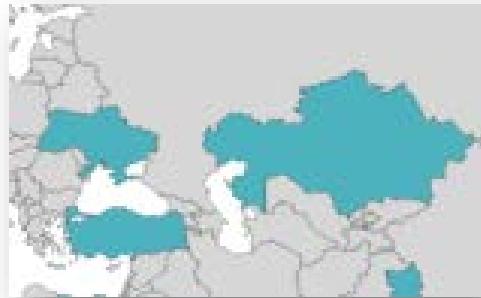


# Clean Technology Fund (CTF)



## Proposal for CTF 2.0



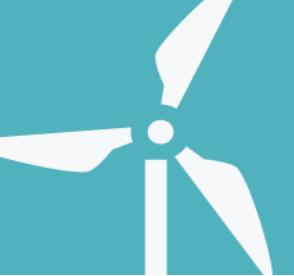


# Outline



- **Clean Technology Fund: 2008 to 2016**  
The Journey so far
- **Changing climate in a changing world**  
SDGs, Paris Agreement
- **Unique opportunity**  
Use of assets
- **Looking forward**  
Progress so far and next steps





# Going back in time..



## Background

- *Est:* 2008
- *Funds:* USD 5.6 billion
- *Objective:* provide scaled-up, concessional financing for the demonstration, deployment, and transfer of low-carbon technologies with a significant potential for long-term greenhouse gas (GHG) emission savings, through six partner multilateral development banks in middle income countries
- *Technologies:* Renewable energy, Energy efficiency, Sustainable transport



## June 2016

Contributor	Type	USD eq.	%
Australia	Grant	86	2%
Canada	Loan	199	4%
France	Loan	231	4%
Germany	Loan	615	11%
Japan	Grant	1,056	19%
Spain	Capital	106	2%
Sweden	Grant	80	1%
United Kingdom	Capital	1,681	30%
United States	Grant	1,492	27%
<b>Total</b>		<b>5,546</b>	



## Key features

- MDB-collective model
- Ability to leverage
- Private sector engagement,
- Innovative financial instruments
- Flexible programmatic approach



