

# Introduction to Blended capital and Green bonds

**Asia LEDs Partnership NDC Finance Community of Practice: Accelerating  
investment into clean energy across Asia**

**First online Session**

**21<sup>st</sup> August 2018**

[www.ledsgp.org](http://www.ledsgp.org)

[www.asialeds.org](http://www.asialeds.org)

*The Low Emission Development Strategies (LEDs) Global Partnership was founded in 2011 to enhance coordination, information exchange, and cooperation among countries and international programs working to advance low emission climate resilient growth. The LEDs Global Partnership currently brings together LEDs leaders and practitioners from more than 120 countries and international institutions through innovative peer learning and collaboration forums and networks. For the full list of participants and more information on partnership activities, see [ledsgp.org](http://ledsgp.org).*

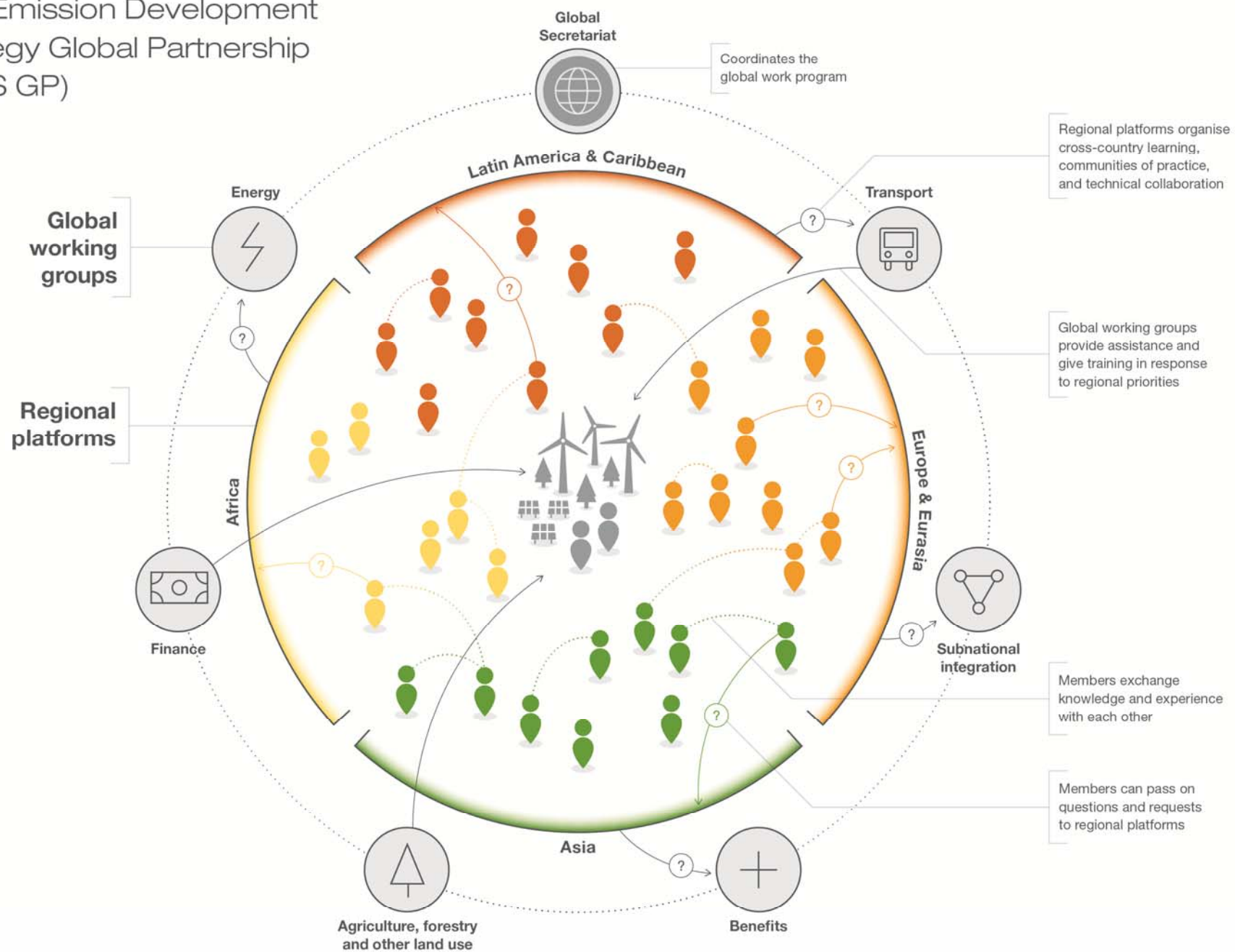
## Agenda

10 minutes	Welcome and introduction to NDC Finance CoP	Anandhan, ALP
15 minutes	Participant introductions	All
15 minutes	Introduction to 'Green bonds'	Bridget Boule, Head of market analysis, Climate Bonds Initiative
15 minutes	Open discussion	All
15 minutes	Introduction to 'Blended capital'	Alexia Kelly, Co-Chair, LEDs GP Finance working group
15 minutes	Open discussion	All
5 minutes	Discussion on next steps	Alexia Kelly, Co-Chair, LEDs GP Finance working group

# **Introducing Asia LEDs Partnership NDC Finance Community of Practice**

**Anandhan, Asia LEDs Partnership**

# Low Emission Development Strategy Global Partnership (LEDS GP)



## Asia LEDs Partnership

ALP is a regional platform under the LEDs Global Partnership,

- Comprised of over **885 members (611 individuals and 274 organizations) from the public, private, and non-governmental sectors** active in designing, promoting, and/or implementing LEDs in Asia

## Objectives:

- Facilitate enhanced **coordination, collaboration, and partnerships**
- Identify and disseminate **tools, models, approaches, and best practices** in priority Low Emission Development Strategies topics to enable peer-to-peer learning and application
- Foster **capacity building** of practitioners to make Asia a leader in designing and implementing LEDs and green growth
- Strengthen support for LEDs by catalyzing **leaders of change and raising awareness** about the benefits of LEDs

