Climate Finance 101 for Companies

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Welcome
What is Climate Finance?
Why is climate finance important?

Key challenges of the 21st century:

Climate Change

Sustainable Development
Acronyms to know

NDC Partnership
Academi............

COP23 FIJI
UN Climate Change Conference
Bonn 2017

United Nations Climate Change
Carbon Mechanisms

Wind Turbines:

This is where we get off

Paris Climate Accord

Climate Pledges
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.

**COTE D’IVOIRE**
Côte 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

Introduction
- Grid-Connected Renewables
- Off-Grid Solar & Storage
- Climate-Smart Agriculture
- Green Buildings
- Climate-Smart Urban Transport & Logistics
- Climate-Smart Urban Water Infrastructure
- Climate-Smart Urban Waste Management

Making it Happen

Sector Chapter Structure

Summary
- Market Snapshot & Growth Potential
- Creating Markets – Policies, Business Models, Financial Innovations
- Initiatives, Resources & Tools
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.

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 2015, 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

Yieldcos

- A publicly traded company focused on dividend growth, created by a parent or standalone energy company.
- Owns and operates renewable assets, promising contracted predictable cash flows while maintaining tax advantage.
- Allows parent companies to finance large-scale projects while ensuring access to lower capital costs.

Securitizing Assets

- Promises lower capital costs
- Solar asset-backed securities are emerging as a credible debt financing instrument in the U.S. residential solar market.
- IFC is helping to demonstrate the viability for rooftop solar in India

Project Financing

- Central to the future health, direction, and momentum of the energy storage industry.
- Signaling technology maturity and growth.
- e.g: SUSI Partners, a Swiss investment manager, recently closed the first round of its Energy Storage Fund with a pool of €66 million. Another €14 million is already committed.
Financial Solutions for Climate-Smart Agriculture

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 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 microfinance 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.

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.
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 ow and reduce transaction costs.

- 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.

- 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.

- The Low Carbon Workplace Fund - partnership between the Carbon Trust, fund manager Columbia Thread needle 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.

- 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.

- Other Financial Innovations
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.

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?

- **Government Budgets $11**
  - Agencies
    - Development Finance Institutions $3
    - National $58
    - Bilateral $19
    - Multilateral $46
    - Climate Funds $2
  - Commercial Financial Institutions $62
  - Institutional Investors $2
  - Private Equity, Venture Capital, Infra. Funds $1
  - Corporate Actors $37
  - Households $31
  - Project Developers $137

- **Unknown $5**
  - Low-cost Project Debt $42
  - Project-level Market Rate Debt $142
  - Project-level Equity $38
  - Balance Sheet Financing $167

- **Grants $14**
  - Public $52
  - Private NGOs and Foundations $2
  - Unknown $63
  - Public/Private $4
  - Private $288

- **Adaptation $22**
  - Dual benefits $5
  - Mitigation $382

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 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.

![Graph showing investment trends for private and public actors from 2012 to 2016.](image-url)
Are we on track?

Renewable energy is a bright spot...

...but other areas are behind.

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

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.

- Energy efficiency: 39
- Renewable energy generation: 33
- Sustainable transport: 22
- Others / cross-sectoral: 7
- Transmission & distribution systems: 5
- Agriculture, forestry, land-use, and natural resource management: 3
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.

2. 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.
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.
Questions?