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The world needs trillions

Tackling climate change will require huge amounts of investment, much of it in nascent technologies with as-yet unproven returns. How can the international community ensure that investors channel sufficient funds towards the most high-impact projects?

By **Barbara Buchner**, Executive Director, Climate Finance, Climate Policy Initiative (CPI)

Scaling up investment to the right projects, sectors and regions is arguably the key challenge

to fulfilling the Paris Agreement and Sustainable Development Goals (SDGs).

The International Energy Agency estimates that just to get the energy sector on a low-carbon pathway, we need to invest \$16.5 trillion in renewable energy and

energy efficiency over the next 15 years.

CPI's *Global Landscape of Climate Finance* shows that the world is making progress. In 2014, we invested \$392 billion in low-carbon projects, up 15 per cent from the previous year, due in large part to record private

◀ The Salma Hydroelectric Dam in Afghanistan's Herat province, built under a development partnership with India. Most climate finance does not cross borders, but the world's poorest will require external assistance to improve access to clean energy

investment in renewable energy. However, investment still falls far short of the needs. In addition, earlier-stage technologies and markets face difficulty overcoming the 'valley of death' in attracting capital to scale at the levels needed.

Creating an enabling framework

How, then, can we overcome these challenges? Based on CPI's work to understand investment trends, accelerate effective use of available financial resources, and develop and scale solutions, we have identified several key lessons.

First, policy and public resources matter, playing a critical role in making the market. However, it is important to recognise that public investment alone cannot fill the gap. The private sector controls the vast majority of the world's assets, and can and will invest when risks and returns align. Given the urgency of the challenge, the goal of public investment and policy should be to create appropriate environments for private investment to flow to key areas.

Critical to this is the 'enabling framework' for investment. The majority of low-carbon finance is raised and spent in the same country. About 74 per cent of total climate finance flows never cross a border, and that share increases to 92 per cent when looking only at private finance. Because domestic investment dominates, it is vital to get domestic policy and support frameworks right.

Clear targets and stable policy frameworks mean less risk for private investors. In addition, targeted public policies – like feed-in tariffs, guarantees, tax incentives and concessional loans – can close gaps in risk and returns between dirty practices and clean ones, in many cases without placing major strains on public resources. Ensuring a level playing field is also key – for example, in many countries, fossil fuel subsidies still far outpace clean energy subsidies.

Unlocking investment in India through improved policy and financial innovation

■ CPI identified high financing costs as a major barrier to meeting the Indian government's ambitious renewable energy targets. In particular, it found that expensive, short-term domestic debt was adding 24 to 32 per cent to the cost of Indian renewable energy, compared with similar projects in the US.

CPI's analysis demonstrated that by providing low-cost, long-term debt via budgetary support, the government could make renewable energy cost-competitive with conventional power while also spending 28 to 78 per cent less than existing support policies. The provision of low-cost, long-term debt has become the main policy solution advocated by the Ministry of New and Renewable Energy.

As secretariat of the India Innovation Lab for Green Finance, CPI is working to support the development of further solutions. For instance, India's solar targets include 40 GW of rooftop solar power by 2022. But investors' lack of confidence in the sector and the small size of rooftop solar system deals mean that project developers cannot access debt finance at adequate terms.

The Rooftop Solar Private Sector Financing Facility addresses this by structuring small projects together to bring aggregate deals to a size and credit quality sufficient to attract investment. By demonstrating its commercial viability, these investments may enable the sector to issue asset-backed securities to institutional investors in the future, further reducing the cost of capital and expanding the investor base.

The second lesson is that knowledge is power. In recent years there has been considerable progress in understanding investment risks related to climate change. However, this information is not always available to investors – and certainly not in consistent and comparable formats that could best inform their decision-making on managing risks and returns.

There is a need to further integrate climate change considerations into daily decision-making and the financial system more generally, to enable investors to understand both the risks and opportunities related to climate change.

There is a window of opportunity right now to define strong, common standards for climate risk disclosure before approaches start to proliferate. Companies and investors will want to minimise the administrative burden by reporting according to one widely used set of standards. France's introduction of mandatory climate change-related reporting for institutional investors is a good example of actions that can help build on this momentum.

Endorsements of the recommendations of the Task Force on Climate-related Financial

Disclosures from the G20, the Financial Stability Board and others would also help point the way forward.

The final lesson is that we need to think outside of the box. Scaling investment to the level required to meet the Paris Agreement and UN SDGs will require investment not just in sectors where there are established and compelling technologies and business models, such as renewable energy.

It will also need investment in more difficult sectors – such as energy efficiency, land use, adaptation and transit – where technologies are newer and access to capital is more constrained. There is a need to scale innovative, actionable financial solutions that can really make a difference.

