New type of investment could narrow funding gap for climate adaptation projects

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Creating a new type of investment could be the key to protecting infrastructure projects from the impact of climate change according to a new report.

Many climate infrastructure projects are at risk from extreme weather, rising sea levels, floods and rising temperatures.

The creation of a new global asset class, or "adaptation bonds," dedicated to funding climate adaptation and resilience projects, offers a number of advantages for investors according to a new paper from Imperial College Business School. The new paper, "Adaptation Bonds: Lessons from the US Municipal Bond Market to Help Close the Adaptation Financing Gap" is authored by Bob Buhr, Honorary Research Fellow at Imperial College Business School's Centre for Climate Finance & Investment.

UNEP has estimated that overall adaptation spending requirements are expected to be in the range of $180 billion annually through 2030 (by comparison, total climate spending could reach $4.5 trillion annually) and even higher between 2030 and 2050.

Within the paper, Buhr suggests that a new global asset class, styled on the U.S. municipal bond market, could expand the potential financing of a range of climate-related infrastructure projects that governments at all levels can undertake, as is currently the case in the U.S.

"U.S. infrastructure financing is 75% accounted for by state and local spending, and 80% of this amount is provided by municipal bonds. If the requirements for developing countries were funded under a U.S. municipal bond model, funds raised for adaptation purposes could be as high as $180 billion annually," says Buhr.

"The municipal bond market is highly popular in the U.S. It provides most of the financing for domestic infrastructure projects. It is also a popular market because interest income on municipal bonds is not, by legislation, taxable as income at the federal level or at the state level in most states."

More funds for infrastructure projects

According to the paper, this new type of investment could allow investors to provide more funds for financing for a broad range of infrastructure projects, such as increasing energy efficiency of buildings, improving flood and storm surge defenses and upgrading water provision systems, often in the face of increased drought conditions. These investments could also support the adaptation of ports and transport networks to mitigate against rising sea levels.

In the U.S., Buhr says, "Most adaptation projects would encompass the creation or improvement of infrastructure, both gray (i.e. built) and green (i.e. natural). Furthermore, not all such projects will generate the sort of cash flows that investors may require, thus requiring direct government support in any event." Buhr notes that infrastructure adaptation projects are increasingly being funded by Green Municipal Bonds in the U.S.

Buhr also notes that the creation of a new global asset class along these lines would expand not only the range of projects, but also the range of opportunities for investors, who are seeking a broader framework for climate finance investing.

"There are several advantages to this proposal: expanding the range of adaptation projects and raising their visibility; expanding the adaptation bond investor base; requiring the development of a standardized and universal set of criteria for adaptation and resilience projects; lower project costs from not deferring necessary projects; and the lower coupon to be paid by adaptation bond issuers instead of taxable debt," Buhr says.

However, within the report, Buhr concedes that there are several potential impediments that could hinder the global adoption of adaptation bonds. Such challenges include the associated difficulties in developing universal standards for this new security; adopting a global tax system that would facilitate issuance of debt with non-taxable interest income on a regional or global scale. "A significant factor that must be acknowledged is that putting this in place, even with extraordinarily good intentions, will take a number of years," Buhr says.

More information: Adaptation Bonds: Lessons from the US Municipal Bond Market to Help Close the Adaptation Financing Gap

Provided by Imperial College London

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