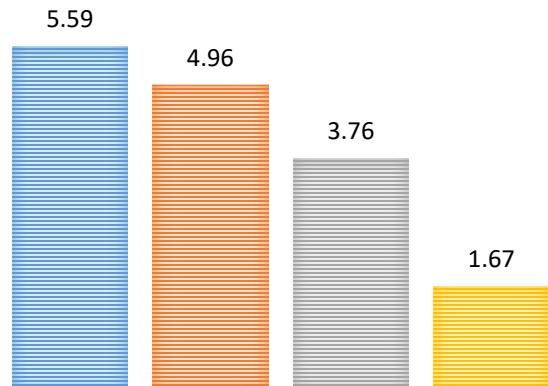


# CTF today..

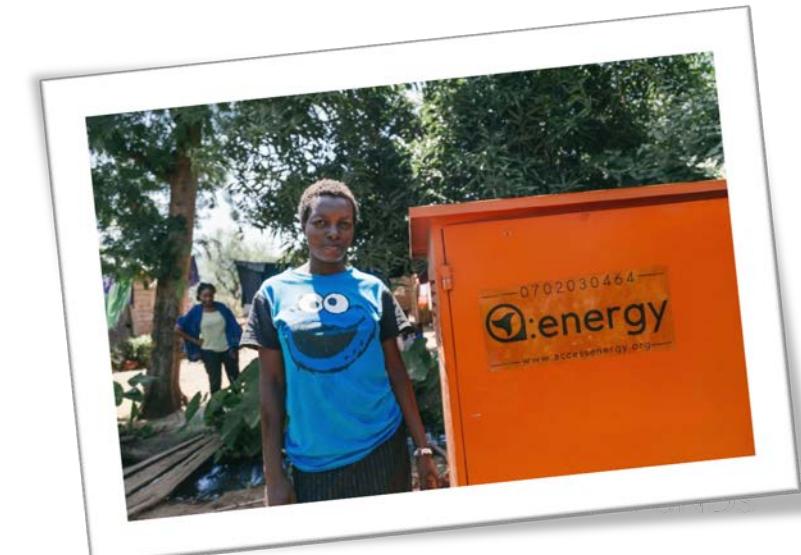
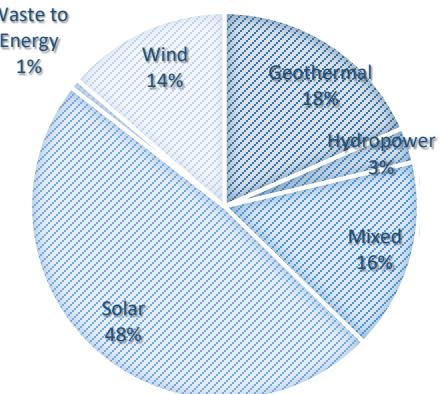
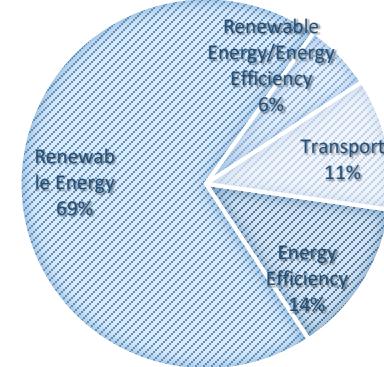
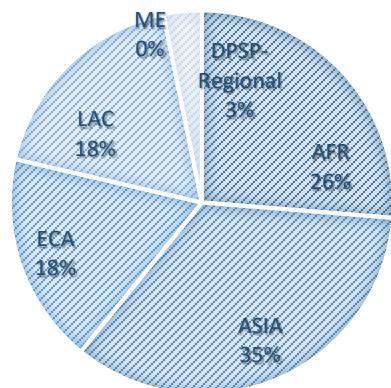


## Funding status

■ Total funding  
■ Under implementation



## Areas





# Impact on the ground

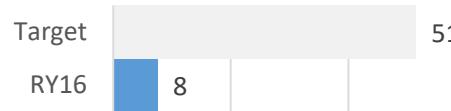
USD 3.8 billion in CTF funding  
70 projects reporting results, of which,  
15 new projects this year



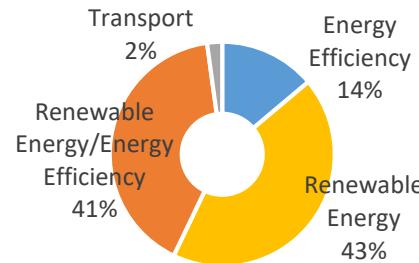
## Summary



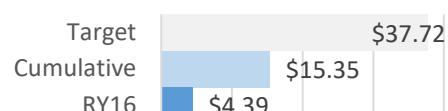
### GHG reductions (MtCO2/yr)



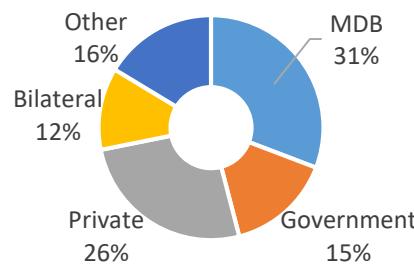
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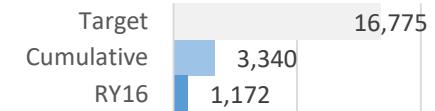
### Co-financing (US\$B)



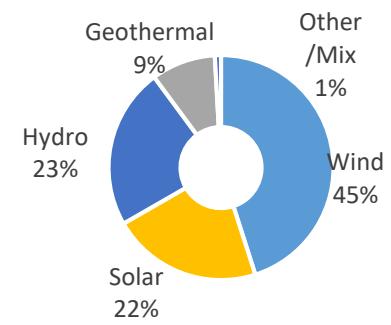
#### by source



### Installed capacity (MW)



#### by source





# New World, New Challenges, New Commitment to Act



- **New world:** Addis Ababa Action Agenda, SDGs, Paris Agreement in 2015
- **New challenges:**
  - shifting from billions to trillions in development finance
  - meeting USD 90 trillion demand for sustainable infrastructure
  - limiting temperature rise to well below 2°C/1.5°C
- **New commitment to act:**
  - INDCs submitted by 189 countries
  - New MDB commitments on climate action