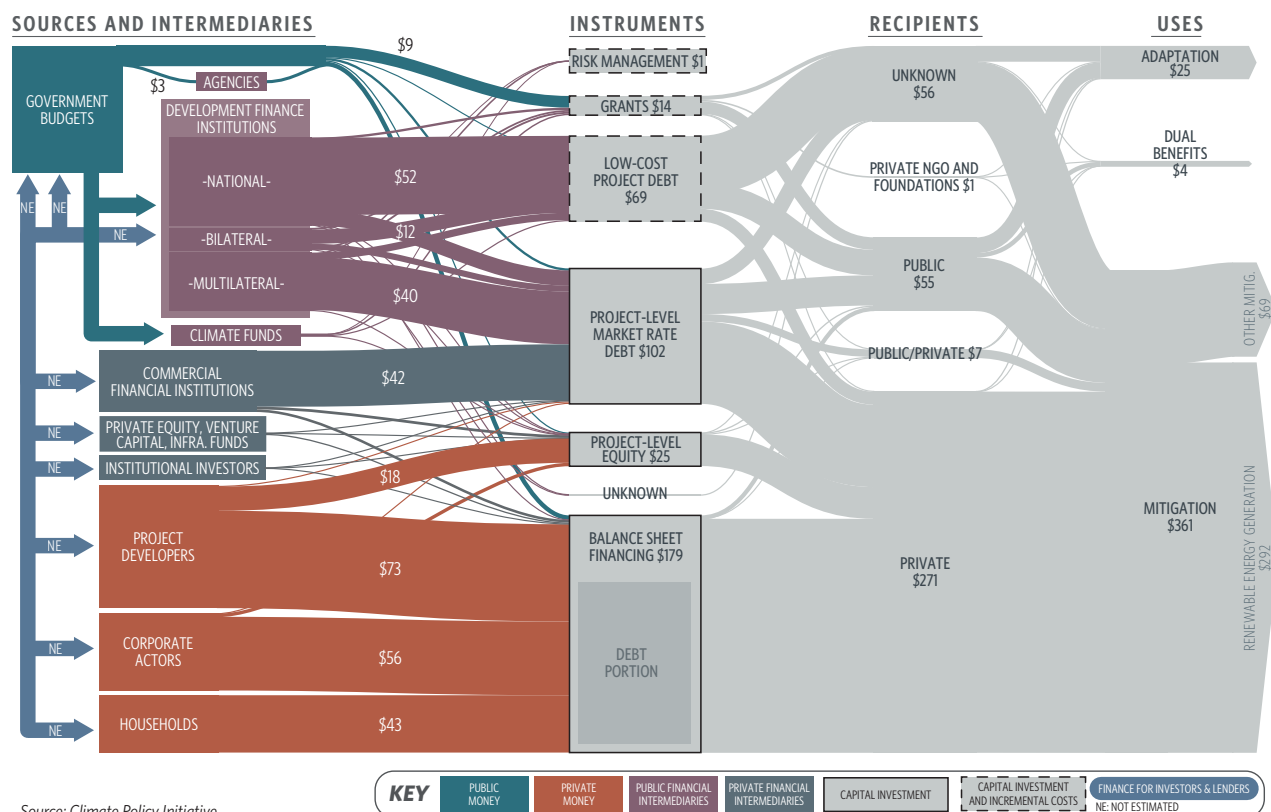
Current innovations

The Global Innovation Lab for Climate Finance (the Lab) provides an example of how to drive investment in a number of sectors by developing and scaling innovative business models and financial instruments. The Lab is a partnership that brings together public and private actors to address persistent investment barriers.

The global landscape of climate finance

Climate finance flows along their life cycle. Figures are in USD billions and are for the latest year available, mostly 2014

USD 391 BN TOTAL  CLIMATE POLICY INITIATIVE



Source: Climate Policy Initiative

It does this by identifying, developing, stress-testing and supporting the piloting of the next generation of climate finance instruments, with the goal of mobilising billions for climate action in developing countries. In just under three years, the Lab has helped raise over \$600 million in seed capital for renewable energy, energy efficiency and climate adaptation projects – and received an endorsement from the G7.

These innovations include instruments such as Energy Savings Insurance, which guarantees savings from investments in proven energy efficiency technologies made by small and medium-sized enterprises. While these technologies are proven in

some markets, a lack of confidence in, and experience of, their benefits in some developing countries has stalled investment. This instrument addresses those barriers and is being scaled by the Inter-American Development Bank to reach thousands of businesses in seven Latin American countries.

The Lab also develops instruments to unlock investment in sectors with less of a track record. For instance, the Climate-Smart Lending Platform brings together the tools, actors and finance necessary to reduce climate risk in lending portfolios and scale up climate-smart lending to smallholders globally.

Elsewhere, a new initiative currently in development called the Cloud Forest Blue Energy Mechanism creates a new business model to restore forests by partnering with hydropower plants that can benefit from such restoration in the form of improved water flow and reduced sedimentation. These types of financial structures can deliver environmental and investment returns.

To successfully transition to a low-carbon economy, the world needs trillions, not billions. Using public resources effectively to spur private investment and investing in innovation can help channel investment where it's needed most. ●