

Climate Finance 101 for Companies

29 November 2017

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CLIMATE
POLICY
INITIATIVE



IFC

International
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WORLD BANK GROUP



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IMPROVING THE STATE
OF THE WORLD

Welcome

What is Climate Finance?

Why is climate finance important?

Key challenges of the 21st century:

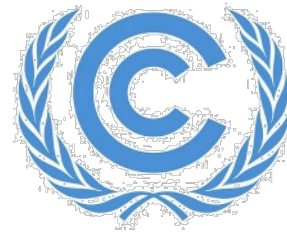
Climate Change



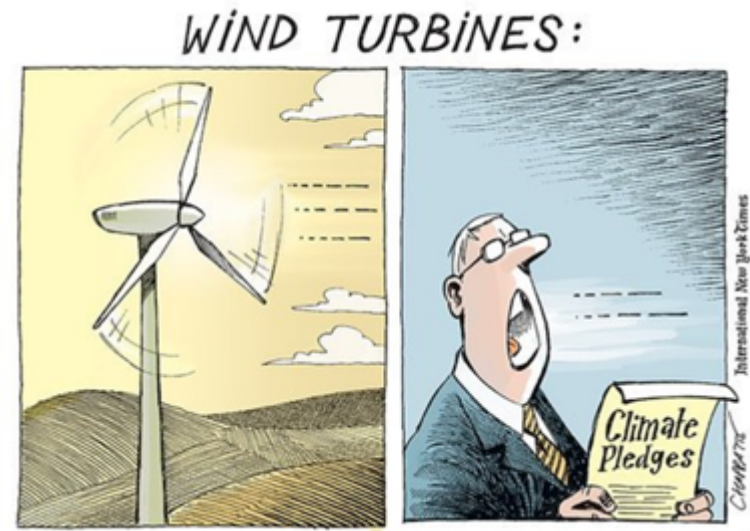
Sustainable Development



Acronyms to know



United Nations Climate Change
Carbon Mechanisms



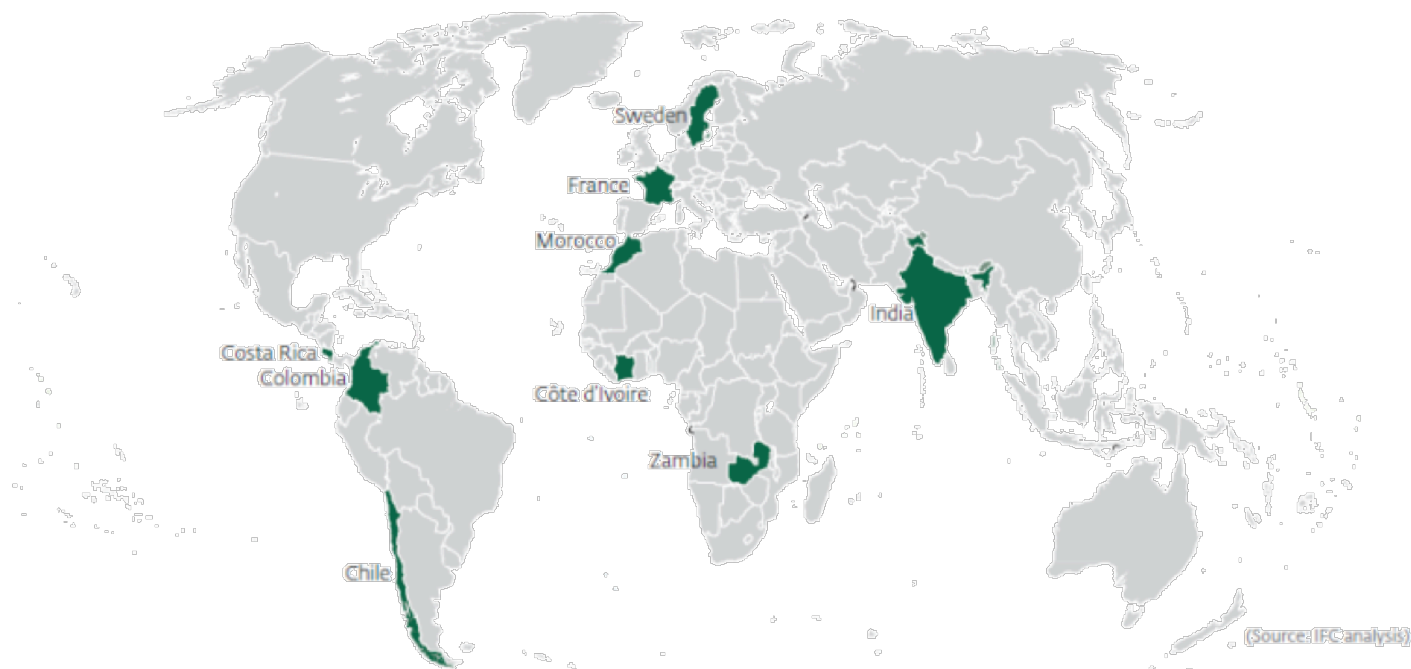
Figures and myths

- Significance of Paris #1: **2-degree C pathway** (we are on at least a 3-degree pathway now)
- Significance of Paris #2: **189 NDCs submitted** by all countries
- **\$23 trillion** in investment opportunity between now and 2030
- **\$100 billion vs. \$6 trillion** in annual climate finance needs/opportunities
- Markets for climate-smart business worth **\$1 trillion** today
- Climate finance annual flows **\$383 billion** in 2016



IFC Report: *Creating Markets for Climate Business*

Countries are already creating markets for climate business



COSTA RICA

Supportive policies for EVs and renewables will help Costa Rica become **carbon neutral by 2021**

COLOMBIA

Colombia's **10-year National Climate Policy** prioritizes sectors for investment; the **Sostenible Fund** will raise capital

CHILE

Chile's new **National Climate Action Plan** will accelerate private investment in renewable energy

SWEDEN

Sweden recently raised ambition to be **climate neutral by 2045**

FRANCE

Plan Climat raises France's climate ambition with strong targets for EV, renewables and carbon pricing

MOROCCO

Already a clean energy leader, Morocco is using **public-private initiatives** to achieve its NDC

CÔTE D'IVOIRE

Cote d'Ivoire aims to generate **42 percent of power from renewables** by working with IFC to attract private investment

