Unlocking Land Value for Financing Urban Development in India

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Abstract

This study highlights the importance of unlocking land value in financing urban infrastructure development. Considering the large financing requirements of urban infrastructure and the strained finances of urban local bodies as well as state governments, instruments such as tax increment financing, betterment levies, development charges and special assessments are examined for their potential in unlocking urban land value in India’s urban infrastructure development. The study also presents evidence from international experience in this area.
1 Introduction

A vital ingredient for urbanisation as well as economic growth is the efficient use of land for developing urban infrastructure in a socially inclusive and environmentally sustainable manner. Looking at experiences from different states in India, approaches such as the public acquisition of land, the use of public private partnerships, land pooling and town planning schemes are analysed for their potential in unlocking urban land value for India’s urban infrastructure development. Considering the large financing requirement of urban infrastructure and the strained finances of urban local bodies as well as state governments, methods of unlocking land value may prove to be an important tool to bolster finances for developing urban infrastructure. This can entail the use of instruments such as tax increment financing, betterment levies, development charges and special assessments. Evidence from international experience in this area is also examined.

Section 2 puts forth alternative models of land assembly. Section 3 discusses the role of instruments which can help unlock land value in putting urban infrastructure in place and help finance the same. Section 4 concludes.

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2 Models of Land Assembly

Urban planning in India has relied heavily on compulsory public acquisition of land under the Land Acquisition Act of 1894. In recent years public acquisition of land has aroused a great deal of political reaction, and legislative changes are in the making to address the challenges thrown up in this area taking account of the manner in which the practice of public acquisition of land evolved across the country.

Different state governments have experimented with different land assembly models to accommodate the growing demand for urban space. For example, Delhi Development Authority has involved government monopoly in acquisition and also monopoly in infrastructure and housing development. There is growing disenchantment with this model because of its inefficiency, apathy to the demands of the users, and the potential for rampant corruption in the absence of competition.

Some state governments have encouraged private sector initiatives and public private partnership for land assembly and land development, e.g., in Gurgaon (Haryana), NOIDA (Uttar Pradesh), Greater NOIDA (Uttar Pradesh), Hyderabad (Andhra Pradesh) and Bangalore (Karnataka). For example, in Gurgaon, the cost of land development is met through private developer’s equity, instalment payments by purchasers of plots/houses, and commercial financing. Internal infrastructure provision is the responsibility of the private developer, while external infrastructure is to be provided by the Haryana Urban Development Authority, financed through levying external development charges. In NOIDA and Greater NOIDA, acquisition of land and providing infrastructure is the responsibility of the Development Authority but public private partnership is extensively used. These models have posed their own problems resulting in large scale speculation in land.

There are some institutional innovations in land pooling which have worked in some states. The Town Planning Schemes (TPS) of Gujarat, the Vijayawada model of land-sharing in Andhra Pradesh, and the Magarpatta model of township development in Pune, Maharashtra are good
examples of how land can be pooled for the purpose of urban planning and development by engaging owners and encouraging them to participate in planning instead of just providing monetary compensation for their land.

The origins of The Town Planning Scheme (TPS) can be traced to the Bombay Town Planning Act of 1915. Town Planning Schemes were in practice in Maharashtra and Gujarat, and also in Tamil Nadu and Kerala, but fell into disuse over time. Their revival in Gujarat was through an amendment to the Gujarat Town Planning and Urban Development Act of 1976, in 1996. Town Planning Schemes of Gujarat have successfully pooled land for city expansion with minimal displacement of people, active participation of landowners in town planning and without any strain on the public exchequer. In a two-step process, the first step consists of preparing a “Development Plan” which is a broad-brush vision for the entire city – a dynamic document that is detailed gradually and marks clearly the new areas to be opened up for development. At the second stage, these areas are divided into smaller areas ranging between 100 and 200 hectares, typically involving 100 to 250 landowners. Each such area is called a Town Planning Scheme (TPS). Land parcels belonging to different farmers are first pooled under a TPS. After reconstitution of the plots within a TPS framework through extensive consultations and making provision for public amenities, infrastructure and housing for the poor, the developed plots are returned to the original owners in a reduced proportion of their original plot.

Thus, a TPS provides for the laying out of land and its development, making allowance for installing the infrastructure needed for water supply, drainage, sewerage, street lighting, etc., and allocating land for different uses. It typically allots 15 per cent of the area for roads, 5 per cent for parks, playgrounds, gardens and open spaces, 5 per cent for schools, dispensaries, fire brigades and public utilities, and 15 per cent for sale by the appropriate authority for residential, commercial or industrial uses. Such sale helps meet the cost of infrastructure in the Scheme area. Conserving heritage and protecting the natural environment is also given consideration under TPS, while 10 per cent of the total area has to be reserved for accommodating socially and economically weaker sections of society. As of March, 2013, more than 1200 Town Planning Schemes had been approved, of which close to 800 have been implemented. Inclusion and self-financing are two significant features of Town Planning Schemes, although the process itself tends to be very time consuming.
Vijayawada Municipal Corporation in Andhra Pradesh provides an example of land pooling under public private partnership (PPP) without pursuing the traditional land acquisition route. In assembling 226.5 acres of land at Gollapudi and Jakkampudi villages in Vijayawada in 2007-08, the land-owning farmers joined hands with the state government and provided 40 percent of their land (i.e. 96.56 acres) for provision of infrastructure and housing the poor and low-income segments of the population. As of April 2013, more than 9000 houses have been sanctioned for the poor and low income groups, and the related infrastructure is also in place. More than 5000 houses have been finished and allotted.

