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CLEAN ENERGY FINANCE & INVESTMENT MOBILISATION
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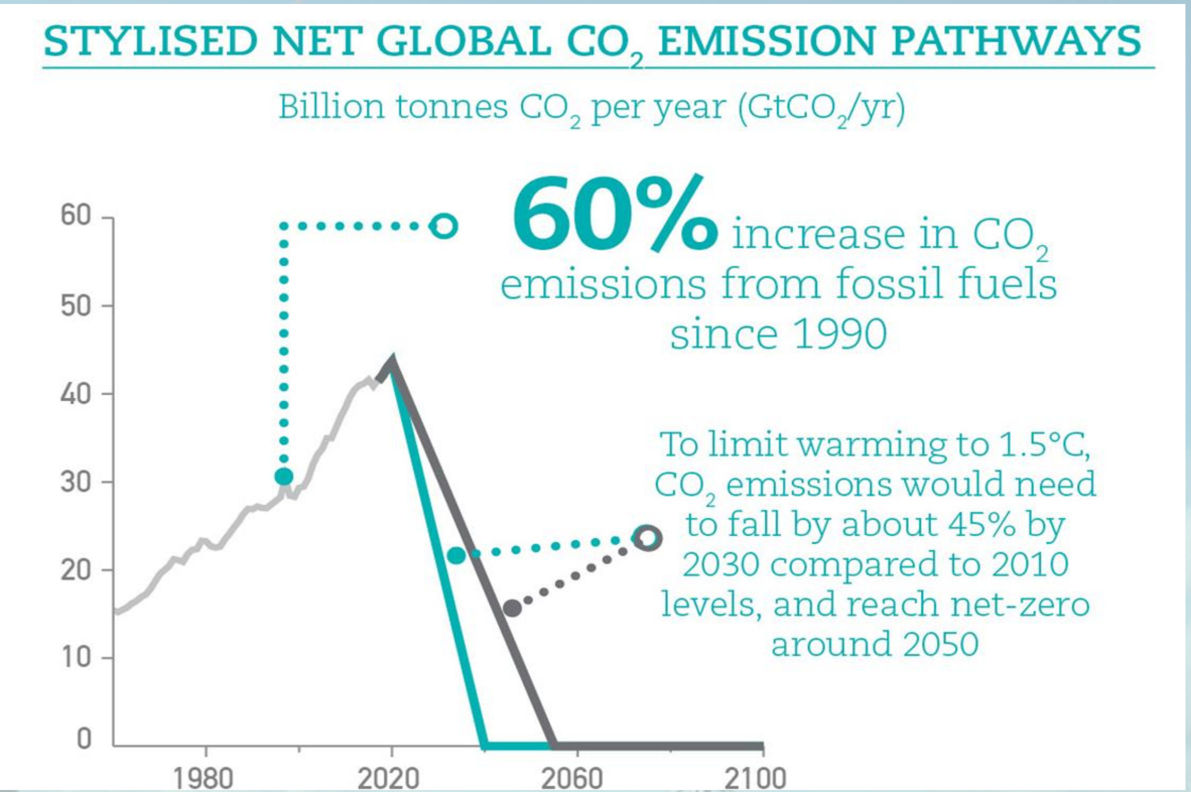
# Mobilizing Clean Energy Finance and Investment, IESR June 2020 Webinar

Cecilia Tam, Team Leader, OECD Environment Directorate

# We have just over a decade to drastically reduce emissions




# 6.9T

USD/year *is needed to support climate and development objectives until 2030;* ***of which…***

# …2.7T

USD/year *for low-carbon energy investments*

***…Resulting in***

**+Δ 4.7%** GDP *by 2050*

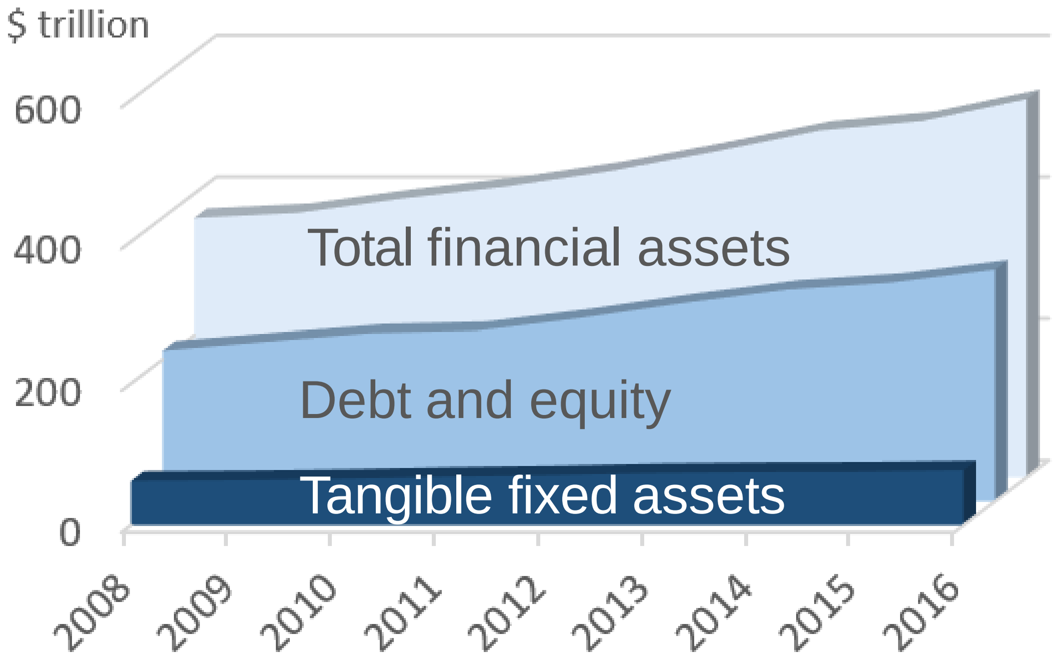
Financing Climate Futures
RETHINKING INFRASTRUCTURE