ALP website: <http://www.asialeds.org/>

## ALP priority topics for 2018-2019

- **Grid Scale Renewable Energy**
  - Focus areas: Building Blocks for GRE Development & RE Grid Integration
  - Online sessions: Strategic energy planning; Smart Incentives and Enabling Environment for RE Development; In-person workshop at ACEF, 6 June 2018
  - Upcoming sessions: Grid integration studies for variable RE, Aug 29, 2018
- **Clean Mobility**
  - Focus on usage of clean fuels, electric mobility, technology and creation of supporting infrastructure
  - Policy and regulatory framework for public transport along with involvement of private sector
  - Online session 1: Enabling a transition to electric mobility in public transport fleets: Policies and Enabling Environment
  - Upcoming session 2: Sept 2<sup>nd</sup> week - Enabling a transition to electric mobility in Intermediate Public Transport fleets: Policies and Enabling Environment
- **Multi-level Governance**
  - Effective Multi-level governance and National Sub-National integration to achieve NDCs

## ALP priority topics for 2018-2019

- **NDC Finance: Accelerating investment into NDCs across Asia**

Focus area

- Lowering the cost and risk of capital
- Attracting private finance through smart policy and enabling environments

Priority financial topics:

- Blended capital
- Green bonds

- **NDCF CoP members**

An interactive network of national and subnational governments (including Ministries of Energy and Environment, Ministries of Finance and Investment, and National Energy Commission), with representatives from the technical institutions, private sector, utilities, academia and international organisations that analyse, design, finance and implement renewable energy projects.



# NDC Finance Community of Practice

- **Members**

Number of members: around 50

Countries: Thailand, Philippines, India, Taiwan, Nepal, Bangladesh, Pakistan, Vietnam, Indonesia, Bhutan, Sri Lanka and Others

Type of members: National and subnational governments, Intl. organizations, funding organizations, technical institutions, NGO, private organizations etc.

- The CoP is a platform for:
  - sustained engagement among countries for **learning and technical collaboration**
  - continuous **access to tools and expert assistance**

Designed to be **demand driven** to meet members' needs and will offer support and solutions to early movers as needs emerge



## What NDC Finance CoP offers to its members?

Focus on **peer learning, knowledge exchange, and expert assistance**

**Opportunities for countries to learn from each other and from experts** on specific elements of NDC finance

- Topic specific online sessions (3) to include country and expert presentations
- open discussions on each country's challenges and approaches
- regional peer learning and training workshops

**Learning resources** or compilation of tools, resources, training materials, case studies, good practices

Country government participants will have access to **no-cost technical assistance** to support fund mobilization; **Deep dive support to early mover Countries**

# Thank you!



Website: [www.ledsgp.org](http://www.ledsgp.org)  
Email: [secretariat@ledsgp.org](mailto:secretariat@ledsgp.org)



Website: [www.asialeds.org](http://www.asialeds.org)  
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# An introduction to Green Bonds

Bridget Boule, Climate Bonds Initiative  
August 2018



# Climate Bonds Initiative: not-for-profit mobilising debt for climate solutions

## **Mobilise:** act as a market catalyst

- Develop policy proposals for government and finance industry
- Aim to facilitate rapid and large-scale mitigation opportunities suitable for long-term debt finance
- Connect with market participants through Partners Programme, issuer-investor events and in-country market development teams

## **Inform:** provide market intelligence through reports, bond coverage and data services

## **Develop trusted standard and criteria of 'green':**

- Climate Bonds Taxonomy identifies low carbon assets broadly aligned with a 2C World
- Climate Bonds Standard and scientific sector criteria are developed by technical experts
- Administer Climate Bonds Certification scheme



# What are Green Bonds?

- Green bonds are debt securities issued by financial, non-financial or public entities where the proceeds are used to finance 100% green projects and assets
- Just like regular vanilla bonds. “green” is a bonus feature to the bond.
- It’s about the projects and assets, not the issuer.
- The *green* label is a tool for investors

## Proceeds to climate projects

- Vanilla bonds – no complicated structure
- Comparable pricing
- Refinance as well as project
- 90% investment grade

## Any entity

- Governments & DFIs
- Corporates
- Asset owners: PPPs, banks, utilities, etc
- Municipalities

## Any structure

- Senior unsecured
- Asset-backed
- Covered bonds
- Other: loans, Sukuk

## Reporting

- Transparency to climate asset or project
- Independent review
- Reporting on use of proceeds

# Green bonds can shift financial markets to green

## Global financial markets

- \$90trn bond market
- Investors are seeking yield
- Record low interest rates
- Investors want green:
  - \$60trn investor commitment at UN Climate Summit
  - Insurers commit to increase climate investments 10x by 2020

### Green Bonds:

Tool to shift debt capital markets to climate solutions

## Climate mitigation and adaptation requirements

- Paris agreement to keep temperature rise below 2 degrees
- IEA: Energy sector requires \$53trn by 2035
- \$93trn required by 2030 across all sectors

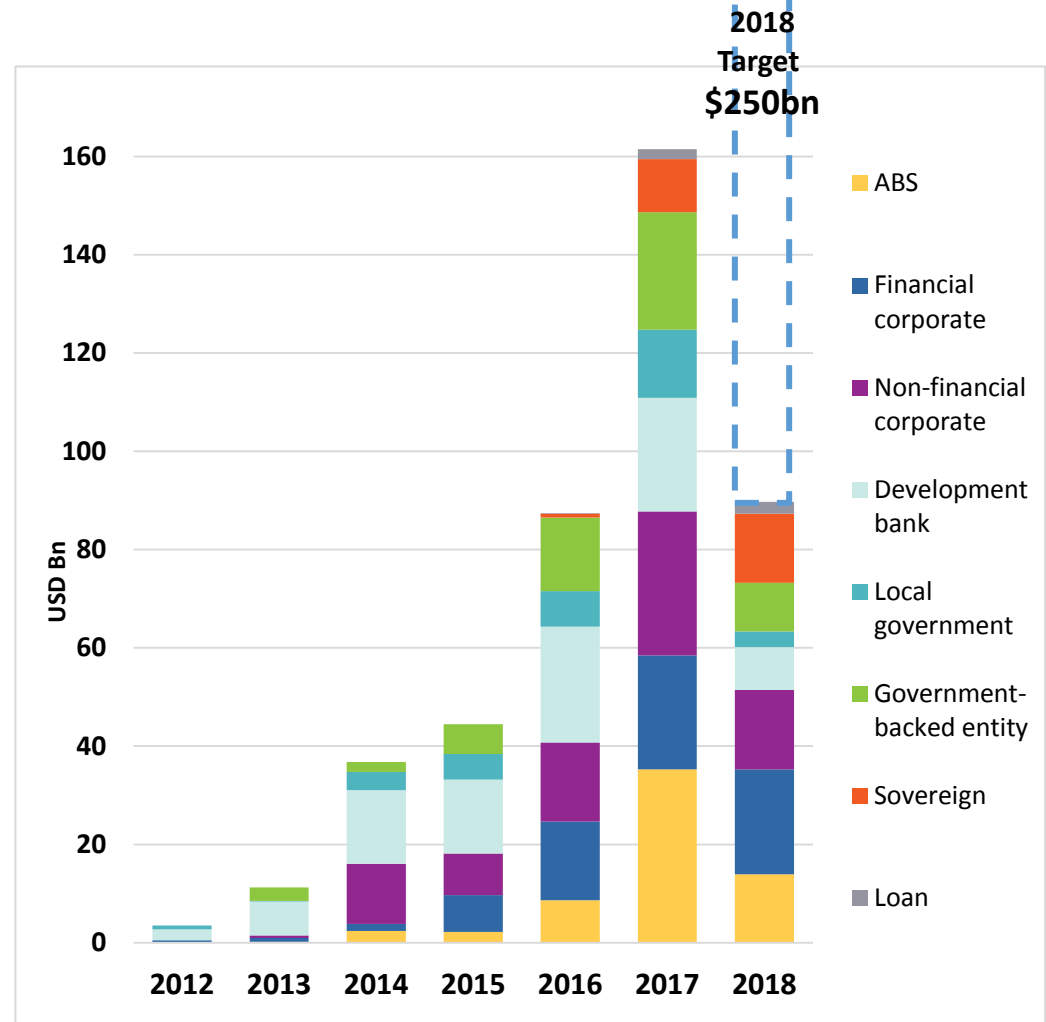
# The labelled green bond market is growing rapidly