FINANCING FOR  
DEVELOPMENT  
13-16 JULY 2015 • ADDIS ABABA • ETHIOPIA  
TIME FOR GLOBAL ACTION



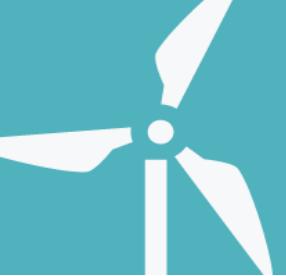


# Marrakech Action Proclamation

## for our climate and sustainable development



- **Rapid entry into force of the Paris Agreement has built an extraordinary momentum worldwide**
- **Irreversible momentum, driven not only by governments, but also by science, business and global action at all levels**
  - Ever growing momentum created among public and private entities in mobilizing financial resources for climate action
  - These entities have a key role to play in assisting governments to translate NDCs into investment -ready vehicles as well as to scale up investment in infrastructure that delivers a range of benefits.
- **Marrakech Partnership for Global Climate Action- multi-stakeholder engagement for mobilizing finance and investments from:**
  - National and international public finance institutions
  - Investors
  - Asset owners
  - Investment and fund managers
  - Financial markets
  - Corporations
  - International finance organizations and initiatives



# Sustainable Infrastructure challenge-Important role of the CIF

- **By 2030, world needs over \$115 trillion in infrastructure spending, incl. investments in energy efficiency and primary energy**
  - Around 70 percent of these in emerging markets and developing economies (EMDCs)
- **Approximately 70 % of GHG emissions come from infrastructure, making it central to how societies adapt to climate change**
  - Underscores the importance of building low-carbon climate resilient infrastructure (LCR).
  - Infrastructure needs over \$52 trillion with the net (or incremental) cost of building LCR infrastructure only \$4.1 trillion.
- **Public concessional climate finance has a particularly key role as a low cost source of finance which, when blended with other sources of public finance, can de-risk LCR infrastructure projects and crowd-in private finance**
  - Esp. needed at early project preparation and construction phases, where risks are highest and capital costly and scarce.
- **CIFs working with the MDBs to co-finance LCR infrastructure has demonstrated its relevance**
  - CIFs cannot be easily replicated by the other funds, given its unique business model.



# Green Bond Market Critical to Raising Private Sector Climate-Smart Capital at Scale



## Green Bonds Small but Growing Segment of Global Bond Market

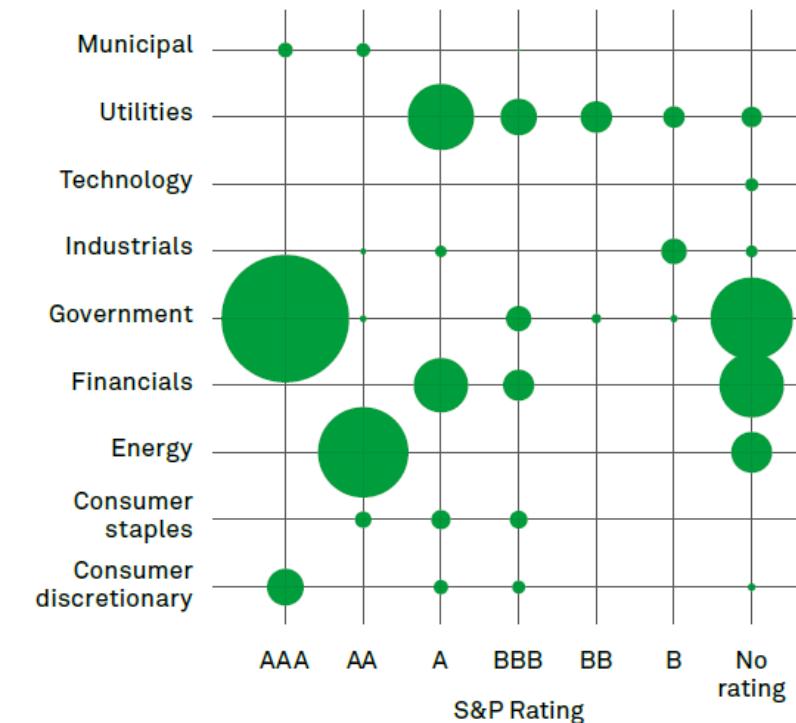
- Green bonds, first issued by the World Bank in 2008, accounted for approximately **\$130 billion of debt** outstanding as of July 2016, comprising of just **0.15%** of the **\$86 trillion global fixed income market**
- Issuances include **600 bonds from 24 countries in 23 currencies**, with most bonds **investment grade**
- This year, issuances have hit **\$75.3 billion**, with \$12.4 billion of issuances in November