**PHOTO:** BBC News, Lohit river bridge in India

# Orders of magnitudes

## Stocks of assets




## Annual flows (2018)

Gross domestic product — USD 81 trillion

Gross fixed capital formation — 20

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Energy investments — 1.8

iea

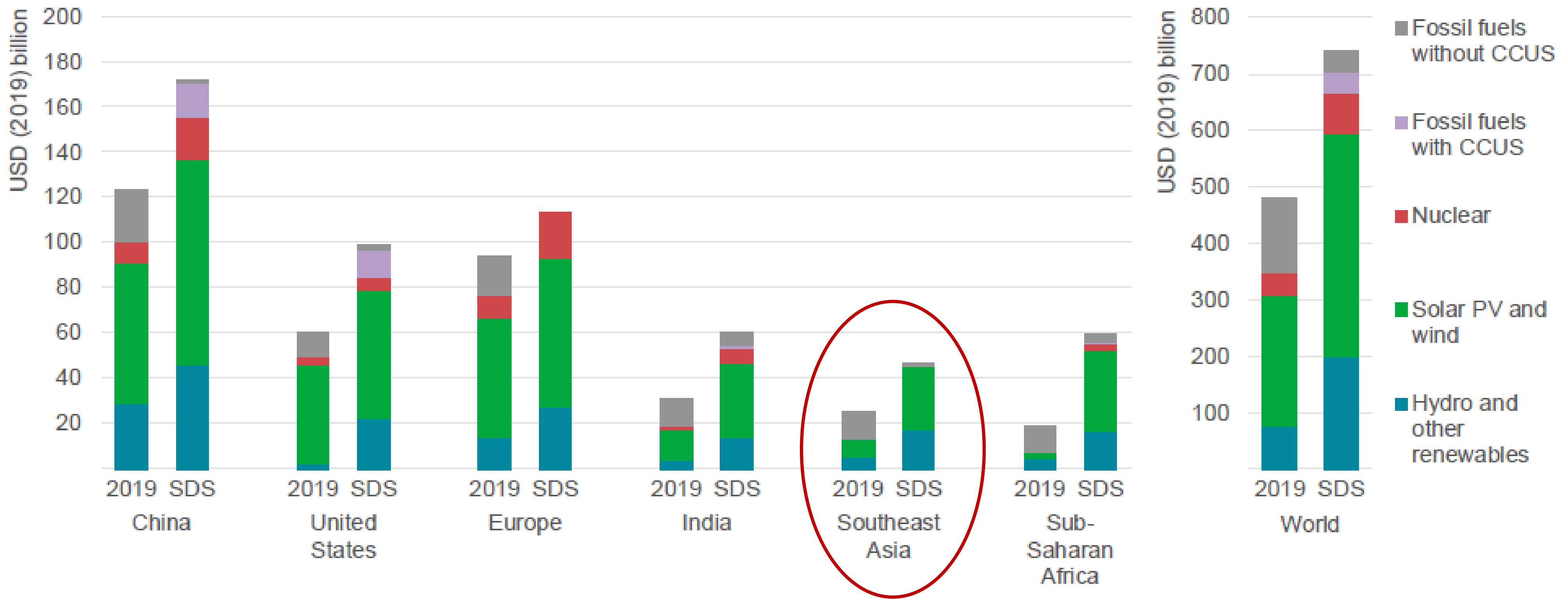
Global climate finance — 0.6

CLIMATE POLICY INITIATIVE

Source: Jachnik, R., M. Mirabile and A. Dobrinevski (2019), "Tracking finance flows towards assessing their consistency with climate objectives", *OECD Environment Working Papers*, No. 146, OECD Publishing, Paris, https://doi.org/10.1787/82cc3a4c-en.

# Rapid scale up and reorientation of investments required to reach decarbonsation goals

**Annual power generation investments in 2019 compared to annual investment needs SDS 2025-2030**






Note: SDS = annual average investment from 2025-30 in the IEA Sustainable Development Scenario.

