UN HABITAT
CITIES AND CLIMATE CHANGE INITIATIVE
POLICY NOTE 2

Mitigation Finance:
Do Cities in Developing Countries Have Sufficient Access?

Cities are pivotal to reducing global greenhouse gas emissions.

Cities emit enormous quantities of greenhouse gases (GHG). Dodman and Satterthwaite (2009) conservatively put the total at between 30 and 41 per cent of the world's GHG emissions. Using a different method, the World Bank concludes: "[The] resource-intensive lifestyles of… urban residents… account for more than 80 percent of the world's total GHG emissions" (World Bank 2010c).

Moreover, as the world continues to urbanize, the proportion of GHG gases released by cities will grow as well. Demographers expect the world's urban population to double by 2030. Driven by this and related trends, the International Energy Agency estimates that the proportion of energy-related global GHG emissions that urban areas account for will rise from around 67 per cent today to 74 per cent by 2030 (World Bank 2010a). One recent study found that, under the Intergovernmental Panel on Climate Change's (IPCC's) 'A2' scenario of carbon emissions, urbanization will "…account for an additional 4 billion tons of carbon per year… about one-half of current global emissions, by 2100" (O'Neill et al 2010). As the Global South continues to urbanize, cities in developing countries increasingly will contribute to the world's GHG emissions.

Because of their agglomeration advantages, cities are key to reducing global greenhouse gas emissions

View of emissions from an electric power plant and refinery in the San Rafael neighborhood of Esmeraldas, Ecuador ©UN-Habitat/François Laso

Acting by themselves or with other cities, local authorities have begun to act to reduce their emissions. In the United States, for example, 1017 cities have signed on to meet or exceed Kyoto Protocol targets to cut back their GHG emissions (WB 2010a). Likewise increasing numbers of cities in the Global South such as Bangkok have pledged to reduce their emissions. And cities are beginning to devise innovative approaches to meet those targets. Tokyo, for example, has launched a city-level emissions trading system, while London, Toronto and Philadelphia have set up funds to finance energy efficiency measures (C40/Arup 2011). But are national governments and the international community doing enough to catalyse the enormous potential for innovative, effective action in urban areas?

"Existing mechanisms are slow, very slow, and extremely complex, and that makes [them] unviable.' -Blanca Alcala, Municipal President, Puebla, Mexico (ICLEI 2010)

Cities are not receiving sufficient access to mitigation finance.

Mitigation measures can and should be funded in a number of ways: up-front financing (such as from energy efficiency programmes), top-ups to revenue streams (e.g., via carbon markets) and grants (such as from the Global Environment Facility [GEF]) can all play roles. A

primary means for encouraging developing countries to undertake such projects has been the Clean Development Mechanism (CDM). Two papers recently concluded that to date urban projects have been underrepresented in the CDM portfolio. ICLEI – Local Governments for Sustainability concluded: "Despite the given potential for GHG emission reductions in the urban sectors of building, waste, and transport, the number of urban projects these represent is only around 8.4 per cent of all registered CDM projects" (ICLEI 2010). And using a different yardstick the World Bank concluded: "Less than one per cent of current CDM projects are credited to cities" (World Bank 2010b).

A series of mature, cost-effective technologies exist that can reduce GHG emission in urban areas.

Why this relative lack of funding for urban mitigation projects in developing countries, when such a high proportion of GHG emissions arise from cities? One explanation is largely economic. As the World Bank puts it: "The administrative and transaction costs of setting up CDM projects in cities have been very high compared to the return from carbon finance" (Ibid). These hurdles may be particularly formidable for secondary cities of limited administrative capacity, and/or where single-sector CDM projects may not generate sufficient volumes of carbon credits to justify the effort.

"If [CDM] mechanisms were actually made available to urban places rather than just nations, I think they could be a very effective tool to help create market places within large urbanconurbations." -Gary Lawrence, Arup (ICLEI 2010)

But different analysts have reached a second, more process-related conclusion about the relative lack of mitigation projects in cities. As the World Bank observes: "All of this international climate funding will be channelled through national governments, and city access to funding remains uncertain, especially as climate change activities are usually assigned to Ministries of Environment, which do not traditionally focus on urban issues" (World Bank 2010a). ICLEI has reached a similar conclusion (ICLEI 2010). UN-Habitat also finds: "A clear factor constraining urban actors' use of mechanisms within the international climate change framework is the fact that these mechanisms are primarily addressed to national governments and do not indicate a clear process by which urban areas and actors may participate... Getting urban priorities moved up on national agendas can be problematic, at best" (UN-Habitat 2011).

