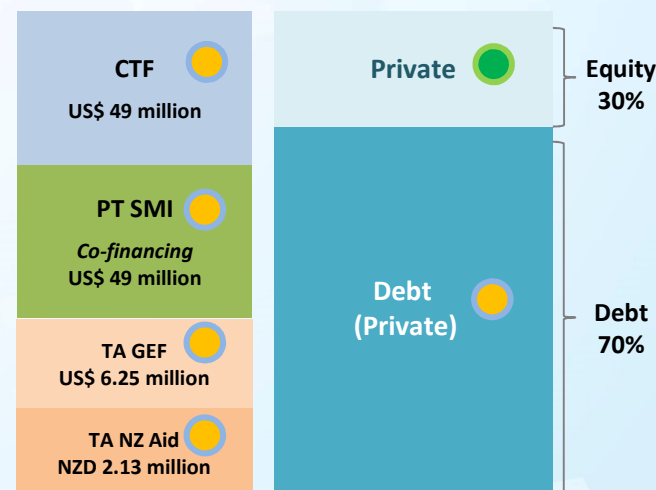


#### Geothermal Exploration Drilling



#### Indicative Capital Structure

##### Grant & TA



● SDG Loan & Grant Fund ● SDG Equity Fund

\* During development stage, after exploration

## Thank you

### PT Sarana Multi Infrastruktur (Persero)

Sahid Sudirman Center, 47<sup>th</sup>-48<sup>th</sup> Floor

Jl. Jenderal Sudirman No. 86

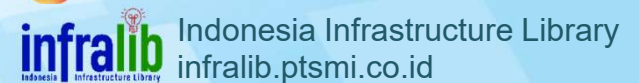
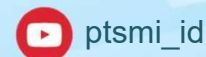
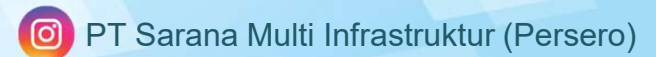
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#BaktiuntukNegeri



# GREEN INVESTMENT PLATFORM

## CORFO

Carlos Berner B.  
Gerencia de Inversión y Financiamiento  
Nov 2018



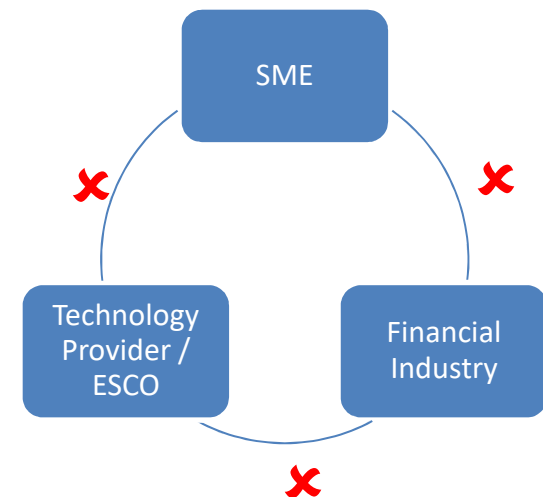
Gobierno  
de Chile

[gob.cl](http://gob.cl)



# SMEs and Climate Friendly Investment

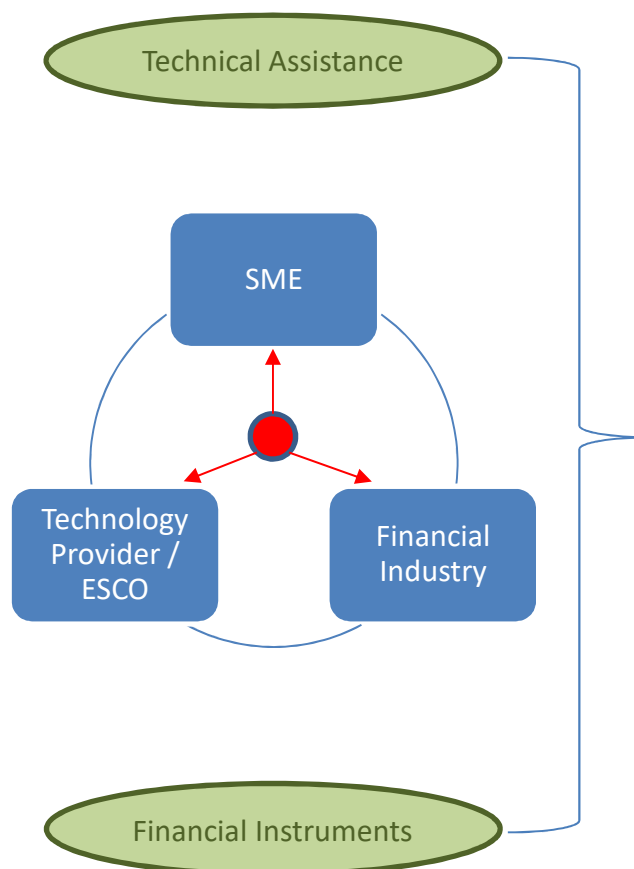
1. DEMAND: Beneficiary Company (SME):
  - It is not a first priority => preferential conditions to finance initiatives.
  - Easy and without risk of affecting operation
  - Proven Technologies => saving delivery
2. ENABLER: Financial Industry
  - They require an independent third party to indicate if "a project is eligible for financing".
  - They will not modify / implement systems, processes, policies (risk) until there is a significant volume of business
  - They will not sacrifice profitability against BAU
3. OFFER: Technology Provider / ESCO
  - Without capital to leverage development
4. CURRENT SET OF FINANCIAL DEVELOPMENT INSTRUMENTS DOES NOT INCORPORATE ENVIRONMENTAL METRICS



# Catalyzing investments: dual model

Intervention is required in three levels or dimensions:

1. Enabling mechanisms to minimize transaction costs
  - To enter the financial industry
  - To measure and monitor results in \$ and CO2 / Adaptation
2. Technical assistance
  - To facilitate decisions to incorporate technology
  - To minimize technological risks
3. Design of financial promotion instruments to mitigate or distribute financial risks
  - Adjustments to current instruments
  - New instruments
  - New incentive mechanisms



## **Technical Assistance**

- Raises value chains and business models
- Supports the decision-making processes of SMEs / training.

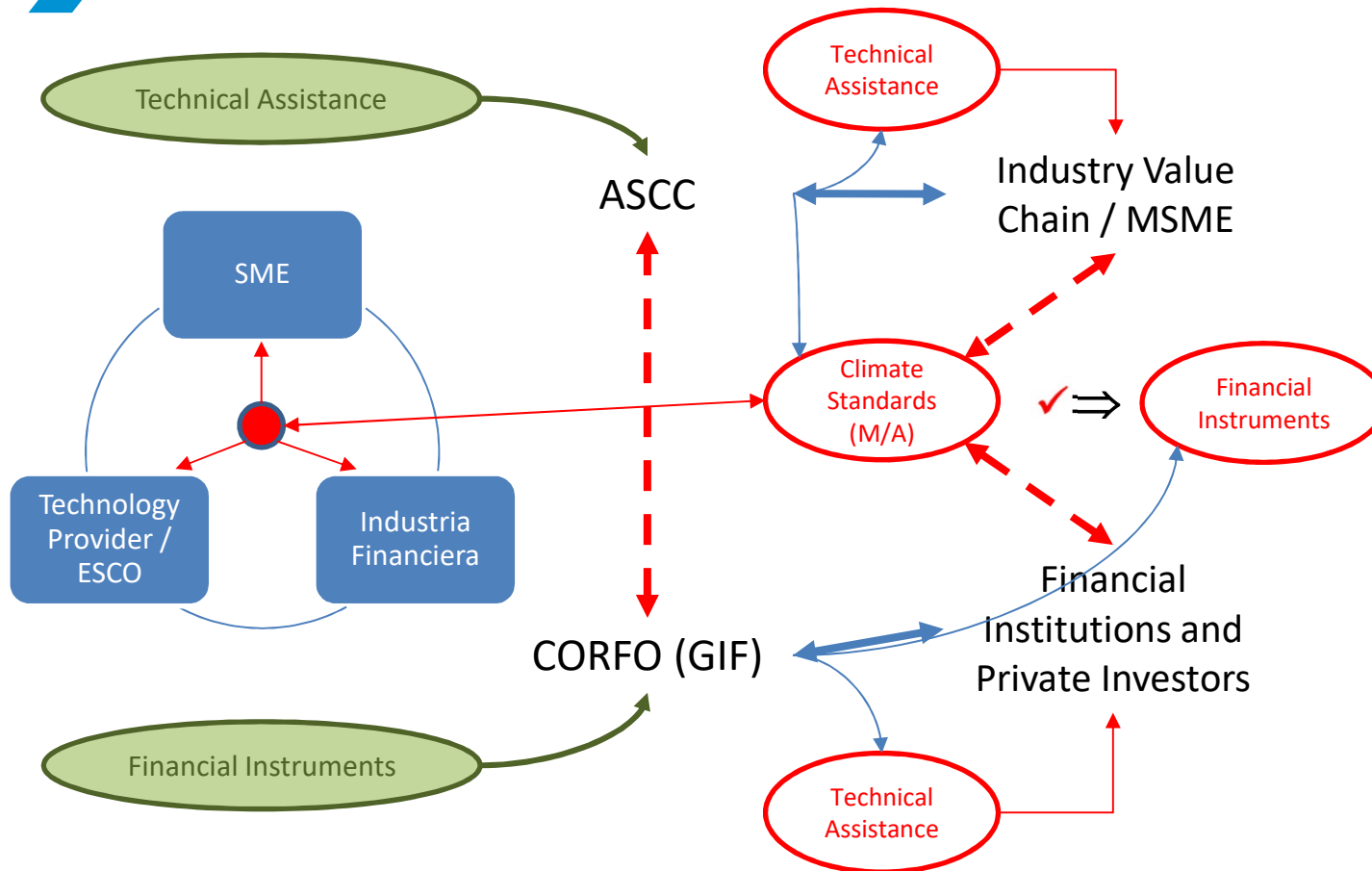
## **Eligibility system for projects / initiatives**