# Why has financing climate mitigation been so challenging?

- Risk and returns may not be compelling for private investors:
  - Returns: social costs not adequately priced
  - A focus on short-term performance
  - Policy environment and policy credibility
  - New types of investment and risks
    - Technology costs & performance
    - Capacity to evaluate
    - Transaction costs

→ Emphasis on risks and disclosure (Carney, 2015)

# Six transformative areas

*to align financial flows with low-emission, resilient infrastructure*

**BUDGET**
Disentangle public budgets from fossil fuel revenues

**RESET**
Reset the financial system in line with long-term climate risks and opportunities

**INNOVATE**
Unleash innovation in technologies, institutions and business models

**RETHINK**
Rethink development finance for climate

**PLAN**
Plan infrastructure for a low-emission and resilient future

**EMPOWER**
Build low-emission and resilient urban societies


**PHOTO:** NASA

ENSURING THAT THE FINANCIAL SYSTEM IS ALIGNED WITH CLIMATE OBJECTIVES REQUIRES GOVERNMENTS, FINANCIERS AND FINANCIAL REGULATORS TO ACT ON DIFFERENT LEVELS

## Development of standards and policy frameworks

- that promote low-emission, resilient financial products
- and the emergence of new market platforms
- with continual monitoring to measure impact on climate goals

## Promoting transparency in the financial system

through disclosing:

- risks and opportunities
- financial flows
- and developing climate scenario analysis

## Clarifying legal frameworks and mandates

- on investor obligations and responsibilities
- and interpreting climate considerations

## RESET

Reset the financial system in line with long-term climate risks and opportunities

**RETHINK**

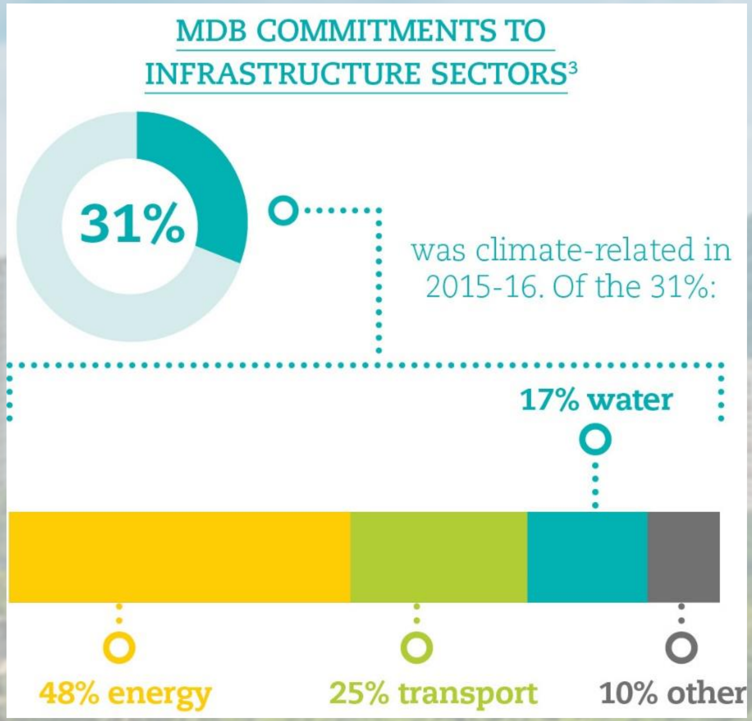
Rethink development finance for climate

**DEVELOPMENT BANKS**

**$35bn** committed in 2017 in climate finance by development banks

a **28%** increase from 2016

Source: IDB et al. (2017)

