



WORLD BANK CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
2013 ANNUAL MEETING

**DESIGN ELEMENTS AND WORK PROGRAM FOR PILOTING
NEW MARKET MECHANISMS IN CITIES**

- ◆ Cities' climate action: main options and needs
- ◆ New carbon crediting approaches: 3 levels of leverage
- ◆ Key features of the suggested approach
- ◆ Examining new crediting options for cities:
 - ◆ Study of relevance and feasibility
 - ◆ Some important challenges
 - ◆ Generic framework for a crediting transaction

Exploring new crediting options for cities: why it is important?

6 billion

World population in 2000
Urban population in 2050

Lock-in

Effect of infrastructural solutions
Fastest growing source of emissions

70%

Of global GHG emissions
Of world energy supply



Cities' climate change actions: vast portfolio of mitigation options



- ◆ *FROM* sector-specific, end-of-pipe activities...
 - ◆ Energy efficiency in buildings, fuel efficiency in public transport fleet, efficient street lighting ...
- ◆ *TO* cross-sectoral actions with transversal impact on cities' GHG drivers
 - ◆ Planning, land-use zoning, transport-oriented development, densification, sustainable communities.
- ◆ *WITH* different scales and scopes of urban policy drivers, investment needs, institutional structures and modes of financing

Some examples of city-level climate actions

Sector-specific actions	Cross-sectoral (integrated) mitigation actions
<p>Transport:</p> <ul style="list-style-type: none"> - Energy efficiency in public transport - Bus Rapid Transit - Policy limiting personal vehicle use 	<p>Transport oriented development:</p> <ul style="list-style-type: none"> - Integrated territorial and transport policies - Reduction of distance for urban travels
<p>Buildings:</p> <ul style="list-style-type: none"> - Energy efficient appliances - Building codes 	<p>Development of sustainable communities:</p> <ul style="list-style-type: none"> - Target overall GHG performance of new communities - Covering housing and relevant community-level services, public lighting, water & sewage, and solid waste
<p>Energy delivery and use:</p> <ul style="list-style-type: none"> - Renewable energy - Efficient street lighting 	
<p>Efficient waste and water services:</p> <ul style="list-style-type: none"> - Waste recycling - Landfill 	<p>Life-cycle optimization of solid waste management (SWM)</p>

Cities' climate change actions: main options and needs

- ◆ **LACKING** access to financial sources to support climate action*:
 - ◆ Municipal funds account for 85% of funding;
 - ◆ Outside sources (including private & development finance) – 15%.

- ◆ More ambitious and widespread involvement of cities requires:
 - ◆ Improving cities' direct access to finance at scale, and
 - ◆ Building technical capacities for development and delivery of comprehensive climate actions plans

* For 51 cities emitting ~ 1 billion tons of CO₂/y (CDP, 2011)

Limited success of current crediting approaches

Cities' realities and needs	Limitations of current approaches
<p>Combinations of technical interventions (projects) and enabling environment (regulation & policies)</p>	<p>Accountable/creditable impacts on GHG:</p> <ul style="list-style-type: none"> - Almost exclusively bottom-up, project-based; - Policies are not “creditable” (attribution challenge).
<p>Urban planning/actions are not exclusively responding to climate policy objectives:</p> <ul style="list-style-type: none"> - Resource availability, economic, social & budgetary constraints, regulation 	<p>Carbon crediting is not supportive for any type of co-benefits</p>
<p>Predictable/ Sustainable financing solutions are required</p>	<ul style="list-style-type: none"> - Marginal revenue stream as compared to required resources; - Risky incremental ex post revenue stream.

Three levels of the NMM' leverage for cities

- ◆ Direct financial support from carbon finance:
 - ◆ Applies for actions with economics conducive for ex post payments;
 - ◆ Stimulates efficiency & innovation of services, including in the private sector.

- ◆ Combined use with other market and non-market based instruments:
 - ◆ Applicable beyond individual decision making;
 - ◆ Evaluation inclusive of other impacts: local pollution, health benefits, energy savings, creation of technology/infrastructure stock, avoided lock-in effect.

- ◆ Support planning and delivery of scaled-up mitigation actions:
 - ◆ Improve understanding of available mitigation options & GHG impacts;
 - ◆ Establish performance tracking systems at the city level;
 - ◆ Better integrate the carbon constraint into urban planning.

Key features of the suggested approach

- ◆ Ensure environmental integrity and ambition of crediting:
 - ◆ Real, measurable and transparently defined
- ◆ Maximize the value and impact of carbon finance:
 - ◆ Define effective mitigation actions considering other constraints and benefits
 - ◆ Create & stimulate positive interactions of climate policies in different sectors
- ◆ Minimize complexity and costs:
 - ◆ Rely on and improve city-wide climate actions practices and tools
- ◆ Facilitate the combined use of the new mechanisms with other sources of finance:
 - ◆ Increase efficiency and help raise the ambition level through an optimized leverage of domestic and international, public and private finance

Examining new carbon crediting options for cities: structure of the study

- ◆ City-wide climate action under the new crediting mechanisms:
 - ◆ Comparative advantages for cities participation in crediting or trading tracks;
 - ◆ Typology of mitigation options for each level of NMM leverage;
 - ◆ Cities as relevant “broad segment of the economy.”
- ◆ Key innovative features of city-wide climate actions under the new crediting mechanisms:
 - ◆ Explore and assess feasibility of the suggested approach;
 - ◆ Suggest options for aggregate GHG monitoring and accounting;
 - ◆ Propose workable designing framework for a city-wide crediting transaction.
- ◆ Develop illustrative examples of potential city-level climate actions:
 - ◆ Urban transport component of a low carbon city program;
 - ◆ Sustainable urban communities development;
 - ◆ Low carbon planning approach in rapidly growing cities.

Some important challenges

- ◆ Efficiency of mitigation actions at the city level:
 - ◆ As compared to the sectoral/ economy-wide action;
 - ◆ Relevance of comprehensive evaluation and inclusion of long term impacts.
- ◆ Alignment between cities' and national policies:
 - ◆ Target setting & GHG accounting approaches;
 - ◆ Leakage, avoid double counting.
- ◆ Aggregate GHG accounting in presence of policy interactions;
- ◆ Incentive mechanisms for continuous implementation;
- ◆ Data availability to quantify GHG mitigation potentials and costs;
- ◆ Transaction costs within multi-layered management/institutional structures.

Examining new carbon crediting options for cities: generic framework for a crediting transaction

Framework(s) applicable for proposed typology of mitigation actions:

- ◆ Legal and regulatory considerations;
- ◆ Comprehensive climate action plan:
 - ◆ Scope and scale of targeted emission sources;
 - ◆ Criteria and processes to select actions and policies;
 - ◆ Financial and operational models to deliver emission reductions.
- ◆ Quantification of creditable emission reductions:
 - ◆ Setting the baseline and creditable levels of performance indicators.
- ◆ Institutional set-up for management and supervision:
 - ◆ GHG accounting to monitor progress and report achieved performance,
- ◆ Systems ensuring financial accountability and transparency.

Current status and working plan

- ◆ World Bank study *Lowering cities' carbon emissions: examining new carbon crediting options*:
 - ◆ Multidisciplinary work involving key stakeholders within and outside the Bank;
 - ◆ Final report planned in May 2014.
- ◆ Fully in line with the new WB presidential *Livable Cities Initiative*:
 - ◆ Enhance advocacy through a growing momentum;
 - ◆ Advantages from an increased focus on piloting.