## Green Bonds Market Growth Critical Moving Forward

- **BlackRock**, the world's largest asset manager, sees green bonds as '*part of the solution to finance the estimated \$90 trillion of global infrastructure needed by 2030 to limit climate change*'
- But green bond issuances **need to accelerate** in order to meet the low-carbon investment goals set under the Paris Agreement

## Outstanding Green Bonds

*By Sector and Rating, 2015*

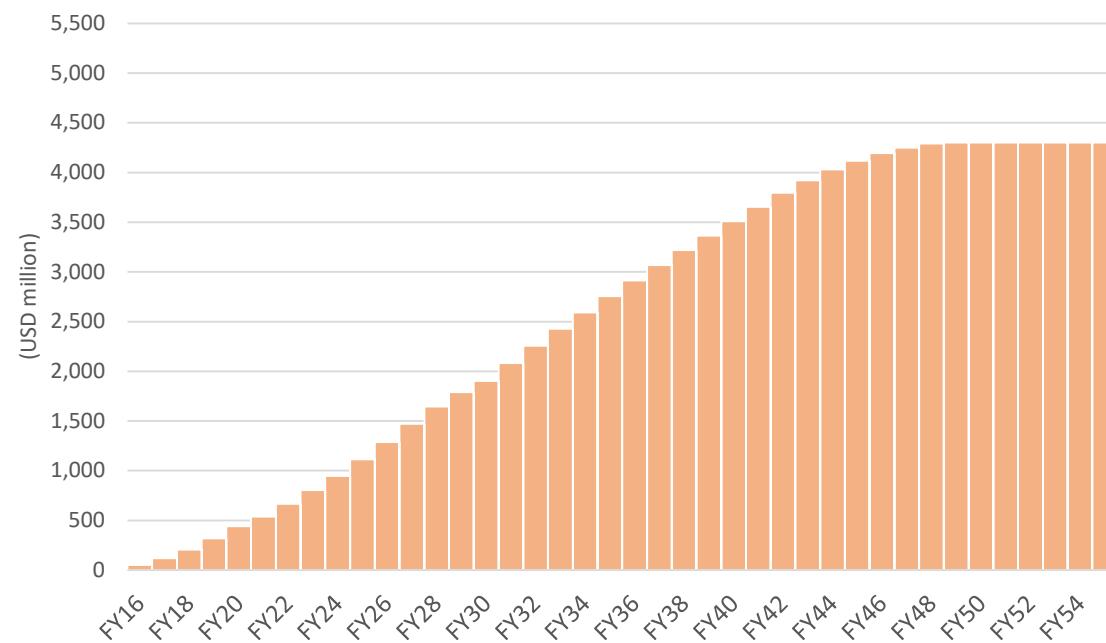


Source: BlackRock Investment Institute and Bank of America Merrill Lynch, November 2015. Note: The size of each bubble reflects the U.S. dollar amount of the outstanding green bonds of each category and S&P rating. The universe of green bonds reflects the \$96 billion of outstanding issuance as of November 2015.



