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.

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.”

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

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

---

**Capital markets**

**Green Bank**

A finance facility, which can exist independently or within an existing institution, that has a:

- **Dedicated mission**: “crowd-in” private investment to address climate change
- **Geographic focus**: is nationally- or locally-owned, and focuses on addressing gaps and catalyzing greater investment in local markets
- **Capital base in-line with its mission**: sources and deploys a mix of public and private sources (excluding customer deposits, typically)

**Climate projects**

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**Note**: Green Banks perform many functions to enhance private investment in climate projects:

- Capital mobilizer
- Capital provider
- Lead arranger
- Innovator
- Capacity-builder
- Feedback to government on enabling environment

---

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

- Programming the R1,1 Bn Green Fund allocation from DEA
  - April 2012

- Development of DBSA and 3rd party pipeline to access GEF funding
  - Oct 2014 - ongoing

- DBSA Accreditation to Global Env. Facility (GEF) supported by DEA
  - March 2014

- DBSA Accreditation to Green Climate Fund (GCF)
- Development of DBSA and 3rd party pipeline to access GCF funding
  - May 2016

- Progress through 2018
  - Continued implementation of board approved “Green Bank” within DBSA
  - Internal approval of CFF
  - Green Climate Fund approval of CFF capitalization – October 2018

- Ongoing engagements/benchmarking with peers e.g. IDFC, The Lab
DBSA Climate Finance Facility has specific Mandate & Goals

**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 will leverage 3-5x co-investment from the private sector
CFF Governance and Investment Approval

Climate Finance Facility (CFF)

1. Dedicated CFF Staff
   (Managed by DBSA’s Structured Products Unit)

2. CFF Steering/Advisory Committee
   - DFI/PIC 1
   - DBSA 1
   - DFI/PIC 1
   - DBSA 2
   - DFI/PIC 1
   - DBSA 3

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

**Climate & Water Goals**
Transactions must contribute to climate-related goals and/or expansion of clean drinking water supplies as per UN Sustainable Development Goals & Paris Accord commitments.

**Commercial projects**
Transactions will be commercial, profitable, meet investors’ expected financial returns and be able to service the debt funding.

**Market Transformation**
Projects must contribute to market transformation in terms of scale, increased private sector funding leading to clean energy and water infrastructure related investments.

**Lack of Capital**
The CFF will provide funding to projects that are in a venture or development capital phase – i.e. projects that cannot be fully funded by the commercial debt capital market.

**Crowd-In**
Transactions must demonstrate the ability to “crowd-in” private sector investment. It is the intention that each Rand invested by the CFF must be matched by approximately 3-5 Rand from the private sector.
Overview of the Climate Finance Facility Sectors

<table>
<thead>
<tr>
<th>Sub-components</th>
<th>% of CFF Portfolio</th>
<th>Amount (million USD)</th>
<th>GCF Funding million USD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.1 Mitigation Sectors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewable Energy Generation Renewable Energy Generation</td>
<td>31</td>
<td>52.31</td>
<td>17.0</td>
</tr>
<tr>
<td>Waste to Energy</td>
<td>10</td>
<td>16.9</td>
<td>5.5</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>22</td>
<td>37.18</td>
<td>12.1</td>
</tr>
<tr>
<td>Low emission Transport</td>
<td>7</td>
<td>11.83</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Sub-total Mitigation</strong></td>
<td>70</td>
<td>118.22</td>
<td>38.5</td>
</tr>
<tr>
<td><strong>2.2 Adaptation Sectors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water efficiency</td>
<td>3</td>
<td>5.07</td>
<td>1.70</td>
</tr>
<tr>
<td>Water Treatment</td>
<td>12</td>
<td>20.28</td>
<td>6.60</td>
</tr>
<tr>
<td>New clean water sources (Eg. Aquifer, desalination)</td>
<td>15</td>
<td>25.35</td>
<td>8.30</td>
</tr>
<tr>
<td><strong>Sub-total Adaptation</strong></td>
<td>30</td>
<td>50.70</td>
<td>16.50</td>
</tr>
<tr>
<td><strong>Total Debt financing (Mitigation and Adaptation)</strong></td>
<td>100</td>
<td>169.00</td>
<td>55.00</td>
</tr>
</tbody>
</table>

