

INTRODUCTION

INDIA FACES a truly formidable challenge in managing the rapid process of urbanization and the growth of its cities. It is the second-most-populous country in the world. Economic reform has given considerable impetus to the process of urbanization, and it is expected that by 2050 half of its population will be living in its cities and towns. This will mean that the existing cities will continue to grow larger and many new cities and towns will be added.

Cities and towns are crucial to the economic well-being of India. For this, it is imperative that its cities and towns are transformed and pressures of new growth are dealt with so that they are more livable, efficient, and environmentally sustainable. Only then will the rapid pace of economic growth that India is undergoing be sustained and the targets of environmental sustainability of the world achieved. To manage the transformation of India's cities and towns and effectively manage new growth requires effective urban planning protocols, processes, and institutions underpinned by effective legislation.

To effectively manage the new growth implies that the agricultural land at the periphery of the cities and towns or smaller settlements that are not yet "urban" is transformed to be made suitable for urban or non-agricultural uses. This essentially means that the irregular landholdings and plots will have to be given regular shapes; they must be ordered; each plot must be given access; infrastructure services such as water supply and drainage must be provided; land must be appropriated for providing roads, parks, social amenities, and low-income housing. development controls must be prescribed to result in a good quality-built form and levy development or betterment charges to offset the cost of developing the physical and social infrastructure. But most importantly, all of this must happen in a timely manner and such that it is acceptable to the "land-owners" to avoid conflict in the growth management process. Government of India is planning for Land Acquisition Rehabilitation and Resettlement bill and this will have impact on urban land management process. This article describes existing approaches and their effectiveness, to international and

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national experiences of using land as resource to finance infrastructure in towns and cities, impact of the new bill on managing urban growth and identification of issues for further discussion.

Existing Approaches to Manage Urban Growth

There have been, by and large, two approaches to manage new urban growth in India. In the first approach the public planning authorities and development agencies acquire large portions of land and then replan them in a desirable or appropriate manner. This is referred to as the "land acquisition" method. In the second approach, the public planning agencies and development authorities, instead of acquiring land, bring together or "pool together" a group of owners and then re-plan the area by readjusting or reshaping every land parcel in a manner such that it is given a regular shape and access and in the process a portion of land parcel is appropriated to provide for roads, infrastructure, and public amenities. This is referred to as the "land readjustment and pooling" method. Both the approaches, have merits and demerits.

Land Acquisition Method

In this method, the public planning authorities/development agencies acquire large areas of land from agricultural landlords (farmers) under the Land Acquisition Act of 1894. Compensation paid to farmers is based on prevailing agricultural land prices. To minimize opposition to acquisition farmers are paid prices marginally higher than agricultural land prices. Then a master plan of the road area is prepared, laying out the roads, plots for social amenities, and plots for sale. Roads and infrastructure are then built, using government funds or loans. Serviced plots are then sold for urban uses at market rates, which are most often much higher than the rate at which land is acquired.

In this approach, adequate amounts of land for urban uses can be rapidly generated, provided that there is little opposition to bulk acquisition from farmers and the benefit of appreciation of land value on its being converted to urban use accrues to the development authority. Besides, some states allow private developers to assemble land. In many cases, developers use extra legal means to secure farmers' consent.

However, demerits of this method are that original owners or farmers don't share this benefit in any manner and are essentially thrown off their land. Besides, farmers unable to wisely invest the money received as compensation for their land and deprived of a means of livelihood, they have to join the pool of urban labour. This process adds to familiar urban problems - growth of slums, increase

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in crime rates, and increased informal-sector economic activity. Further, the development process is slow. Any person who needs land for urban use has to approach the urban development authority. The development authority ends up becoming a bottleneck for development. Development agencies using the method of bulk land acquisition end up being powerful large-scale land developers, controlling vast urban resources which is likely to breed corruption and is antithetical to the emerging paradigm, where government plays a facilitator's role. This method, with some variation, is used in, for example, the states of Delhi, Haryana, Rajasthan, Andhra Pradesh, Karnataka and Maharashtra.

#### *Land Pooling and Readjustment Method*

In this method, the public planning agency or development authority temporarily brings together a group of landowners for the purpose of planning, under the aegis of the state-level town or urban planning act. As there is no acquisition or transfer of ownership involved, there is no case for paying compensation. A master plan of the area is prepared, laying out the roads and plots for social amenities. The remaining land is reconstituted into final plots for the original owners. The size of the final plot is in proportion to the size of the original plot, and its location is as close as possible to the original plot. A betterment charge based on the cost of the infrastructure proposed to be laid is levied on the landowners. Infrastructure is then provided utilizing these funds.