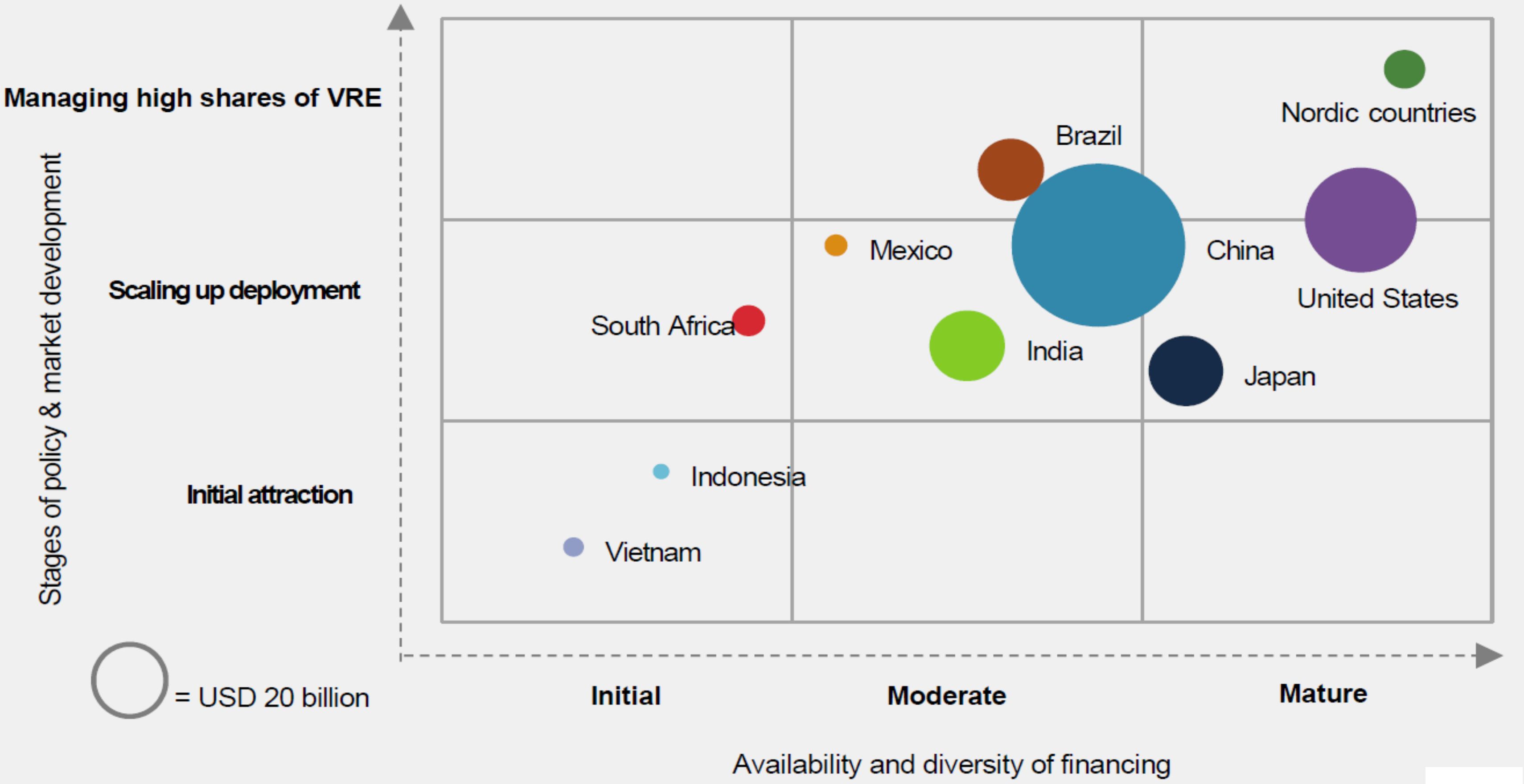



**Action area:**

Strengthen development banks’ mandates and incentives by aligning portfolios with climate goals

# Ensure supportive policies to develop pipelines of bankable clean energy projects

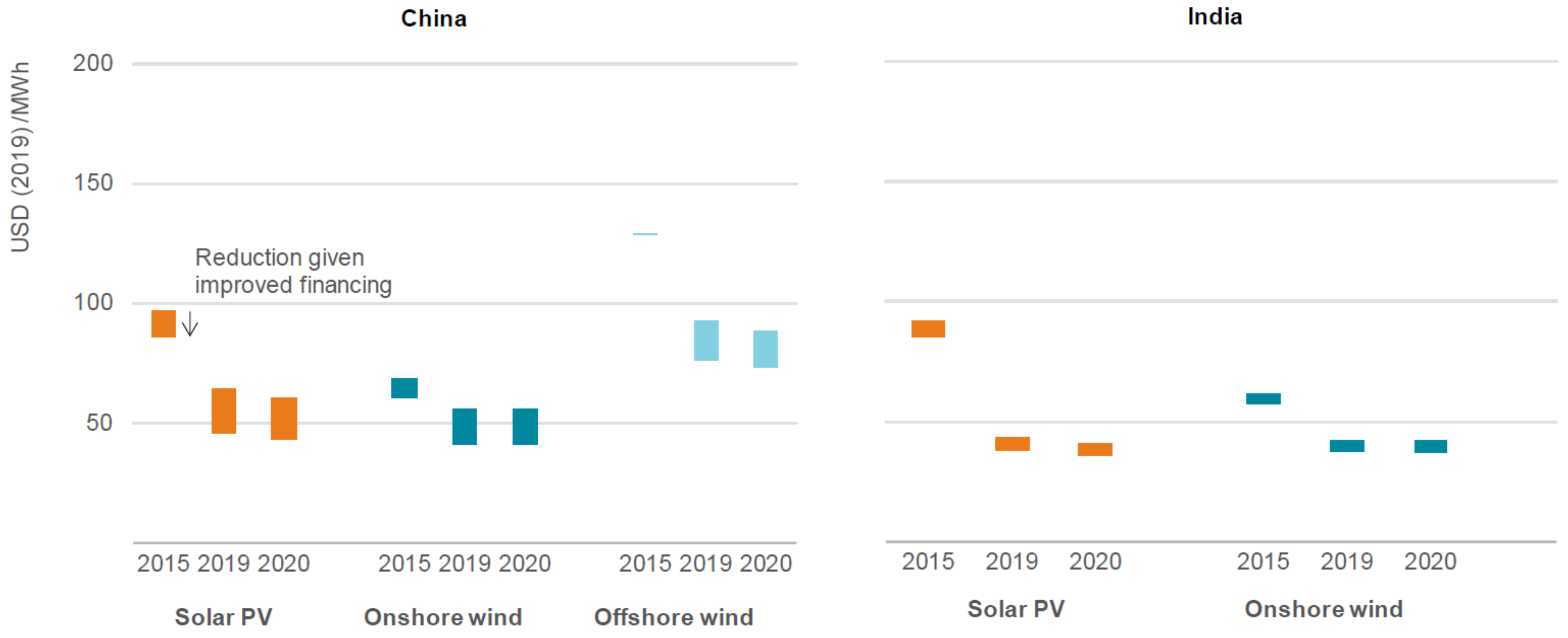
**Stages of policy, market & financing for renewable investment, selected countries in 2017**




Notes: VRE = variable renewable energy. The size of each bubble is equivalent to 2017 renewable investment levels.
Adapted from IEA(2018), World Energy Investment 2018