- Articulate the value chain with financial industry
- Enables promotion based on performance (standards)

## **Financial Instruments**

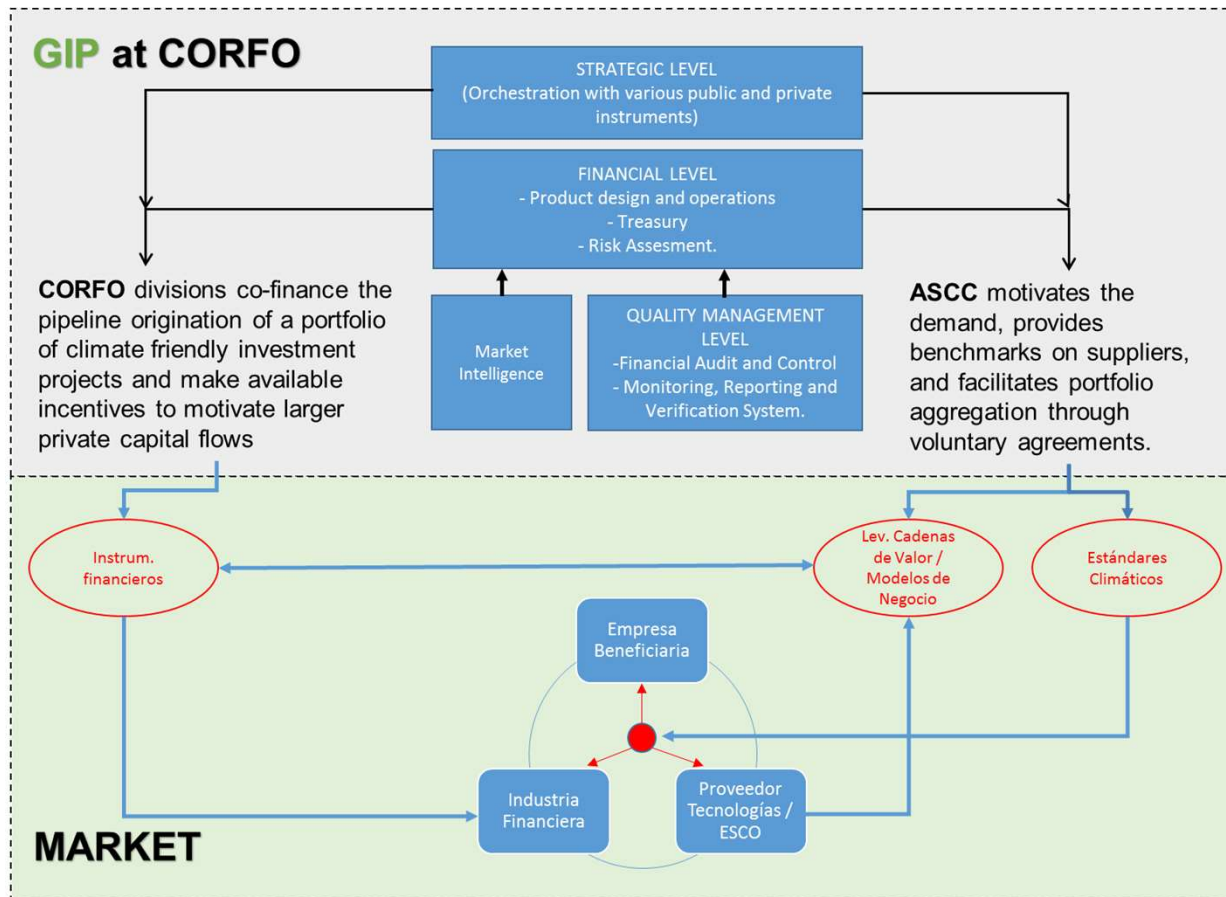
- Overcome barriers for investments,
- Maximize the capacity of state interventions, leveraging private resources to expand the scope of public budget

## ➤ A new paradigm for promoting



To make the promotion of new investments converge with the financial market, by articulating the capacities of the public sector and defining quality standards.

# Proposed Institutional Structure



- Governance that ensures autonomy, flexibility and non-corruption.
  - Alignment with national strategy
  - Coordination with other public institutions
- Advisory Committees: financial and non-financial entities, NGOs and other public and private sector entities.
  - Climate promotion strategy
  - Design of instruments

# Thank You!

@Corfo

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Gobierno  
de Chile

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# Adapting the Green Bank Model to New Countries: Banobras Mexico

Juan Carlos Martínez Nava  
Manager of Analysis and Sustainable Strategy



## 1. Banobras

## 2. Sustainable Strategy

## 3. Main results





Banobras plays an important role in the Mexican Banking System and is the most important Development Bank

**5<sup>o</sup>** biggest bank in the Mexican banking market measured by its assets and loan portfolio

**1<sup>o</sup>** biggest development bank in Mexico measured by its assets and loan portfolio

**40%** of the development banking total loan portfolio

**6%** of the Mexican banking market loan portfolio

**1.7%** of GDP

Fuente: CNBV, INEGI

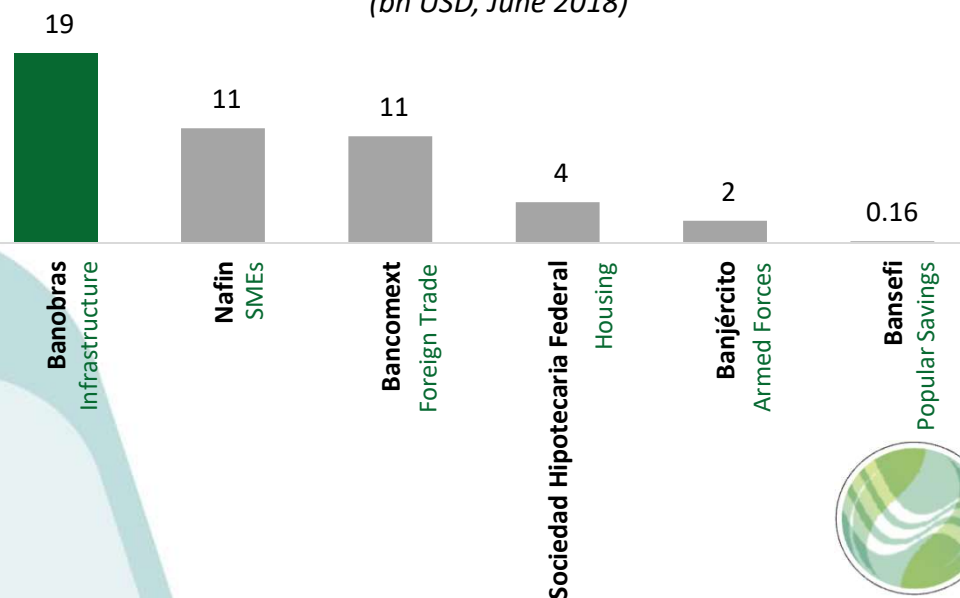
### Loan Portfolio

#### Development Banking

Mexican Banking System 293 bn USD (26% GDP)

Development Banking: 48 bn USD (4% GDP)

(bn USD, June 2018)



National Development Banks in Mexico work as an instrument of economic policy which mission considers the following axes:

1

The seeking of financial access to strategic sectors needed by its contribution to economic growth

2

The contribution of making economic cycles less severe, replacing private financing in periods of economic contraction

