

Bridging the Gap: Addressing International Barriers to Climate Action Projects in the Developing World

SAMIR SARAN
APARAJIT PANDEY

This report is part of the Observer Research Foundation's "Financing Green Transitions" series which aims to find potential linkages between private capital, in all its forms, and climate action projects. The series will primarily examine domestic and international barriers to private capital entry for mitigation oriented climate projects, while also examining potential avenues for private capital flow entry towards adaptation and resilience projects.

INTRODUCTION

The fight against climate change is at an inflection point. Despite a myriad of actors attempting to ensure that the world is not left in a ruinous state for future generations, linkages between the release of greenhouse gases and the rise in global temperatures are still ignored by certain stakeholders. The cavalier attitude of these important actors has had a detrimental impact on the state of financial flows towards climate action projects especially in the developing world.

While a shortfall in the funding pledges made to the developing world through public

financing seems inevitable,¹ there remain possible avenues to make up for this deficit through the mobilisation of private capital. Yet, despite repeated demonstrations of the sizeable returns that can be reaped by funding climate action projects,² the institutions overseeing much of the world's private capital have been wary of making such investments in developing economies.

An examination of certain domestic hurdles preventing private capital investments in the developing world, has been conducted in the first part of this series. It is important,

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Box 1: The Politics of Climate Finance Flows

As discussed in an earlier Issue Brief in ORF's *Financing Green Transitions* series, the industrialised nations of the world made a pledge under the 2015 Paris Accords to provide \$100 billion in annual funding for climate action projects in developing countries. The developed world has yet to live up to its commitment, however, with estimates showing current annual flows totalling \$50 billion. The apparent lack of commitment towards climate finance flows is not the sole area of concern. The politics behind the calculation and categorisation of this estimate remains a point of contention in the developing world.

While the language pertaining to the \$100 billion of funding within the Paris Agreement is vague, what was envisioned at the inception of the funding conversation was a supplementary stream of financial flows. Many developed countries, however, have simply reallocated the funds within their development aid budgets in order to meet their obligations. This has had a significant detrimental effect on the achievement of important sustainable development goals across the world.

In addition to their supplementary nature, the flows were also intended to be unconditional in their original form. A closer examination of the numbers, however, shows that 25 percent of the \$50 billion that is being provided, comes in the form of loans from multilateral development banks. Given that loans, by their very nature, must be paid back with interest, certain parties have protested their categorisation as “assistance” for climate action efforts. The feeling amongst some in the third world is that the \$50 billion estimate is an exaggeration, bolstered by creative accounting and wilful incongruity.

however, to also examine the impediments on a global scale. This issue brief, part of the Observer Research Foundation's *Financing Green Transitions* series, will examine the main international barriers dissuading private capital investment in climate action projects – namely institutional investor practices, foreign exchange risk, and international financial regulations.

INTERNATIONAL INSTITUTIONAL INVESTOR PRACTICES

Any conversation pertaining to private capital flows for climate action projects, must begin with institutional investors. Institutional

investors (a catch-all term for large asset managers such as pension funds and insurance companies) control close to \$100 trillion of the world's wealth,³ and are in many ways the key to unlocking private capital flows for climate action projects.

Given the various stakeholders they must answer to, institutional investors tend to be conservative in their investment approaches, which acts as a deterrent when attempting to steer cash flows towards climate action projects. An example of this can be seen in the cautious approach taken by institutional investors with regards to illiquid investments.⁴ Most of the private capital in

the world lies in the hands of pension funds and insurance companies, who are encumbered with large annual liabilities in the form of pension obligations and insurance pay-outs. This limits the amount of exposure that such asset owners are willing to have towards large projects involving heavy capital expenditure in PPE⁵ which tend to be largely illiquid as an asset class. Investors prefer to put their funds towards instruments that can be converted into cash quickly, such as bonds and equities.

The cautious nature of institutional investors is further manifested in their project evaluation criteria. Traditionally, institutional investors do not evaluate investments on a case by case basis, preferring to apportion their funds to asset managers who have the capacity and expertise to carry out the necessary analysis and due diligence. In order to invest in climate action projects, institutional investors have to either build up sector-specific expertise internally or divert their funds towards specialists with existing capacity. Building up internal expertise is a time consuming and expensive process, and the global marketplace has a dearth of financial intermediaries who specialise in climate action projects. The evaluation of the performance of financial intermediaries is also problematic, given the absence of extensive track records in the nascent industry.⁶

The conservative risk management practices of institutional investors often act as a barrier against climate action investments, as well. In order to diversify their risk portfolios, pension funds and insurances companies tend to invest across a variety of asset classes, with set limits for the proportion that can be allocated towards each sector.⁷ Climate actions

projects, and more specifically renewable energy projects, tend to be classified under the energy or infrastructure sector, and as such are often crowded out by more traditionally accessible investments that institutional investors are familiar with.