## The key 2017 figures:

- **USD161bn** green bond issuance
- **Over 1500** green bond issues
- **85%** growth on 2016
- **38** countries from all continents
- **253** different issuers
- **160** new issuers
- **USD10.7bn** largest single bond
- **3** sovereign green bonds from France, Fiji and Nigeria

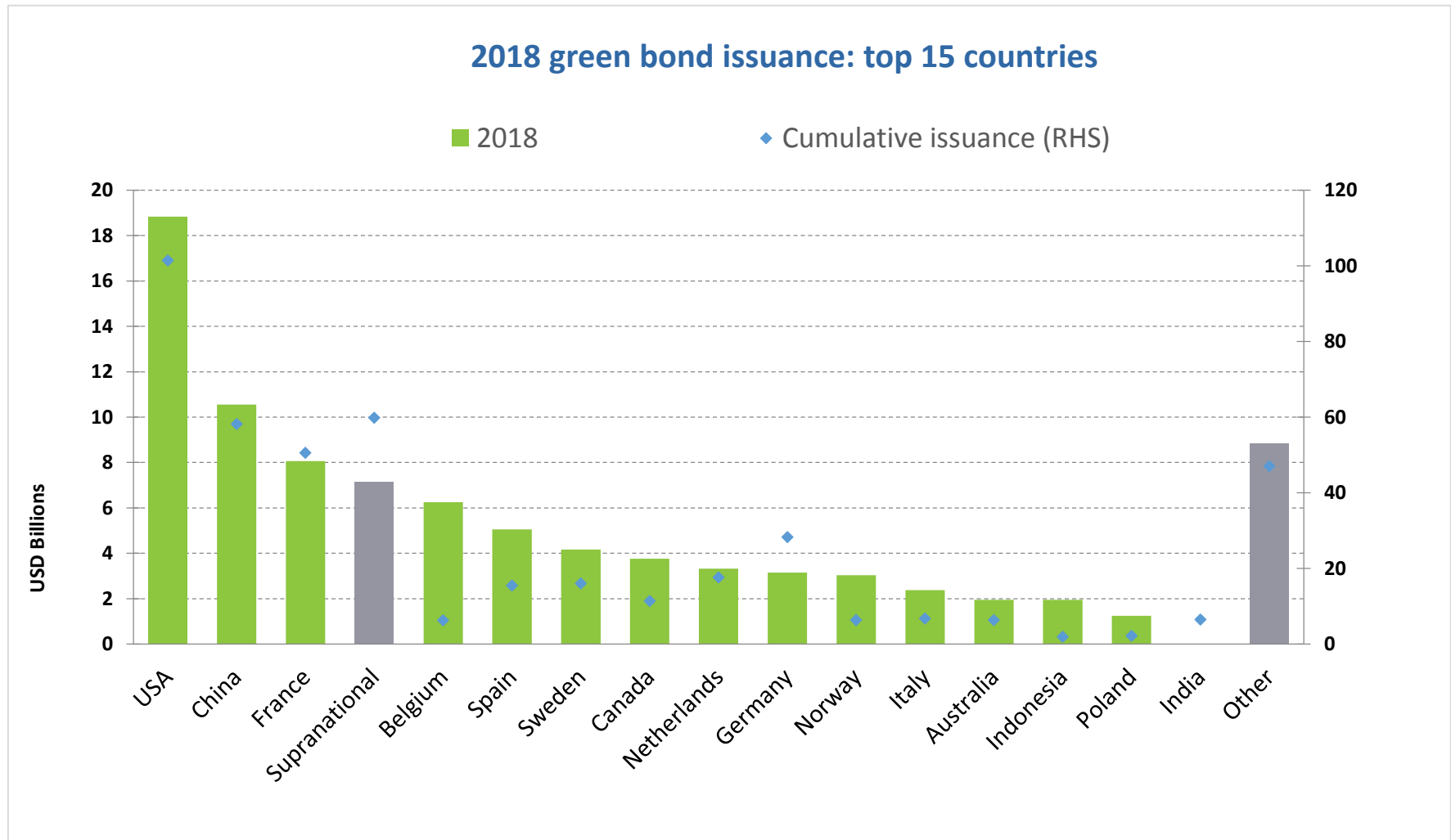
## The key 2018 YTD figure:

