Carbon in the city

Financing action to cut emissions in cities is a challenge.
ENERGIES 2050 look at the options

Case study: sustainable housing in Mexico

The UNEP publication, *Climate finance for cities and buildings: a handbook for local governments*, highlights a sustainable housing project in Mexico as an innovative example of using climate finance to simultaneously reduce greenhouse-gas (GHG) emissions and improve the standard of living for city residents.

The project has developed incentives such as "green mortgages" to help residents buy low-carbon housing. The scheme has been implemented in different cities across the country, with the various projects grouped together in a nationally coordinated programme of activities for finance purposes.

The scheme is now being developed into a nationally appropriate mitigation action (NAMA), a newer mechanism established by the UNFCCC for capturing broader climate change mitigation activities in developing countries. The move opens the doors to greater international recognition, multiple sources of climate finance and a more holistic approach to delivering benefits beyond GHG emission reductions.
Housing the majority, and an increasing share, of the world’s population, cities have a significant role to play in tackling climate change. Estimations vary on the collective carbon footprint of cities – setting the boundaries for such a calculation produces myriad difficulties – but it is widely accepted that they account for a large part of global greenhouse-gas (GHG) emissions generated from energy use.

Despite lobbying and action from city networks and sub-national governments, cities have lacked attention on the agendas of international climate talks, namely those held under the United Nations Framework Convention on Climate Change (UNFCCC). But this is changing. UNFCCC negotiations are increasingly recognising the role that local authorities have to play in translating national commitments into reality.

At the UN’s climate summit in September 2014 several climate initiatives for cities were launched, notably the City Climate Finance Leadership Alliance to accelerate investment in low-carbon urban infrastructure. At the same time, the Global Mayors’ Compact commits more than 2,000 cities to strengthen their climate change action and reporting. Meanwhile, the Initiative for Sustainable Cities, co-founded by the Institute of La Francophonie for Sustainable Development and the NGO ENERGIES 2050, encourages climate change strategies that are consistent and comparable, yet adaptable to each urban area.

Where’s the money?

A key barrier to implementing climate change mitigation activities in cities is the availability of finance. With local governments facing ongoing budget cuts and pressure to tackle other local issues, the oft-posed question is “who’s paying?”.

For many countries, international climate finance may provide the answer. This may be through direct support for countries’ climate change mitigation efforts or more indirectly through carbon offsetting mechanisms. The latter involves the purchase of carbon credits from GHG mitigation projects by entities wishing to offset their own emissions. These can be voluntary, through corporate social responsibility programmes, or to help comply with legal obligations, such as those under the EU emissions trading system.

The UN clean development mechanism (CDM) permits developed countries to offset GHG emissions by purchasing credits generated by registered CDM projects that implement emissions reduction activities in developing countries. Although the carbon markets are struggling, the CDM has helped to avoid more than 1.5 billion tonnes of CO₂ since it became operational in 2006 and the host countries involved have received up to $13.5 billion in direct benefits through the sale of credits.

But, so far, cities are hugely underrepresented among CDM projects. It is in this context that the UN environment programme (UNEP) published Climate finance for cities and buildings: a handbook for local governments. It discusses the challenges and opportunities for climate finance in the urban environment and provides an overview of the main mechanisms for doing this (see panel, below). ENERGIES 2050 leads this research project and for the authors it forms part of a broader effort to implement the transition towards a sustainable and equitable energy future.

High hopes

The key difficulty when raising finance for city projects is that urban GHG emission sources, apart from relatively few larger emitters, tend to be numerous, small and dispersed – from buildings and vehicles, for example. By contrast, CDM projects have focused historically on individual sites that emit a lot of GHGs. A project targeting a smaller emissions source is less likely to be viable, given the transaction costs associated with the CDM, while attempting to bundle together many small projects can be challenging to implement and monitor.

Nonetheless, a transition is under way, as finance mechanisms become more flexible and tools are developed to help manage projects in complex urban environments. For example, CDM methodologies can now be applied in a programme of activities. This allows many smaller projects, such as improving the energy efficiency of individual buildings, to be coordinated under one programme, and further projects to be added over time.

So what are the next steps for cities? The transition towards more “city-friendly” climate finance mechanisms will be important for facilitating the flow of much-needed support towards urban projects. Gaps in data and a need for consistent reporting have hindered replication between cities’ climate change activities. It is hoped that initiatives, such as those launched at the 2014 climate summit, will help to resolve these challenges. More broadly, the recognition of cities’ roles in mitigating climate change must continue to grow and be supported by efforts to overcome common technical, financial and institutional barriers to their involvement.

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Climate finance mechanisms

| Clean development mechanism (CDM) | Projects registered under the CDM are issued with carbon credits that can be sold in return for reducing GHG emissions compared with business as usual. Methodologies are available for large- and small-scale projects, with simplified requirements for the latter. |
| Programme of activities (PoA) | The PoA mechanism is similar to the CDM but with additional benefits of being able to register several smaller GHG mitigation projects under one overarching programme. |
| Nationally appropriate mitigation actions (NAMA) | Rather than an individual project, a NAMA captures voluntary policies, programmes and projects that developing countries undertake to contribute to GHG emission mitigation. Financing may be domestic or international or both. |

Source: Climate finance for cities and buildings: a handbook for local governments, UNEP