In this method, all the land, except whatever is needed for infrastructure development and social amenities, remains with the original owner. The development agency plays a limited role in ensuring planned urban growth. Besides, the increment in land value resulting from the development accrues to the original owner whenever the land is sold and developed for urban use. Thus the benefit of development goes to the original owner instead of the development agency. Further, the original owner is not displaced in the process of land development and continues to enjoy access to the land resource. Thus the negative impact of the process or urbanization on farmers (original owner) is minimized.

However, this method is time consuming, since the procedure prescribed for preparation and implementation of such land pooling or readjustment schemes is unduly complicated and cumbersome. The betterment charges which are assessed at the beginning of the land pooling or readjustment scheme preparation do not meet the cost of

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the infrastructure provided due to inordinate delays in finalization of the scheme.

This method is used, for example, in Gujarat and Maharashtra.

#### **Effectiveness of Land Assembly over Land Acquisition**

Land pooling and readjustment is used successfully in many countries as an alternative to eminent domain. The principle underlying land pooling schemes is to aggregate the land required for a project not by displacing and compensating the specific owners of that land, but by getting a larger group of adjacent land owners to make room by contributing a portion of their land parcels to a common pool in a manner that no one is displaced and all to get benefit from the project. The Sardar Patel Ring Road in Ahmedabad is an excellent example of this.

Land Pooling and Readjustment (LR) is gaining acceptance as an alternative to land acquisition as it has many advantages for land assembly. Being in essence a participatory tool, LR avoids to a great extent the public discontent and protests that land acquisition may generate. LR is thus more politically feasible than eminent domain in some situations, and is arguably more efficient and equitable than the use of eminent domain given the role of landowners in the process.

Land readjustment schemes involves the use of land-for-land swaps or other mechanisms for exchange of property ownership rights as a way of aggregating land. The idea is again to minimize displacement and eliminate the need for cash compensation. Under these schemes, land owners are typically provided serviced land of similar value to what they part with.

Second, land acquisition under eminent domain by its very nature will always raise fairness concerns that could easily become controversial in a vibrant democracy such as ours, no matter how refined the legislation becomes. This means that eminent domain must be invoked only sparingly in our country and we must actively experiment with alternative approaches to land acquisition such as land pooling and land readjustment schemes.

The advantages of LR include, among other things, that it does not require substantial upfront capital for buying out existing land owners, thus lowering the redevelopment costs for public and private developers. LR is also more equitable than other land assembly methods, because the benefits and costs of land redevelopment are borne by the affected property owners and it minimizes displacement of large populations. Finally, LR acts as an institutional arrangement

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through which wider community participation in land development and public-private-community partnerships can be fostered.

On managing urban expansions, studies on international land acquisition practices have shown that land readjustment followed in countries such as Japan and South Korea is an alternative worth considering. As mentioned earlier, this system encourages landowners to collectively negotiate land transfer and seek land-for-land exchange or other forms of stake-holding and compensation. Not only do these procedures establish a certain degree of equality of sacrifice and reward, but also raise resources for infrastructure development.

#### **Financing Infrastructure using Land as a Resource**

Few international and Indian examples on how they have used different land based instruments to finance infrastructure are presented.

##### *International Experiences*

###### *Land Leasing and Land Sales*

Land leases and land sales, particularly through auctions, demonstrate efforts to monetize public land assets. They enable municipalities to generate direct revenue through the lease or sale of their landholdings. This option of using land as a method for revenue generation often forms the base of a municipality's toolkit for land management. Publically held land is often the most valuable asset that a municipality owns, thus a well-developed land leasing and sales strategy can maximize revenue from this resource. The sale of public land is often the simplest strategy a municipality can employ, because of the relative ease of conducting land sales.

#### **Betterment Levies and Special Assessment Tax**

Betterment levies and special assessment taxes provide revenue to municipalities based on the increase in land value from public improvements. This revenue is collected from property owners who directly benefit from the improvements. Betterment levies are payments made by affected property owners who help fund infrastructure improvements based on the increased value of their property. Special assessments taxes similarly collect payments from property owners within a designated area of improvement. In the United States this zone is called the Special Assessment District, the levies collected generally fund special assessment bonds which finance specific infrastructure improvements.