ZAMBIA

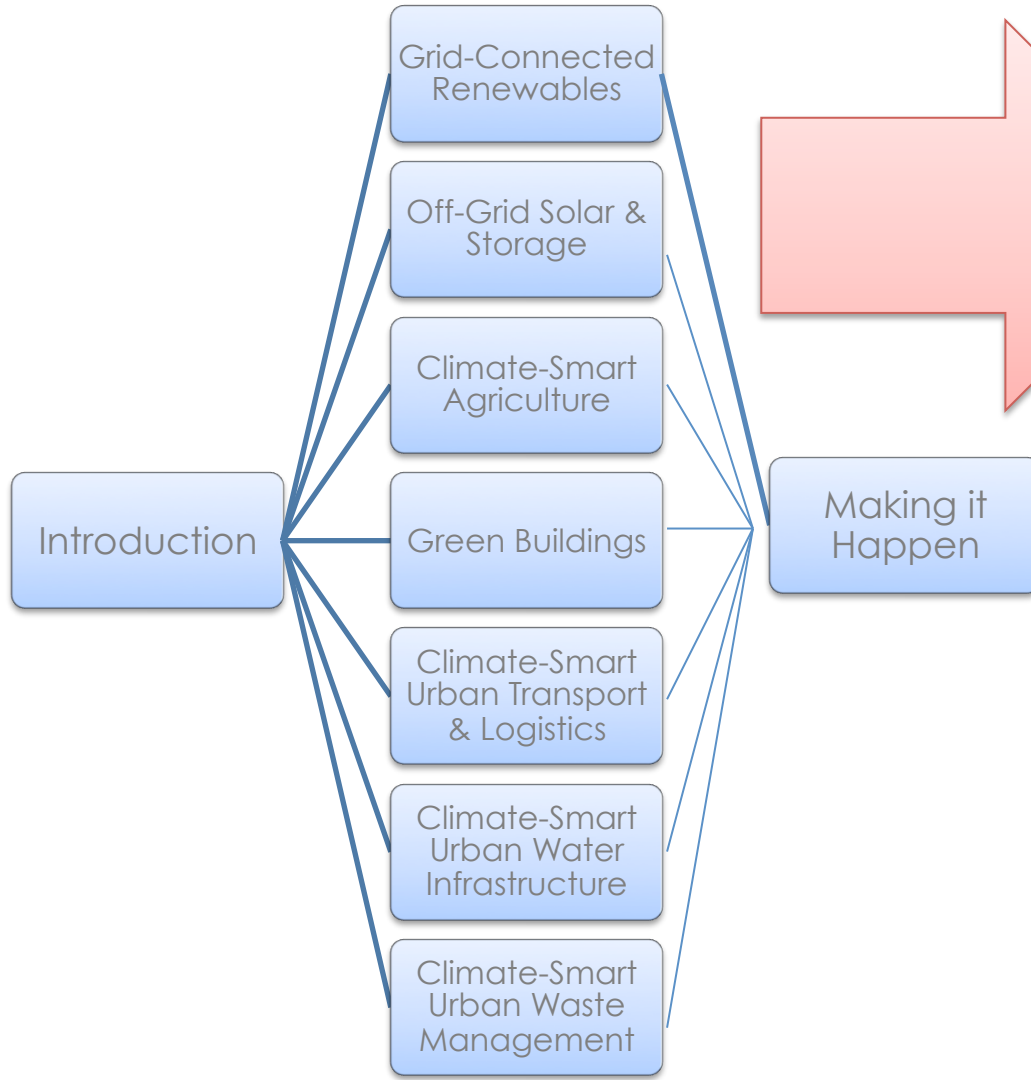
Scaling Solar is helping Zambia to attract low-cost solar investment and deliver energy access

INDIA

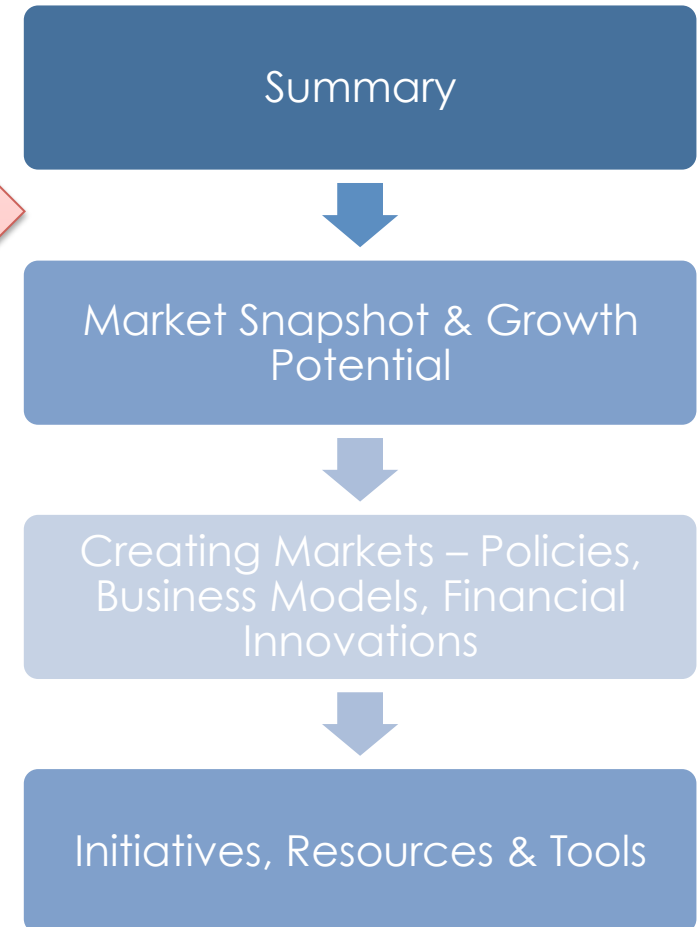
India is already on track to **exceed its NDC targets for solar and wind energy** due to strong policies and incentives

Overview: Creating Markets for Climate Business

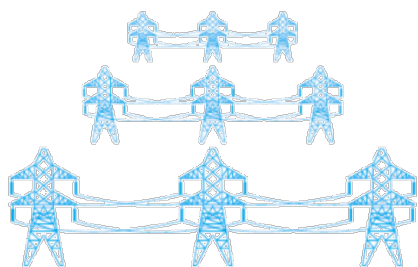
Report Structure



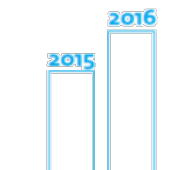
Sector Chapter Structure



Global markets for climate business are growing



In 2016, over **160 GW of renewables capacity** was built around the world accounting for **\$280 billion investment, double what fossil fuels received**. **China and India** lead market development, with nearly **50%** of new global capacity.



