A Vertical NAMA for Sustainable Urban Development

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Center for Clean Air Policy
Urban form correlates strongly with VKT and energy use from transport.
Urban form characteristics determine amount of vehicle travel

• Density – population and employment per square kilometer

• Diversity - Ratio of Housing to Jobs Demographics that tend to be dependant on transit (age, income, available vehicles)

• Design – completeness and connectivity of local pedestrian network (walkable places)

• Destinations – Accessibility to regional activity centers.

• Distance to Transit – areas have nearby transit service
Transit Oriented Development Technology

- Usos mixtos
- Compatibilidad entre inmuebles
- Calidad de espacio público y convivencia ciudadana
- Vitalidad en las arterias
- Paradas de Transmetro son el eje de la comunidad
- Parqueos subterráneos en el lado de atrás
- Viviendas cerca de Transmetro
Goal: Design and pilot a NAMA that focuses on Transit Oriented Development

Opportunities:

• Urban development has strong political support

• Private sector is already involved and understand market

• Potential to leverage different types of finance

• Key to shifting development path
Goal: Design and pilot a NAMA that focuses on Transit Oriented Development

Challenges:

• NAMA would need to support complex projects involving multiple sectors
  • Transportation
  • Housing
  • Commercial buildings
  • Urban infrastructure

• National level NAMA requires locally planned and implemented projects
• Must coordinate public infrastructure and private real estate development locally – barriers vs incentives
• MRV is inherently difficult
Colombia already has a vertical institutional framework for transit projects

*Adapted from* Sistemas Integrados de Transporte Masivo 2002/2010.

<table>
<thead>
<tr>
<th>INSTITUTIONAL FRAMEWORK (Infrastructure delivery)</th>
<th>IN CHARGE OF</th>
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<tbody>
<tr>
<td>Ministry of Transport – Office of the Deputy Minister</td>
<td>Establish National Policies on Transit</td>
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<tr>
<td>Co-ordination Unit</td>
<td>Follow-up and monitor compliance of national policies by local authorities and delivery agencies.</td>
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<tr>
<td>Ministry of Finance</td>
<td></td>
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</tbody>
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| Local authorities | Define, deliver and manage their respective transport and transit agendas, in observance of national policies. |
| Delivery Agencies | Sign, together with Delivery Agencies and Federal Government, BRTS co-financing agreements. |

| Fiduciary | Receives and administers municipal and federal funds and pays contractors. |
Transit Oriented Development involves more players

Multiple National Government Stakeholders
- Ministry of Transport
- Ministry of Environment
- Ministry of Housing
- Department of Planning

Multiple Local Government stakeholders
- Transit Authority
- Redevelopment Authority
- Planning Department
- Environment Department

Multiple Private stakeholders
- Equity investors
- Debt partners
- Developers
- Local residents and business owners
National vs Local Roles and Responsibilities

National level
- Formulate national planning regulations
- Disburse finance to sub-national governments
- Facilitate research, innovation and knowledge sharing
- Provide technical guidance

Local level
- Prepare land use and transport network plans
- Prepare short term infrastructure investment programs
- Bring together levels of public and private funding sources
- Conduct public consultation
- Maintain and operate infrastructure
Possible Model:
USA Partnership for Sustainable Communities

Partnering for Sustainable Communities
an interagency partnership HUD • DOT • EPA

Partnership Recognized on the White House blog

On the three year anniversary of the Partnership, the White House highlighted just a few of the results communities have seen. From Bridgeport, CT to Montgomery, AL, the Partnership agencies have helped communities address some of their toughest challenges and create an economy built not on individual projects, but on collaboration and a shared vision.

Read the blog post here.

By working together, [HUD, DOT, and EPA] can make sure that when it comes to development—housing, transportation, energy efficiency—these things aren’t mutually exclusive; they go hand in hand. And that means making sure that affordable housing exists in close proximity to jobs and transportation.

That means encouraging shorter travel times. Housing near transit.

“Well-conceived, effectively implemented environmental protection is good for economic growth.... A clean, green, healthy community is a better place to buy a home and raise a family; it’s more competitive in the race to attract new businesses; and it has the foundations it needs for prosperity.”

