

# **UNLOCKING URBAN LAND VALUES FOR INFRASTRUCTURE FINANCE**

**ISSUES BRIEF**

**14-15 SEPTEMBER 2009  
BANGALORE**

## 1. THE INFRASTRUCTURE FINANCING CHALLENGE

Most metropolitan regions of the developing world face a challenge in building the infrastructure necessary to accommodate population growth and to support efficient economic activity. Part of the challenge is financial. It has proved difficult to raise adequate funding, either from taxpayers or from credit markets. Part of the challenge is institutional. In most countries, regional-scale investments of the kind that have been shown to have the greatest impact on economic growth and productivity, do not fit well with government institutional arrangements. They fall between “local” or “municipal” governments, on the one hand, and “state” or “national” governments, on the other.

## 2. URBAN LAND: A RESOURCE OF VALUE...AND A PARADOX

For most large infrastructure projects, especially those related to transportation and communications, infrastructure investments raise the value of urban land more than the cost of the project. Studies have shown repeatedly that investments in modern airports, metropolitan Ring Roads, bridges that connect key economic centers, telecommunication systems or reliable electricity distribution increase adjoining land values (and often land values throughout the urban area) by more than the cost of the projects. These land-value gains reflect the productivity benefits made possible by infrastructure investment.

The paradox: If land-value gains exceed project costs, why has it been so difficult to mobilize infrastructure financing?

The policy question: Are there effective ways to capture part of the gain in land-values for urban infrastructure finance? Land-value gains derive both specifically from infrastructure investment and from general growth of the metropolitan region and its economic activity.

## 3. INSTRUMENTS TO CAPTURE LAND-VALUE GAINS: EXPERIENCE IN THE REAL WORLD

Part of the conference will be devoted to considering practical experience with different instruments of land-value capture for infrastructure finance. These instruments can be divided into four categories:

**Sale of Public Land.** Municipalities, metropolitan development authorities, and higher-level governments often own valuable and extensive land parcels within the urban region. These can be sold to finance infrastructure investment. An overall strategy is required to ensure that public lands are not squandered or sold prematurely. A competitive bidding process is required, both to maximize revenues and to avoid favoritism and potential corruption. When the conditions are right, public land sale can be an important and continuing contributor to infrastructure finance. However, urban land markets move in extreme cycles. With the economic downturn, developer demand for public land has diminished. This reduces revenue-raising potential for the short-term, but also allows time to establish a sustainable strategy for disposing of public lands not needed for basic services—i.e, a long-term strategy for converting excess land into infrastructure.

**Development Fees.** In some advanced countries development fees now pay for a significant part of infrastructure costs. These fees are levied on developers, who pass them on to buyers (or renters) of residential and commercial buildings. Fee structures may be more or less sophisticated, ranging from a uniform percentage of development cost to “impact fees” that take into account the location of development and the costs of connecting to major infrastructure trunk systems, like water lines and road systems. Several of the developing countries represented at the conference have experience with designing and implementing development fees.

**Density Authorizations.** Public authorities typically have control over the permissible density of development, as reflected in zoning regulations, Floor Space Indices (FSI), or the equivalent. Some cities—particularly in India—appear to be inefficiently constrained by low FSI, making it impossible to take full advantage of the economies of scale and density that promote urban productivity. Of course, higher density requires supporting infrastructure. There have been attempts—in Sao Paulo, Brazil and Mumbai, for example—to develop an overall density plan, and then sell development rights in locations zoned for higher density development than previously permitted. These locations might be near newly built metro stations. Is the sale of density permits or FSI a viable strategy? Can it be used to help finance key infrastructure projects like metro systems or the Trans-Harbour Bridge in Mumbai?

**Contribution of Public Land to Joint Development Ventures.** One of the fastest-growing strategies for major infrastructure development has involved public-private joint ventures to build modern airports, modern freight handling facilities at rail centers or seaports, and major highways. The principal public contribution to these joint ventures often is land. Land contributions cover both the infrastructure facility itself, and surrounding land where the joint venture can build commercial/industrial/residential centers that take advantage of the locational benefits created. Such public-private initiatives have compiled a remarkable record of infrastructure construction in some countries, but also have been subjected to increased scrutiny. Conference presenters will discuss several recent examples of such projects.

#### 4. INSTITUTIONAL FRAGMENTATION

Numerous strategic studies have concluded that the highest payoff to infrastructure investment is for projects at the regional or metropolitan scale. Examples: airports, metro (subway) and light rail systems, trunk water supply, major bridges. Projects like these generate high economic returns. Developers and landowners have indicated a willingness to help pay for them. Yet they often are the most difficult projects to finance. Why? How much of the lag is due to an institutional mismatch between the levels of government that are formally recognized (municipality, state, specific development agencies) and the level at which investment is needed (metropolitan region). How is this mismatch reflected in land markets and the ability of government to capture land-related gains to help finance critical infrastructure? What lessons can be learned from developing countries that have institutionalized metropolitan governance?

## 5. POLITICAL CONFLICT AND RESISTANCE TO LAND-BASED FINANCING

Despite the economic arguments for land-based instruments as part of the solution to urban infrastructure financing, initiatives in this direction often face political and popular resistance. The strategies presume that part of urban land-value gains “belongs” to the public sector and can be used to help finance public budgets. Other parties have competing claims: developers, private landowners, ‘informal’ occupants of public land, farmers at the urban fringe whose land is taken by eminent domain. The intersection of these claims has made land-based financing an increasingly controversial and politically sensitive topic.

Political resistance is particularly strong when public authorities use the power of eminent domain to take land from private owners for infrastructure purposes. What constitutes adequate compensation in these cases, and how should it be calculated? Several countries have started to establish regulatory regimes governing sub-national public land asset management in general, and the rules that have to be followed for taking of land for public development purposes. In India, the land acquisition process is particularly cumbersome, and seemingly open to abuse, with high profile controversies surrounding many large land transactions. Is there a reasonable middle-ground to be reached that protects individual rights while allowing some part of the value created by public infrastructure investment to be captured to help pay for such investments?

## 6. POLICY CHOICES AND POLICY DESIGN

What are the choices for sustainable policy design that takes advantage of urban land values and the gains in land values generated by infrastructure investment? With particular attention to India, what are the lessons to be drawn from recent experience, both in India and elsewhere?