



WORLD BANK CARBON FINANCE UNIT
CARBON PARTNERSHIP FACILITY
ANNUAL MEETING 2012

**DESIGN ELEMENTS FOR PILOTING NEW MARKET
MECHANISMS URBAN APPLICATION (PRELIMINARY IDEAS)**

Urban application for piloting of New Market Mechanisms: 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%

Urban share of global GHG emissions
Urban share of world energy supply

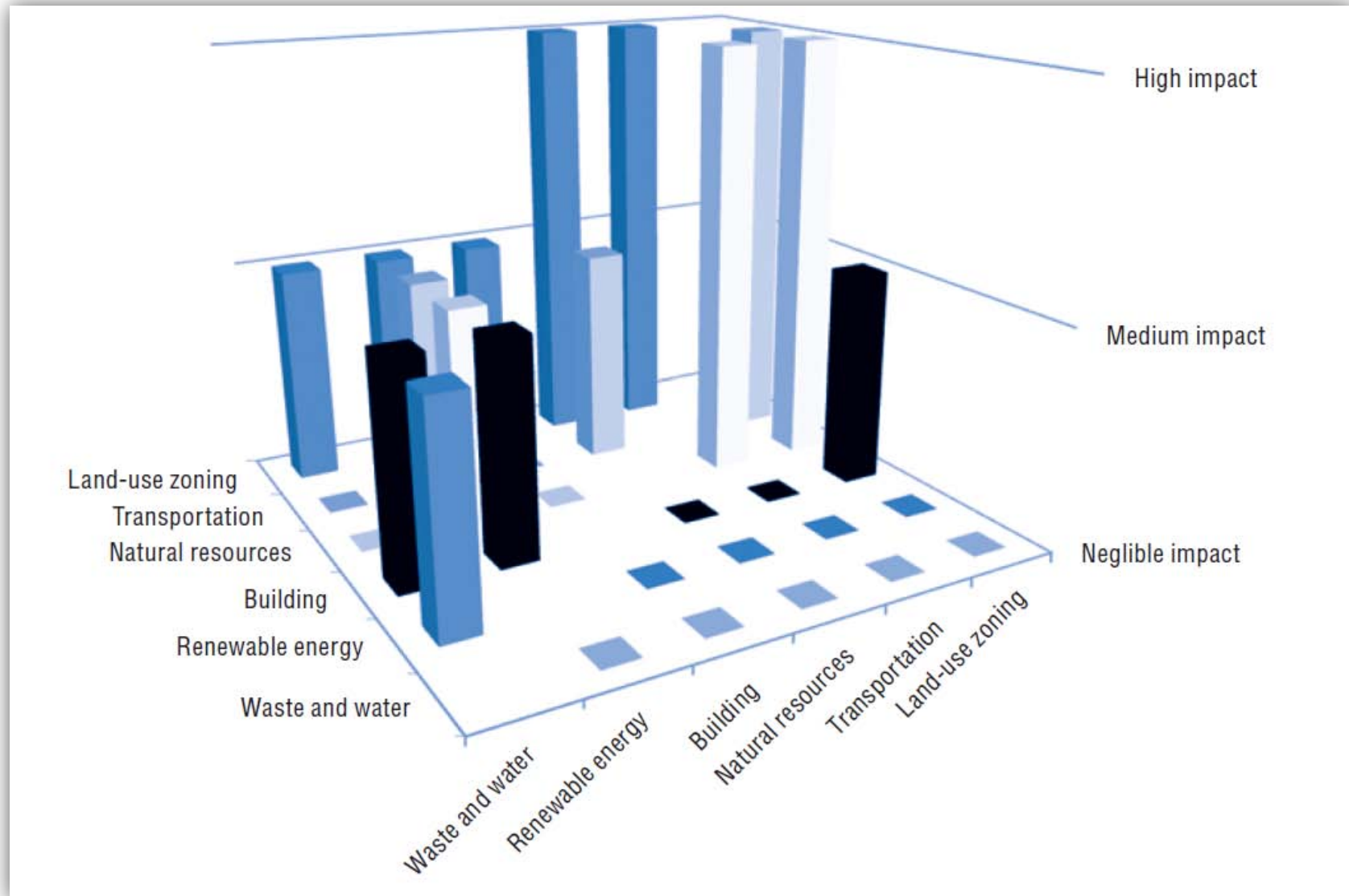


Urban focus: high relevance of aggregated approach



- ◆ Ensures visibility and control of overall GHG mitigation impact
- ◆ Leverages strong urban sectoral interactions:
 - Territorial strategies and sectoral policies
- ◆ Focus on actions bending the overall GHG emission trajectory under control of municipality
- ◆ Maximizes leverage through consolidated injection of climate finance (blending)
- ◆ Leads to substantial economic, social and environmental co-benefits

Urban sectoral interactions: impacts on other sector's climate policies



Source: OECD, *Cities and Climate Change*, 2010

Urban focus: governance & opportunities

◆ Municipalities are independent as:

Self-governed consumer	Provider of services	Regulator through policy making	Facilitator