Project Financing: providing credit enhancements and debt financing to climate change mitigation and adaptation projects.
CFF will utilize Multiple Origination Channels to develop “deal flow”
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

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)

Business Pillars & Strategic Partnership

Performance (September 2018)

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

- BBB/Stable International Rating
  - similar with sovereign 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

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$_2$e is required to meet the target as specified in Paris Agreement 2015

Source: The Climate Action Tracker
PT SMI’s Concrete Steps to Support Sustainable Development

01 Innovative & Creative Green Financing Model
Establishment of Sustainable Financing Division, creation of innovative & green financing product to catalyze the infrastructure financing

02 Green Climate Fund
PT SMI as the first accredited entity in South-East Asia

03 Green Bond Issuance
PT SMI issued the first corporate green bond in Indonesia (June 2018), awarded as Medium Green, to provide green financing

04 Geothermal Fund Management & RE Development
- Geothermal fund management with amount of IDR 3.1 Trillion from Indonesia Investment Agency (PIP)
- Grant Agreement with World Bank (CTF and GEF Fund) amounted to USD 55.25 million for geothermal exploration activities

05 Strategic Partnerships

06 PPP
Enabling infrastructure investment via PPP development and capacity building

07 Environmental and Safety Management Frameworks (ESMF)
The development and implementation of Guidelines of Environmental and Safety Management Frameworks (ESMF)

08 SDG Indonesia One
Creation of product to fill market gap and catalyze the transaction we are addressing most of SDG goals – 15 out of 17

PT SMI’s Concrete Steps to Support Sustainable Development

Grant Agreement with World Bank (CTF and GEF Fund) amounted to USD 55.25 million for geothermal exploration activities
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 financial resources to finance development

3. Reducing fiscal burden to finance SDG related projects

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
<table>
<thead>
<tr>
<th>Platform Name</th>
<th>SDG Indonesia One</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of Proceeds</td>
<td>15 Sustainable Development Goals &lt;br&gt; <em>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</em></td>
</tr>
<tr>
<td>Priority Sector</td>
<td>Health, education, renewable energy and urban infrastructure (transportation, water and waste management)*</td>
</tr>
<tr>
<td>Role of the Platform</td>
<td>• Integrated platform support to projects (development, de-risking, construction) &lt;br&gt; • Link project activity with the most suitable investors &lt;br&gt; • Channel development finance via integrated-managed facilities</td>
</tr>
<tr>
<td>Project Location</td>
<td>Indonesia</td>
</tr>
<tr>
<td>Product Type</td>
<td>Grant, Loan and Equity, Technical Assistance, Capacity Building, Research</td>
</tr>
<tr>
<td>Structure</td>
<td>PT SMI as the intermediary, partners, fund manager, co-financier, sponsor, investor and implementing agency</td>
</tr>
<tr>
<td>Value Proposition</td>
<td>• PT SMI as a non-bank financial institution, 100% owned by the Government of Indonesia. &lt;br&gt; • Extensive experience and strong track record investing in Indonesia. &lt;br&gt; • The first financial institution accredited in Southeast Asia by the Green Climate Fund (GCF).</td>
</tr>
<tr>
<td>Source of Capital</td>
<td>Philanthropist, donor, climate funds, green investors, multilateral development bank, international agencies, commercial banks, sovereign wealth funds, institutional investors.</td>
</tr>
</tbody>
</table>

*Potentially Can Be Expanded*
SDG Indonesia One Provides End-to-End Financing Support to Project Development

**Contributions:**
- **Investor (Philanthropist) and Impact/Climate Funds**
  - Grant, Technical Assistance
  - Objective: Pre-construction project development support

- **Donor, Impact/Climate Funds and Development Banks**
  - Concessional Loan, Grant
  - Objective: Project de-risking (improving bankability)

- **Commercial Banks and Institutional Investors**
  - Loan, Bond, Sukuk
  - Objective: Construction / post-construction finance

- **Institutional Investor and Developer**
  - Equity
  - Objective: Investment in high impact / new frontier SDG sector

**SDG Indonesia One (Managed by PT SMI)**

- **SDG Development Facilities**
  - Grant (Project Preparation, Technical Assistance, Research)

- **SDG De-Risking Facilities**
  - Concessional Loan, First-Loss Facility, Interest Subsidy, Guarantee Premium Subsidy, VGF etc.