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#### **Development/Impact Fees and Exactions**

Development/impact fees and exactions are one-time fees collected by a municipality from a developer, to dedicate land or build or pay for costs of capital improvements that are required for public facilities. These fees are usually set as a condition for the approval of development. Fees paid by developers may be in-kind (e.g. provision of public services or land) or monetary, and are used to fund specific activities that serve the public benefit. Exaction-revenue relies on current charges rather than accrued property taxes, which may provide an alternative in places that do not have strong property tax regimes.

#### **Tax Increment Financing (TIF)**

Tax increment financing allows municipalities to fund current development projects with anticipated increases in revenue from property tax generated through development. This tool is designed to capture expected (new) tax revenues generated as a result of higher property values that will materialize after the development project takes place. Municipalities create TIF districts to spur development that would not occur "but-for" TIF. The increment is used to fund borrowing for specific projects or purposes, e.g. roads, affordable housing, etc.

##### *Indian Experiences*

###### *Bangalore International Airport*

Bangalore International Airport highlights the land considerations in developing a large-scale Greenfield infrastructure project. It provides an example of traditional land acquisition methods for public purposes. The novelty of this case is that Bangalore's airport provides an example where private participation is incorporated in the process. This case explores land acquisition for Public Private Partnership (PPP) infrastructure projects that require excess land to finance their development.

The excess land is to be used for non-aviation activities which are increasingly seen as critical to the financial viability of the airport and realizes greater financial benefits. However, supporting this process requires strong institutions.

#### **Financing Pimpri-Chinchwad's Bus Rapid Transit (BRT) System though Corridor Densification**

Pimpri-Chinchwad's use of Floor Space Index (FSI) loading on the BRT corridor blends the concept of developer or impact fees with

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transit-linked land value capture. The developer fee concept used here is much like that used for restricted funds in the United States, where the fees are used for a specific infrastructure investment. Pimpri-Chinchwad's corridor densification is predicated on the assumption that land around the BRT will be valued higher because of access to rapid transit and the increase value it carries, borrowing from the United State's concept of transit-linked land value capture to be used for further infrastructure investment. Additionally, increasing the FSI follows sustainable planning around transit-oriented development, which allows a greater portion of the population to access rapid transit systems by increasing density of development around transit.

#### **FSI Loading along the Ahmedabad-Gandhinagar Metrolink**

The Metro Link project, connecting Ahmedabad to Gandhinagar, views land as a major source of financing for the project. The proposed value capture strategy includes identifying a 150-meter buffer around 18 km of the first phase of the metro. The proposal includes increasing FSI to 4.0 in the buffer zone and collecting development fees for development above the city average of 1.8 FSI.

#### **Andhra Pradesh: Multiple Levies**

Andhra Pradesh in Hyderabad has introduced a number of land linked levies to be charged at the time of granting development permission. These are:

1. Fees for permission for layout and subdivision of land;
2. Betterment charges for internal amenities / works paid along with the application for layout / subdivision;
3. External betterment charges for arterial roads and other citywide amenities;
4. Building permit fee for construction/reconstruction/additions;
5. Betterment charges for built up area (for internal amenities); and
6. External betterment charges for built up area (External-City-wide amenities).

#### **Using Transferable Development Rights (TDR) for Urban Infrastructure Development in Mumbai**

The Maharashtra Government has used transferable development rights (TDR's) for catalyzing private investment to create housing for the urban poor in exchange for permitting developers to raise floor

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Space Index (FSI) restrictions. The same method can be used for encouraging investments in urban infrastructure.

#### **Lessons Learnt on Leveraging Land to Finance Infrastructure**

The discussion on above cases highlights that while land sales are a useful instrument to provide upfront financing for infrastructure, they are not a long term financing tool as a property tax system is. While land sales appear to be the easiest instrument to implement, they also require strong institutions to become a successful source of revenue generation. Besides, institutions to manage land assets and technologies determining leasing and sale price are essential.

#### **Managing New Urban Growth under National Land Acquisition and Resettlement and Rehabilitation Bill**

The proposed Draft National Land Acquisition, Rehabilitation and Resettlement Bill, 2011 is a significant step forward and combines land acquisition and relief and rehabilitation in one law. The draft bill is more helpful on the compensation, relief and rehabilitation. The Bill includes among affected persons not just landowners but also rights holders under the Forest Rights Act and others whose livelihood depends on the land acquired. It specifies that the minimum compensation will be six times the market price for rural land and twice for urban land. The value of this stipulation has been questioned on the grounds that officially notified prices seriously understate the real market value. It also provides for long-term-compensation, housing and infrastructure for displaced people.