# Improved financing conditions helping to drive down the cost of solar and wind

**Impact on LCOE for newly commissioned renewable power capacity, by level of financing costs**

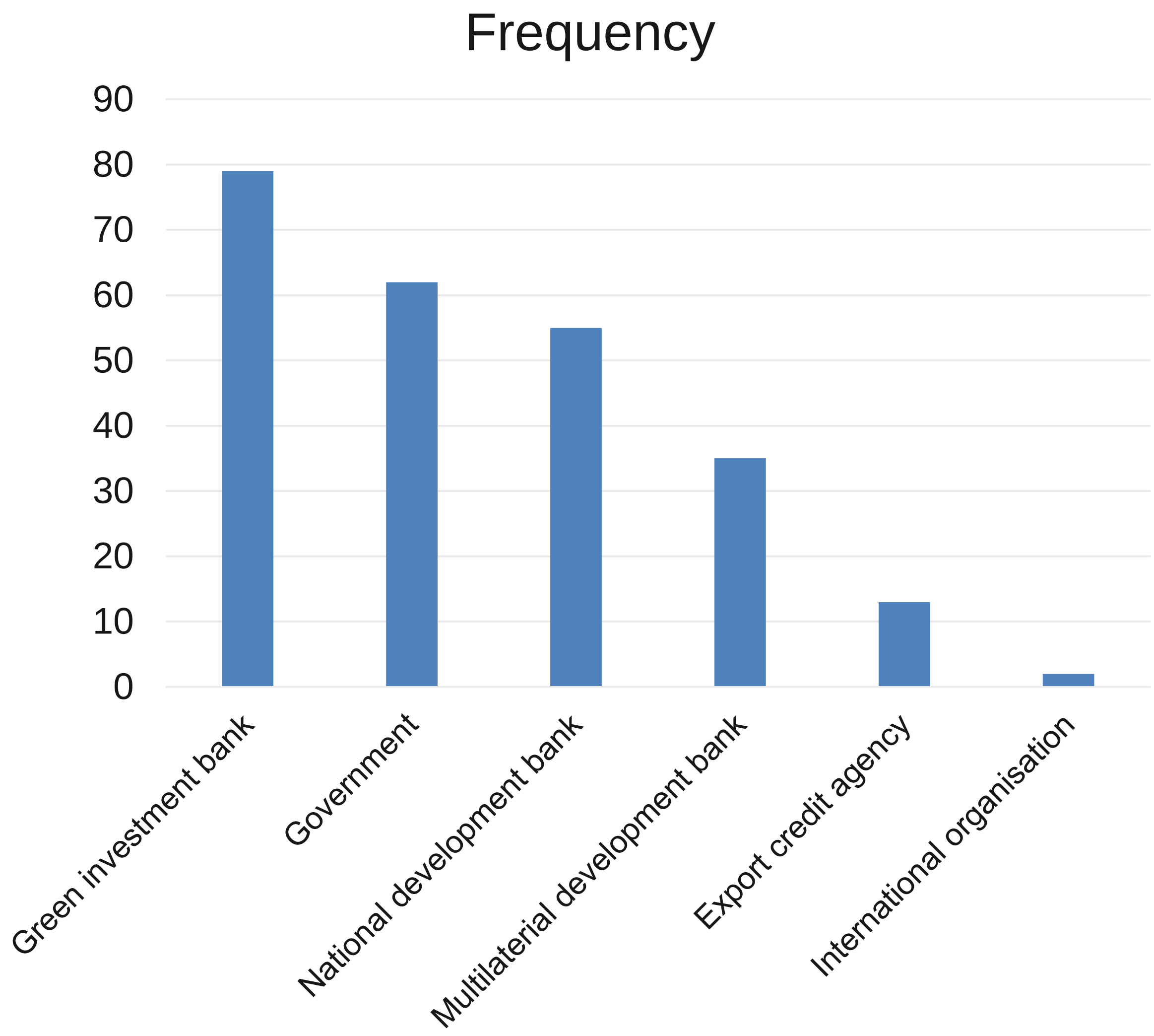


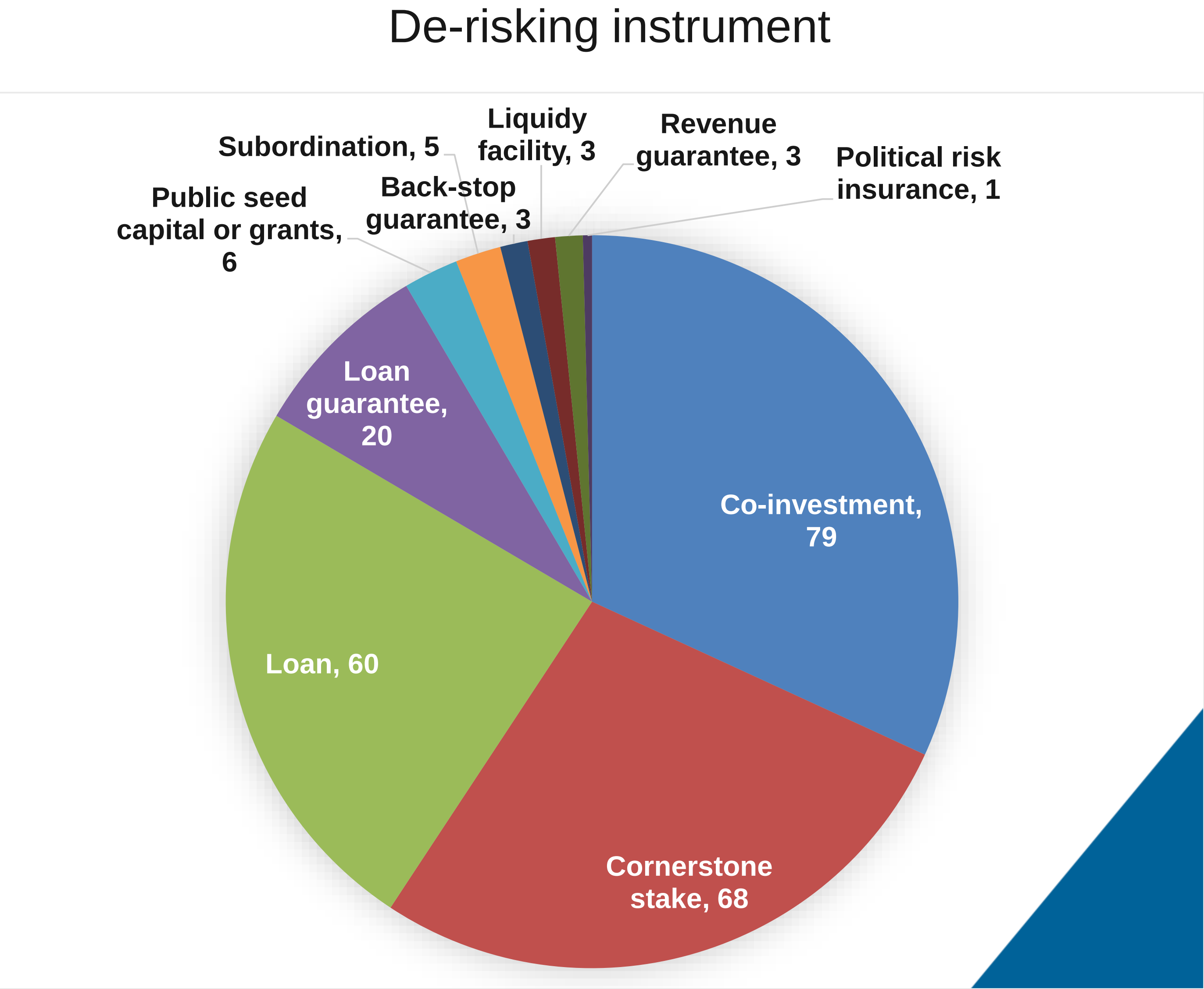



Notes: Figures are indicative estimates (expressed in real terms). Upper limits of the columns show the levelized cost of electricity (LCOE) level using a standard weighted average cost of capital (WACC) representing average market risk (8% in advanced economies and 7% in developing economies). The