3

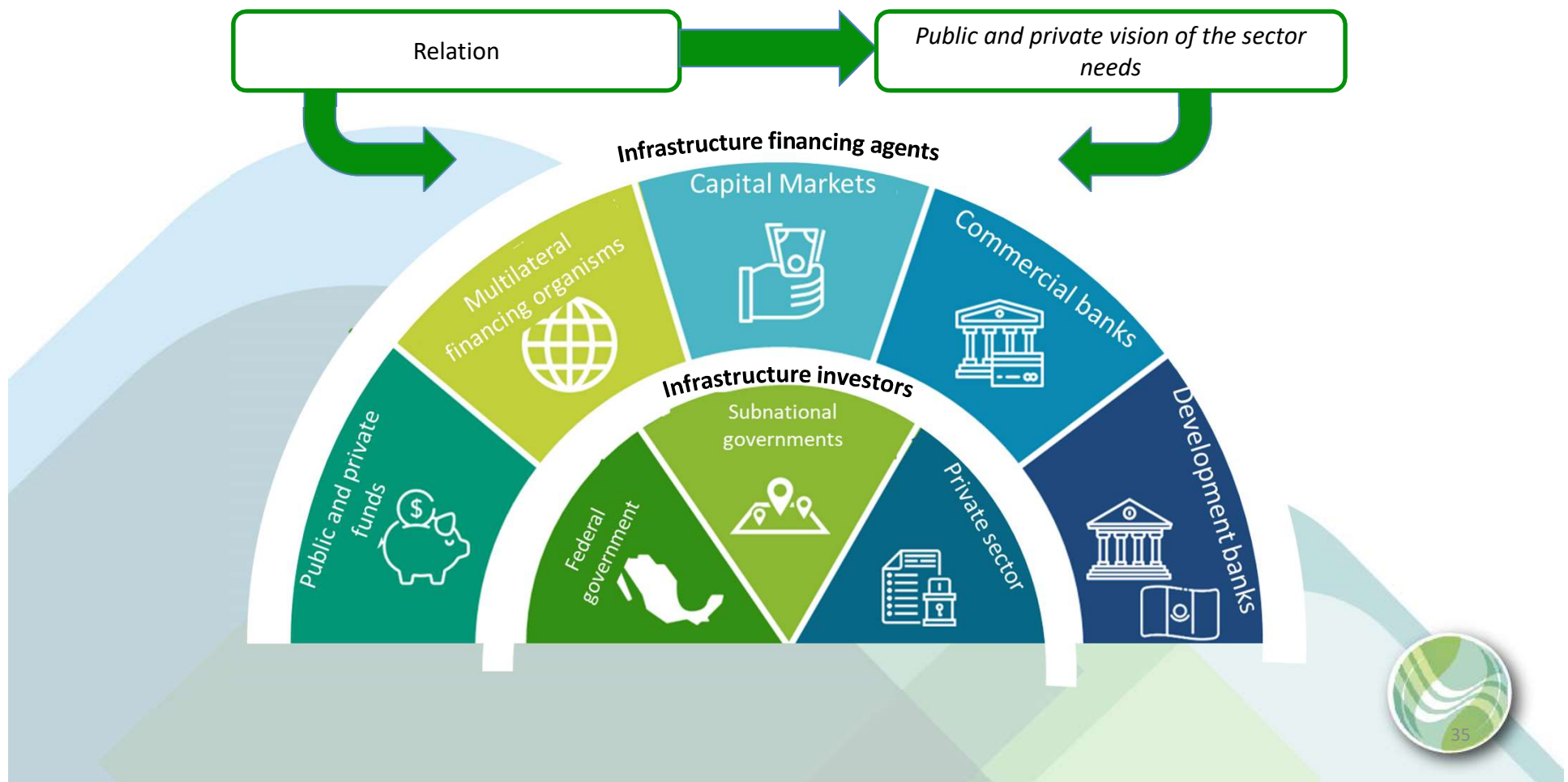
As a complement of strategic sectors financing, it offers technical assistance programmes

4

Promotion of long-term credit to boost competitiveness and complement private investor with financial services that generate more and better vehicles for channeling credit



For more than 85 years, Banobras has kept relation with different actors in the infrastructure market



1. Banobras

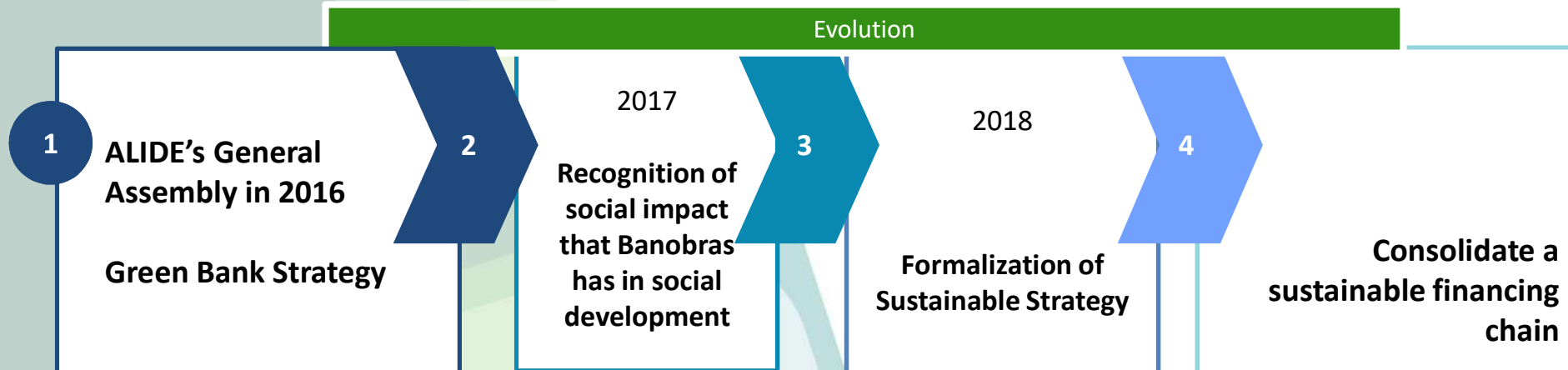
**2. Sustainable Strategy**

3. Main results



Faced with the challenge of climate change for economic and social development worldwide, environmental and social responsibility is becoming increasingly important.

Banobras is committed to promoting actions aimed at contributing to the achievement of international agreements signed by Mexico, such as the Paris Agreement, the 2030 Agenda for Sustainable Development and the Sendai Framework for Disaster Risk Reduction.



Objective

Establish the commitment assumed by Banobras to integrate environmental and social principles and guidelines into the governance structure, the institutional strategy, the management of credit operations and internal processes.

Scope

- The Environmental and Social Policy of Banobras will apply to all Banobras employees.
- The Environmental and Social Policy of Banobras is also extensive, in some of its topics, to Banobras clients who receive financing or refinancing for the development of infrastructure projects and public services.



The Sustainable Bank Strategy is defined as a framework of action that includes the strategic components and lines of action that contribute to the implementation of the Environmental and Social Policy of Banobras, in order to support environmental and social responsibility initiatives

**Main axes:**

**Strategy 1. Governance**

Guarantee the incorporation of environmental and social principles within an internal policy that supports the sustainability commitment of Banobras, as well as within the strategic planning and internal processes of the institution.

**Strategy 2. Internal Processes and Strategic Alliances**

Establish environmental and social principles in the Banobras operation and encourage national and international strategic alliances to promote these principles..

**Strategy 3. Environmental and Social Risk Management**

Establish the guidelines to identify, evaluate, mitigate and reduce environmental and social risks, through compliance with national legislations and standards, as well as the verification of possible negative impacts on the environment and / or communities related to infrastructure projects financed by Banobras.

**Strategy 4. Promotion of Sustainable Projects**

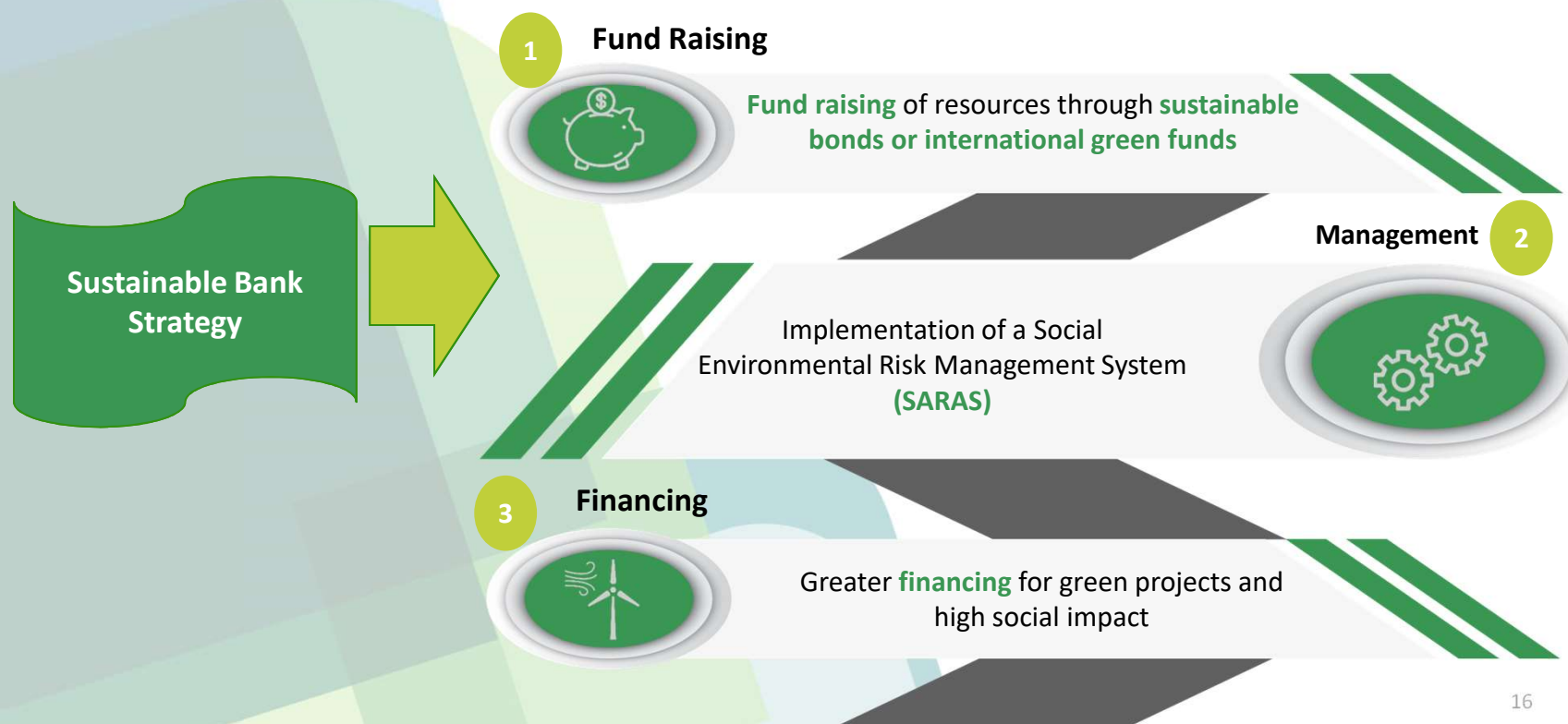
Promote the financing of projects that generate a positive impact on the environment and society.

