Green City Bonds

Climate Bonds INITIATIVE

Green City Bonds: financing low carbon urban infrastructure

GREEN CITY BONDS are increasingly used by municipalities and other city-affiliated entities, such as utilities and transport companies, to finance climate-aligned infrastructure.

Cities are at the centre of the USD90 trillion green infrastructure opportunity

Cities account for approximately 70% of global greenhouse gas emissions and are particularly vulnerable to the negative impacts of a changing climate and other environmental issues such as air and water quality. Estimates also show that urban population is expected to rise to 60% by 2030, increasing the demand for housing, public transport, water and waste infrastructure. Investment in low carbon and climate-resilient transportation, water, power and buildings can address both the urban infrastructure and climate challenge.

Green bonds offer cities access to low-cost capital

Fiscally constrained municipalities need new sources of low-cost capital to meet the investment needs for climate-aligned infrastructure. In addition, city-affiliated entities, including private sector players, public-private partnerships and development banks, are crucial contributors to building climate-friendly cities. All of these entities can tap into the green bond market to finance cities' green infrastructure projects.

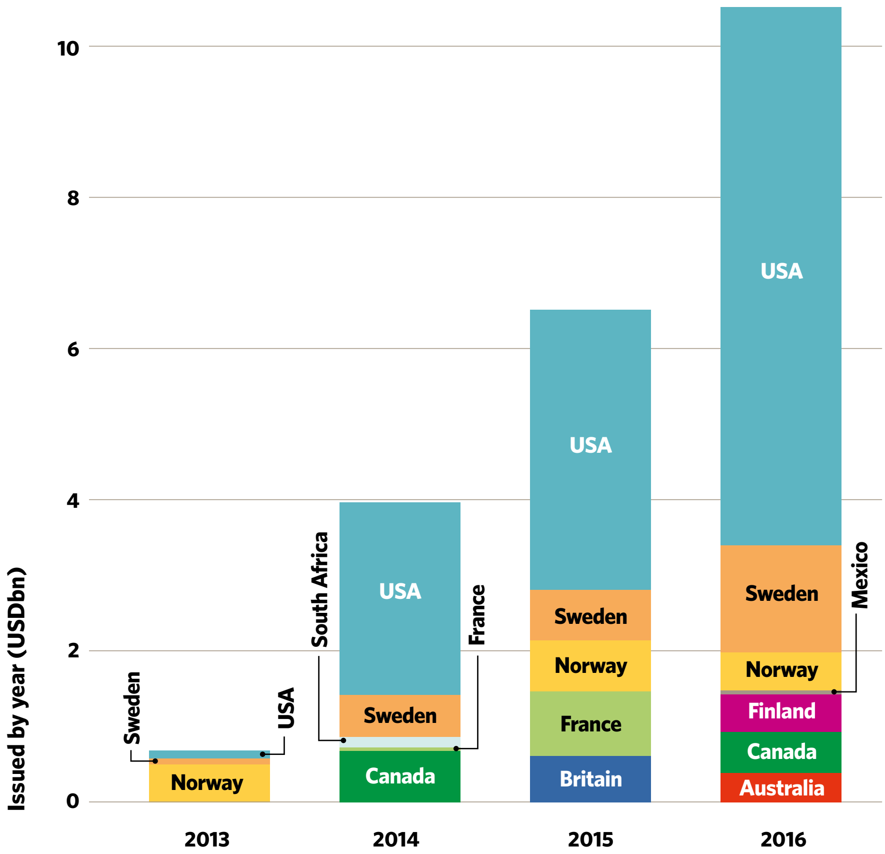
The US market leads in Green City Bonds - EU and emerging markets following

Green bond issuance from cities and municipalities has grown from USD 4bn in 2014 to USD 10.5bn in 2016.

While the US market hosts the largest green municipal market, Europe is also seeing growing issuance, from cities directly (Paris, Oslo, Gothenburg), city-affiliated corporations (such as Transport for London) and municipal banks (see Kommuninvest example on page 2).

Emerging economies are also issuing green city bonds: the City of Johannesburg entered the market already in 2014, and City of Mexico issued in 2016 (see box).