length of the column illustrates how much the LCOE of the technology in the specific region has dropped as a result of reduced financing costs. Capital costs are based on commissioning dates and the terms of the WACC are based on financial close.

Source: IEA analysis based on technology capital costs from IRENA (2020).

# Approaches to mobilizing institutional investors

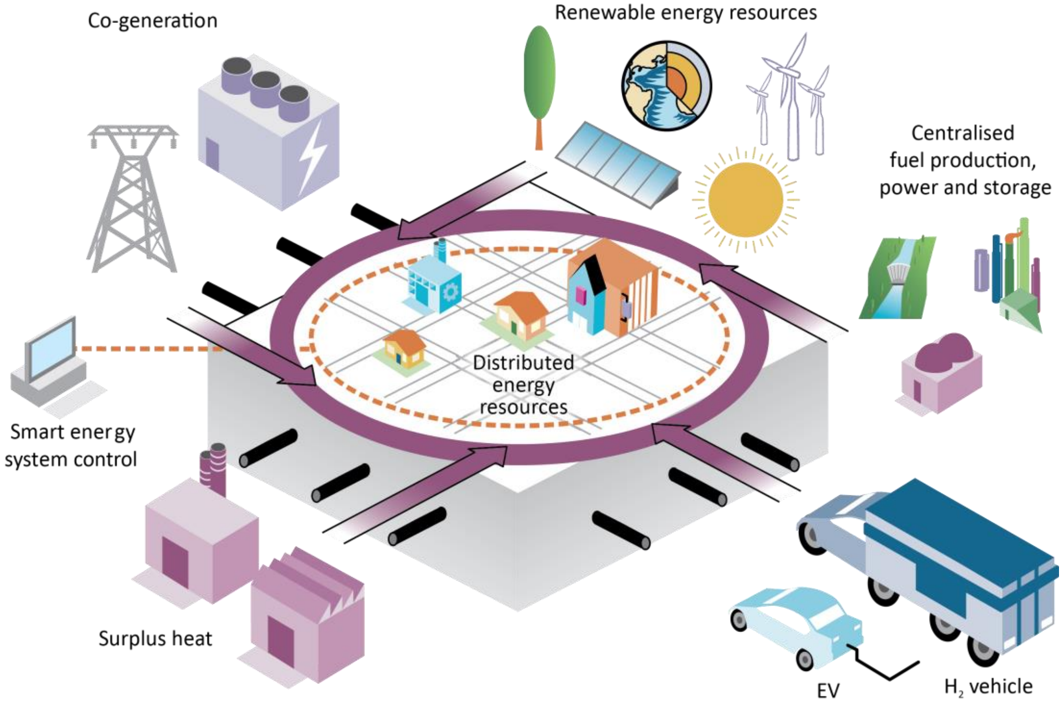



Progress Update on Approaches to Mobilising Institutional Investment for Sustainable Infrastructure (Rottgers, Tandon and Kaminker, OECD 2018)