A different example of land pooling is of Magarpatta city in an area of 430 acres in the outskirts of Pune in Maharashtra. Farmers with their ancestral land in Magarpatta have shown that it is possible to become partners in urban development. They have created a world-class township based on ‘walk to work, walk to school’ principle. The land in Magarpatta was in the jurisdiction of the Pune Municipal Corporation since 1960 even though it was designated as an “agricultural zone” earlier. A community of 120 farmers came together to set up the Magarpatta Township Development and Construction Company which prepared a city plan for Magarpatta, and approached the government of Maharashtra with an integrated township proposal under the Maharashtra Regional and Town Planning Act, 1966. After receiving approval for change of land use and for the project, the township was started in 1994. The city has been developed as a modern sustainable urban habitat with emphasis on environment-friendly development, high quality urban services, excellent modern facilities for education and health, and state-of-the-art work places. It is home to over 40,000 persons and accommodates a working population of over 70,000. The developers of Magarpatta were able to attract MNCs and other corporate entities; particularly IT companies to set up offices in the city, with its world class infrastructure facilities.

Apart from being a good land assembly model, Magarpatta has accomplished social integration of the farming community with the residents of the township. Money from the sale and pooling of land was used only for asset creation. All farmers agreed to use part of the value of their land to buy flats and shops in the township, thereby ensuring lease rentals for themselves and creating a safety net for the next generation. Allocation of flats for the farmers was done in a way that
they were located in different parts of the township. Over 250 entrepreneurs in non-agricultural ventures have emerged from the farmer community with guidance and training by the Magarpatta Development Company. These first generation entrepreneurs account for a gross annual turnover of Rs 150-200 crore. The business strategy of the Company has ensured that a farmer with one acre of land at the time of its formation earns a dividend of about Rs 15 to 16 lakh per year. Magarpatta also offers lessons on how sustainable development can be promoted through urban planning. Of the total 350 tonne of garbage generated by the city, 230 tonne is biodegradable, and is used for bio-compost. Sewage water treatment capacity of 5 million litres per day is installed to treat waste water of the city. Electricity saving due to the installed solar water heating system is Rs 1.7 crore per year.

This model of sustainable development is now being replicated by the Magarpatta Township Development and Construction Company (MTDCC) to build a similar township in the city of Nanded in the naturally rich vicinity of Sinhagarh road in Maharashtra. A community of 235 farming families has come together and pooled 700 acres of agricultural land for the new township that will house a residential district, a commercial complex, a hospital and a school. The commercial district will host Corporate Houses and IT companies. MTDCC has reserved 230 acres of land for green spaces, including over 5.2 km of riverside development which is the first of its kind in India. More than 7000 residential and commercial units are in different stages of construction and over 2000 units have been handed over for possession. The city’s master plan has areas provided for rainwater harvesting and a vermi-compost plant. The company has also planned for a solar water heating system as well as a biogas plant to meet the rising energy needs of the city.

3    Financing by Unlocking Land Value

As cities develop, land values increase because of high demand for locations that are favoured on account of zoning decisions or infrastructure development. Realising a part of this increase in land value provides a means of financing the growing needs of urban infrastructure development. Many Western countries used land as an instrument of financing urban infrastructure when their cities were growing rapidly in the 19th century. A number of developing countries are now following this course as part of the mix for capital financing of urban infrastructure projects.
Betterment levies as applied in Latin America follow the principles incorporated in Spanish law. Impact fees are based on the planning and legal approaches used in the United States.

In a recently published book, Peterson (2009) documents different instruments of land-based financing in many different country settings and analyses their practical working, much of which involves public private partnership. He classifies these partnerships into three categories: (i) donation of public land to private developers in return for private investment in public infrastructure, (ii) sale of public land to private developers and the proceeds used to finance public infrastructure, and (iii) sharing of gains in land values created by public infrastructure investment. Gains can be shared by imposing taxes to capture part of the gain in value, or by agreements which are negotiated prior to investment.

Tapping land value for infrastructure development has special merit because funds are mobilized upfront thereby adding flexibility to infrastructure financing decisions and reducing dependence on debt and the associated fiscal risks. The price signals that emanate from land-based taxation also increase the efficiency of urban land markets. Two of the most commonly used instruments are betterment levies and impact fees.