**Strategy 5. Communication and Transparency**

As a development bank, Banobras will seek to improve its communication and information dissemination processes to keep the population informed about the activities, performance and achievements of the bank in terms of sustainability.

The Sustainable Bank Strategy aims to consolidate a **sustainable** financing chain

Sustainable financing chain





1. Banobras
2. Sustainable Strategy

### 3. Main results



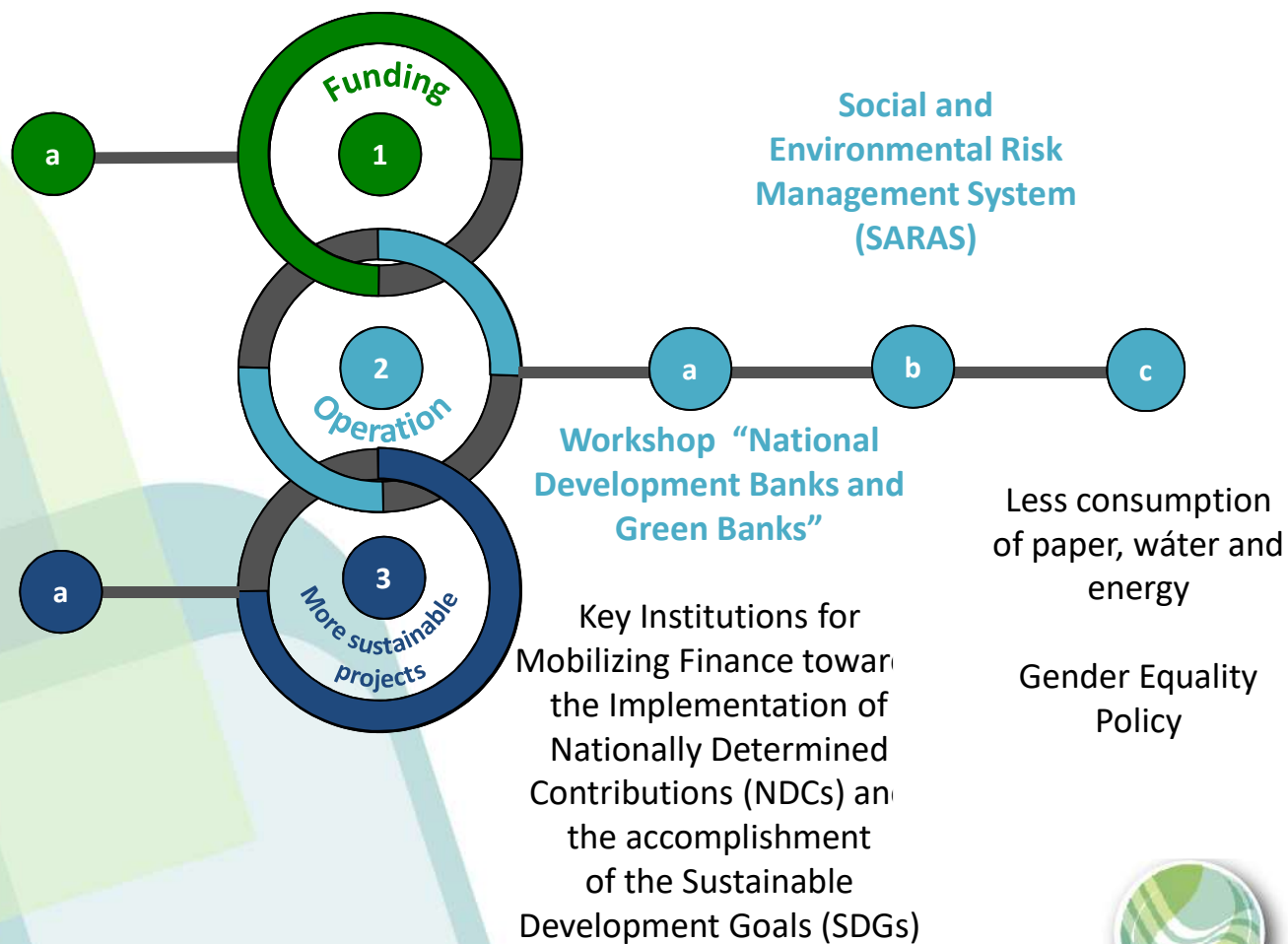
The following results in terms of sustainability have been achieved:

### Sustainable Bonds Issuance (Total amount: 618 mdd)

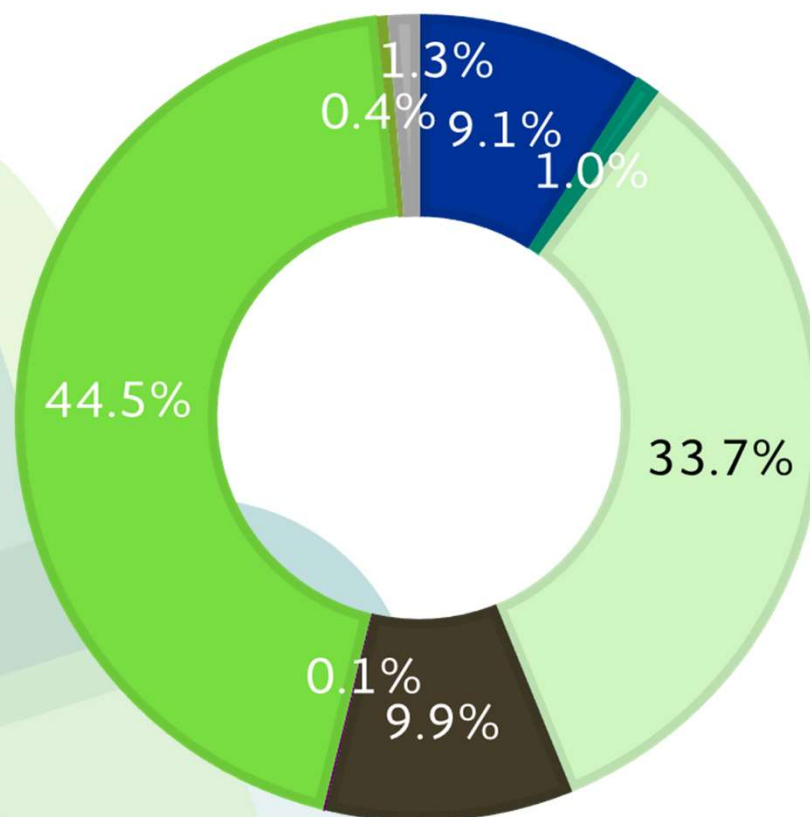
- First Sustainable Bonds of Development Banking in LAC region

### Sustainable projects

- The sustainable projects loan portfolio of Banobras is around 2 bn USD



## Banobras' Sustainable Loan Portfolio As of October 2018, 2.3 bn USD



■ Waterworks  
■ Hospitals  
■ Solid Waste

■ Energy Efficiency  
■ Social Infrastructure  
■ Sustainable public transport

■ Renewable Energy  
■ Disaster reconstruction



## SARAS

- Based on IFC performance standards and guidelines
- Work with IDB and ERM
- Work in the definition of “Right of Way” parametric model to the Saras Manual



## Technical Assistance for Proyectos Mexico

- Work to generate a “Sustainability Profile” for each Project published at Proyectos Mexico Platform.
- Establishment of standards to categorize projects in terms of a “level” of sustainability
- Give more information for investors



## Sign of Sustainability Protocol

- On November 12th Banobras signed the Sustainability Protocol for Banks
- Banobras was the 3rd development Bank that signed the protocol
- The Protocol is a voluntary agreement between financial institutions for the establishment of a sustainability operational framework in the financial system

## NRDC/CFA

- Work to adapt the green bank model to local needs as part of the Sustainable Bank Strategy
- Work on the development of a Climate Risk Annex for the SARAS
- Physical risks that projects financed by Banobras could face because of climate change. Considering:
  - Income, expenditure, assets, liabilities, financing.
- Workshop with Mexican Banking Association to foster the design of financial solutions for solar power projects and other renewable energy sources



謝謝

Thank you

Gracias

Juan Carlos Martínez Nava  
Manager of Analysis and Sustainable Strategy

85  
Años

BANOBRAS  
BANCO NACIONAL DE OBRAS  
Y SERVICIOS PÚBLICOS S.N.C.