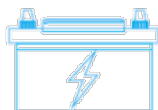
Over **100** major companies are creating markets by committing to go **100% renewable energy**.



In 2016, **75 GW of solar PV** was built around the world—equivalent to 31,000 panels installed every hour.



Green buildings investment was **\$388 billion** in 2015, and green buildings are at least a 3.4 trillion opportunity through 2025.



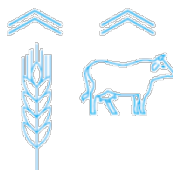
Battery storage markets are expected to **reach 21 GW by 2025**, driven by cost reductions of over 50%.



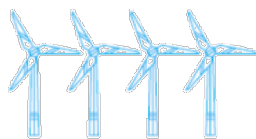
Africa is beginning to attract major solar investment, with **Algeria** (170 MW+), **South Africa** (500 MW+) and **Zambia** leading the way.



Over **half of countries** will use a carbon price to achieve their climate targets; **1400+ companies** are putting in place internal carbon pricing.



Food demand is expected to increase **20%** over the next 15 years, driven by the developing world. This will require increasing food production **70%**.



China led in global wind power installation in 2016, building over 23 GW.

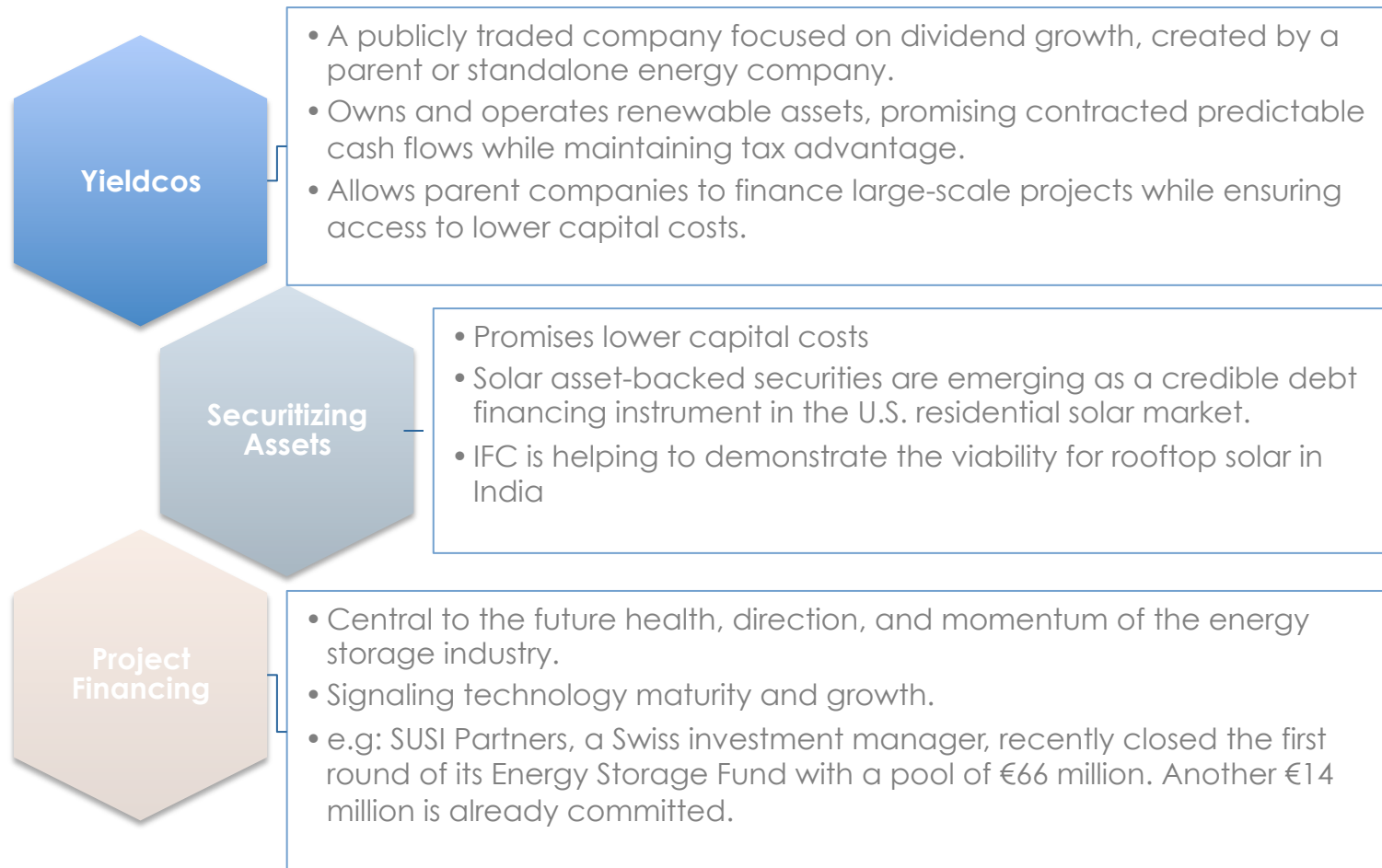
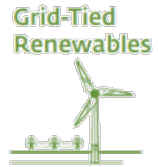


Over **100 countries** targeted grid-connected renewable power in their NDCs.



The global green bonds market was **\$221 billion** in 2017, and saw a **6x rise** between 2013 and 2016.

Financial Solutions for Renewable Energy



Financial Solutions for Climate-Smart Agriculture

Climate Finance Innovation

- Experimenting with blended finance, innovative risk management tools, first loss and partial risk guarantees, new investment vehicles that meet the risk-return profile of different investors, and bonds.