Green City Bonds Issuance (2013 - 2016)



Green City Bonds finance both adaptation and mitigation efforts

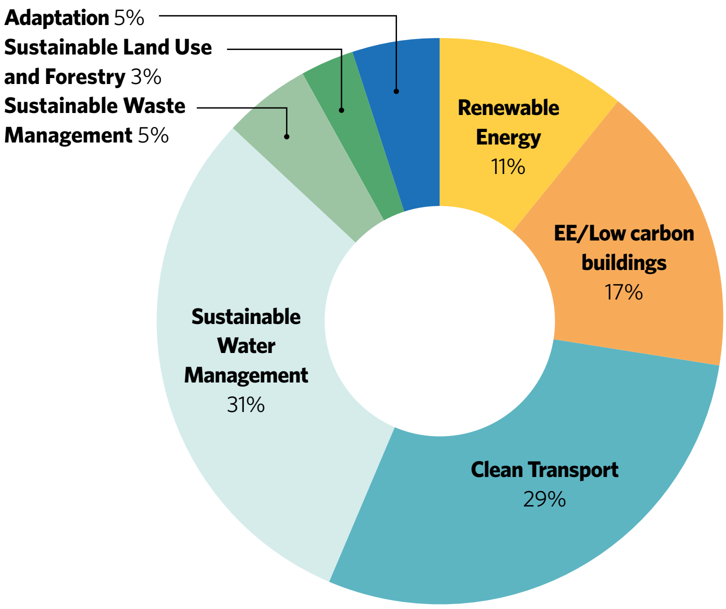
Use of proceeds from green city bonds have been used to finance urban rail, renewable energy, energy efficiency, sewage treatment, recycling and flood defences. To date, transport and water have been the dominating themes. Analysis of the US market showed potential for green city bonds issuance to triple in size, as a number of outstanding bonds (not yet labelled as green) are already financing low carbon sectors, public transport being the largest.

Mexico City's first green bond

The City's MXP 2bn (USD 50m) issued in November 2016 was the first muni bond in Latin America. The bond, which was oversubscribed 2.5x, has a five-year maturity and will finance potable water, wastewater, energy efficient public lighting and metro transport.

The City will raise more green bonds to finance its low carbon and climate-resilient infrastructure and transport development plans. Climate Bonds collaborated with the City's Secretaría del Medio Ambiente and the Bolsa Mexicana de Valores to support the issuance and identify eligible projects to include in the bond's portfolio.

Green City Bonds use of proceeds



Hong Kong's MTR green bond & land value capture funding model

Hong Kong's rail network operator MTR issued its first green bond (USD 600m, 10-year tenor) in 2016. The bond financed an extensive list of the company's sustainable projects, including metro rail, energy efficient lighting, water and waste management and green station buildings.

The rail network operator uses a land value capture model to finance the metro. MTR buys government-owned land around its stations and receives exclusive property development rights.

The rail and the properties around and above the stations are then developed, causing the land to increase in value.

MTR sells or leases the land at the incremented price, generating a profit that uses to sustain rail development and maintenance.

Future growth: project pipeline development is crucial

Developing a pipeline of financially viable projects is an essential first step to financing climate-aligned city infrastructure through green bond issuance.

More collaboration between the public and private sector is needed to ensure that green urban projects are financially viable and attractive to investors, and not relying solely on public sector funds.

Innovative business models, such as land value capture for transport development, are more fiscally efficient for local governments than providing direct funds. In this case, increases in the value of land and property around stations is captured to finance new rail development and maintenance (see MTR example).

Cities in emerging markets: accessing capital markets in many ways

Only 20% of cities are creditworthy enough to access domestic capital markets, and only 4% of them can tap international markets.

If the municipality is not creditworthy, there are a number of options for urban infrastructure to be financed by green bonds:

- city-affiliated entities can directly issue
- credit enhancement with the central government or multilateral development banks for the municipality can be explored
- projects can be developed as public-private partnerships (PPP). Green bonds can then be issued off the PPP

Green bond issuance from municipal banks: The Kommuninvest example

An effective model for municipalities to tap capital markets can be aggregating their debt operations into an institution owned by the municipalities, who act as guarantors for all undertakings.

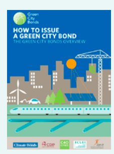
This is widely used in the Nordic countries (e.g. Kommunalbanken in Norway, MuniFin in Finland and Kommuninvest in Sweden), enabling local governments to issue benchmark deals, attracting international investors and lowering transaction costs.

The Swedish Kommunivest raised its inaugural USD 600m (largest bond from a Nordic issuer) in March 2016 to raise funds to support its green lending programme.

The first green bond in SEK (for SEK 5bn) followed in October 2016.

The US Green City Bonds coalition was set up by the Climate Bonds Initiative, C40 Cities Climate Leadership Group, CDP, Natural Resources Defence Council, Ceres and As You Sow, to support municipalities in the US tap into the green bond opportunity.

Coalitions build cities capacity through market education, providing cities with tools to prepare them for issuance and a platform for knowledge sharing between cities' treasuries. This model can be replicated in other countries.



Read more about how to issue a green city bond

www.climatebonds.net

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