# Unique opportunity: Use of Assets

**Expected Net REFLows**



**Option 1  
Do nothing**

**Option 2  
Allow for use of refows  
under Business-as-Usual  
(la-CTF1.0)**

**Option 3  
New modalities**



# Options today



## Option 1 Do nothing



## Option 2

### Allow for use of reflows under business-as-usual



#### **Lost opportunity**

Reflows to accumulate until 2028 to ensure repayment to loan contributors until capital and grant contributors would have a say in the use of reflows, which means ZERO new climate-smart projects supported until then

#### **Missed opportunity**

Only USD 665 million of cash to accumulate by FY22, and USD 1.9 billion by FY30, which means, on average, a commitment level of around USD 150 million per year for new projects from FY18 to FY22.

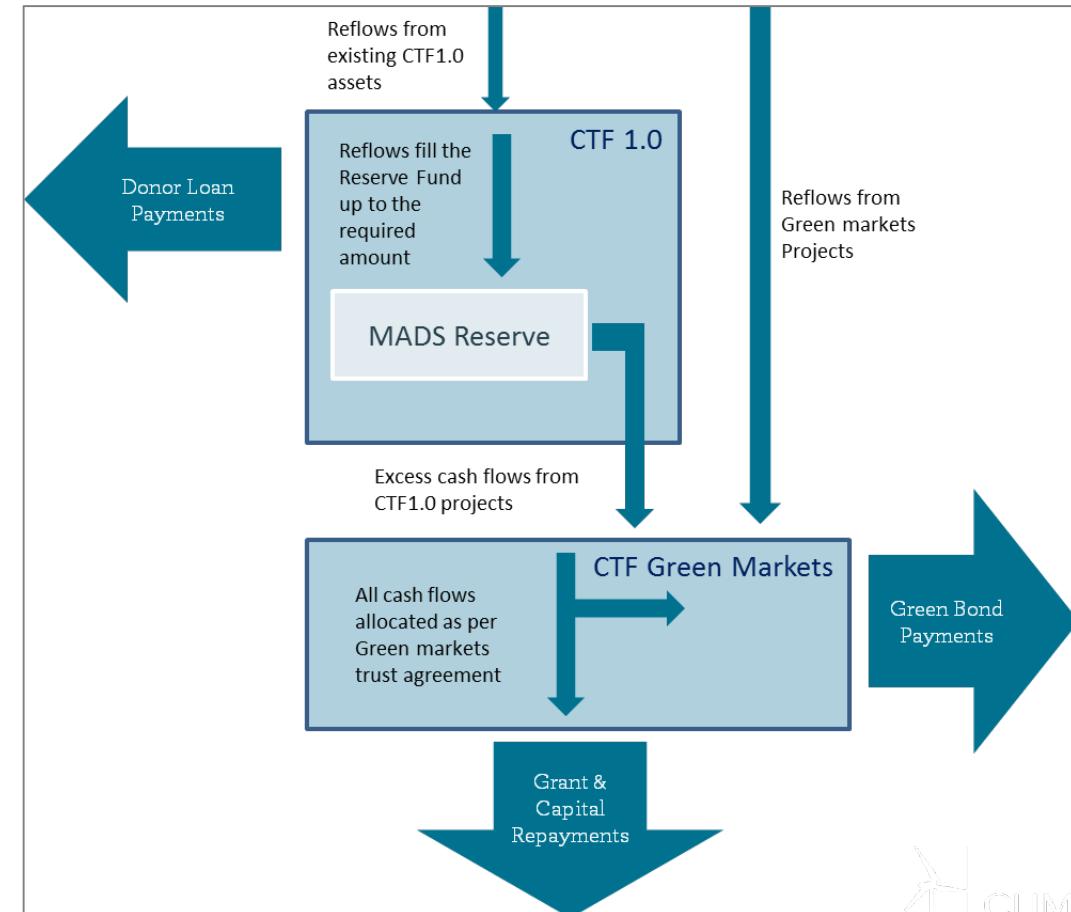


# Option 3: New financing Structure



## Objective

- Introduce a financing structure capable of independently raising funds from institutional investors through the issuance of **green bonds** or other debt instruments in the international capital markets
- Legacy reflows from CTF 1.0 to serve as **credit enhancement** for new debt issued by a newly-formed legal vehicle
- Build on the institutional legitimacy of the **multi-MDB origination** framework
- Preserve the flexibility and responsiveness of CTF instruments to support the next generation of **low carbon investment projects**





