Asia's Developing Future

ASIAN DEVELOPMENT BANK INSTITUTE

Private-sector partnerships and green investment banks can be used to effectively finance low-carbon infrastructure to fight climate change

Large-scale funding is needed to transform fossil fuel dominated energy markets into a low-carbon energy sector, and that requires private sector participation, both in terms of investment and institution building, especially in Asia, which is the current growth center of the world.

Countries have to accelerate further investment into low-carbon energy infrastructure to meet their Paris Climate Change Accord commitments. And thus, there are new opportunities for green growth. Public–private partnerships and green investment banks are two effective ways to bring private-sector funding on board to promote those goals.

A recent working paper for the Asian Development Bank Institute points out that private-sector participation both in terms of investments and institution building is critical for the emerging economies of Asia, many of which have low tax bases and don't have the public funds at the required level to facilitate these transformational changes.

Achieving targets for reducing greenhouse gas emissions requires developing alternate forms of green energy sources and developing an environment conducive toward low-carbon infrastructure development, which ranges from research and development to the deployment and commercial maturity of new technologies, infrastructure, and investment models.

It has been estimated that this will mean a region-wide spending of $1 trillion a year up to 2030 in the energy sector alone.

In the countries of the Association of Southeast Asian Nations (ASEAN), the People's Republic of China, and India, which together represent 37% of global greenhouse gas

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emissions, investment of $22.6 trillion will be needed to transform key energy sectors from 2016 to 2030.

The scale of financing for climate change efforts reached a peak at $437 billion for 2015 and then dropped to $383 billion in 2016, a 12% decline.

In all, 70% of the global green infrastructure needs will be in emerging markets. Many of these countries, urgently require large-scale private financing to supplement public finance and international official development assistance to fund the needed green infrastructure.

The transformational changes and green energy markets are just taking off, and traditional finance has not been able to provide all the capital needed to scale up their growth momentum, due to many constraints. Many public and private banks are reluctant to lend to new low-carbon or green energy sector initiatives because technologies are new and financiers consider them risky, as return on investments have not been fully demonstrated. That's a particular problem in Southeast and East Asia, where capital markets are relatively small and underdeveloped, and bank lending still dominates.

Public–private partnerships (PPPs) and green investment banks (GIBs) provide a much-needed leverage to public investment and bridge the public–private sector efforts to ensure that green energy projects can find the funds they need in time and scale. PPPs and GIBs allow the private sector to share the risks and opportunities of green energy investments that are required to mitigate the long-term effects of climate change.

Governments will need to provide guarantees for upfront funding, incentives to upscale green technologies and effective means for risk transfer, and concessions to those willing to enter and sustain markets.

Public–private partnerships in effect allow investment risks to be shared among key stakeholders—governments, lenders, and implementors on projects that have traditionally been executed or financed by the public sector.

Private-sector investors can be lured in through these concessions during the early phase of developments, when the risks are the highest and cheaper capital is hardest to find. Once the new green energy projects start operating and generating cash flow, the risks are reduced and the projects can be sold off to institutional investors looking for low-risk and stable

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returns. Initial private-sector investors will get back their money and can move on to investing in other similar projects. The higher the initial risk, the more opportunity for early-stage concessional investors to earn higher returns that can then be invested into other green infrastructure projects.

Green investment banks are public or semi-public institutions that are set up to provide funding for low-carbon infrastructure and green energy projects. They offer preferential rates to finance the green sector including renewable energy, energy efficiency, and other clean energy infrastructure projects in partnership with private lenders and other bilateral and multilateral development agencies.

By 2017, according to the Organisation for Economic Co-operation and Development, over a dozen national and subnational governments had created public green investment banks or similar entities.

They are especially important for countries that do not have national development banks or similar entities that specialize and actively promote investments in green domestic infrastructure, with the capability to pool in private funds.

Even if dedicated infrastructure and development banks do exist, governments can consider establishing green investment banks to prioritize and expand the operational portfolios. In essence, green investment banks are designed not to "crowd out" commercial banks and private investors, but to "crowd in" private capital for green investment projects.

The authors of the working paper highlight the green investment banks in the United Kingdom that were set up in 2012, the KfW in Germany and Green Finance Organization established in Japan in 2016. Using public funding, the banks helped transition their nations toward a more sustainable economy by mobilizing the use of private-sector capital in low-carbon energy projects.

These banks are only allowed to lend to sectors such as offshore wind, waste-to-energy, bioenergy, energy efficiency, and more recently, onshore wind. The United Kingdom's GIB for example had financed 69 projects by 2016 and committed £2.1 billion toward £8.5 billion worth of projects, meaning that £3 came from the private sector for every £1 invested by the bank.

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This publication underscores the need for public–private partnerships and green investment banks, as proven and practical ways of delivering financial innovation, portfolio de-carbonization, and constructive engagement of the private sector for delivering low-carbon transformation in India, Japan, and beyond.

This podcast was based on *A Comparative Study on the Role of Public–Private Partnerships and Green Investment Banks in Boosting Low-Carbon Investments*, a working paper for the Asian Development Bank Institute by Dharish David, an associate faculty member at the Singapore University of Social Sciences and Anbumozhi Venkatachalam, a senior energy economist at the Economic Research Institute for ASEAN and East Asia.

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