"We have the potential to mitigate… Funding needs to be a lot more accessible… Not all cities are aware of funding opportunities, and have access to it." – Elana Keef, Nelson Mandela Bay Metropolitan Municipality, South Africa (ICLEI 2010)

It is unfortunate if cities in developing countries are experiencing restricted access to mitigation finance, because cities are imminently capable of undertaking cost-effective actions. A review of the marginal abatement cost curve for mitigation actions developed by McKinsey & Co. (2009) reveals a number of urban sectors – buildings, transport, waste – where mature technologies exist and where cumulative benefits will exceed upfront investment costs. Moreover, over time, cross-sectorial urban planning that promotes compact development and provides for mobility choices can contribute to low-carbon growth trajectories. Madrid, for example, is ten times denser than Atlanta – yet the Spanish capital's carbon dioxide equivalent emissions are four times lower than are Atlanta's (World Bank 2010a).

Urgent interventions are required to provide cities with better access to mitigation resources.

There are some encouraging developments. Firstly, at the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) in Cancún in 2010 (COP-16), for the first time States recognized local authorities as key "governmental stakeholders" in global climate change efforts. Secondly, following a call from States at COP-16, earlier this year the CDM Executive Board approved rules for a City-wide Program of Activities (PoA) approach. By making it easier for cities to qualify for carbon credits through a multi-sectorial programmatic approach, it is hoped that this World Bank-sponsored innovation (piloted in Amman, Jordan) will help to unlock the poten-

Mitigation efforts include mangrove planting in Sorsogon, Philippines @UN-Habitat/Cris Rollo

tial of carbon finance in secondary cities where single sector projects do not justify the effort. (Along similar lines the City of Gwangju, Korea, with support from the United Nations Environment Programme [UNEP], is currently developing an urban-focused carbon finance program.) Thirdly, in its current (fifth) replenishment the GEF's Climate Change Fund is now willing to award grants for projects that will reduce the GHG intensity of multi-sectorial 'urban systems'. And finally, cities now have opportunities to register their emissions, e.g., through the Carbon*n* Cities Climate Registry. Much more, however, remains to be done.

Solar panels, Pemba-Metuge, Maputo, Mozambique ©UN-Habitat/Ricardo Rangel

What we should do about it.

The Green Climate Fund should provide cities (with the support of national governments) with access to a portion of the mitigation resources channelled through this facility. This could occur in one of two ways. Firstly a special window could be created to which local governments could apply directly for mitigation (as well as adaptation) resources. The original terms of reference for this Fund would permit this: they allow for financial resources to be provided "through a variety of financial instruments, funding windows and access modalities, including direct access…" (UNFCCC 2011). This approach would promote greater fiscal autonomy for local governments per the decentralization policies of a number of countries.

Recent reports, however, indicate that the number of windows in the Green Climate Fund will be quite limited, and that national development planning processes should institutionalise the use of these resources. If this is indeed the case, then a second approach is recommended, as follows.

The guidelines for developing 'Nationally Appropriate Mitigation Actions' (NAMAs) should provide for an explicit role for local authorities. The NAMA concept first surfaced as part of the Bali Action Plan at COP-13 in 2007; it was refined at COP-15 in 2009 in Copenhagen to apply to developing ('Non-Annex 1') countries wishing to mitigate their GHG emissions. The Copenhagen Accord further called for guidelines and a registry of NAMAs seeking international support. While this mechanism has not yet been established, it is presumed that mitigation funding passing through the Green Climate Fund will favour actions identified per the (anticipated) NAMA guidelines. Therefore the guidelines for developing NAMAs at least should encourage countries to: (i) empower local authorities to develop locally appropriate mitigation actions, and then (ii) incorporate such local priorities within their NAMAs.