- **USD89bn** green bond issuance
- **84** new issuers
- **31** countries





# The US, China and France dominate issuance



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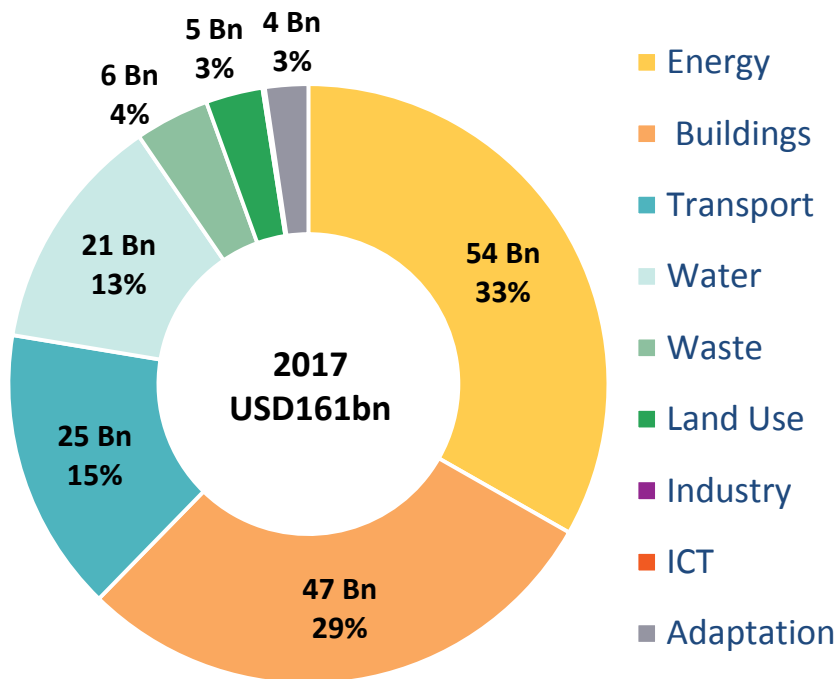
# Asia Highlights

- **China** green bond issuance growth was kickstarted by the introduction of green bond regulations and guidelines
- **Indonesia** has been particularly active in ASEAN region in 2018YTD
- **In 2017 Indian** issuers more than doubled volumes to reach USD4.3bn and break into the global Top 10.
- Other green bonds have come out of: Malaysia, Singapore, Korea, Taiwan, Vietnam, Japan,
- **Regulations and guidelines** have been introduced across the region including:
  - **ASEAN** Green Bond Standards
  - **Japan** Green Bond Guidelines
  - **China**: PBOC, NDRC and other guidelines
  - **India** SEBI Guidelines
  - **Indonesia**: green bond guidelines
- **Support schemes**:
  - Singapore green bond grant scheme
  - Malaysia tax incentives for green Sukuk

# Renewable energy and green buildings dominate allocation of proceeds

- **Renewable energy** has diversified from solar and wind to include power grids, geothermal, offshore wind
- **Property** related issuance is growing with covered bonds, green MBS and funding deals by European banks
- **Transport** is on the rise, mainly due to public rail transport investments
- **Water** issuance features many US Munis and UK's Bazalgette Finance & Anglian
- **Land use** deals now include a forestry covered bond and a sustainable plantation with afforestation and wildlife protection corridors

Use of green bond proceeds - 2017

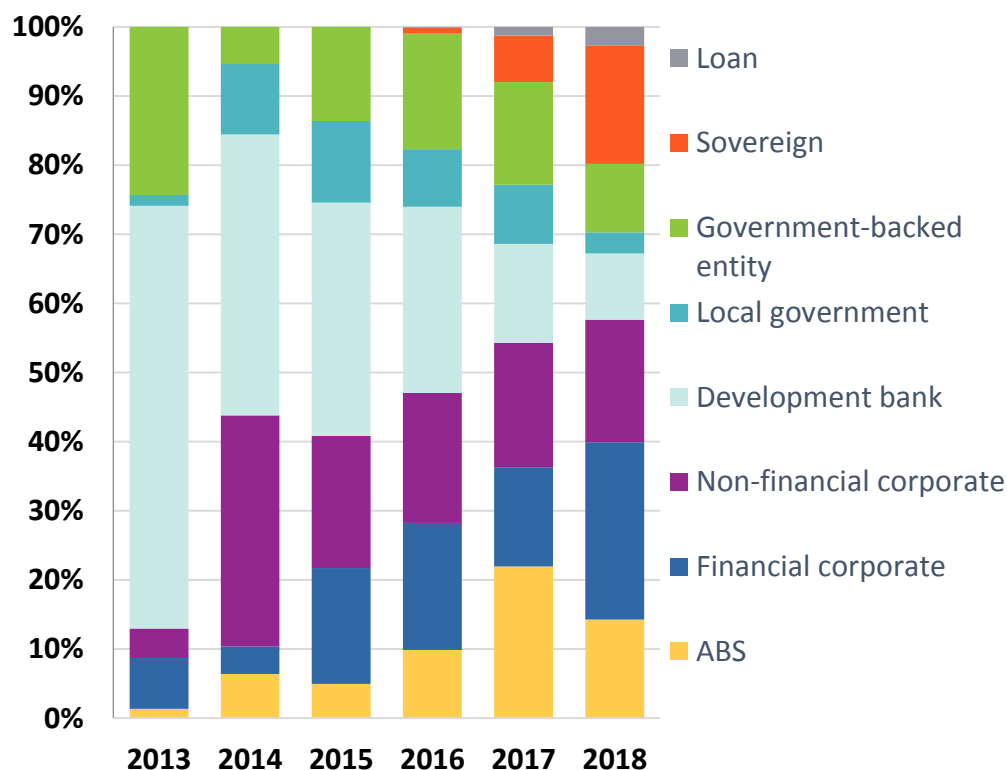


# Corporate and sovereigns issuance is growing













































## Key players:




- **Development banks**
  - Initiated green bond market. Still active in Emerging Markets
  - EIB is largest issuer
  - IFC now mainly EM GB investor
- **Corporate sector**
  - Financial corporates now engaging as issuers
- **SSA sector**
  - Government backed entities particularly important issuers – ABS issuance enhanced by Fannie Mae Green MBS
  - Sovereigns raising their game: 2018 debut deals from Indonesia, Belgium, Lithuania + repeats from Poland, France

Issuance by issuer type - Evolution



# What is green?

ENERGY	TRANSPORT	WATER	LOW CARBON BUILDINGS	INFORMATION TECHNOLOGY & COMMUNICATIONS	WASTE & POLLUTION CONTROL	NATURE BASED ASSETS	INDUSTRY & ENERGY-INTENSIVE COMMERCIAL
Solar 	Rail 	Built (grey) infrastructure 	Residential 	Power management 	Recycling 	Agricultural land 	Manufacturing 
Wind 	Vehicles 	Green and hybrid infrastructure 	Commercial 	Broadband 	Other Recovery 	Forests (managed and unmanaged) 	Energy efficiency processes 
Geothermal 	Mass transit 		Retrofit 	Resource efficiency 	Disposal 	Wetlands 	Energy efficiency products 
Marine 	Bus rapid transport 		Products for building carbon efficiency 	Teleconferencing 	Reuse 	Degraded Lands 	Retail and wholesale 
Hydropower 	Water-bourne transport 				Pollution Control 	Other land uses (managed and unmanaged) 	Data centres 
Bioenergy 	Alternative fuel Infrastructure 				Prevention 	Fisheries and aquaculture 	Process & fugitive emissions 
Energy distribution & management						Coastal infrastructure 	Energy efficient appliances 
Dedicated transmission						Land Remediation 	Combined heat & power 