Index-Based Insurance Programs

- Uses an independently developed index, typically weather-related for agricultural application, to predetermine payouts for clearly defined hazards.
- Domestic policy is often needed to facilitate

THE GLOBAL WAREHOUSE FINANCE PROGRAM

- In 2017, IFC, together with the Global Agriculture and Food Security Program, invested \$5 million in risk-sharing facilities with partner banks in Rwanda and Tanzania to finance farmer cooperatives.
- Enables farmers to buy higher-quality agricultural inputs, produce food crops, and provide working capital for the aggregation and storage of harvested crops.
- WFP arranges input supplies and crop insurance.
- IFC will be helping farmers access markets through the o take contracts from the WFP and other platform partners.
- Project aims to benefit more than 65,000 local smallholder farmer to increase productivity through CSA practices

THE GLOBAL INDEX INSURANCE FACILITY

- Dedicated WBG's program that facilitates access to finance for smallholder farmers, micro-entrepreneurs, and micro finance institutions by providing catastrophic risk transfer solutions and index-based insurance in developing countries.
- It has facilitated more than 1.5 million contracts, with \$151 million in sums insured, covering about 6 million people, primarily in Sub-Saharan Africa, Asia, and Latin America and the Caribbean.

Financial Solutions for Green Buildings



- The Investor Confidence Project, developed by the Environmental Defense Fund is helping to accelerate the development of a global market by standardizing the way in which energy-efficiency projects and energy savings are calculated and measured.
- Standardization is expected to increase deal flow and reduce transaction costs.

Green Bond Markets

- Maturing and emerging as a potential source of financing in the real estate market.
- Building rating systems such as LEAD and IFC's EDGE could be used to assess the eligibility of green projects.
- As part of its Eco-Cities Program for India, IFC invested nearly \$76 million in green bonds issued by Punjab National Bank.

Outreach Initiatives

Green Mortgage Securities

- As green debt market matures, green mortgage securities are emerging.
- In 2016, Obvion, a subsidiary of Rabobank, issued the first green residential MBS, backed by residential loans on new and retrofitted energy-efficient houses.

Other Financial Innovations

- Other instruments include home improvement loan instruments like the energy-efficient mortgage or green mortgages, green rewards, green building insurance, and a green building certification pricing break.

Green Refurbishment and Affordable Housing

- The Low Carbon Workplace Fund - partnership between the Carbon Trust, fund manager Columbia Threadneedle Investments and property developer Stanhope - finances the refurbishment of existing buildings
- IFC client International Housing Solutions has successfully blended catalytic and commercial capital to build demand for low-cost green homes in South Africa.

Global Landscape of Climate Finance

LANDSCAPE OF CLIMATE FINANCE IN 2015/2016

Global climate finance flows along their life cycle in 2015 and 2016. Values are average of two years' data, in USD billions.

410 BN USD
ANNUAL
AVERAGE



SOURCES AND INTERMEDIARIES

Which type of organizations are sources or intermediaries of capital for climate finance?

INSTRUMENTS

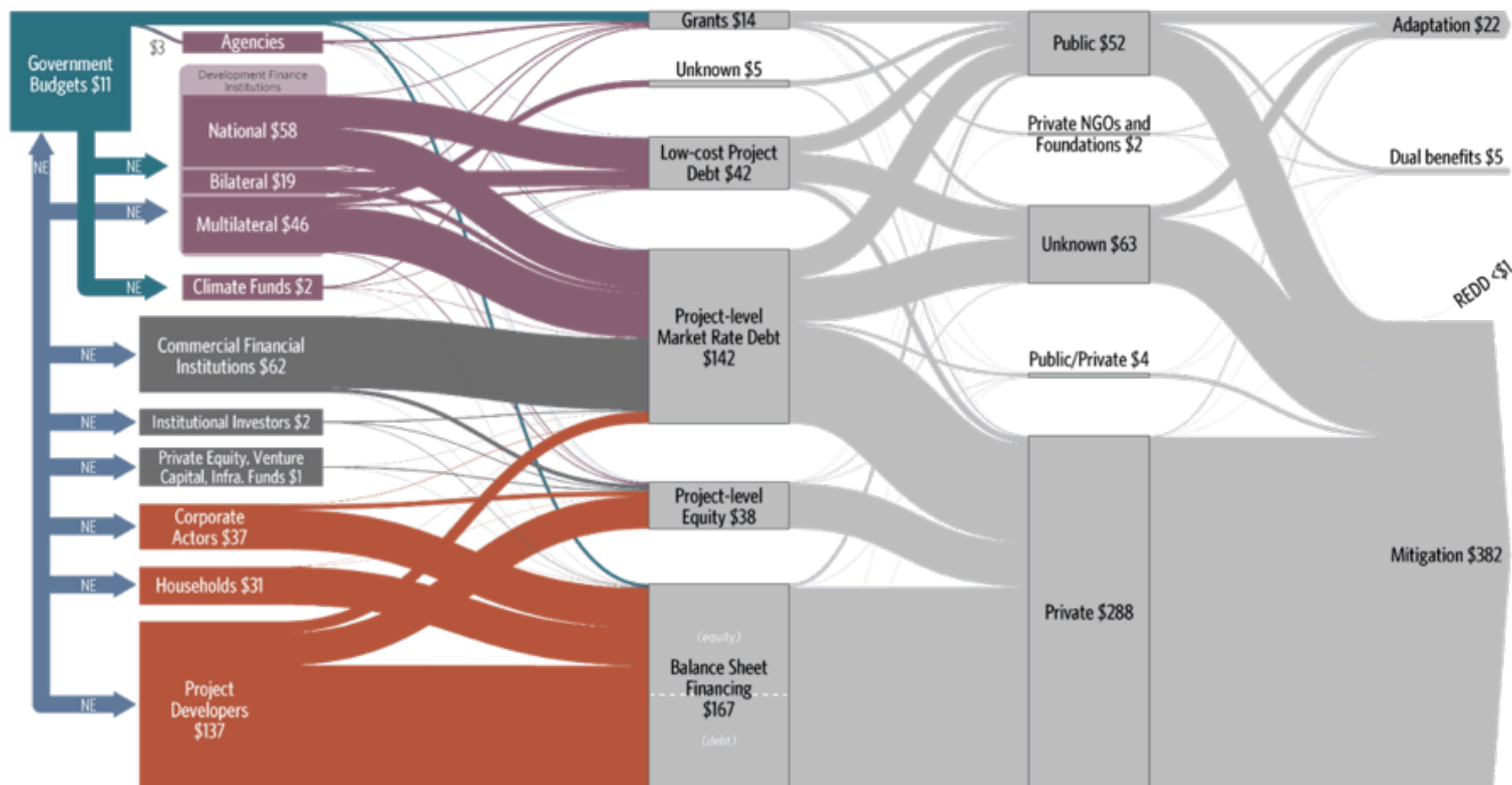
What mix of financial instruments are used?