- **SDG Financing Facilities**
  - Senior Loan, Subordinated Loan

- **SDG Equity Fund**
  - Equity, Equity-Linked Investment

**Indicative Commitment obtained**
- USD 40.2 Million
- USD 1.92 Billion
- USD 316 Million
- USD 62 Million

**SDG Projects**
Development Facilities

**GGGI**
USD 200,000
Direct Grant to PT SMI
*Sector*: Renewable Energy, Energy Efficiency

**Climate Policy Initiative**
USD 200,000
Direct Grant to PT SMI
*Sector*: Renewable Energy, Energy Efficiency

**JICA**
USD 2 million
Grant to MEMR
*Sector*: Renewable Energy

**New Zealand Aid**
USD 10 million
Direct Financing to PT SMI
*Sector*: Renewable Energy

**UNDP**
USD 1 million
Grant to MEMR
*Sector*: Renewable Energy, Energy Efficiency

**Medco Energy**
Grant to PT SMI
*Sector*: Renewable Energy, Energy Efficiency

**JICA**
USD 2 million
Direct grant to project
*Sector*: PPP Urban Transport

**CK Hutchison**
USD 5 million
Grant to PT SMI
*Sector*: Reconstruction of Palu (Social Infrastructure)

De-risking Facilities

**Islamic Development Bank**
USD 500 million
Direct Financing to PT SMI
*Sector*: Shariah Compliance

**AIIB**
USD 100 million
Subsidiary Loan Agreement
*Sector*: Municipal Finance

**IFU**
Direct Lending
*Sector*: SDG-related Sector

**AIIB**
USD 100 million
Subsidiary Loan Agreement
*Sector*: Municipal Finance
**Development and De-risking Facilities**

- **AFD**
  - Development Facilities: USD 5-10 million
  - De-risking Facilities: USD 150 million
  - Sector: Renewable Energy, Energy Efficiency

- **ADB**
  - Development Facilities: USD 1 million
  - De-risking Facilities: USD 600 million
  - Sector: Green Finance

- **FMO**
  - Development Facilities: EUR 1 million
  - De-risking Facilities: USD 100 million
  - Sector: Water, Health, Climate Change, Food

- **KfW**
  - Development Facilities: EUR 10 million
  - De-risking Facilities: EUR 400 million
  - Sector: Renewable Energy & Municipal Finance

**Equity Fund**

- **Asuransi WanArtha**
  - IDR 500 billion
  - Sector: SDG-related Sector

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

**Financing Facilities**

- **Standard Chartered Bank**
  - USD 250 million
  - Sector: SDG-related Sector

- **United Overseas Bank**
  - IDR 1 Trillion
  - Sector: SDG-related Sector

- **BCA**
  - IDR 100 billion
  - Sector: SDG-related Sector
Geothermal Fund Management: Scheme for Geothermal Energy Upstream Development Projects (GEUDP)

**Indicative Project Structure**

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Exploration project in geothermal energy to increase the electrification ratio of East Nusa Tenggara Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geothermal Area</td>
<td>Wae Sano</td>
</tr>
<tr>
<td>Province</td>
<td>East Nusa Tenggara</td>
</tr>
<tr>
<td>Potential</td>
<td>30 MW</td>
</tr>
<tr>
<td>Estimated Project Cost</td>
<td>USD 27.5 million</td>
</tr>
</tbody>
</table>

**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**

- **2018** Valuation
- **2019** Exploration drilling
- **2020** Market Sounding

**Indicative Capital Structure**

**Grant & TA**

- **CTF** US$ 49 million
- **GEF** US$ 6.25 million
- **TA GEF** US$ 6.25 million
- **TA NZ Aid** NZD 2.13 million
- **SDG Loan & Grant Fund**

**Equity (Private)**

- **Equity 30%**

**Debt (Private)**

- **Debt 70%**

**Geothermal Exploration Drilling**

*During development stage, after exploration*
Thank you

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@ptsmi_id  Indonesia Infrastructure Library
infralib.ptsmi.co.id

#BaktiuntukNegeri
GREEN INVESTMENT PLATFORM

CORFO

Carlos Berner B.
Gerencia de Inversión y Financiamiento
Nov 2018
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
carlos.berner@corfo.cl
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.