1933 - 2018



# Mongolia Green Finance Corporation

**Green Bank Congress, Shanghai, November 29, 2018**

Naidalaa Badrakh,  
CEO and Board Member, Mongolian Sustainable Finance Association (MSFA),  
MGFC Project Team Leader





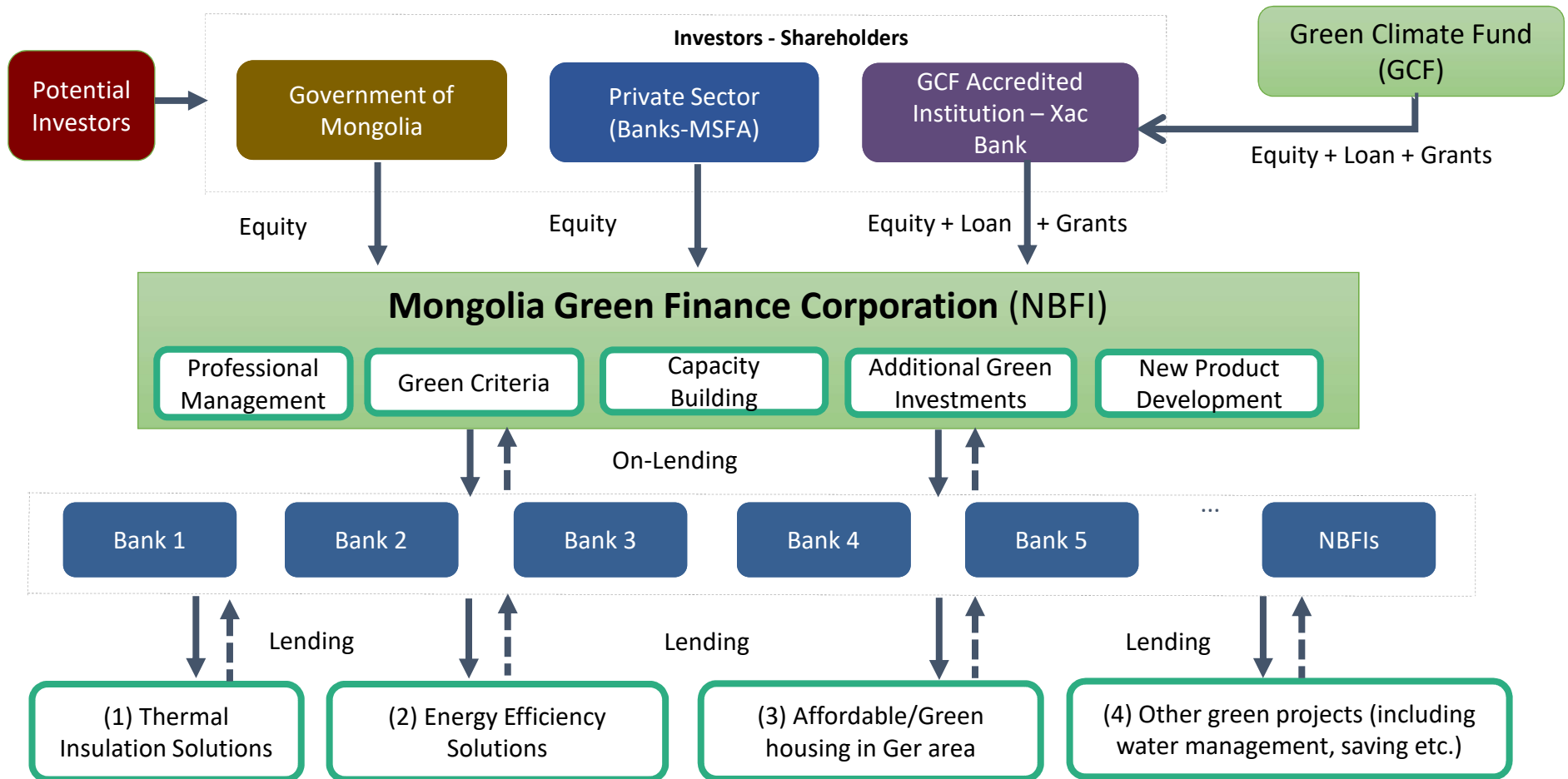


## **The Public Private Partnership Model: Mongolia Green Finance Corporation (MGFC)**





## The Mongolia Green Finance Corporation (MGCF) Structure



# Largely untapped markets need barrier removal to strive



**Thermal insulation measures of existing houses**

**Total market size: USD 108.3M**

**Target market : USD 8.6M**

- 42,000 existing houses based on households' monthly income statistics\*
- Thermal insulation of walls, roof and foundation of houses and refurbishment of exterior wall. Over 47% reduction in heating energy.
- Average cost for insulation of house USD2,428 (a reference 6x8 m house was used for calculation purpose)

\* Study on social and economic conditions of households, Nov 2017, National Statistic Committee.



**Energy efficiency improvement measures for business entities**

**Total market size: USD 158.5M**

**Target market: USD58.5M**

- 127 designated entities must conduct energy efficiency measures according to law, +USD 100M\*.
- First 15 designated entities need investment of USD58 million.\*\*
- Electricity and heat saving measures: VFDs, LED lightning, EE compressors and pumps, process control and automation, replace distribution transformers etc., hot water pipelines insulation, leakage reduction, automation and control systems, boiler efficiency improvement etc.

\* The International Institute for Energy Conservation (IIEC) estimates that the combined annual market size of equipment/technologies based on import/export statistics is around \$100 million. Assessing Energy Efficiency Potential in Mongolia (46241-001), IIEC, RETA-8483 REG: Asia Energy Efficiency Accelerator, 2016

\*\* Detailed energy audit report, PwC, 2017



**Mortgage for green affordable housing in "Ger" areas**

**Total market size: USD 755M**

**Target market: USD35.5M**

- 85,800 new houses based on households' monthly income statistics and willingness to pay survey.\*
- Properly designed houses with 35% reduction in heating energy compared to average existing construction.
- Average cost of reference house USD 14,584 (reference house of 35 sqm area was used for calculation purpose)