 Certification Criteria approved  
 Criteria under development  
 Due to commence

# Principles and Standards

## Green Bond Principles

(ICMA)

## Green Loan Principles (LMA)

1. Define eligibility criteria for use of proceeds
2. Evaluate and select assets
3. Manage proceeds
4. Report asset allocation

Eligible asset categories – 10 indicative, broad categories

Use of 3<sup>rd</sup> party to verify management and use of proceeds is encouraged

## Climate Bonds Taxonomy, Standard and Sector Criteria

- Alignment to GBP/GLP but stricter on category eligibility
- Certification under the Climate Bonds Standard & Criteria
  - Initial and at least annual 3<sup>rd</sup> party **verification** of use of proceeds **required**
  - Only categories with Sector Criteria are eligible
  - Criteria set benchmark metrics to ensure assets are on a **trajectory to decarbonisation by 2050** (ref. Paris Agreement)

## ASEAN Green Bond Standards (ASEAN Capital Markets Forum)

- Based on GBPs
- Aligned with Climate Bonds Taxonomy
- Full disclosure of eligible projects required
- Frequent reporting encouraged and public disclosure required
- Recommendations to obtain external review and to disclose reviewer credentials

# Case studies from the region



## Indian Railway Finance Corporation

- USD500m Certified Climate Bond, 2017
- Financing railway lines and public transport
- 3x oversubscribed to investors from Asia, Europe and the Middle East



## Republic of Indonesia

- First sovereign bond from Asian country
- USD1.25bn green Sukuk, 2018
- Proceeds to finance renewable energy, transport, waste and resilience projects



## AP Renewables

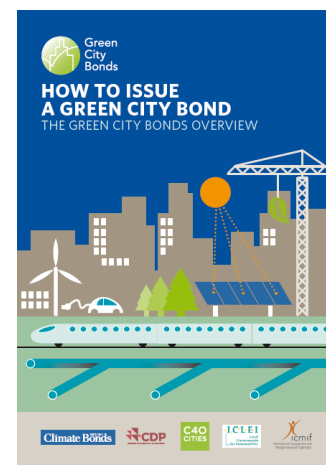
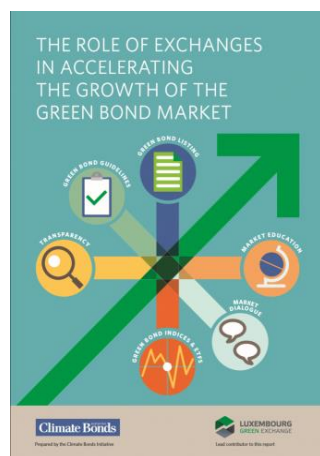
- PHP10.7bn (USD226m) Certified Climate Bond in 2016
- First for the region
- Proceeds finance geothermal energy



# Where to find more information

Resources are available for issuers and investors at [www.climatebonds.net](http://www.climatebonds.net) including:

- How to issue Green city bonds
- Green sovereign bonds
- How to issue a green bond
- Certification process
- Role of securities exchanges



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# Questions to participants

- What are you most interested in understanding about green bonds?
- What support or information is needed to grow the green bond market in your country or region?

A thick yellow horizontal bar spans the top of the slide. On the left side, a series of thin, parallel green lines fan out from the top left corner towards the bottom left corner.

# **An Introduction to Blended Finance**

To accelerate and scale investment in NDC  
and LEDS implementation



The **LEDS GP Finance Working Group (FWG)**:  
financing the low carbon economy through public-private partnership

The **FWG** supports developing countries in accelerating investment into low emission development through:

- Peer learning
- Targeted technical collaboration
- Innovative public private partnerships

We are also developing a curated set of resources:

- [Resource Guide for NDC Finance](#)

# LEDS GP FWG key priorities and objectives

- Mobilize investment and impact at scale in LEDS and NDCs
- Collaborate with and mobilize resources for early mover governments interested in piloting innovative financing approaches and strategies
- Advance Communities of Practice to drive scaled innovation and change in climate finance mobilization
- Build new partnerships and alliances

# Communities of Practice (CoPs)

CoPs are comprised of a network of engaged experts and practitioners from a shared sector or working area (e.g. renewable energy finance) who form a group to:

- Engage in peer-to-peer learning and exchange to improve their personal and collective knowledge, identify shared solutions, and drive more effective change on the ground.
- Promote engagement both inside and outside of formal communication channels and provide an inclusive, member-driven experience.





What is blended finance anyways?

**Blended Finance** is the use of public or philanthropic capital to attract private sector investment



# Why do we need blended finance?



Put most simply: the private sector weighs all investment decisions based on risk and reward, thus:

Attracting the private sector into NDC and LEDS finance requires returns that are adjusted for risk