# CTF 2.0: Risk Mitigation Facility (RMF)



## Objective

- Utilize expected CTF reflows to scale up mobilization of local and international private capital through provision of risk mitigation guarantees
- Expected demand across national and sub-national space (including Colombia, Mexico, India, Philippines, Egypt, South Africa and Nigeria)
- Potentially include both non-accelerable and accelerable guarantee products – such as loan guarantee, payment guarantee and contingent finance, to help enhance credit quality, bankability and affordability of projects.
- Requires a dynamic, multi-disciplinary, *risk exposure management function* that would track portfolio reflow information, calculate capacity for expected commitments and advise the TFC in its decision making role
- “Upstream” leverage: 1:1.3 (assuming re-cycle of funds resulting from uncalled guarantees), while the “downstream” mobilization (co-financing in CTF lending): 1:7.4



# Additionality



## Why a Risk Mitigation Facility?

- Conventional risks, such as institutional, political or legal risks, can be mitigated with traditional instruments, while the incremental risks that are specific to clean technology require targeted risk mitigation instruments
- Frontier clean technologies face additional challenges such as inability to obtain long term technology warranties, limited performance track record and higher operational and maintenance costs, among others
- RMF guarantees would de-risk projects and provide investment risk mitigation to financiers, project entities and development institutions help secure competitive terms to improve bankability and affordability of projects



## MDB (e.g. MIGA) vs. CTF-RMF Guarantees

MDB Guarantees	CTF-RMF Guarantees
Broader support for economic and social programs in member countries	Targeted for clean technology projects in CIF countries
Included within country exposure limits and therefore spread between various sector programs under a country partnership framework	Not included within country exposure levels and therefore provide an additional capital source for climate friendly projects
Risks covered include, political, institutional, legal/contractual and creditworthiness of public sector undertakings and contractual obligations	Risks covered include technology, economic performance, regulatory, resource intermittence, commercial, counterparty creditworthiness and financial risks.
MDB guarantees typically require counter guarantees from the member countries	No requirement for sovereign government indemnity (subject to MDB policies)
Follows MDBs approval processes based on Country Partnership Framework.	Follows TFC and MDB approval based on agreed CIF/CTF Programs



# Investment Frontiers for CTF 2.0



## Energy Storage

- Manage intermittent and distributed nature of RE
- Improve grid efficiency
- Cost-effective alternative to aging transmission and distribution networks

## Building Energy Efficiency

- Account for about one-third of global energy use and related GHG emissions
- Short payback periods; \$1 invested in energy efficiency measures can potentially generate \$3 in future fuel savings by 2050

## Distributed Generation/Solar Energy

- Global capacity additions to surpass new centralized additions in 2018
- Over 80 GW of annual installed capacity in emerging markets (2014-23)
- Global distributed solar PV annual capacity additions to grow from 20 GW (2015) to over 30 GW (2020), \$70 billion market

## Sustainable Transport

- Transport accounts for 23% of global CO2 emissions.
- Addressing sustainable transport challenges would also result in co-benefits like reduced congestion, pollution and accidents, improved health, quality of life, enhanced productivity and economic growth.



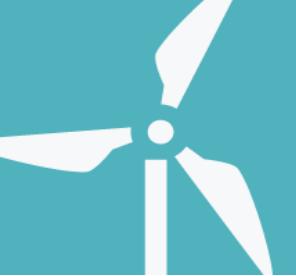
# Preliminary pipeline

Based on initial MDB scoping



Investment Area	Number of Potential Projects/ Programs	Approximate Amount (billion USD)
Energy Storage	10	0.8
Building Energy Efficiency	18	1.7
Sustainable Transport	4	0.3
Distributed Generation	10	0.4
Solar Energy/ Renewable Energy	22	3.3
<b>Total</b>	<b>54</b>	<b>6.5</b>





# Thank You!



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