HOW TRANSIT ORIENTED DEVELOPMENT - TOD - COULD TRANSFORM URBAN SPACE

Vanessa Velasco, Urban Specialist.
welascobernal@worldbank.org

Source: Metro Sabana, 2017
1. **TOD context**

2. **How TOD supports urban transformation**
   - Key aspects for implementing TOD
   - Urban Transformation through TOD
   - Key aspects for implementing TOD in LAC
   - Urban Transformation through TOD in LAC

3. **Developing a TOD strategy**
   - General strategy LAC
   - Lima Metro Project
TOD Context
TOD HAS A KEY ROLE IN URBAN TRANSFORMATION

WHY TOD?

More Competitive

Access and Mobility
Lower Transport and Housing cost

High quality neighborhoods with lower infrastructure costs and lower CO2

Resilient to Natural Hazards

Partly self financing by capturing value created

Positive outputs of TOD include: higher economic productivity in densified areas, and residents spend lower income on transport and housing in nearest stations.

Source: Gerard Ollivier, World Bank TOD-COP 2018
For TOD implementation, it is necessary to engage different stakeholders using physical and technical instruments, social agreements and enabling factors.
Regulatory framework for TOD implementation include: urban regulations, institutional framework and municipal finance tools.
How TOD supports urban transformation
Key aspects should include: scoping, planning, financing and implementation of TOD

Source: Gerard Ollivier, World Bank TOD-COP 2018
URBAN TRANSFORMATION THROUGH TOD

TOKIO- Tokyu Corporation

- Tokyu Corporation: Urban and Transport Development Corporation
- Owner of Metro Stations and Land Bank for nearest areas

Key aspects include: a strong urban and transport corporation, a planning instrument including land assembly, and station secures higher user demand.

Station secures high user demand

Source: Murakami, Jin. 2012. Transit Value Capture
URBAN TRANSFORMATION THROUGH TOD

TOKIO (re)Development Metro Tokio (urban areas)

Scheme for (re)Development and land use include renewal Project in central areas

Key aspects include: revenues of real estate project finance public social infrastructure

Fuente: Murakami, 2010; Suzuki, Murakami, Hong and Tamayose, 2013
### KEY ASPECTS FOR IMPLEMENTING TOD IN LAC CITIES

<table>
<thead>
<tr>
<th>Country</th>
<th>Scoping</th>
<th>Planning</th>
<th>Financing</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Macro-Micro level</td>
<td>National-Subnational planning-implementation</td>
<td>LVC, Municipal Finance Tools</td>
<td>Subnational and National Leadership, IA</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Macro-Micro level</td>
<td>National- planning</td>
<td>Municipal Finance</td>
<td>National leadership</td>
</tr>
<tr>
<td>Brazil</td>
<td>Macro-Micro level</td>
<td>Municipal-National planning-implementation</td>
<td>LVC, urban development, municipal finance</td>
<td>SPV, Local Political Leadership, IA</td>
</tr>
<tr>
<td>Colombia</td>
<td>Macro-Micro level</td>
<td>Municipal-National planning-implementation</td>
<td>LVC, urban development, municipal finance</td>
<td>SPV, IA, National political leadership</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Macro-Micro level</td>
<td>National-Municipal planning-implementation</td>
<td>Urban development, municipal finance</td>
<td>Local and National Political Leadership</td>
</tr>
<tr>
<td>Peru</td>
<td>Macro-Micro level</td>
<td>National-Subnational planning-implementation</td>
<td>LVC, Municipal Finance Tools</td>
<td>National Leadership, IA</td>
</tr>
<tr>
<td>Mexico</td>
<td>Macro-Micro level</td>
<td>National-Subnational planning-implementation</td>
<td>LVC, Municipal Finance Tools</td>
<td>National - subnational leadership, IA</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Macro-Micro level</td>
<td>National- planning</td>
<td>Municipal Finance</td>
<td>National leadership</td>
</tr>
<tr>
<td>Paraguay</td>
<td>Macro-Micro level</td>
<td>National- planning</td>
<td>Municipal Finance</td>
<td>National leadership</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Macro-Micro level</td>
<td>National- planning</td>
<td>Municipal Finance</td>
<td>National leadership</td>
</tr>
</tbody>
</table>

**Unbalance in LAC countries related to scoping, planning, and financing tools for implementing TOD**
KEY ASPECTS FOR IMPLEMENTING TOD IN LAC CITIES

How to finance urban development?

1) **Instruments for financing the future urban development trough capture the potential value of the land**
   - a. Additional development rights
   - b. Impact Fees
   - c. Tax Increment Financing-TIF
   - d. Betterment and levies
   - e. PPP

Instruments for financing future urban development in LAC are relatively new and main destination is urban infrastructure
How to finance urban development?