Blending capital can address a risk/return mismatch

# Blended finance is relevant to many sectors and NDC goals



Adaptation/  
Resilience



Subnational  
and Cities



Transport



Clean Energy  
and Energy  
Access

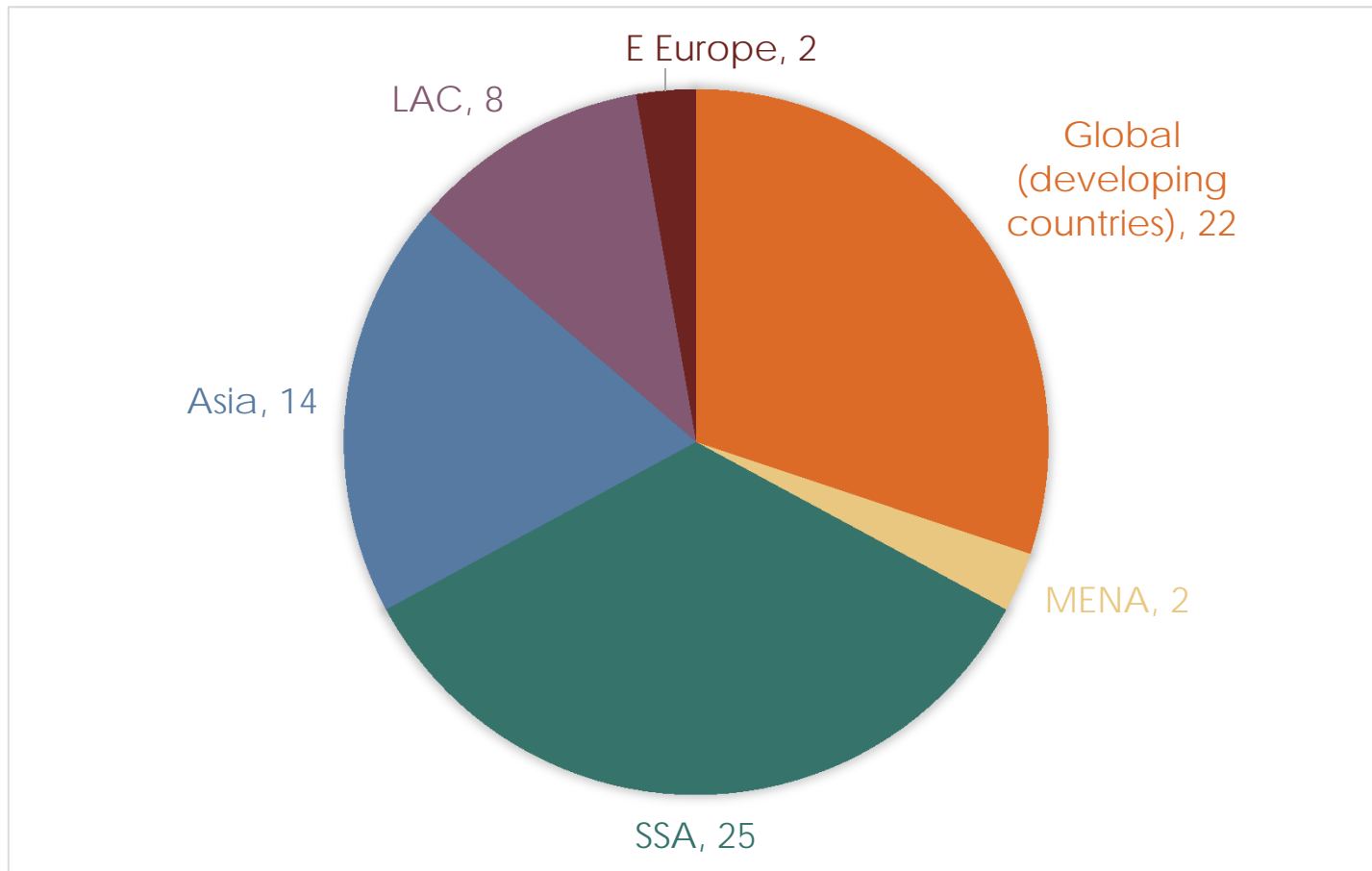


Sustainable  
Land Use

Adapted from: CPI, Blended Finance Report, 2018

# Clean energy blended finance initiatives, by geography

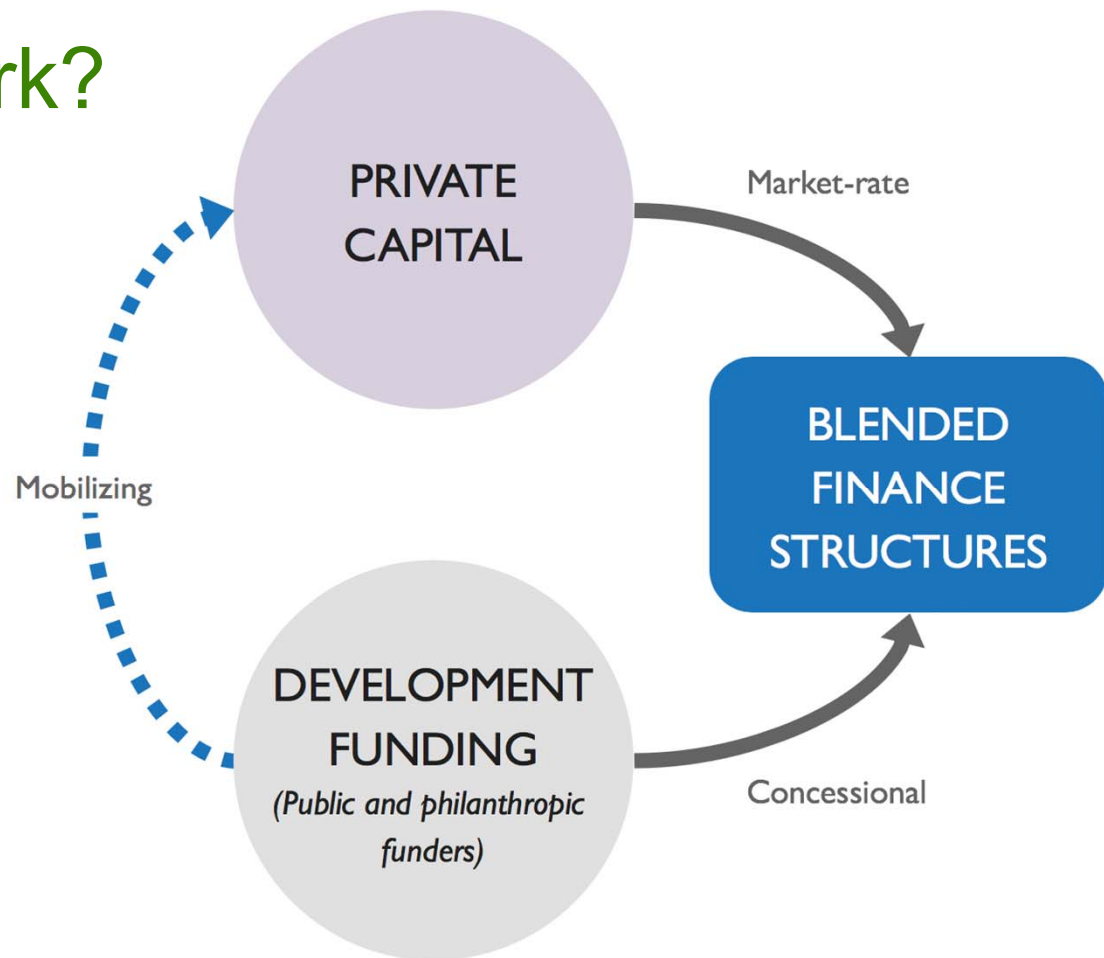
- Significant focus on sub-Saharan Africa and Asia