RECIPIENTS

Does climate finance go through public or private channels?

USES

What types of activities are financed?



KEY

PUBLIC MONEY

PRIVATE MONEY

PUBLIC FINANCIAL INTERMEDIARIES

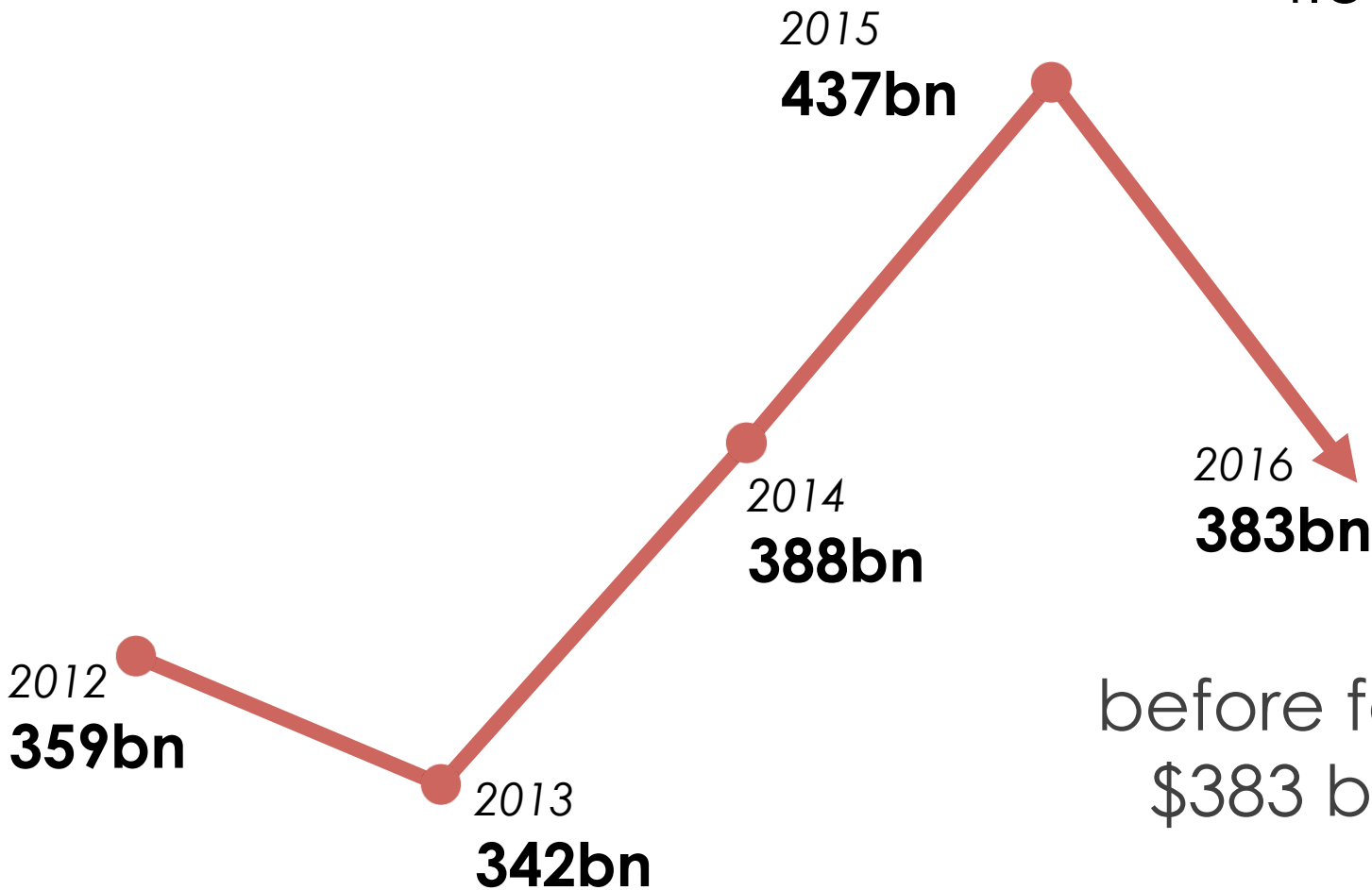
PRIVATE FINANCIAL INTERMEDIARIES

FINANCE FOR INVESTORS & LENDERS

NE: NOT ESTIMATED

Global climate finance
flows surged to

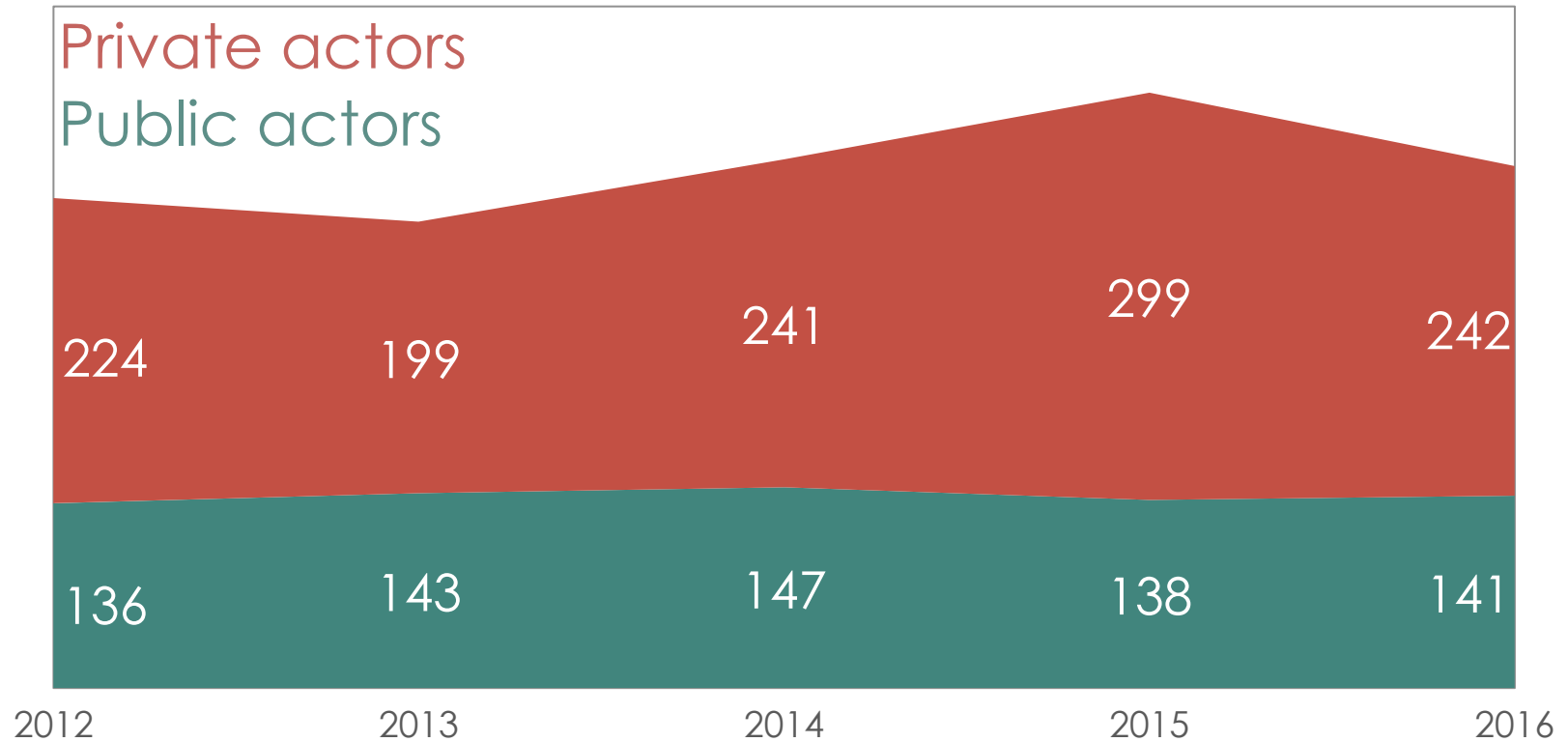
**\$437
billion**



2016
383bn

in 2015,
before falling 12% to
\$383 billion in 2016.