Strategic public investment = infrastructure + transport + land use

Highest land value could finance urban development

2) Instruments to capture the value of the land after urban development - EX-POST infrastructure investments
   a. Property tax
   b. Plusvalee capture

Sustainable urban projects

Economic growth of cities

Financing of urban infrastructure

Instruments for financing future urban development in LAC are frequently used, main destination is municipal budget, affordable housing and urban infrastructure
Instruments for financing future urban development in LAC are relatively new and main destination is urban infrastructure.
Planning instrument that transforms extended portions of land through “land pooling” to guarantee an equitable distribution between the cost of urban infrastructure and the benefits of urban development.

Colombia planning framework has an instrument (PP) combining land management and urban development process.
BRT Station, PP. ESTACION CENTRAL, Bogota

**SCOPE OF THE PROJECT**

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| - Part of the Macro project of the Center Area  
- **10,5 hectares** – 3 UAU  
- 5000 Inhabitants  
- 60% of current activities are commerce, local service, 20% educational services and 20% residential area | - Completion Date 2018 – 3-phase plan  
- **235,000m2** of mix use development, 140,000m2 of office space, 60,000m2 of retail, 25,000 m2 of housing of middle income level and affordable housing, and 10,000 m2 of education  
- **4,6 hectares** of open spaces and urban infrastructure  
- Public SPV: ERU-TRANSMILENIO  
- BRT STATION 60% cost financed by utilities of urban development  
- 20% of land approved by the PP is for affordable housing |

Integrated project’s scope: Urban transformation including social inclusion and transport infrastructure
ERU-TRANSMILENIO

- Public Urban Development Corporation: planning, land bank, and real estate planning functions. In charge of private developer agreement.
- Transport Corporation: BRT operation, and transport infrastructure

Key aspects include: a non effective IA between TM and ERU; higher expectation of land owners in revenues of the urban development; and long-term political changes.

Source: Author based on ERU, 2018.
Each UAU project has its own prefeasibility process. However, an integrated land management strategy aligning 3 UAU is needed for the whole partial plan implementation.
**URBAN TRANSFORMATION THROUGH TOD IN LAC**

**BRT Station, PP. PEDREGAL, Bogota**

---

### SCOPE OF THE PROJECT

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 6.5 hectares – 1 UAU</td>
<td>• Completion Date 2018 – 2 phase plan</td>
</tr>
<tr>
<td>• 50% of current activities are commerce, local service,</td>
<td>• 115,000m² of mix use development, 20,000m² of retail, and 85,000m² of commerce offices, affordable housing obligation was transfer to Metrovivienda land bank</td>
</tr>
<tr>
<td>• 20% educational services and 30% residential area</td>
<td>• 3 hectares of open spaces including 2 BRT stations, an underground transport public depot, and urban infrastructure</td>
</tr>
<tr>
<td></td>
<td>• Private developer joint with TRANSMILENIO</td>
</tr>
<tr>
<td></td>
<td>• 2 BRT STATION, 1 public depot, and transport connection infrastructure “anillo vial” are 100% cost financed by utilities of urban development</td>
</tr>
<tr>
<td></td>
<td>• Land acquisition was made by the private owner before/after PP approval</td>
</tr>
</tbody>
</table>

---

**Integrated project’s scope:** Urban transformation including economic development, and transport public facilities and urban infrastructure
Key aspects include: a non effective IA between private developer and TM/IDU, technical and political disagreements that changes the project in long term perspective.
Developing a TOD strategy in LAC
# Implementing TOD in LAC Cities Through Transport Projects

## City Scale
- Land Use Policy and Strategy
- Legal and Regulatory Framework
- Integrated Land Use and Transport
- Modeling of TOD
- Leveraging Private Sector
- Improving Accessibility around Stations
- Capacity Building

## Corridor Scale
- Understanding Transformation Potential
- Integrated urban/transport development
- Legal and Regulatory Framework
- Design and Planning Guidelines
- Feasibility Study
- Operational guide
- Accessibility Plan and Integrated Transport
- Financing Scheme/LVC
- Citizen Engagement
- Capacity Building
- Evaluation
- Social housing

## Station Scale
- Feasibility Study for PPP and TOD/structuring
- Conceptual Design
- Accessibility planning
- Case Studies
- Public space at local scale

---

**Source:** Gerard Ollivier, World Bank TOD-COP 2018
LINE 2 METRO OF LIMA

1. Regional

2. Local
   - Multimodal Integration
   - Urban Context of Lima: opportunity áreas, job areas, (re) Development zonning areas, CDB, socio-economic development (local) y social + participation process

3. National

**Accessibility analysis to determine potential central áreas and developing through TOD.**
Accessibility analysis shows areas where public facilities, public services, real estate market demand, and employment areas are concentrated, over the Metro Line 2 corridor. Some of the areas were selected as TOD pilots.
LINE 2 METRO OF LIMA

Key aspects for pilots development include: an effective IA between private developer and national and subnational governments; flexible LVC and planning instruments; PPP agreements; and political changes strategy in a long term perspective.
Thank you