5º biggest bank in the Mexican banking market measured by its assets and loan portfolio

1º 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
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:**

<table>
<thead>
<tr>
<th>Strategy 1. Governance</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy 2. Internal Processes and Strategic Alliances</td>
<td>Establish environmental and social principles in the Banobras operation and encourage national and international strategic alliances to promote these principles.</td>
</tr>
<tr>
<td>Strategy 3. Environmental and Social Risk Management</td>
<td>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.</td>
</tr>
<tr>
<td>Strategy 4. Promotion of Sustainable Projects</td>
<td>Promote the financing of projects that generate a positive impact on the environment and society.</td>
</tr>
<tr>
<td>Strategy 5. Communication and Transparency</td>
<td>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.</td>
</tr>
</tbody>
</table>
The Sustainable Bank Strategy aims to consolidate a **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

**Social and Environmental Risk Management System (SARAS)**

**Workshop “National Development Banks and Green Banks”**
- Key Institutions for Mobilizing Finance towards the Implementation of Nationally Determined Contributions (NDCs) and the accomplishment of the Sustainable Development Goals (SDGs)
- Less consumption of paper, water and energy
- Gender Equality Policy
Banobras’ Sustainable Loan Portfolio
As of October 2018, 2.3 bn USD

- Renewable Energy: 33.7%
- Energy Efficiency: 9.1%
- Sustainable public transport: 1.3%
- Disaster reconstruction: 9.9%
- Social Infrastructure: 0.4%
- Hospitals: 0.1%
- Solid Waste: 0.1%
- Waterworks: 44.5%
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

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

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

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
Thank you
Gracias

Juan Carlos Martínez Nava
Manager of Analysis and Sustainable Strategy
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**

**Potential Investors**
- Government of Mongolia
- Private Sector (Banks-MSFA)
- GCF Accredited Institution – Xac Bank

**Investors - Shareholders**
- Equity
- Equity
- Equity + Loan + Grants

**Mongolia Green Finance Corporation (NBFI)**
- Professional Management
- Green Criteria
- Capacity Building
- Additional Green Investments
- New Product Development

**On-Lending**
- Bank 1
- Bank 2
- Bank 3
- Bank 4
- Bank 5
- ... (NBFIs)

**Lending**
- (1) Thermal Insulation Solutions
- (2) Energy Efficiency Solutions
- (3) Affordable/Green housing in Ger area
- (4) Other green projects (including water management, saving etc.)
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)

**Energy efficiency improvement measures for business entities**

- Total market size: USD 158.5M
- Target market: USD 58.5M
- 127 designated entities must conduct energy efficiency measures according to law, +USD 100M*.
- First 15 designated entities need investment of USD 58 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.

**Mortgage for green affordable housing in “Ger” areas**

- Total market size: USD 755M
- Target market: USD 35.5M
- 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)

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* 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 (46341-001), IIEC, RETA-8483 REO-Asia Energy Efficiency Accelerator, 2016
** Detailed energy audit report, PwC, 2017

* Housing market survey of Capital city, Capital City Housing Corporation, 2016
The Private Initiative: Mongolian Sustainable Finance Initiative (MSFI)
MGFC - Roadmap Towards Operations

2013-05-10 - Inception
- Mongolian Sustainable Finance Initiative
- Adoption of sustainable finance principles 2015
- Success case (recognized within IFC’s SBN network)
- MSF Initiative

2015-12-16 - Phase I - Pre-feasibility
- Joint working group by MBA and MET
- Approval of Action Plan
- MGCF concept note
- Engagement with local stakeholders and potential international investors

2016-11-25 - Phase II - Feasibility
- Demand study
- Legal and regulatory assessment
- Business Plan
- Identification of initial pipeline projects
- GCF readiness program: market assessment, legal advice for incorporation
- Policy support from the Government of Mongolia
- MOU between MBA, MoF, MET, GGGI