—Administrator Lisa P. Jackson
U.S. Environmental Protection Agency

Partnership Grants, Assistance & Programs

- [Open Grants and Technical Assistance Opportunities](#)
- [On-Going Federal Programs](#)

The Partnership agencies periodically offer funding opportunities. When these grants are offered, they will be announced here and on [www.grants.gov](http://www.grants.gov). In addition, each agency maintains websites to track their own grant announcements. The grants announced on these sites will also be on [www.grants.gov](http://www.grants.gov).

- [HUD](#) offers funding opportunities to help communities realize their own visions for building more livable, walkable, and environmentally sustainable regions.
- [DOT](#) offers funding opportunities to support more livable walkable communities.
- [EPA](#) offers grants to support activities that improve the quality of development and protect human health and the environment.
National grants go to local projects organized by department portfolio.

**National Level**
- EPA (Environment programs)
- HUD (Housing programs)
- DOT (Transport programs)

**Local Level**
- City and State Agencies
- Housing Authorities
- Transportation Authorities
- Non-Government Organizations
- Sustainable Development Projects
Proposed model for Colombia

Three areas of support

• Planning capacity building
• Financial capacity building
• Construction funding
Planning Capacity Building Program: Primarily grants for planning and designing travel efficient SUD communities that optimize the five “D”s – Density, Diversity, Design, regional Destinations, Distance to transit options

- Planning land use and urban infrastructure around transit stations and corridors
- Planning transit and non-motorized infrastructure
- GHG reduction estimation and design of flexible progress based MRV for overall project
- Guides, trainings or other resources to support the development of TOD through PPPs
Finance Capacity building Program: Primarily grants for Designing and financing for SUD PPPs

- Creating new institutions or funding existing institutions – first, Financial Entity creation, then Business Improvement Districts, TIFs etc.
- PPP legal structure and financial package design assistance
- Credit guarantees, subsidizing credit for RE developers, for cities or transit authorities
- Performance guarantees for commercial properties, subsidized housing
Construction Program: Grants and loans for specific items within a SUD

- Construction of social housing
- Construction of transit infrastructure
- Construction of public infrastructure to support density, increase diversity, improve design
- Construction of mixed income housing and commercial enterprises around existing transit systems
Single Finance Entity for each region or city
Single Finance Entity for each project

International funders

Government of Colombia

National Financial Capacity Bldg program

Cali Finance Entity 1
- Debt financing
- Public partners
- Equity partners

Sustainable Development Project 1

Cali Finance Entity 2
- Debt financing
- Public partners
- Equity partners

Sustainable Development Project 2
1. **Pre-Implementation assessment / Initial scoping**
   - Simple, sketch-level GHG savings estimate
   - Avoid CDM style artificial precision, getting lost in details

2. **Detailed analysis during planning and design**
   - e.g., using a regional travel model or corridor model

3. **Post implementation continuing assessment**
   - Assess results progressively – Do, Measure, Learn
   - Measurement is a tool to enhance economic and environmental performance
   - Start with implementation metrics – (was station constructed as designed)
   - Move to progress metrics – (amount of new housing/ $ investment within ½ km of transit, VKT, mode split)
   - Finally, calculate GHG emissions and reductions – GHG tons vs BAU
Transformación Urbana Centro Global de Cali

- Río Cali
- SITM-MID
- Corredor verde SITM
- Vía Férrea
- Vías arterias

1. Ciudad Paraíso
2. Centro Histórico
3. El Hoyo y El Piloto
4. San Nicolás
5. Zona Industrial

Parque Metropolitano
Next Steps in Colombia SUD NAMA

• Creating a SUD NAMA working group with national and local members
• Outlining the NAMA and agreeing on the political feasibility with potential pilot cities
• Developing the national level structure and legal framework for capacity building program.
• Applying for international funding to support the NAMA
• Evaluating pilot projects in key cities, including GHG reductions and MRV benchmarks
• Reaching development agreements in selected cities
• Apportioning seed money for local finance entities under PPP agreements
Thank you

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