<ul style="list-style-type: none">• E.g., energy efficiency in buildings	<ul style="list-style-type: none">• Urban transportation,• Water,• Housing	<ul style="list-style-type: none">• Energy (e.g., building codes),• Urban transportation,• Land-use,• Waste	<ul style="list-style-type: none">• Partnerships for the provision of services and infrastructure

◆ Municipalities have control of the main factors defining the trajectory of GHG emissions:

- Strategic planning that affects transportation and built environment
- Urban spatial density

- ◆ Municipalities accumulate the following key capacities:
 - Use well established tools for integrated planning;
 - Take strategic and operational decisions under multiple constraints (e.g., budgeting, limited natural resources);
 - Ensure continuity between near and long-term perspectives;
 - Local GHG inventory and reporting approaches quickly improving.

- ◆ Municipalities can ‘factor in’ co-benefits in urban strategic decisions:
 - Use of “true” economic evaluation for cost optimization (vs financial indicators).

- ◆ Engaged champions with sufficient degree of autonomy to pioneer new approaches

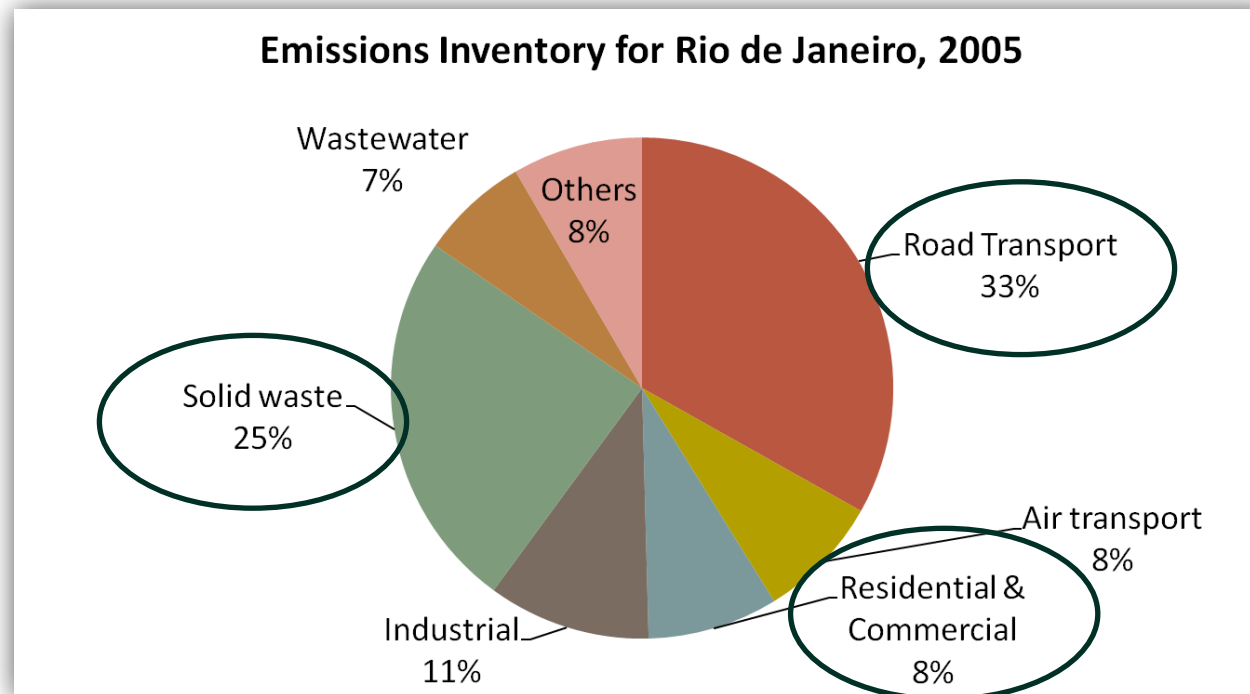
Main features of urban pilot application