To ensure consistency at different governmental or territorial levels, the IPCC guidelines for reporting on GHG emissions should be expanded to address reporting and registering emissions at the sub-national level in a measurable, reportable and verifiable manner. This measure is a corollary of the above. According to the Copenhagen Accord, NAMAs will be "subject to international measurement, reporting and verification". Therefore to ensure consistency, to provide for local actions that contribute to national targets, and to facilitate access to resources, emissions reporting by sub-national governmental units should be consistent with national guidelines. Ongoing efforts to harmonize city-level reporting standards and protocols (e.g., the International Local Government GHG Emissions Analysis Protocol, the International Standard for Determining GHG Emissions for Cities) should continue, and the results should be formalized within the context of IPCC guidelines. Furthermore, UNFCCC reporting guidelines should identify approaches to enable and encourage countries to publicly report and register emissions that can be attributed to cities and urban areas.

Clean Development Mechanism methodologies and procedures should be streamlined and developed to provide for easier access by cities. As noted above the recent approval of a city-wide PoA approach represents an encouraging step. However – presuming that the CDM continues in the post-2012 framework – more can be done to make this mechanism more accessible to cities. Application procedures for projects that correspond to an approved list of project types with proven benefits should be streamlined. And recommendations for developing an 'urban CDM' should be further developed (see UNEP 2011).

International financial institutions and donors should: (i) develop additional mechanisms for upfront financing of mitigation measures by cities, and (ii) build the capacities of local authorities to access climate finance. Even taken together, the recommendations offered above by no means will provide all of the resources needed to fund the city-level mitigation opportunities that exist. In particular, given that the CDM only acts to monetize the down-stream climatic benefits of mitigation projects, additional upfront financing for viable projects is needed. As the World Bank notes: "Cities need upfront financing that can reflect potential long-term carbon revenues that may accrue" (World Bank 2010a). Programmes that finance investments in energy efficiency, or that support such financing (e.g., via partial credit guarantees) offer two approaches that can be upscaled. Capacity building should support increased access to mitigation finance from a variety of sources.

These recommendations are fully consistent with collective calls by local officials for action on the part of UNFCCC Parties, including the 2011 African Mayors' Climate Change Declaration's call for "… simplification of [the CDM] mechanism in promotion of local government access".

"We, representatives of cities from all regions of the world gathered in Gwangju commit to ... find ways and means of better access to finance mechanisms such as the Clean Development Mechanism."

– Gwangju (Korea) Cities' Declaration (2011)

"We call on UNFCCC Parties to ... commit to ... simplification of [the CDM] mechanism in promotion of local government access [and] support Africa's enormous potential for low carbon ... growth."

– Africa Mayors' Climate Change Declaration (2011)

This Policy Note was developed by the UN-Habitat Cities and Climate Change Initiative (CCCI), generously financed by the Government of Norway and other sources. It was prepared by Robert Kehew, with inputs and comments from Raf Tuts (UN-Habitat), Soraya Smaoun (UNEP), Monali Ranade (World Bank) and Yunus Arikan (ICLEI).

Community-level waste management facilitates climate change mitigation in Sorsogon, Philippines ©UN-Habitat/Cris Rollo

References

Economics of Climate Adaptation (ECA) Working Group. 2009. Shaping Climate-Resilient Development: A Framework for Decision-making.

ICLEI. 2010. Cities in a Post-2012 Climate Policy Framework.

ICLEI. 2011. Financing the Resilient City.

Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report.

McGranahan, Gordon, Deborah Balk and Bridget Anderson. 2007. "The rising tide: assessing the risks of climate change and human settlements in low elevation coastal zones". Environment and Urbanization 2007.

McGray, Heather, Anne Hammill and Rob Bradley. 2007. Weathering the Storm: Options for Framing Adaptation and Development. World Resources Institute.

Satterthwaite, David, Saleemul Huq, Mark Pelling, Hannah Reid, Patricia Romero Lankao. 2007. "Adapting to climate change in urban areas: the possibilities and constraints in low- and middle-income nations". International Institute for Environment and Development (IIED).

Transitional Committee of the UNFCCC. 2011.

UN-Habitat. 2011. Global Report on Human Settlements 2011: Cities and Climate Change.

World Bank. 2010a. "Cities and Climate Change: An Urgent Agenda".

World Bank. 2010b. "Climate finance in the urban context". Issues Brief No. 4.

World Bank. 2010c. Economics of Adaptation to Climate Change: Synthesis Report.