Source: CPI, Blended Finance Report, 2018

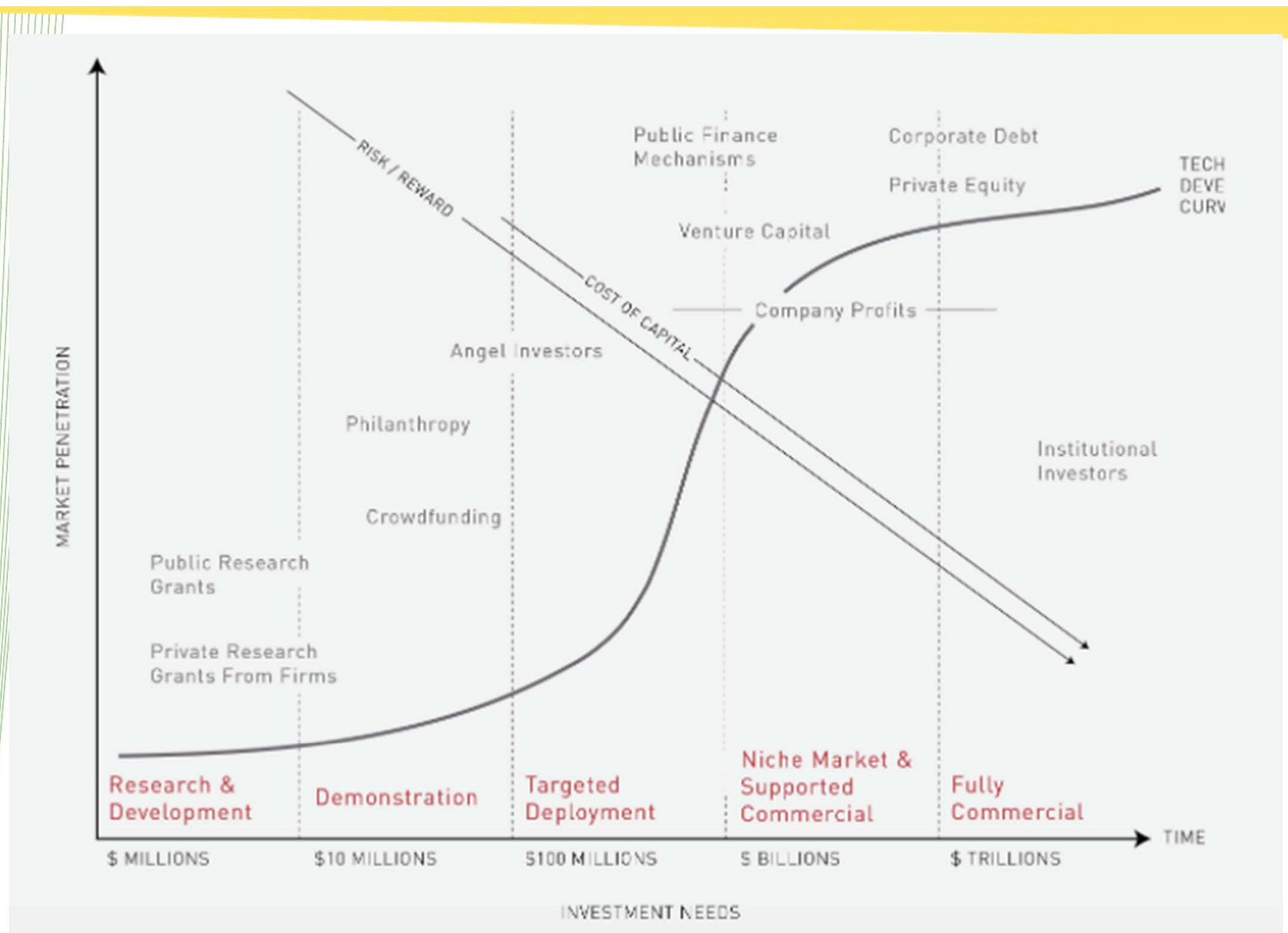
## How does it work?

**Blended finance is a structuring approach** that allows different types of capital (whether impact or commercially oriented), to invest alongside each other while each achieving their own objectives.



Blended finance structures are observed across a broad range of transaction types – including funds, facilities, bonds, notes, projects, and companies. Blended finance aims to increase the amount of capital directed to sustainable development

Source: [Convergence Finance](#)



Source: Brown, Granoff 2018

# Case Study: Microgrid Investment Accelerator

## Blending Capital for a pre-commercial sector

### The Challenge

- ~1B people globally live without access to electricity, and more than 1B do not have reliable access
- Microgrid developers in Africa and India are managing complex and multifaceted businesses that have strong potential for growth, but they face challenges attaining capital –needs include early stage, risk-tolerant capital that enables developers to drive down unit economics and scale deployment

### The Solution

- Provide investment products that include mezzanine finance (debt/equity hybrid) instruments to provide flexible capital to finance microgrid development and deployment
- Examples: Preferred equity / preference shares, venture debt with warrants, convertible notes/compulsory convertible shares





# Case Study: Microgrid Investment Accelerator

## Blended Capital for a pre-commercial sector

### Structure

Capital Type	Function and Strategic Goal
Grants	<ul style="list-style-type: none"><li>• Supports start-up costs and capitalizes fund GP for initial investments</li><li>• Support fund operating cost to reduce load to investors and to help reduce risk and enhance performance of the fund</li></ul>
Concessionary Capital	<ul style="list-style-type: none"><li>• Enables fund to take higher risk and more patient capital positions</li><li>• Take on greater risk to attract impact capital and help open a path of demonstration for commercial capital</li></ul>
Impact Investment	<ul style="list-style-type: none"><li>• Strategic investors in energy access with microgrid focus</li><li>• Willing to be first mover to invest with cost and risk mitigation support from other fund capital partners</li></ul>

### Key Partners

Fortune 100 Corporations (Facebook provided seed funding) ; non-profit sponsor; Philanthropies; Bilateral Institutions; Impact Investors





# Case Study: cKers Finance

## Blended Finance for Clean Energy Debt in India

cKers is an NBFC (governed by the Reserve Bank of India) launched in 2017 to provide project finance, venture debt and working capital for several emerging segments in India

### Vision

The vision of cKers Finance is to be an **innovative market maker** debt financing venture dedicated towards financing sustainable energy in India and catalysing the market towards scale.