Step 1:	Defining scope & coverage of the GHG Reduction Initiative
Step 2:	Identifying main actions to bend GHG emission trajectories for selected sectors
Step 3:	Identifying performance indicators and crediting approach
Step 4:	Estimating achieved GHG emission reductions by ex post monitoring of implemented actions

Step 1: Defining scope & coverage of the GHG Reduction Initiative

- ◆ Identifying main sources of GHG emissions by sector (e.g., transport, buildings, waste);
- ◆ Limiting scope & coverage of the Initiative to key GHG sources.

Illustrative example:



Step 2: Identifying main actions to bend GHG emission trajectories

- ◆ Identifying major drivers of GHG emissions at cross-sectoral and sectoral level:
 - Urban density, land-use zoning policies, stringency of building codes.
- ◆ Defining suitable incentive instruments under control of municipality to maximize impact on GHG drivers:
 - Regulation, policies, infrastructural solution.
- ◆ Defining most efficient way of transmitting carbon price signal onto GHG drivers

Illustrative example: Use of integrated land use - transport optimization

- Account for mutual impacts of land-use and transport policies through integrated modeling;
- Design the instrument to provide effective incentive for land-use decisions (e.g. through control over the distance travelled)

Step 3: Defining performance indicators and crediting approach

◆ **Performance indicator(s):**

- Overall performance of the GHG Reduction Initiative (e.g., less carbon intensive urban development, in tCO₂e/km sq./habitant);
- Relevant performance indicators per sector (if applicable).

◆ **Baseline performance level:**

- Baseline scenario of GHG emissions in selected urban segments;
- Baseline performance level;
- Baseline scenario shall reflect BAU growth, adjusted to future demand and taking into account national policies & regulations.

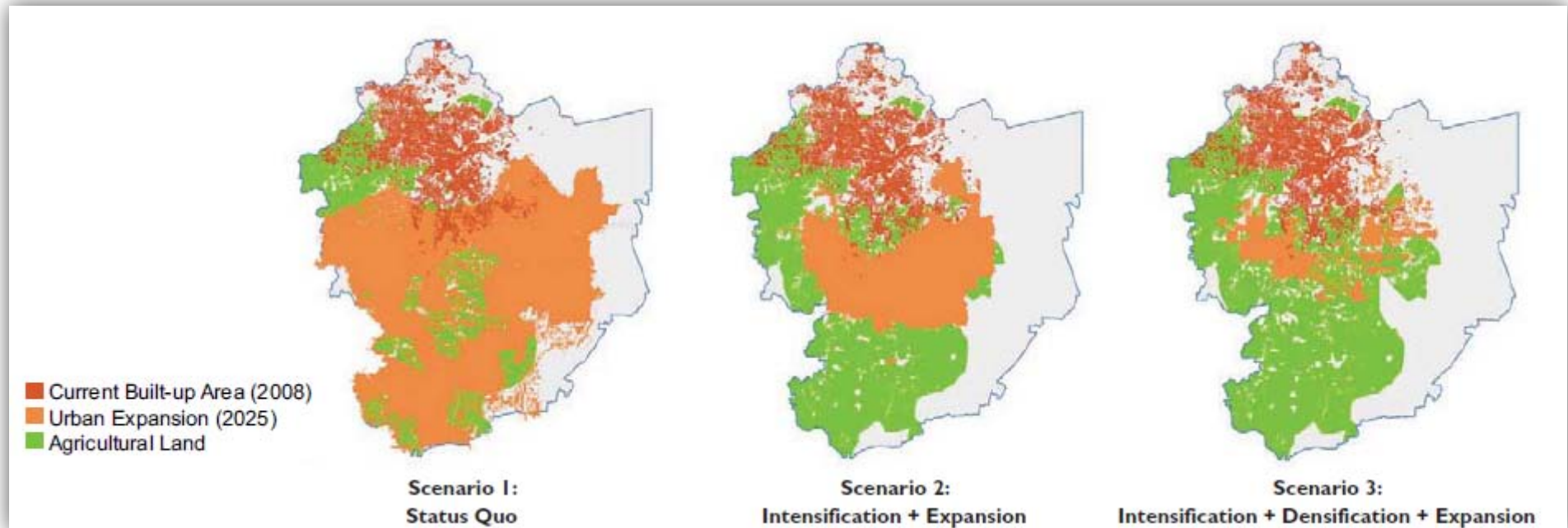
◆ **Creditable performance level under GHG Reduction Initiative:**