# Fintech and Clean Energy Finance

## Integrated Energy System (Emerging)

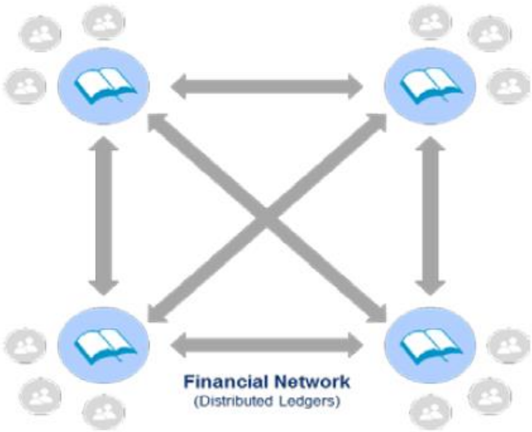



Source: IEA

## Financial Intermediaries (Today)


- Trusted, centralised intermediaries
- Batch clearing and settlement
- Higher fees and costly infrastructure

## Financial Protocol (Emerging)




- No (or fewer) intermediaries
- Near real-time processing
- Lower fees and reduced infrastructure costs

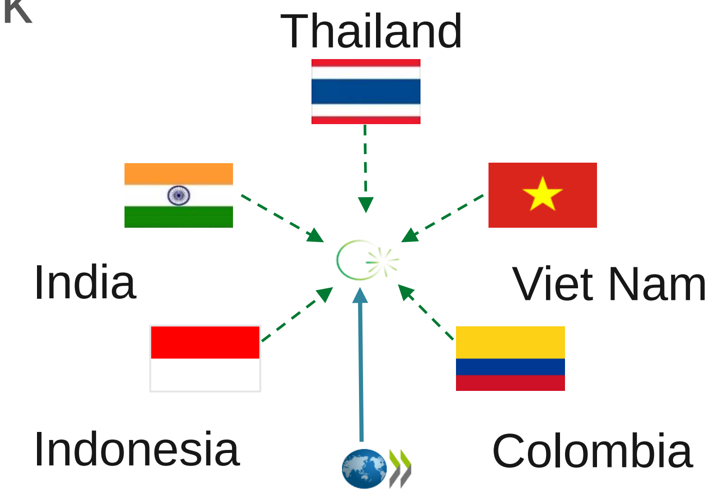
Source: Citi Research

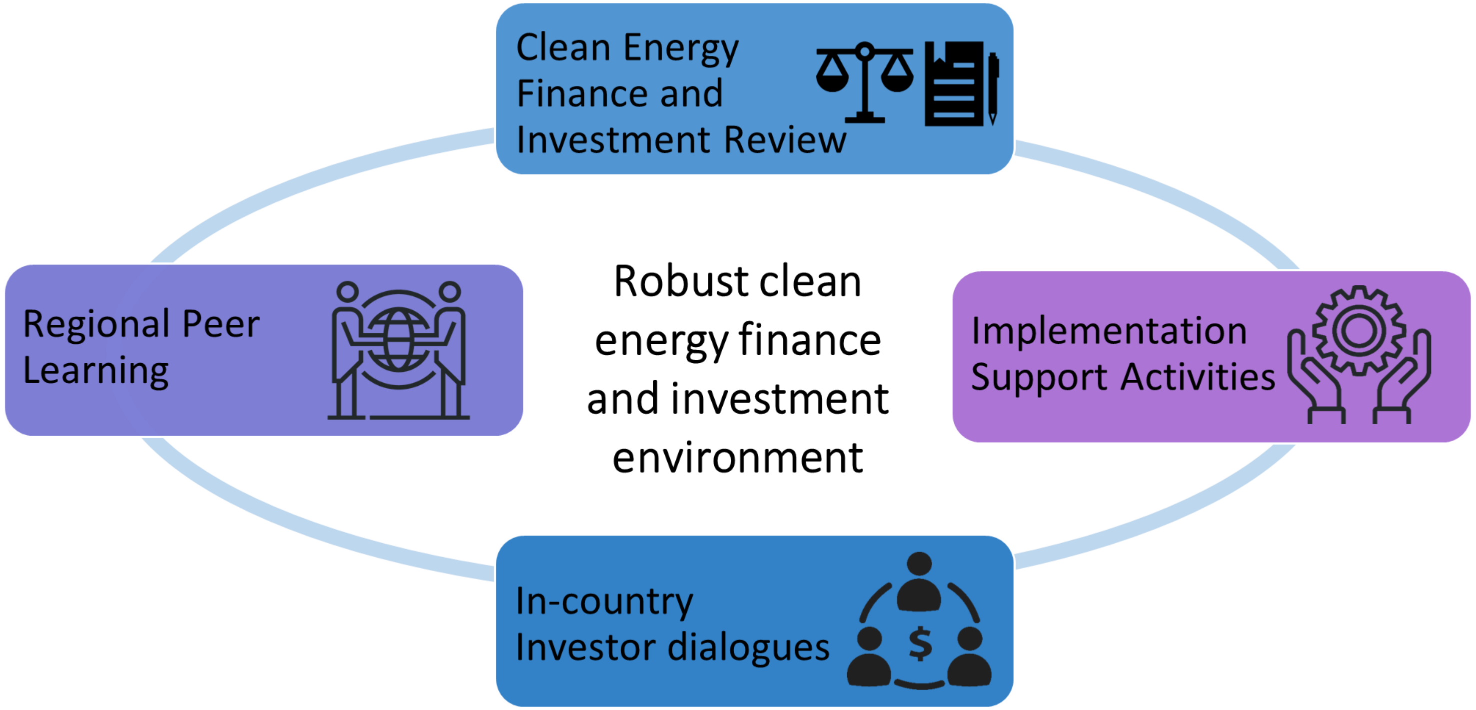
# Clean Energy Finance and Investment Mobilisation