This problem is exacerbated by the orthodox perceptions and attitudes of institutional investors with regard to climate action project and developing economies. Pension funds and insurance companies tend to have outdated views with regards to climate action projects especially with regard to technology risks, payment risk, and returns. Institutional investors also rely heavily on risk ratings to inform their investment decisions, which is problematic due to the unreliable metrics and evaluation methodology used to evaluate many climate action projects. Risk ratings are also often constrained by the sovereign debt rating of a country – in many cases a climate action project rating cannot be higher than the rating of the country, regardless of the financial viability of the investment.

FOREIGN EXCHANGE RATE

While internal factors play a part in hindering international institutional investor flows, there are also external factors that must be considered. Amongst the largest hurdles for any investor attempting to invest in the developing world is the risk associated with domestic currency fluctuation. Climate action projects can be affected by foreign exchange risk during any stage of the value chain, but are especially vulnerable to risk in the post construction phase. To illustrate how foreign exchange risk can affect investors, it is perhaps best to take the example of a solar plant project.

A solar project starts with the purchase of the land on which the plant will be built. Unfortunately, in many developing nations, the property acquisition procedure is time consuming, with costly delays that can take months or even years to be resolved.⁸ Unexpected upticks in the foreign exchange rate during the land acquisition period can lead to significant variance in investor expense, with cost increases potentially reaching millions.

The acquisition of land is usually followed by the procurement of materials – namely photovoltaic panels. China holds a near monopoly in the manufacturing of solar panels,⁹ which means that investors have to factor in the possibility of fluctuations in the Reminbi, as well as the local currency. Foreign exchange risk associated with the purchase of solar panels is not limited solely to developing nations. Recently, investors in a solar plant in Cambridgeshire County had to account for a \$645,000 increase in the cost of Chinese based panels as a result of the unexpected depreciation of the Pound, following the United Kingdom's vote to leave the European Union.¹⁰

Putting aside the procurement of land and solar panels, foreign exchange risk continues to exist during other phases of a solar project – payments to local contractors, transport fees,

and government levies must all be made in the local currency. The largest exposure to foreign exchange risk for international investors, however, is in the post construction phase. Barring certain exceptions, power purchase agreements delineate payments in local currencies, which leaves investors susceptible to foreign exchange risk for the length of the contract. The possibility of currency fluctuations over a long time frame nullifies one of the key attractive characteristics of a solar energy project – guaranteed, predictable cash flows over a fifteen to twenty year period.

The unpredictability of the revenue flows can lead to severe consequences that affect more than just the status of the investment. Given the sizeable capital needed for a solar project, investors often have to borrow up to 70 percent of the start-up costs from banks. If currency fluctuations are dramatic enough, investors can face the possibility of defaulting on loan or interest payments,¹¹ which can lead to ripple effects for an investor's entire portfolio. The starkest example of the consequences of changes in the foreign exchange rate can be illustrated by examining the case of Brazil.

While foreign exchange risk is problematic for investors, it is not a new phenomenon and affects a number of sectors. It is important to note, however, that the electricity sector is

Box 2: Real World Example – Brazil's Currency Crisis

In late 2014, Brazil awarded nine contracts to developers for the construction of 900 MWs of solar power. A global downturn in oil prices caused the value of the Brazilian Real to drop dramatically over the next two years. As a result of the currency depreciation, the contracts that were signed in 2014 generated 36 percent less revenue for developers by 2016. Eight of the nine investors ended up dropping out of the agreements, citing a lack of continued financial viability for the projects.

more susceptible to the effects of currency fluctuation - they cannot raise prices or renegotiate the rates dictated under the power purchase agreements to cover potential losses. Additionally, financial methods available for the mitigation of foreign exchange risks for other sectors are not necessarily applicable for renewable energy or other climate action projects. One simple solution employed in certain sectors, for example, is to use domestic banks to procure loans in the local currency. As has been pointed out, however, long-term debt for climate action projects is not available in many developing economies. Alternative financial strategies which can hedge against currency risk in other sectors, are also not always viable for developing economy climate action projects. The expenses associated with such instruments can raise the interest rates charged by international banks by six to seven percent,¹² making previously profitable projects unattractive.

INTERNATIONAL BANKING REGULATIONS

While internal practices and foreign exchange risk play a role in limiting private capital flows for climate action projects, the largest hurdle

for green investments in developing countries comes in the form of international banking regulations. Due to the large capital requirements for climate action projects, up to 70 percent of start-up costs usually originate from bank loans.¹³ The credit crisis of 2007-2008 has led to stricter controls being imposed on bank loans, making it more difficult for investors to access the funding needed to get a project off the ground. The problems that the norms cause for renewable energy investments can be explained by examining two of the three ratios dictating the amount of cash or near cash assets a bank must keep on hand – the capital requirement ratio and the liquidity coverage ratio.