However, few experts<sup>1</sup> on the subject have raised the concerns on the issue of determining just compensation. The draft legislation requires that compensation for loss of land and associated assets should be estimated at market value but it does not specify how such value should be determined. Taking the average of the past few transactions suffers from several problems: recorded sale values are generally underreported, transactions are few, the market quite illiquid, and there are various regulatory distortions, such as restrictions on sale of land to non-farmers that may have kept past prices artificially depressed.

More importantly, should the compensation be based on past land use or should rather be based on likely future prices resulting from the new or proposed land use? If the landowner gets a compensation based on past or existing land use, as is the case, a windfall gain accrues to those when the land use is changed from say, agriculture to non-agriculture use.

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The increase in property values also benefits the adjacent landowners whose land has not been acquired. Moreover, development of the land further raises its value. There is inequity in distribution of these gains. The core issue is fairness in the sharing of gains from the increase in land values that comes from regulatory measures like changes in land use and development measures like the construction of new roads and provision of infrastructure facilities.

However, strong institutions are required for land readjustment (LR) to succeed as a method of land assembly and as an instrument to defray the cost of infrastructure. There is a need to focus on strengthening the existing institution to initiate the process and identify particularities of the local context that would require adjustments to the international model of Land Readjustment (LR).

#### Issues for Further Discussion

- a. The bill includes provisions that would allow landowners to share in the capital appreciation after its acquisition and change in land use from agricultural to non-agriculture by developer, but the mechanism that can ensure this is not clear. There need to be fairness in the sharing of gains from the increase in land values that comes from change in land use and development measures like the construction of new roads and provision of infrastructural facilities. The land acquisition bill will actually help the transparency process significantly, if it lays down a clear and simple procedure for change in land use and make it mandatory to announce the change in land use in advance of any acquisition by either private buyer or government as that will allow the price to move towards the real market price and minimize covert transactions.
- b. The Bill stipulates that the market value of land could be determined by the collector. Why not Gram Sabha or Panchayat, an independent and impartial body? The government should exit from its role of prime determinant of fair value or real estate broker?
- c. Preferring government land acquisition would become less salient if we had a system of guaranteed title to land and reliable records. The state can extend its help when small parcels of land, for reasons of legality in property title, holds up a large project, but it must not intervene wholesale.
- d. The bill provides that upon transfer of land and within 10 years from the date of acquisition, the company will be required

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to share 20 per cent of the appreciated value with the original owner. Normally within five years of acquisition, developer sells it to end users and if they sell the apartment or land to somebody else for profit, who will ensure that he would share 20 per cent of profit with original land owner? Besides, if buyers sell it a loss, who would compensate for loss?

- e. Reserving 20 per cent of developed land for landowners as part of rehabilitation entitlement would definitely make the projects financially unviable as it alone would increase the cost of developed land by almost 100 per cent. Provisions of subsistence allowance for 12 months and annuity for 20 years may be difficult to implement.
- f. The bill restricts the acquisition of irrigated multi-cropped agriculture land. While this is in the right direction, but at the same time cities with huge tracts of multi-cropped land, which lies on the plains of Ganga have the high trend of urbanization and population growth. Imposing a ban will only result in the growth being housed in unauthorised slums.
- g. As the land is acquired and its use is reorganized, the value of the adjacent land jumps manifold and these owners make more money by selling their land than those whose land have been acquired. These two together create a condition that is ripe for corrupt activities. This is where Gujarat has shown the way with town planning procedures that involves negotiations with both those whose land is needed for infrastructure and those whose land go up in value when infrastructure is built.

To sum up, the article looks at some of the innovations using land as a financing instrument for infrastructure provisions and getting around the hurdles of land acquisition for public purpose and suggest Town Planning Scheme as practiced in Gujarat a more popular alternative to land acquisition with voluntary participation of land owners.

#### Footnotes

<sup>1</sup>Desai, Nitin; The land law and justice; *Business Standard*, August 18, 2011, and Lall, Rajiv, "The matter of Land Acquisition & Displacement of People", *livemint.com*, Sept. 20, 2011.