\* Housing market survey of Capital city, Capital City Housing Corporation, 2016

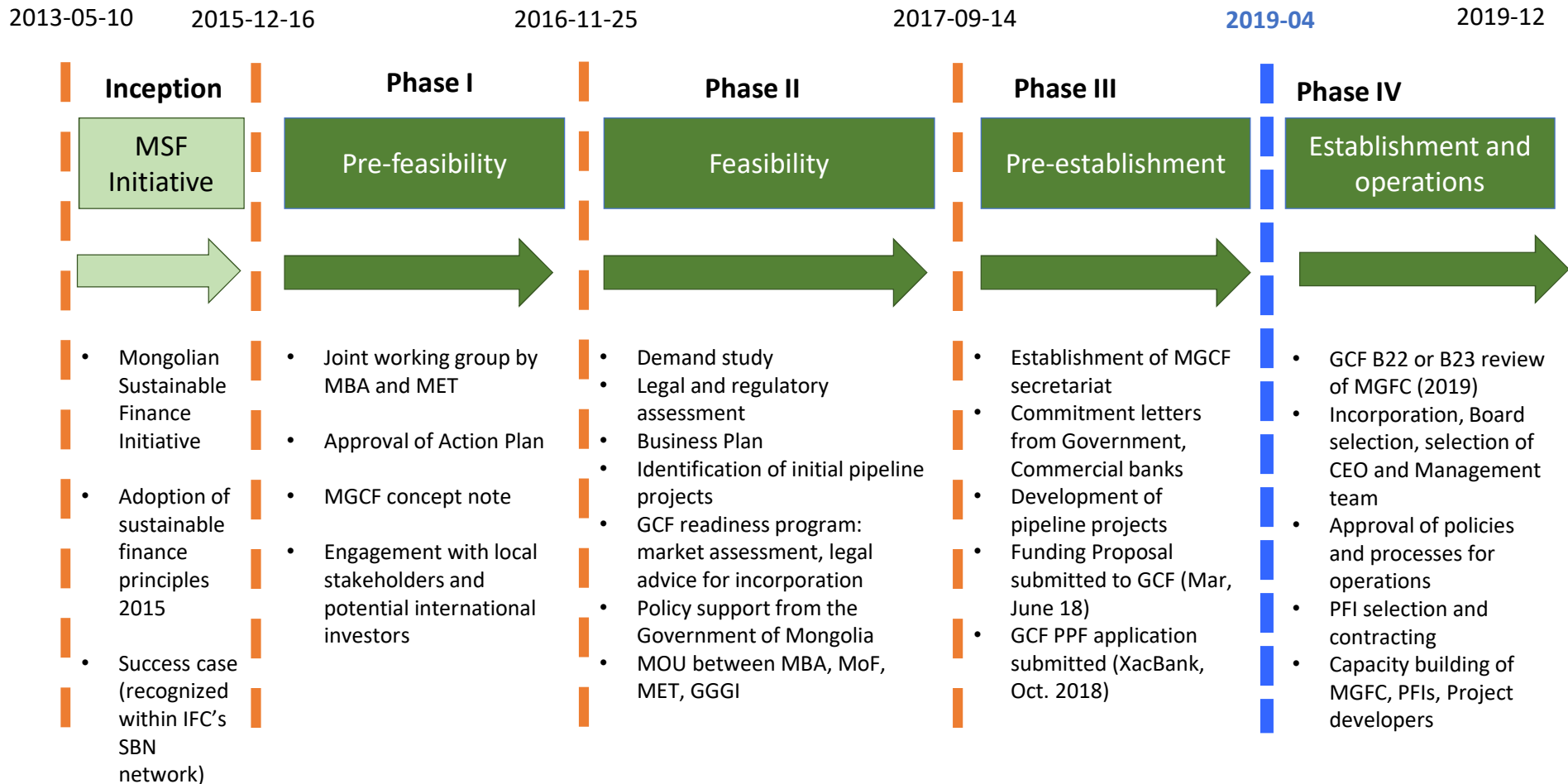


## **The Private Initiative: Mongolian Sustainable Finance Initiative (MSFI)**





# MGFC - Roadmap Towards Operations



## MSFI Vision (Flight ToC 2030)



### 1. SF framework development

- Principles, guidelines, Steering Committee
- Integration of ESG into the banking RM framework

### 2. Regulators/ Stakeholder engagement

- Expansion of cooperation/ network
- Capacity building

### 3. Green Finance and Business Industries

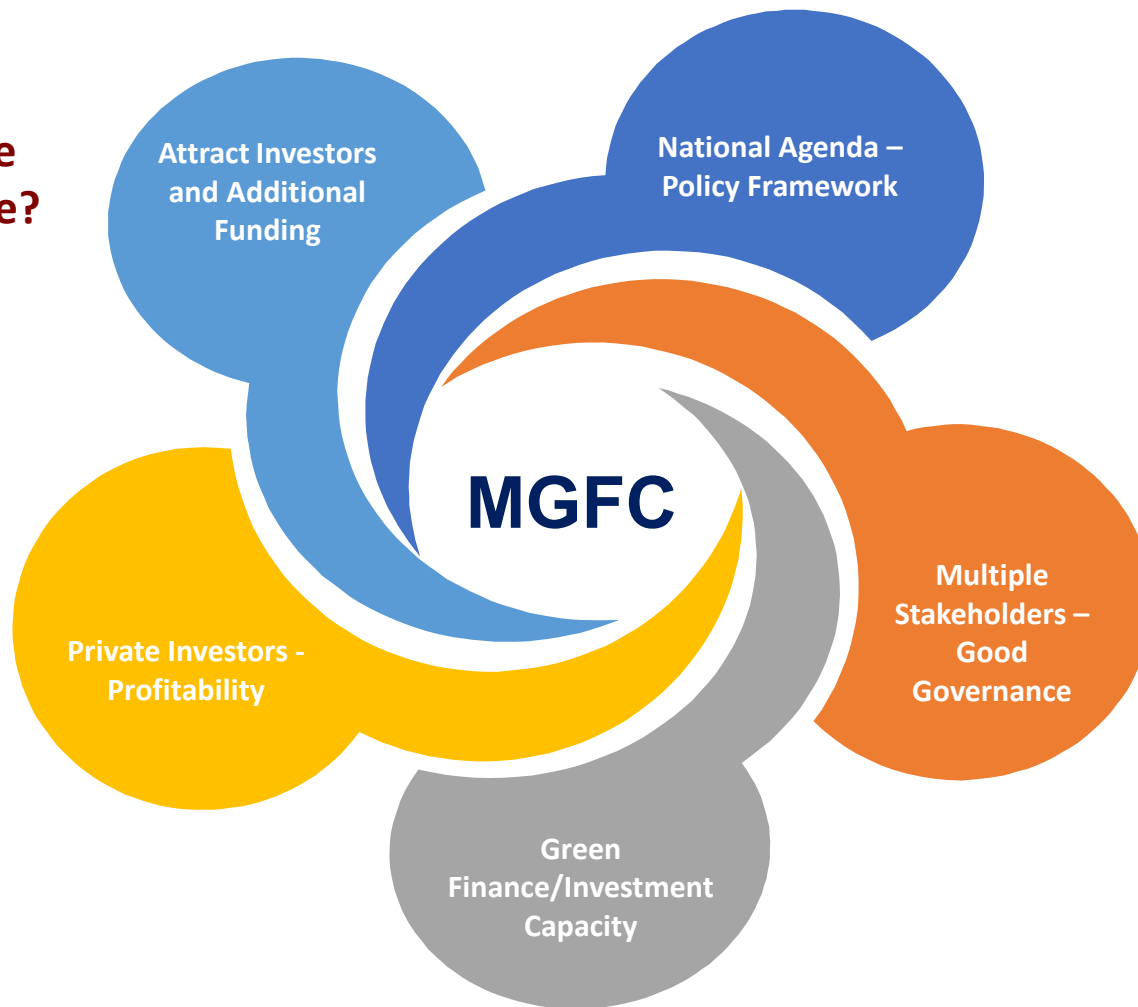
Knowledge sharing with other SBN members

- Sustainable Finance Roadmap: Going Beyond Banking
- MGFC
- Green Bond

### 4. Knowledge-Research/Green Finance /Investment Center

- Sustainable Financial Industry
- Sustainable Business Industries
- Green Finance Knowledge
- Green Finance/Investment Center
- Green Economy

**What kind of  
Institution is the  
MGFC going to be?**



## MGFC Vision 2030

**Green Banking-Financial system.** Green Finance capacity enhancement and improvement

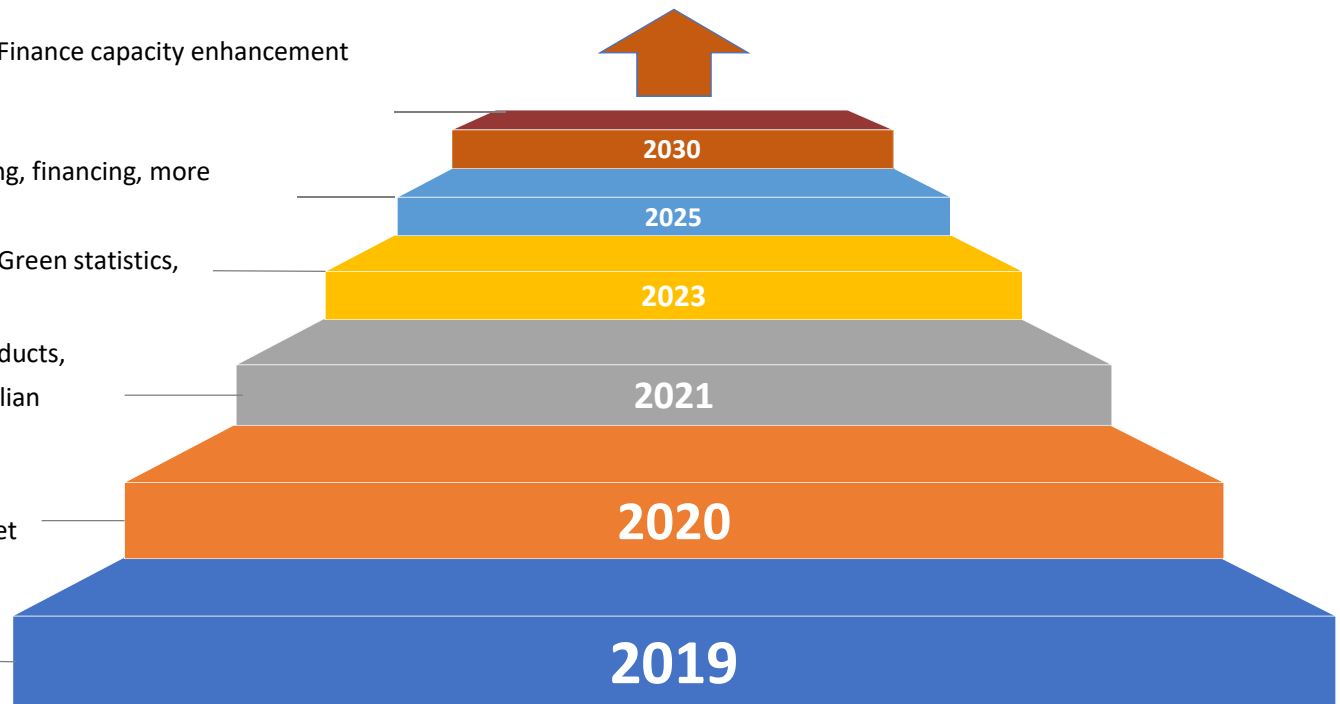
**GCF and other accreditations.** Good rating, financing, more investors and improved products