### Structure of the vehicle

cKers is a Non-Banking Financial Company (NBFC) in India regulated by the Reserve Bank of India (banking regulator). cKers also has an off-shore vehicle in Mauritius for international investors

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Decentralized Renewable Energy (DRE) for rural energy access

- Community/ telecom loads oriented mini-grids
- Pico and micro grids
- Solar home lighting systems
- Solar pumping

DRE and Energy Efficiency in industrial and urban settings

- Rooftop solar: SME sector/ urban rooftops
  - Solar thermal applications
  - Energy Efficiency in industries and commercial settings
- 



# Case Study: cKers Finance

## Blended Finance for Clean Energy Debt in India

### The Challenge

- Existing institutions cannot give debt at absorbable rates, tenor & terms due to (a) profile of their capital sources & (b) insufficient knowledge / capacity of personnel to price the risk appropriately. Further, industrial SMEs are unable to get additional credit for DRE
- The perception of risk is arising mainly from (a) lack of sufficient debt servicing track record in different DRE segments, and (b) lack of data to build credit assessment models

### The Solution

- Provide project finance, venture debt and working capital for several emerging segments in the sustainable energy space



# Case Study: cKers Finance

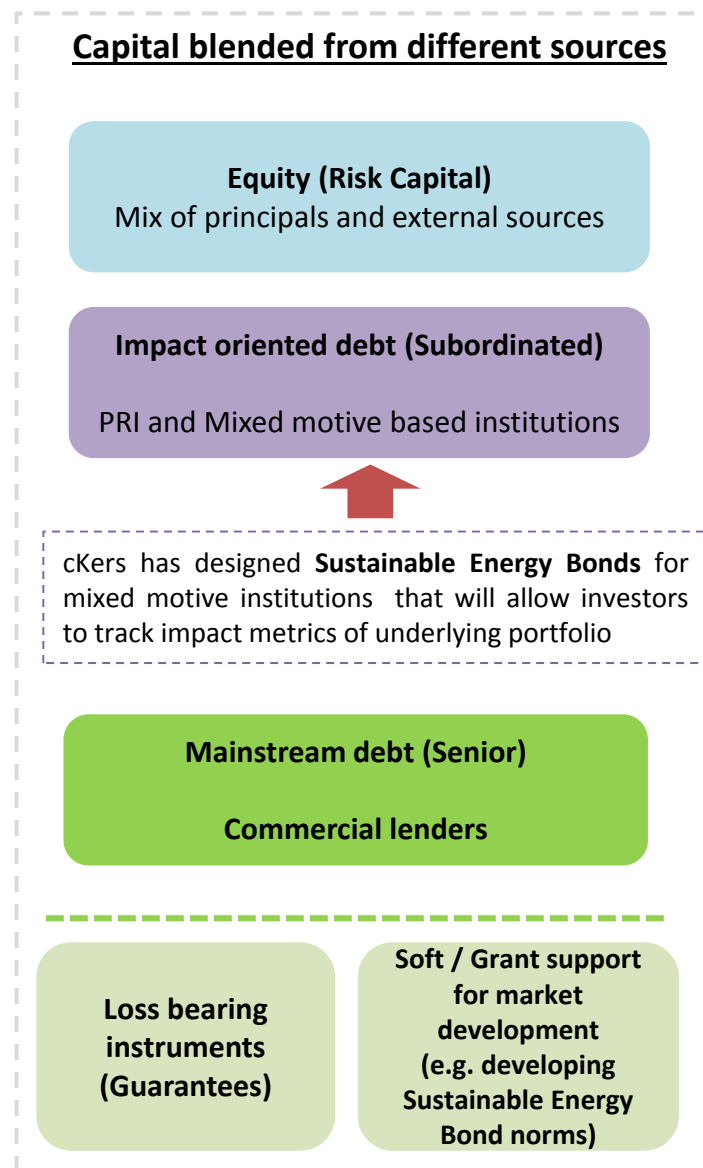
Stratify capital sources to ensure that weighted average cost is 9% p.a. in INR terms

Sustainable Energy Bonds are an innovation to increase access for debt capital

- A class of debt instruments being floated by cKers Finance
- Targeted at financing Sustainable Energy assets
- Tracks the impact of the investment

It is meant for PRI and mixed motive institutions. Will allow investors to track impact metrics of underlying portfolio.

Source: cKers Finance – Summary Deck



# Designing a Blended Capital Facility

- **Understand the problem you're trying to solve**
  - Talk to the private sector!
- **Innovate incrementally**
  - Bend the laws of capital but don't break them
- **Plan to fund the design process**
  - 1-3 years to establish and cost between \$300K-\$1M USD to design and set up
- **Build flexibility into everything**
  - Everything!
- **Find an anchor/lead investor**
  - Ideally one private sector and one philanthropic/public
- **Start small** (unless you're funding it yourself)

# For more information:

## On Blended Finance

- LEDS GP Blended Finance Webinar with Climate Policy Initiative (<https://www.youtube.com/watch?v=sE3cxeXgrfY>)
- Convergence (<https://www.convergence.finance>)
- The Blended Finance Task Force (<https://www.blendedfinance.earth>)
- CPI Blended Finance in Clean Energy Report (<https://climatepolicyinitiative.org/publication/blended-finance-clean-energy-experiences-opportunities/>)

## About our Case Studies

- The Microgrid Investment Accelerator ([www.micrgridinvest.org](http://www.micrgridinvest.org))
- cKErs Finance (<http://ckersfinance.in>)

## About Green Bonds

- Climate Bonds Initiative (<https://www.climatebonds.net>)
- Green Bonds Primer (<https://www.investopedia.com/terms/g/green-bond.asp>)
- World Bank on Green Bonds (<http://www.worldbank.org/en/results/2017/12/01/green-bonds>)

## Questions for the Group

- Do you have other examples of/experience with blended capital vehicles/efforts that you can share with the group?
- What topics related to blended finance are you most interested in working with others on?

# Next steps

# Finance Working Group

## ■ Asia NDC-F CoP

- Share existing introductory resources on the two priority topics with members: September 2018
- 3 Virtual sessions:
  - 2<sup>nd</sup> online session on 'Blended capital financial instruments and policy reforms with members' :September/October 2018 – (TBC)
  - 3<sup>rd</sup> online session: December 2018 – topic is TBD
- In-person workshop: Green bonds & blended finance – October 2018
- Deep-dive technical assistance to two countries: July to December 2018
- Two issue briefs – Q3 2018, Q1 2019
- Develop CoP activities summary report for 2018 and CoP work plan for 2019