A betterment levy captures a part of the land value gain attributable to specific properties benefitting from an infrastructure project. A good example is that of the city of Bogota in Colombia where more than half of the city’s main road grid was paid for by betterment levies. Since it is difficult to quantify this gain for individual properties, Bogota has subsequently adopted a city-wide valorization fee, broadly differentiated by benefit areas. Municipalities are authorized to capture increments in land value ranging from 30 to 50 percent of the value of the increment. Betterment levy is being replicated in other cities in Colombia, and other Latin American countries are also resorting to similar levies.

Impact fees or developer exactions are one-time upfront charges designed to recover the cost of infrastructure development. While developers are expected to build internal infrastructure for their development at their own cost, the impact fee is designed to cover the external

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1 This section draws heavily on Peterson (2009).
infrastructure costs of such development on the principle that growth “pay its way”. This is because growth generates demand for expansion in urban infrastructure such as roads, water supply, parks, etc., and impact fee is charged to developers to cover the cost of the infrastructure expansion that growth necessitates. The United States made extensive use of developer exactions for building infrastructure. The revenue generated in this manner helped in servicing the debt incurred for infrastructure provision in new developments. During the 1970s and 1980s, the use of developer exactions was broadened to cover all types of infrastructure, and this resulted in the emergence of “development impact fees” through state legislation. Effective use of this instrument requires a long term infrastructure plan and the ability to differentiate accurately the impact of new development on infrastructure costs.

A number of developing countries are introducing impact fees for financing infrastructure. The city of Hyderabad has been levying impact fee for a number of years to mobilise sizeable resources for infrastructure development Peterson provides the example of Mumbai where it is estimated that a 10 per cent impact fee or development fee imposed on the cost of new construction, could finance 40 to 50 per cent of all regional infrastructure investment requirement over a 20 year period.

Some initiatives, in the city of Calgary in Canada, in Orestad in Denmark, and in Hong Kong are worth highlighting as innovative attempts at unlocking land value and tapping it for infrastructure finance. Calgary earmarked for 20 years a portion of its property tax revenue generated from The Rivers District properties to invest directly in infrastructure improvements within this area through a ‘Community Revitalization Levy’ (CRL) which was enabled by provincial legislation. Orestad Development Corporation (ODC) captured some of the appreciated land value while developing a strategically located township in Orestad in Denmark and linking it to the Copenhagen City Centre International Airport and other parts of the city through a metro rail line of 22 km. This was mobilized through direct payments (10 percent), real estate taxes (10 percent), and operating profits from the metro (30 percent), and has partly financed the construction of the metro. The Hong Kong Mass Transit Railway Corporation has

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3 Orestad covers an area of 3.1 million square metres which is of 5 kilo metres long and 600 metres wide.
also used land sale, long-term leasing of development rights, joint development through public-private partnership, and leasing of commercial space in and around metro stations, as major sources of finance.⁴

India has made limited use of unlocking and tapping land value to finance urban infrastructure. However, some cities have made a start. The Mumbai Metropolitan Regional Development Authority (MMRDA) auctioned land in 2006 in the city’s new financial centre, Bandra Kurla Complex in the process of developing an alternate Business District. MMRDA generated $ 1.2 billion from a mere 13 hectares, which was 10 times its total capital spending in 2005-06 and 3.5 times the total value of municipal bonds issued by all urban local bodies and local utilities in India during the decade 2001-2011.

Andhra Pradesh has adopted a number of measures to tap the gains in value from its planning system and infrastructure development, including development charges, betterment levy, impact fee, vacant land tax, open space contribution and special fees. The Hyderabad Municipal Corporation has been using incentive zoning for the past 15-20 years with relaxation in planning norms including grant of Transferable Development Rights for widening major roads. A special development charge of Rs 600 per square metre is levied on any development occurring within the 1 km growth corridor on both sides of the ring road. A few other states are also experimenting in this direction.

Since the 1990s, the Government of Karnataka has levied a cess on certain dedicated taxes, including land-based taxes to create a resource base for the Elevated Light Rail Transit Project. Similarly, for construction of the ring road in Bangalore, a surcharge was imposed on change of land use for approval of individual and group housing projects. The Bangalore Metro Rail Corporation has recently embarked on Transferable Development Rights to secure land for metro rail alignment in lieu of compensation for the acquisition of land.

⁴See Tang and Lo (2010)
4 Conclusion

Urban Planning in India has relied heavily on compulsory public acquisition of land. This is becoming increasingly difficult and politically highly contentious because of serious conflicts emerging between farmers, developers and state governments. While legislative reforms are on the agenda to enable easier and fairer acquisition of land, the paper has presented some innovative models of assembling land in some Indian cities. It has also explored financing mechanisms for investments in urban infrastructure by unlocking land value.

The examples of success stories, or at least the start of success stories, provided in this paper suggest that reform and innovation is possible, and indeed is happening. But there is a long way to go if Indian cities are to fulfil their potential for inclusive growth.


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