**Organizational Strength.** New investors. Green statistics, markets, standards and pattern.

**Role model.** Additional funding, new products, redemptions and good reporting. Mongolian Green Credit portfolio.

**Good example.** Internal capacity, good team, loan issuance, customer and market preparation, training, green standards

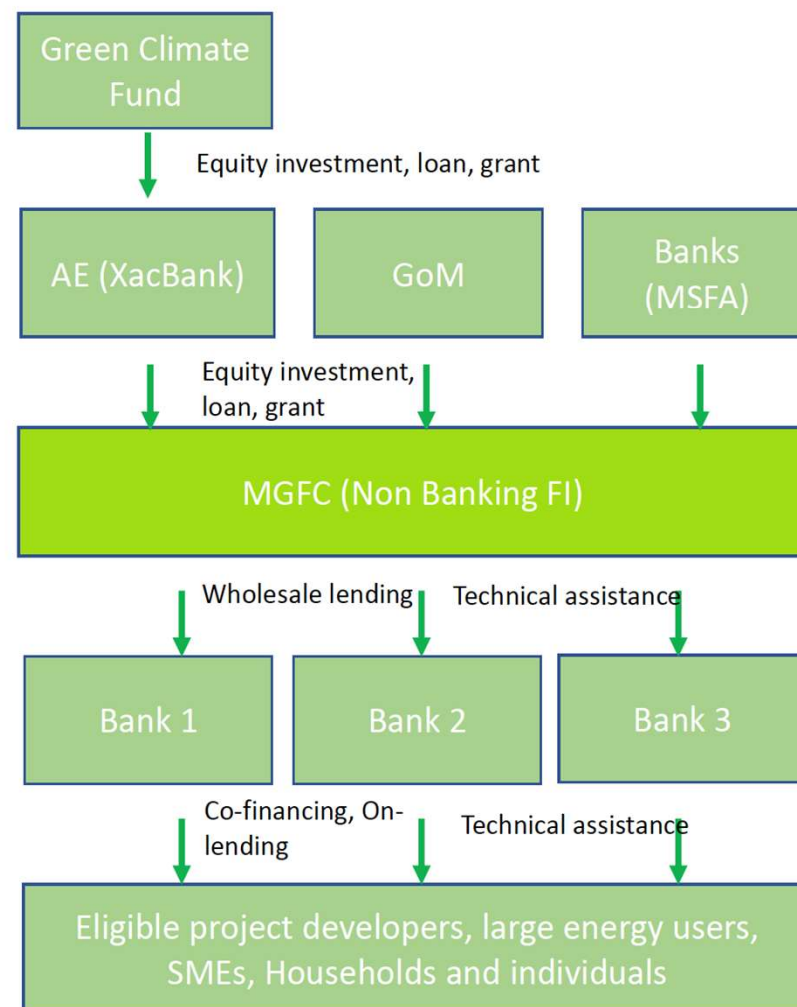
**Good Project.** Establishment, operational arrangements





# MGFC Investment structure

| (mln.USD) |                   |      |      |       |       |
|-----------|-------------------|------|------|-------|-------|
| #         | Contribution      | GCF  | GoM  | MSFA  | TOTAL |
| 1         | Equity investment | 5.0  | 5.0  | 5.0   | 15.0  |
| 2         | Loan financing    | 33.0 | -    | -     | 33.0  |
| 3         | Grant             | 2.0  | -    | -     | 2.0   |
| #         | Leverage          | GOM  | MSFA | TOTAL |       |
| 1         | Loan              | 8.0  | -    | 8.0   |       |
| 2         | Loan co-financing | -    | 19.4 | 19.4  |       |
| TOTAL     |                   | 8.0  | 19.4 | 27.4  |       |





TATA CLEANTECH CAPITAL  
LIMITED

SIXTH ANNUAL GREEN BANK CONGRESS  
SHANGHAI, NOVEMBER 29, 2018

**TATA** CAPITAL

## TATA GROUP



Jamsetji Tata 1839 - 1904

*"In a free enterprise, the community is not just another stakeholder in business, but is in fact the very purpose of its existence."*

- Jamsetji Tata



### Leadership with Trust

- A global business group with products and services with over 150 countries
- Over 6,95,000 employees and operations in over 100 countries
- Group revenue of \$ 100 billion with more than two-third generated in geographies other than India
- Most valuable business group in India with market capitalization of 29 listed companies: ~USD 145\* billion

### Institutionalized Philanthropy

- Group holding structure ensures two-thirds of the profits distributed by Tata Sons (principal holding company of the Group) goes towards philanthropic causes through Tata Trusts

### Sustainability in Action

- Group part of Indian Prime Minister's low carbon committee
- Member of the Steering Committee of 'Caring for Climate' initiative of the United Nations Global Compact and United Nations Environment Program
- Several Group companies recognized and listed in the Carbon Disclosure Leadership Index

150  
Years

A Legacy of Trust  
and Nation-building

\$14.2  
billion

India's Most Valued  
Brand \*\*

#1

Pioneers of Core Sectors,  
Leaders in several Industries

150  
Countries

Footprints across  
the globe

\$100  
Billion +

Total  
Group Revenue

\*As on March 28, 2018. \*\*Brand Finance August 2018 valuation.

## TATA CAPITAL

## TATA CAPITAL

- Subsidiary of Tata Sons Limited
- Comprehensive suite of product and service offerings, including Home Loans, consumer and other retail loans, corporate and commercial finance, leasing solutions, wealth management and private equity.
- Serves over 1.45 million customers from 180+ locations across India

### Our Vision

The most admired financial solutions partner.

### Our Mission

We will only do what's right - for all our stakeholders, including our employees, customers and society at large.



A leading Non-Banking  
Financial Company  
(NBFC) in India

AAA

Highest domestic  
rating of AAA by CRISIL  
(An S&P Global Company)



Consistent Profitability  
from Day One



Well diversified loan book of  
over USD 8.5 billion



Highly engaged and  
growing workforce

## TATA CAPITAL

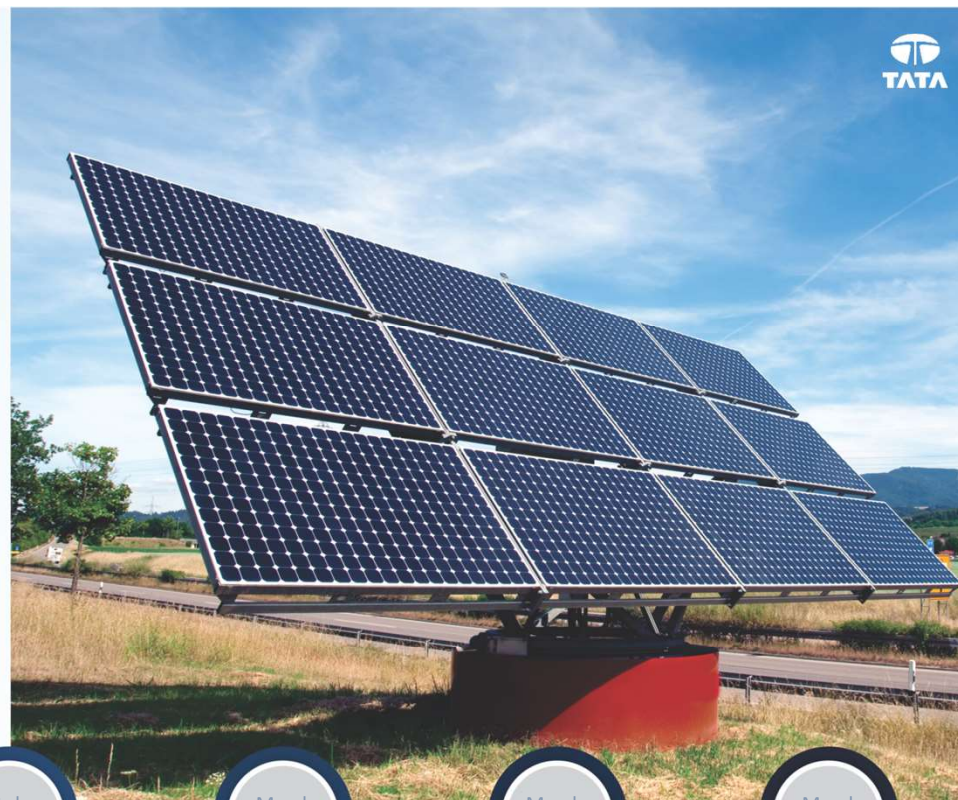


## TATA CLEANTECH CAPITAL



First of its kind private sector Green Investment Bank in emerging economies

- A Joint Venture between Tata Capital Limited (TCL) and IFC(W), World Bank Group, established in September, 2011.
- Cleantech focused Infrastructure Finance Company (IFC) offering funding and advisory solutions
- Successfully participated in funding of ~5.2 GW Renewable Energy Generation - saving over 8.4 million tonnes of CO2 emissions annually.
- Only Indian company to feature in UN Global Compact survey on CEO's perspective on Climate Change (November, 2015), as a leader in facilitating sustainable business
- First company in private sector to partner Green Climate Fund (GCF) to develop solar rooftop market in India through USD 100 million credit line