The private sector is doing more than ever, while the overall share of public investment remains steady



Are we on track?

Renewable energy is a bright spot...



...but other areas are behind.

\$1 trillion/year through 2050
needed (just for energy)

Underfunded sectors:

- Industrial energy efficiency
- Transport
- Agriculture
- Water
- Buildings
- Curbing deforestation
- Adaptation

However, fossil fuel investment still dwarfs climate-related investment.

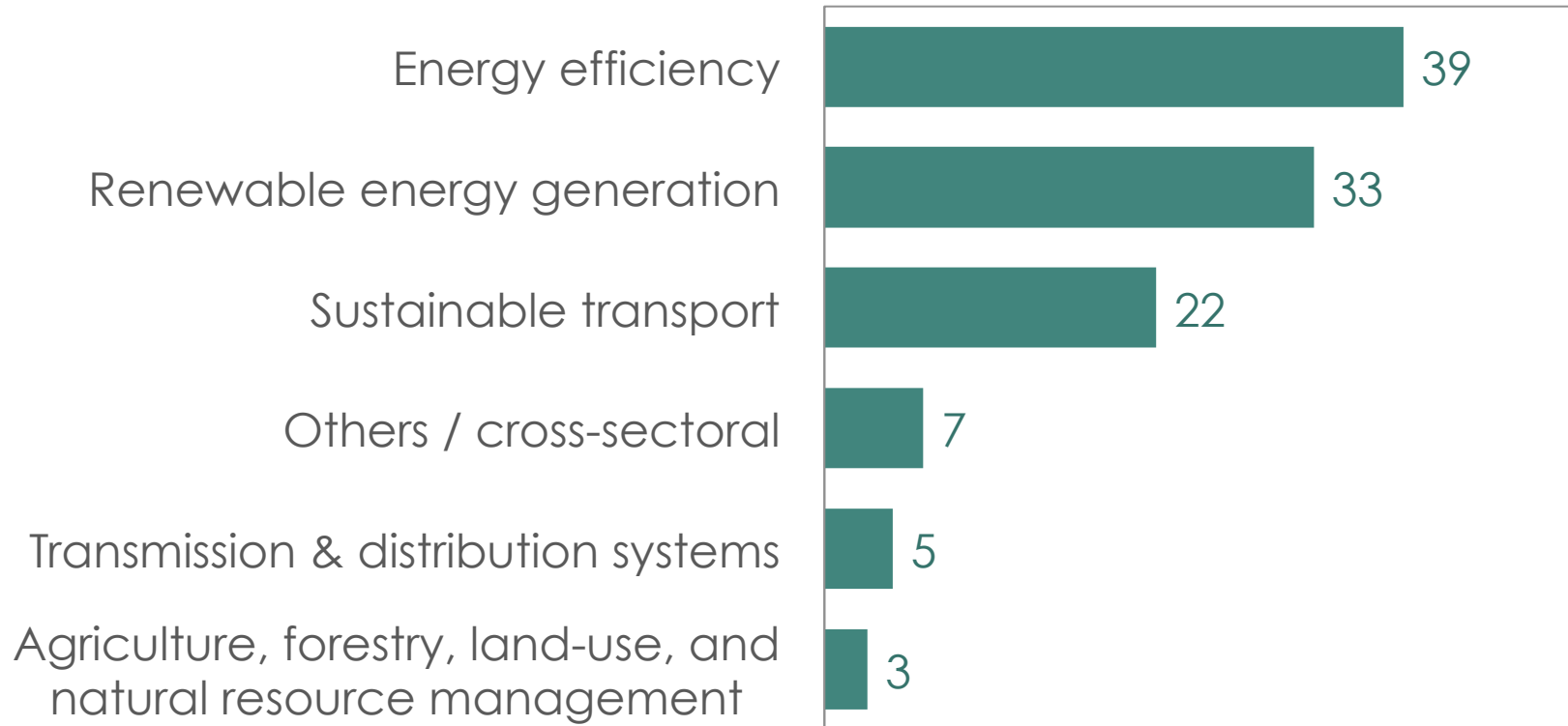
Fossil fuel investments

\$825 bn
(2016)