- Alternative GHG emission scenarios providing a range of creditable performance levels (based on different inflow of climate finance and its leverage effect);
- Creditable performance level consistent with objectives of the GHG Reduction Initiative.

Main features of urban pilot application – Step 3

Illustrative example: Metropolitan Growth Scenarios of Amman

Source: GAM, May 2008, The Amman Plan : Metropolitan Growth, Summary report.



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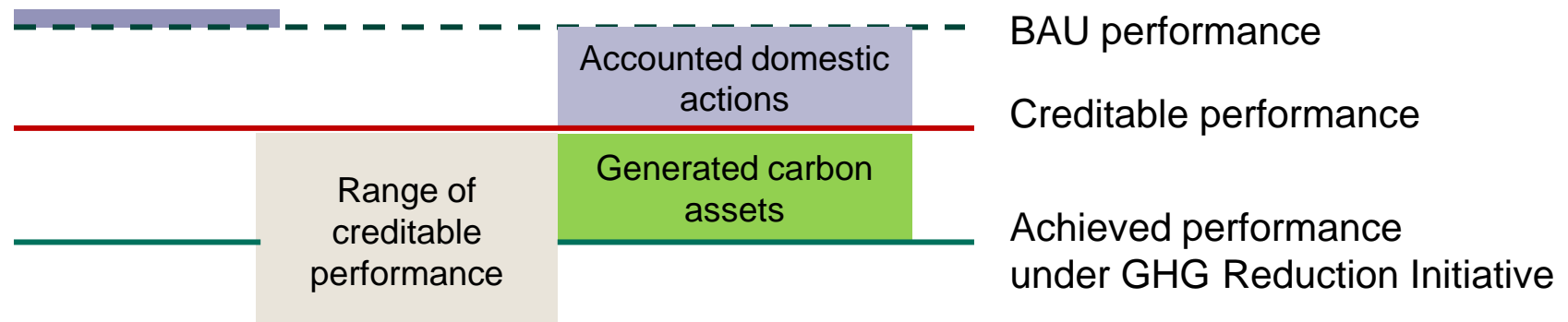
Different achievable levels of CO₂ intensity of urban growth

Step 3: Defining performance indicators and crediting approach

◆ **Crediting approach :**

- Credits are generated if achieved performance is within a range of creditable performance levels;
- Credits are calculated by comparing achieved performance with pre-defined creditable performance level;
- Expected performance of the GHG Reduction initiative can be periodically adjusted.

Illustrative example: Generation of carbon assets



Step 4: Estimating achieved GHG emission reductions



- ◆ Monitoring, reporting and verification of implemented actions
- ◆ Estimating achieved GHG emission reduction:
 - ◆ Quantification approach that links actions to mitigation impacts (e.g., use of modeling)
- ◆ Using of GHG inventory approach for sectors covered by the GHG Reduction Initiative:
 - ◆ To support /cross-check estimates based on quantification approach