October  
2012

Received NBFC License

April  
2013

Commencement of  
Business

March  
2015

Additional Capital Infusion

October  
2015

IFC status by  
Reserve Bank of  
India (RBI)

March  
2016

Loan book of USD  
165+ million

March  
2017

Loan book of  
USD 330+ million

March  
2018

Loan book of  
USD 440+ million

1 USD = ₹ 72

**TATA CAPITAL**

## BUSINESS OVERVIEW

### Products and Services

#### Business Project Finance & Debt Solutions

Credit & Underwriting :

- Cleantech - Solar, Wind, Hydro & Bio-mass
- Water, Energy Efficiency & Conservation
- Other Infrastructure (Power Transmission, Transport, Logistics, Healthcare, Education)

#### Debt Syndication

Debt Syndication Across Renewable & Other Infra Sectors (MOU with SIDBI and IREDA)

#### Cleantech Advisory

Technical Advisory Services - Climate Change & Sustainability Strategy

- Energy / Carbon / Water Foot Printing
- Eco-cities
- Feasibility Studies
- Natural Capital Accounting

#### Financial Advisory

Full Suite Financial Solutions:

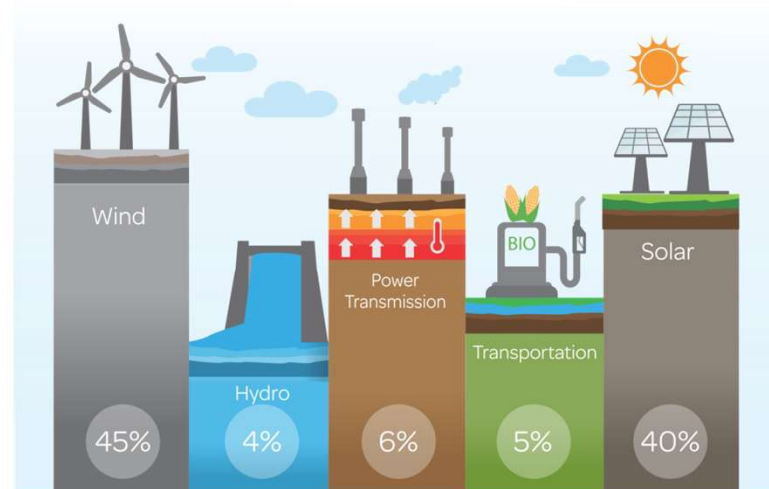
- Buy-side and Sell-side Advisory Solutions
- Mergers & Acquisitions (M&A)
- Restructuring Advisory
- Strategic Capital Raising Services



### Quality Asset Portfolio

Robust and well diversified asset portfolio with quality assets

- Portfolio of ~USD 550 million as on Sep.30,2018
- Spread across various sectors in Cleantech, both in utility scale and small scale segments
- Funded over 150 projects with zero Non Performing Assets (NPAs)
- Secured domestic rating of AAA from CRISIL/ (an S&P Global Company) Located by strong parentage & high quality asset portfolio.



1 USD = ₹ 72

Portfolio Composition

\*As on July 31, 2018

**TATA CAPITAL**

# Journey so far

- A few funded groups



**TATA CAPITAL**



## CLEANTECH ADVISORY

### Concept to Execution

| Strategy  | Resource Efficiency                    | Green Infrastructure   |
|---|--|------------------------|
| Policy relating to carbon / energy / water / waste          | Carbon foot printing and abatement     | Eco-cities development |
| Sustainability strategy development                         | Energy audits and management           | Roof top solar         |
| Market entry strategies for "cleantech" products / services | Water foot printing and management     | Waste water re-use     |
| Sustainability journey                                      | Markets and trading in carbon / energy | Waste to energy        |

### Cleantech Advisory Experience



Advisory for optimal power procurement strategy



Climate Action Planning for Chennai and Bengaluru



Project in consortium with Swansea University of UK for commercialization of next generation solar PV technology

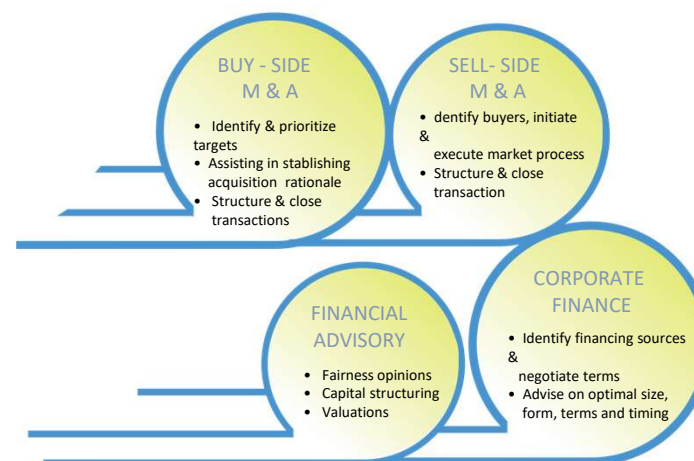


Industrial use of Treated Municipal Waste Water from Bijapur Municipality by NTPC, Kudgi Plant



### Financial Advisory and M&A

- Full suite financial solutions and advisory services including equity fund raise, M&A, strategic partnership and bid advisory



### Cleantech Advisory Experience



750 MW Renewable Energy projects in India



36 MW solar power project



750 MW Renewable Energy projects in India

M&A Advisory

Bid Advisory

**TATA CAPITAL**

# Journey so far

- Key Alliances



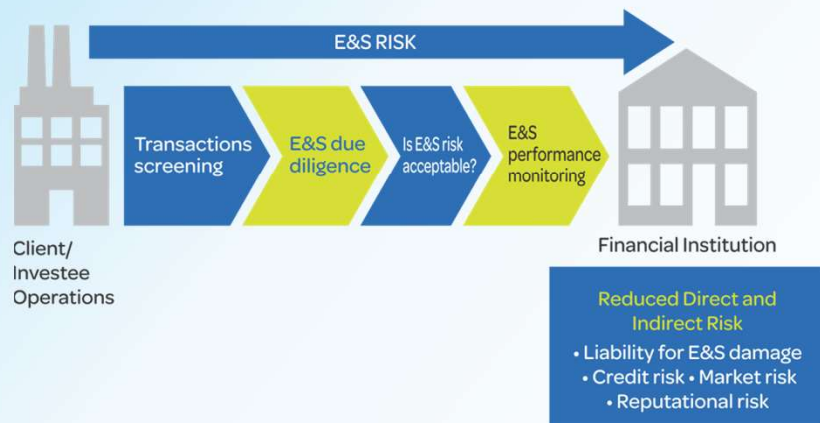
- Partnering Green Climate Fund (GCF) to develop solar rooftop market in India through USD 100 million credit line
- MoU with Indian Renewable Energy Development Agency Limited (IREDA) for joint underwriting and co-financing of renewable energy projects
- Collaboration with Tata Group companies for Rooftop and Energy Efficiency solutions, focused on SME sector
- MoU being discussed with Energy Efficiency Services Limited (EESL) for financing energy efficient motors for industry clusters for SMEs.
- MoU executed with Small Industries Development Bank of India (SIDBI) for financing energy Efficiency projects

## SOCIAL & ENVIRONMENT MANAGEMENT SYSTEM



- Strong focus on Social and Environmental assessment including health, safety and wild-life protection
- Experienced in-house team backed by access to IFC (W) and Tata group expertise
- Due diligence expertise to safeguard projects from regulated and emerging E&S risks
- Provide end-to-end E&S Risk Management solutions

### Outcome of E&S Risk Management



**TATA CAPITAL**

# TCCL Advantage

- **Ideal platform to intermediate green funds to India**

- Supported by top brands – Tata and IFC, which have demonstrated commitment to sustainable growth
- Has experience of funding more than 150 clean-tech projects in India with aggregate capacity of 5.2 GW
- Proven expertise demonstrated through NIL non performing assets in 5 years of its operations
- Selected by Green Climate Fund to implement its mandate of developing solar rooftop segment in India
- Domestic AAA rating from CRISIL (An S&P Global Company)



**TATA CAPITAL**

Thank You



**GREEN BANK  
NETWORK**



**Green  
Investment  
Group**

# Adapting the Green Bank model to New Countries

## Discussion & Questions

Sixth Annual Green Bank Congress