New OECD programme funded by the Government of Denmark

**Aim**: help accelerate clean energy finance and investment by strengthening domestic enabling conditions

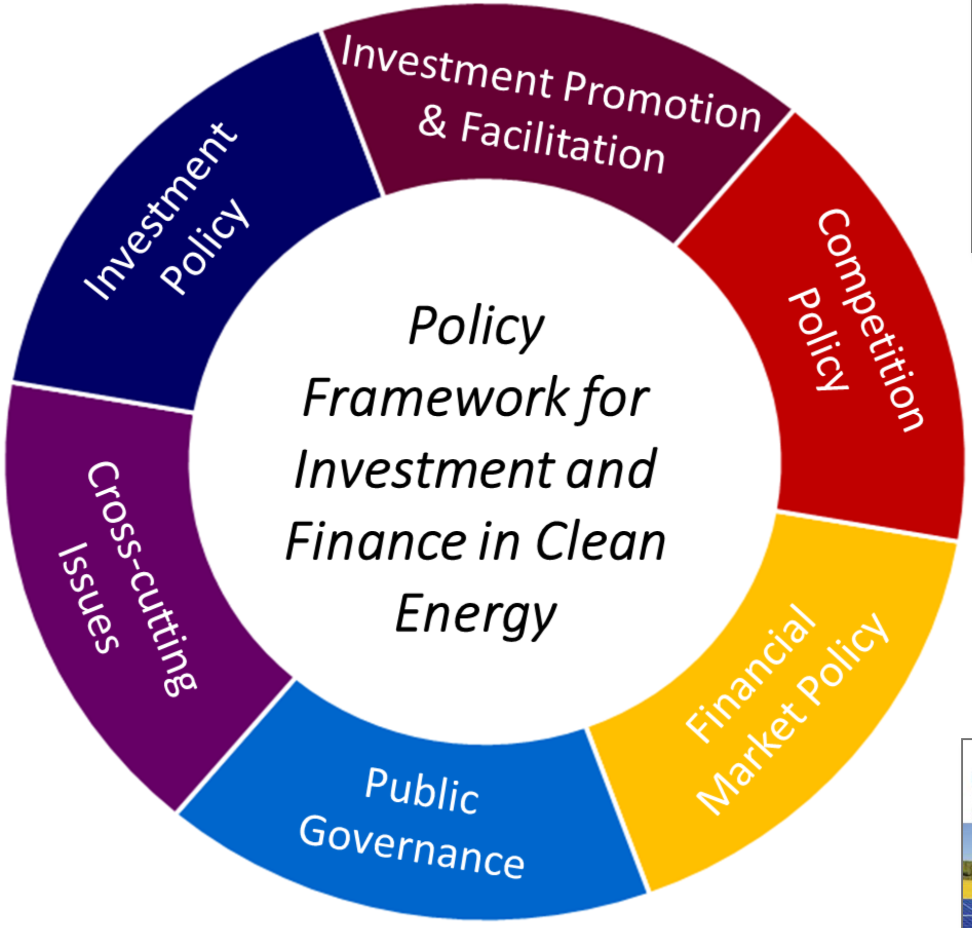
**Technology scope:** grid-scale renewable generation and energy efficiency in buildings and industry

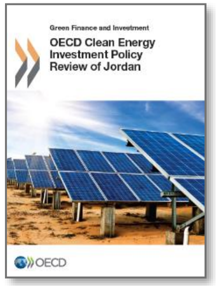



**Launch Event**
**8 November 2019**
**Jakarta**

# Policy Framework for Clean Energy Finance




A holistic analysis of key policy areas that affect the finance and investment environment for clean energy.

Identifying unintended effects of changes in one policy area on another.


Understanding how one policy area can reinforce another.

# Ingredients for attracting finance and investment

- **Predictable and transparent** policies
- **Regulatory support** in areas where price signals are not efficient
- Improve conditions for **“green finance”** – reduce risks & transaction costs; enhance transparency and disclosure
- Leverage **development finance to mobilise private sector** investments and finance from new investors (institutional investors)
- **Innovation in business models and financing (including Fintech)** could help reduce finance costs and attract new investors

# THANK YOU

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https://www.oecd.org/environment/cc/cefim/

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