A holdover from the previous version of the Basel norms, the capital requirement ratio dictates the amount of cash that a bank must keep on hand, by factoring in how risky the investment practices of the institution are. Each investment made by the bank is assigned a risk weighted percentage, depending on its characteristics – certain government bonds for example are considered to have almost no risk associated with them and are thus assigned 0 percent. The value of each investment is then multiplied by its risk percentage, after which all the values are

Box 3: A brief overview of the Basel Norms

The Basel norms were initially conceived in 1988, by the Basel Committee on Banking Supervision (BCBS) as a mechanism designed to prevent banks from insolvency issues caused by defaults of risky assets. The norms required banks to keep a certain percent of its overall investment portfolio on hand in order to prevent the bank from going out of business in the case of widespread failure of loans and investments. These requirements proved to be insufficient during the credit crisis in the mid 2000's to late 2000's, however, leading to a renewed examination of international banking regulations and the subsequent release of a new version of the Basel norms. The latest iteration of these macro prudential regulations, referred to as Basel III, were introduced in 2011 with subsequent amendments added in 2013 and 2014.

collated to produce the bank's Risk Weighted Average (RWA). According to Basel III, banks must keep between six to ten percent of the value of their RWA on hand.¹⁴

The core function of private banks, like any other business, is to make a profit and any cash that they have to keep on hand to meet the capital requirement ratio cannot be invested in revenue related activities. Banks, therefore, have two options – reduce the amount of cash they have to keep on hand by making investments that are considered less “risky” or ensure that the returns they get from the “risky” investments are high enough to justify the increased cash they will have to keep on hand.

While investors view the capital requirement ratio as a hindrance, it is the addition of Liquidity Coverage Ratio (LCR) in the Basel norms that has caused the largest amount of consternation amongst institutional actors. Intended to act as a counter measure against the factors that caused the credit crisis of 2008, the LCR forecasts how a bank's business operations would be affected by a large scale financial crisis. The projection assumes that the amount of cash received from investments will drop during the “stressed period” while the amount of cash extracted by customers will increase. The extent to which cash receivables are meant to drop and cash withdrawals are expected to increase is dependent on certain characteristics – for example, 10 percent of deposits made by individuals and small businesses are expected to be withdrawn. Large financial institutions, on the other hand, are projected to withdraw 100 percent of their deposits in a stressed scenario.¹⁵ In order to fulfil the requirements of the liquidity coverage ratio, banks must keep

on hand cash or assets that can be easily converted into cash (referred to as High Quality Liquid Assets) to meet all obligations that might occur during a 30 day “stress period”.

The inclusion of the leverage coverage ratio in Basel III has had two major effects on banking lending processes. First, banks have started to show a preference for the types of deposits that are expected to have less of an effect on cash outflows during a financial crisis, such as small businesses. Secondly, banks have moved away from lending to long term projects in favour of more short-term liquid assets in order to meet the requirements of the liquidity coverage ratio.

The capital requirement ratio and the liquidity coverage ratio are problematic for investors attempting to access debt for investments in either climate action projects or developing countries. The high risk profiles assigned to both types of projects by the majority of rating agencies lead to a higher capital requirement burden for banks who pass the cost on by asking for significantly higher interest rates for any debt provided to climate action projects in developing countries.

The long life span and illiquid nature of climate action projects also impacts the liquidity coverage ratios of banks, leading to significantly higher interest payments on loans made to finance said projects. The high cost of international debt financing, combined with the inability to access debt from domestic banks in most developing economies, has had a considerable negative impact on climate action projects with certain analyses showing a 40 percent drop in institutional investor flows as a result of the implementation of Basel III.¹⁶

THE WAY FORWARD

The international issues that have been discussed in this brief play a significant role in hindering private capital flows towards developing economies. The conservative investment practices of international institutional investors create restrictive internal barriers that are difficult to overcome but can be done, over time, through capacity building measures. Foreign exchange risk can result in sizeable liabilities for certain types of climate action projects and while the risk cannot be hedged using traditional mechanisms, policies such as dollar denominated tariffs or government backed hedging facilities are possible ways to mitigate it. The restrictive controls that are placed on long tenured, risky projects such as renewable energy make it difficult to access international debt financing, but policies

reclassifying the risk associated with such projects could make them more attractive for creditors.

The Observer Research Foundation over the next 12 months will release a set of reports as part of their **Financing Green Transition** series looking at potential methods to increase the flow of private capital investments for climate action projects in developing countries. The reports will include an examination of the risk perceptions of European Institutional Investors with regards to renewable energy projects; an econometric analysis of the benefits of credit enhancement mechanisms by Multilateral Development Banks; a methods report aimed at creating a transparent and publicly accessible ratings evaluation system; and a feasibility study examining the viability of greening “Basel” through alterations in their risk calculations. [ORF](#)

ABOUT THE AUTHORS

Samir Saran is Vice President, ORF.

Aparajit Pandey is Program Coordinator, ORF.

ENDNOTES

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