2017-09-14 - Phase III - Pre-establishment
- Establishment of MGCF secretariat
- Commitment letters from Government, Commercial banks
- Development of pipeline projects
- Funding Proposal submitted to GCF (Mar, June 18)
- GCF PPF application submitted (XacBank, Oct. 2018)

2019-04 - Phase IV - Establishment and operations
- GCF B22 or B23 review of MGFC (2019)
- Incorporation, Board selection, selection of CEO and Management team
- Approval of policies and processes for operations
- PFI selection and contracting
- Capacity building of MGFC, PFIs, Project developers

2019-12 - Phase IV - Establishment and operations
- GCF B22 or B23 review of MGFC (2019)
- Incorporation, Board selection, selection of CEO and Management team
- Approval of policies and processes for operations
- PFI selection and contracting
- Capacity building of MGFC, PFIs, Project developers
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?

- Attract Investors and Additional Funding
- National Agenda – Policy Framework
- Private Investors - Profitability
- Multiple Stakeholders – Good Governance
- Green Finance/Investment Capacity
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

<table>
<thead>
<tr>
<th>#</th>
<th>Contribution</th>
<th>GCF</th>
<th>GoM</th>
<th>MSFA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equity investment</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
<td>15.0</td>
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<tr>
<td>2</td>
<td>Loan financing</td>
<td>33.0</td>
<td>-</td>
<td>-</td>
<td>33.0</td>
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<tr>
<td>3</td>
<td>Grant</td>
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<td>-</td>
<td>-</td>
<td>2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Leverage</th>
<th>GOM</th>
<th>MSFA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Loan</td>
<td>8.0</td>
<td>-</td>
<td>8.0</td>
</tr>
<tr>
<td>2</td>
<td>Loan co-financing</td>
<td>-</td>
<td>19.4</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>8.0</td>
<td>19.4</td>
<td>27.4</td>
</tr>
</tbody>
</table>

- **Green Climate Fund**: Equity investment, loan, grant
- **AE (XacBank)**: Equity investment, loan, grant
- **GoM**: Equity investment, loan, grant
- **Banks (MSFA)**: Equity investment, loan, grant

**MGFC (Non Banking FI)**

- **Wholesale lending**: Technical assistance
- **Co-financing, On-lending**: Technical assistance

**Bank 1**, **Bank 2**, **Bank 3**: Eligible project developers, large energy users, SMEs, Households and individuals
TATA GROUP

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

Leadership with Trust
- A global business group with products and services in over 150 countries
- Over 6,95,000 employees and operations in over 100 countries
- Group revenue of $100 billion with more than two-thirds 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

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

• 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.
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
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
Journey so far

- A few funded groups
CLEANTECH ADVISORY

Concept to Execution

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Resource Efficiency</th>
<th>Green Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy relating to carbon / energy / water / waste</td>
<td>Carbon footprinting and abatement</td>
<td>Eco-cities development</td>
</tr>
<tr>
<td>Sustainability strategy development</td>
<td>Energy audits and management</td>
<td>Roof top solar</td>
</tr>
<tr>
<td>Market entry strategies for “cleantech” products / services</td>
<td>Water footprinting and management</td>
<td>Waste water re-use</td>
</tr>
<tr>
<td>Sustainability journey</td>
<td>Markets and trading in carbon / energy</td>
<td>Waste to energy</td>
</tr>
</tbody>
</table>

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

BUY - SIDE M & A

- Identify & prioritize targets
- Assisting in establishing acquisition rationale
- Structure & close transactions

SELL- SIDE M & A

- Identify buyers, initiate & execute market process
- Structure & close transaction

CORPORATE FINANCE

- Fairness opinions
- Capital structuring
- Valuations

BUY - SIDE
- Identify & prioritize targets
- Assisting in establishing acquisition rationale
- Structure & close transactions

SELL - SIDE
- Identify buyers, initiate & execute market process
- Structure & close transaction

FINANCIAL ADVISORY

- Identify sources
- Negotiate terms
- Advise on optimal size, form, terms and timing

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
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
**Outcome of E&S Risk Management**

- 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
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)
Thank You
Adapting the Green Bank model to New Countries

Discussion & Questions

Sixth Annual Green Bank Congress