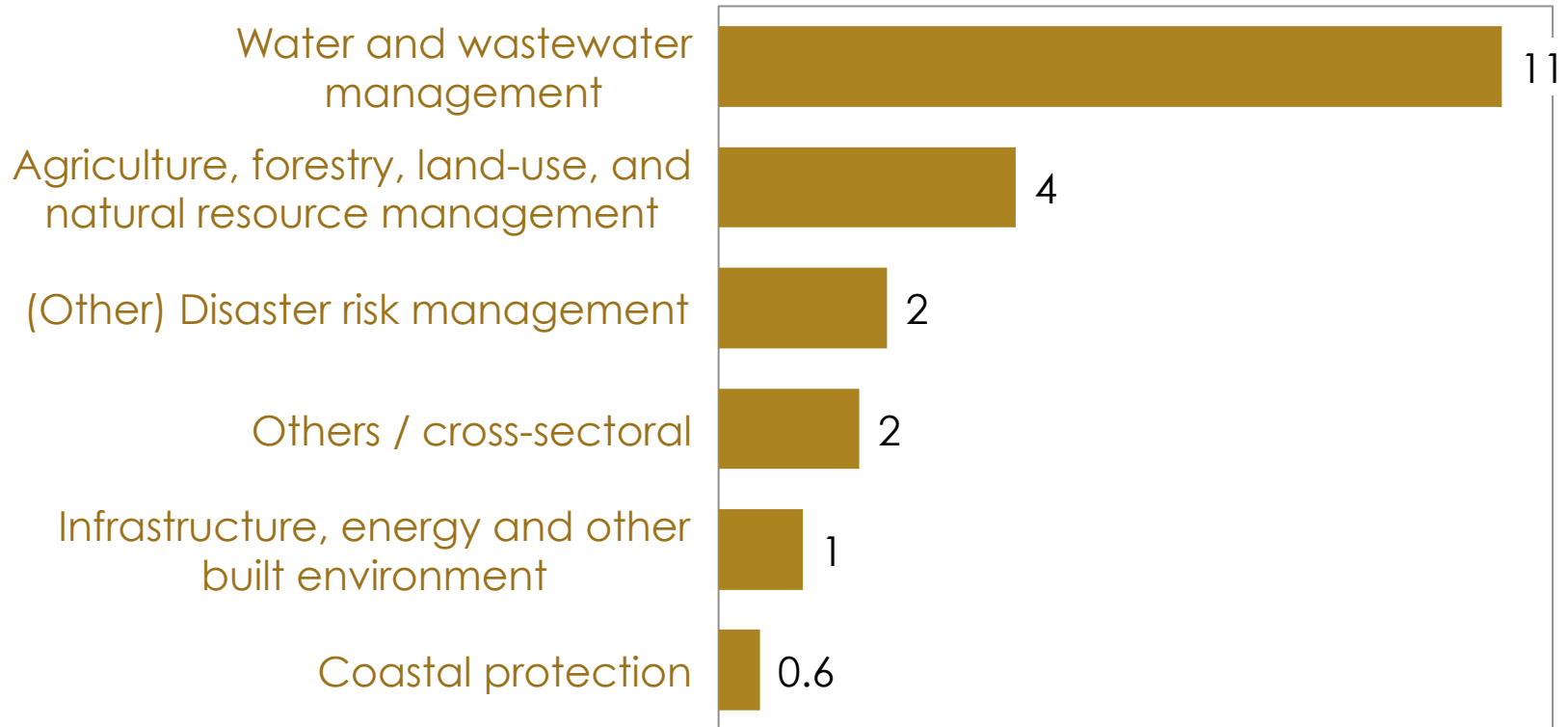
Climate projects

\$410 bn
(2015/16 average)

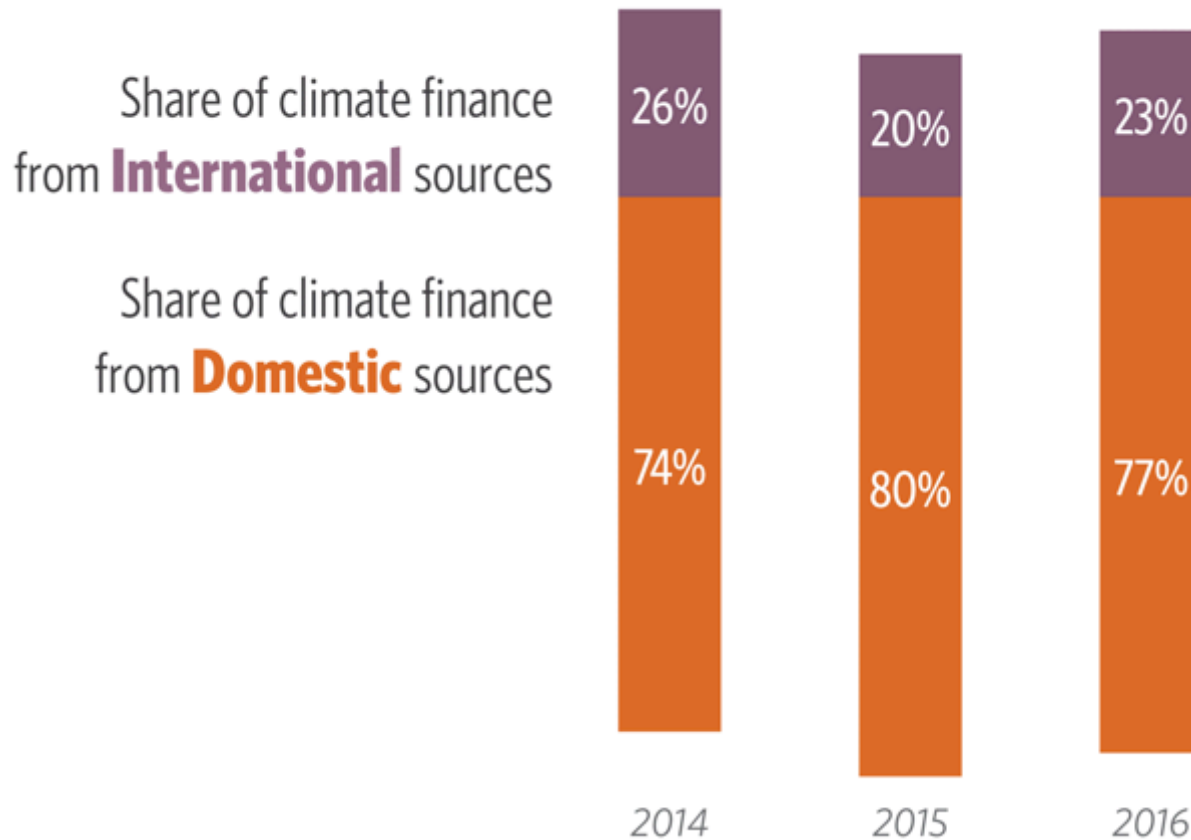
Public finance for energy efficiency has overtaken public funding for renewable energy for the first time.



