INNOVATIVE INFRASTRUCTURE SOLUTIONS

World Urban Forum IV
Nanjing, China

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The World Bank

INNOVATIVE SOLUTIONS

Funding urban infrastructure projects

• Current Environment
• Traditional Public–Private Partnerships
• Alternative Public–Private Partnerships
  – Unlocking Land Values for Finance
  – Private Investment in Slums
  – Urban Infrastructure Funds
  – Carbon Finance
CURRENT ENVIRONMENT
Infrastructure must keep pace with rapid urbanization

- Growth is taking place in cities – huge demands on service delivery
- There is a shortage of capital - use private/dead capital (un utilized – underutilized land)
- Decentralization has moved more slowly than expected in the early 1990’s
- Cities need to encourage economic growth - municipality service delivery is important for the investment climate

CURRENT ENVIRONMENT
Global financial crisis and economic down turn affects urban infrastructure

- Rising food prices and loss of employment causing increased vulnerability of the urban poor
- Reduced revenues for municipalities
- Financing for infrastructure projects is more difficult to obtain
- Large infrastructure projects in progress are likely to be halted while funds are allocated to more pressing problems
PUBLIC-PRIVATE PARTNERSHIPS

Benefit
• Improve efficiency and lower costs
• Accelerate implementation
• Mobilizing needed investment funds
• Provide new ideas, technologies, skills

Challenges
• Election cycle contract repudiation
• No LG control over key elements for success
• Lack of transparency
• Higher risks through contingent liabilities for contracting government
• Many require widespread subsidies even in high income countries
• E.g. for Indian cities—estimated that only 45% of basic urban service requirements could be covered by user charges

PUBLIC-PRIVATE PARTNERSHIPS
The case of Latin America


- Big cities in Latin America started contracting out in 1970’s
- 50% urban population served by private operators
- Typical contract: 5–8 years with renewal options
  - Payment linked to performance
  - Periodic price adjustment
- Typically small and medium firms
PUBLIC-PRIVATE PARTNERSHIPS
Clear policy framework for private participation

- Guidelines needed for multiple transactions at both the national and municipal levels.
- Contract should focus on improved service delivery, not private sector financing.
- Standard contracts, clauses, terms, revisions, enforcement
- PPP is only a procurement tool for obtaining better services, and will only be pursued if it proves to be financially viable and more affordable to consumers than a conventionally implemented public project.

UNLOCKING LAND VALUES
Methods of using land to finance infrastructure

- Value Capture
  - Betterment Levies
  - Land Sale
  - Sale of Development Rights
  - Negotiation and Voluntary Contribution
- Impact Fees
- Developer Exactions
- Land Asset Sales
- Land Auctions
UNLOCKING LAND VALUES

Benefits
• Upfront generation of finance: lessens burden on borrowing
• The financing potential of land finance is large
• Reinforces market signals in urban land markets

Challenges
• Urban land markets are volatile
• Land sales can lack transparency and accountability
• Land sales cannot continue indefinitely
• Government may act as a profit-maximizing land monopolist – overriding other stakeholders, limiting supply of land or FSI to generate revenue

Case Study: Bogota using betterment levies
• Launched city-wide package of street and bridge improvements
• Generalized infrastructure tax that takes into account several factors, including proximity to major improvements
• Raised US$1 billion over last decade: budgeted for US$1.2 billion over next 8 years.
• Pays 50% of street and bridge investments

Case Study: Cairo using land asset sales
• Desert land sold as part of government-wide asset management plan
• Auction of land raised $3.12 billion
• Covered costs of infrastructure installation covering more than 3,300 hectares of newly developed land
• Also funded connecting highway to Ring Road
PRIVATE INVESTMENT IN SLUMS

Entry points for private sector

- As component of a city-wide infrastructure PPP agreement
- Output-based aid (OPA)
- Partnership with local community based organization or local NGOs
- Transferable Development Rights (TDR)
- Regulation of tariff structures to create cross-subsidization
- Products marketed directly to poor

PRIVATE INVESTMENT IN SLUMS

Barriers to private sector engagement

- Lack of experience with low-income market
- Need to utilize non-traditional business models
- Investment climate
- Property rights and land titling
- Public good investments
- Cultural barriers
PRIVATE INVESTMENT IN SLUMS
Case Study: Improved electricity access for Indian slums

- Partnership between The World Bank’s Global Partnership of Output Based Aid (GPOBA) and Reliance Energy Limited (REL), a private sector energy provider in Mumbai.
- Mumbai has 6 million slum dwellers – many without legal electricity hook-ups.
- World Bank grant of $1.57 million to REL will subsidize consumer electricity costs in defined slums those users who take up a legal and safe connection.
- Program will result in 27,500 legal electricity connections
- USAID program runs simultaneously