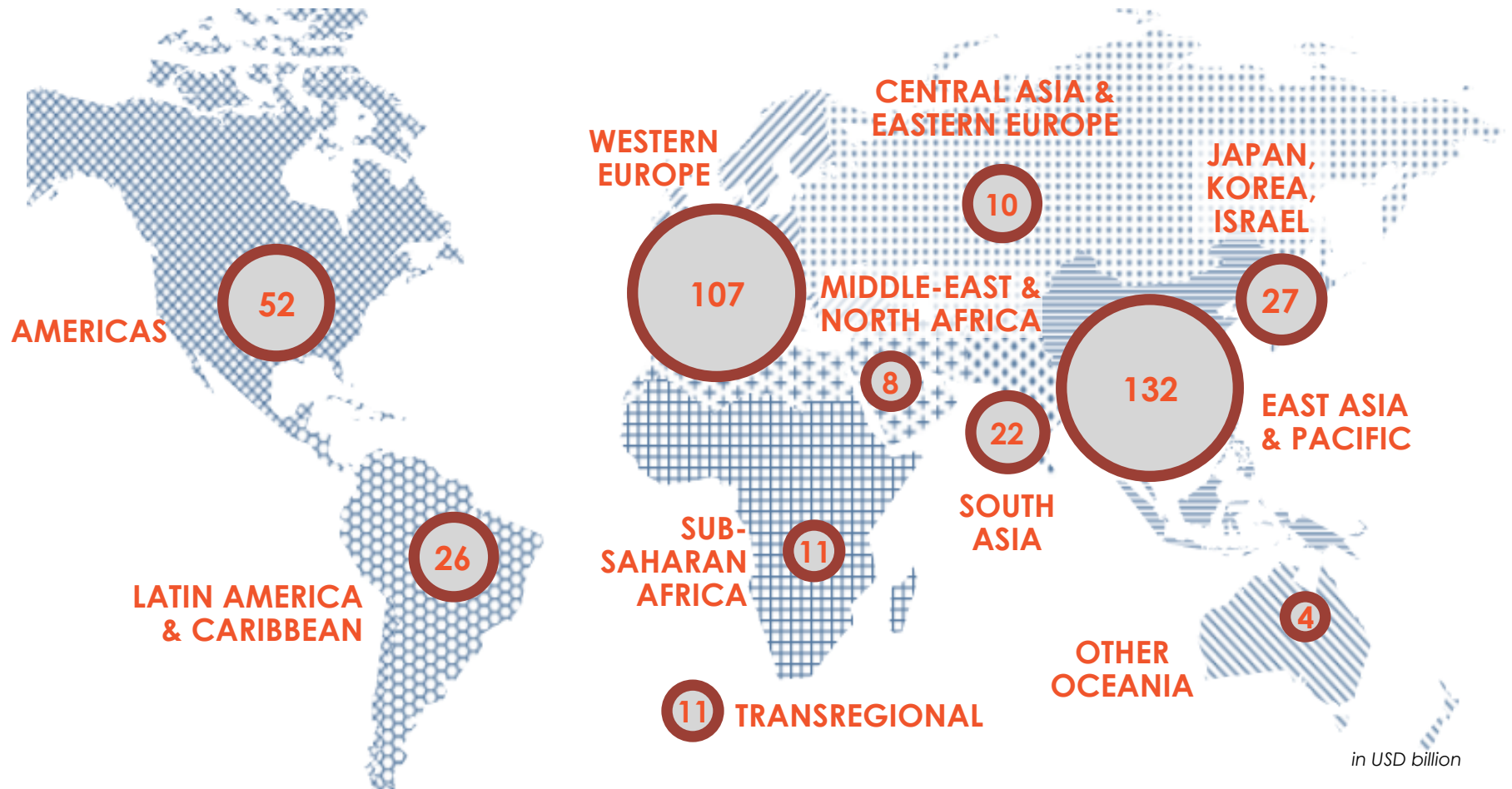
In adaptation finance, water and wastewater management captured 51% of public finance



Over 2015-2016, 79% of finance was raised and spent in the same country



South Asia, and East Asia and Pacific see the largest increase in climate finance



Four promising investment and policy trends signal a better outlook in climate finance

1 The Paris agreement means the majority of nations are working to **implement NDC plans**, many of which also include investment pathways.

A number of **initiatives engage broader capital markets, the financial system, and large corporations** to align with low-carbon and climate-resilient development.

3 Efforts to **green existing public financial flows** are beginning to take root (though more work remains).

New and innovative investment vehicles are on the rise and many of these target institutional investors that manage mostly untapped but significant portion of global capital.

2

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What can companies do to scale-up climate finance?

1. Advance renewable energy, energy efficiency, and resilience in operations & supply chain through procurement decisions



2. Use internal carbon pricing and offsets



3. Invest pensions and cash reserves



4. Issue corporate green bonds



5. Unlock greater innovation

The Lab identifies, develops, and launches sustainable finance instruments that can drive billions of dollars to a low-carbon, climate resilient economy.



India Innovation Lab
for Green Finance

Brasil Innovation Lab
for Climate Finance

Global Innovation Lab
for Climate Finance

Fire Awards for
Sustainable Investment

Questions?



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