<table>
<thead>
<tr>
<th>New Electricity Connection</th>
<th>Regularization of Illegal Electricity Connection</th>
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<tbody>
<tr>
<td>Cost to Customer = $205</td>
<td>Cost to Customer = $55</td>
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<tr>
<td>Cost to REL = $75</td>
<td>Cost to REL = $10</td>
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<tr>
<td>World Bank Subsidy = $120</td>
<td>World Bank Subsidy = $45</td>
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</table>

Average Monthly Family Income: $40

URBAN INFRASTRUCTURE FUNDS
World Bank funding mechanism

- Funding tool lending directly to municipal governments
- Provides finance for array of urban services, not just one sector
- Funds operate in more than one city
- Local institutions to do the work – identifying, appraising and channeling finance to sub-national entities on behalf of World Bank
- Starting in 1970’s, over 100 operations, amounting to over $11B in lending – Declined in use over past two decades
URBAN INFRASTRUCTURE FUNDS
Two models of intermediation – crucial to project’s success

<table>
<thead>
<tr>
<th>Feature</th>
<th>Financial Intermediation</th>
<th>Poverty-Oriented Grant Fund</th>
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<tr>
<td>Financial End-User</td>
<td>Municipal Government</td>
<td>Community NGO</td>
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<tr>
<td>Primary Purposes</td>
<td>Strengthen Municipal Finance and Municipal Management/ Build Infrastructure Systems/ Build Sustainable Credit Market</td>
<td>Develop Institutions to Express Community-Driven Demand/ Improve Access of Poor To Basic Services/ Build Community Works</td>
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<tr>
<td>Financial Instrument</td>
<td>Loans or Mix of Loans &amp; Grants</td>
<td>Grants</td>
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<td>Typical Scale of Sub-Projects</td>
<td>$250,000+</td>
<td>$10,000</td>
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<td>Intermediating Institutions</td>
<td>Commercial Banks, Municipal Development Fund, Window of Ministry of Finance + PMU</td>
<td>Apex NGO or AGETIP/ Decentralized NGO Network</td>
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CARBON FINANCE

- More than 75 projects ($300 million) in several urban sectors, e.g. waste management, wastewater treatment, urban transportation.
- New project methodologies in buildings, recycling and city-wide programmatic approach being developed.
- Integrating with other projects and funds.
WORLD BANK URBAN STRATEGY UPDATE
An Expanding Urban Portfolio & Development Agenda

- **Unprecedented Urban Lending.** Over the past five years, Urban operations have experienced their largest growth, now representing 6% of the total World Bank lending portfolio.

- **Infrastructure Action Plan.** This expansion was driven largely by the Bank’s IAP (2004–7) and will continue under a renewed commitment SIAP (2009–11).

### Chart

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<tr>
<th>FY75 - FY79</th>
<th>FY80 - FY84</th>
<th>FY85 - FY89</th>
<th>FY90 - FY94</th>
<th>FY95 - FY99</th>
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<td>IBRD</td>
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WORLD BANK URBAN STRATEGY UPDATE
New Approaches to Scale Up & Expand Impact

- **Sector Development Policy Loans (DPLs).** DPLs allow the Bank to engage with clients on a different level, but have been underutilized in the urban sector. Focusing on policy reforms that will improve the overall performance of the sector, financing is provided against a set of commitments/enacted reforms and may be directed at multiple purposes, including infrastructure finance in cities.

- **Urban Infrastructure Funds.** UIFs represent another wholesale approach to urban finance that can help expand coverage and reach to secondary cities, where urbanization is most rapid. Success will depend on the effectiveness of the intermediary in each case.

- **Leveraging the Bank’s Financing with Global Facilities.** Tapping into concessional finance through Output-Based Aid (explicit subsidies to the poor) and Carbon Credits (for emission reductions).
WORLD BANK URBAN STRATEGY UPDATE
Asset Management Strategies – Brownfield Redevelopment

- **Access to serviced land** for industrial or other commercial purposes is a constraint to doing business (ICA Report Findings)
- **Foregone Local Revenues.** For Post-Industrial Cities, brownfield areas represent an opportunity cost
- **Rehabilitation of Infrastructure Services** following proper environmental remediation, can enhance prospects for commercial development, creating new employment opportunities and generating tax revenues for the city

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WORLD BANK URBAN STRATEGY UPDATE
Asset Management Strategies – Yemen Port Cities Project

- **Infrastructure Investments** can transform idle city land & property assets into economic opportunities
- **Market Access:** Number of Fishermen/Fish sellers tripled; Sales transactions increased fivefold
- **Local Revenue Enhancement:** Combined rental income and increased sales tax revenue represent 3% of total local revenue
- **Outsourcing Management:** Contracted out to User’s Association to ensure effective operation and maintenance of the asset
THE END.

Thank you!