Land Markets

Anirudh Burman
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Introduction

Anirudh Burman

India’s land markets exhibit inefficiencies and high transaction costs. While policies in many product markets and some factor markets have been reformed since 1991, similar efforts have not been made to reform land market policies. The degree to which land markets need reform, and the specific areas that required reform are not clear and need greater discussion. An economy that grows at approximately 6 percent per annum on average for twenty years, cannot, by definition, have a broken land market. India’s land markets are dynamic and responsive to economic forces and arguments for institutional and policy change need to contend with this dynamism.

This collection of essays attempts to shed light on distinct yet interconnected aspects of land as a critical resource for economic growth and seeks to provide an integrative analysis. From land litigation to urban development strategies, these essays offer insight that blends diverse themes and reflect on how these elements collectively shape our understanding of land markets. The undergoing effort is to identify the precise extent to which politicians, policies and institutions constrain and facilitate market forces. This compendium discusses the intricacies of land pooling mechanisms, the nuanced economics of land and the debate around land value taxation. Each essay tackles one piece of a larger puzzle, and the essays collectively address many theoretical and practical challenges in managing land in a rapidly changing economy.

In exploring India’s land markets, it is imperative to understand their unique economic principles, assess operational dynamics, critique policy designs, and discern symptomatic interventions from fundamental issues (“Understanding the Economics of Land and Property”). The immobility of land, inelastic supply, and perpetuity distinguish it from other resources. These traits endow land with significant economic and political value. The relationship between land and finance affects housing prices and economic growth. The essay titled “A Review of the Idea and Implementation of Land Value Taxation,” reveals
monopolistic control and explores the concept of economic rent. It also elaborates on the potential for rent maximization and how it leads to market inefficiencies and inequality. The essay titled “The Problem of Zoning Cities: A Review of Arbitrary Lines by M. Nolan Gray” describes the role that urban planning and zoning policies play in influencing land use, economic development, and social equity. Land markets are a complex interplay of these economic characteristics and policy designs.

The increasing use of land pooling mechanisms following land acquisition law reforms represents a shift to a more consensual, market-oriented approach to the use of land (“Land Pooling: The Unanticipated Benefit of Reforming Land Acquisition Law”). This is a significant shift from the use of eminent domain powers of land acquisition for development. This shift addresses existing fiscal constraints faced by urban bodies and marks a transition in the political economy of urban development. The Indian state has been exploring different approaches to utilizing land for urban development, highlighting the presence of experimentation at the sub-national level (“Comparing Different Approaches to Using Land for Urban Development”). Similarly, the state has also managed to facilitate the availability of land for large solar-power parks at various levels through the provisioning of unused government land and the encouragement of long-term land leasing (“Setting Up Solar Power Parks: Is Land a Binding Constraint?”). While this specific effort is a work in progress, the adaptiveness of the state in land markets warrants a closer understanding.

Hyderabad’s real estate market showcases the impact of global economic forces and local government policies on land valuation and utilization (“Understanding Hyderabad’s Land Rush”). It highlights the futility of modernist approaches to planning cities and the impossibility of projecting the trajectory of economic development far in the future. This in turn, has implications for how planners think about land-use.

A critical perspective is key to distinguishing between symptomatic interventions and core issues in land markets. Often misinterpreted as direct results of flawed policies in land markets, India’s land litigation patterns reveal broader socioeconomic and institutional influences (“Understanding Land Policy Issues by Studying Land Litigation”). The focus on land litigation as a point of intervention may therefore, on careful analysis, be misguided.

The essays in this compendium critically evaluate existing policy frameworks and draw out lessons that are relevant for contemporary land market challenges. They collectively argue for policies that recognize the complexity of land as an economic asset and highlight the importance of fundamental economic thinking applied to land markets. This includes acknowledging the need for adaptable, context-sensitive approaches in land management and policy formulation.
“...Land is permanent, cannot be produced or reproduced, cannot be ‘used up’ and does not depreciate.”

—Rethinking the Economics of Land and Housing (2017) by Josh Ryan-Collins, Laurie Macfarlane, Toby Lloyd, and John Muellbauer.

It is difficult to find good, readable explanations of land as an economic input to other markets like housing, finance, and agriculture. Lack of attention to the area is puzzling, especially in the last decade, as policies related to land and property markets were significant reasons for the Global Financial Crisis. Rethinking the Economics of Land and Housing (2017) fills this gap by examining land markets in developed economies, the linkages between land and modern finance, the relationship between housing prices and wealth inequality, and the difficult choices in housing policy.

The book covers a lot of ground, but there are some themes that are particularly relevant to India in its current state of economic development. The first is the explanation of how land as an economic good has specific characteristics—immobility and perpetuity—that lead to downstream features exhibited in the political economy. The second is an explanation of the idea of “economic rent” with respect to land and the inefficiencies rent maximization behavior in the land market leads to. Another important theme of the book is the relationship between land and finance and that between land prices and credit markets.
The Specific Attributes of Land

The authors begin by pointing out that land as a factor of production is best understood as “space and the occupation of that space over time.” Due to this characteristic, land is clearly different from other factors of production. First, land by definition is immobile. Second, the supply of land is inelastic and also eternal. This means that in most cases, the value of land is not determined only by its current use value but also includes the value that controlling such land will provide in the future. Land prices therefore reflect people’s expectations of future economic activity.

The authors argue that land also differs in other aspects from other factors of production. For example, they say that physical space becomes more desirable and is not subject to the law of diminishing returns: “... estimates suggest that a 10 percent increase in incomes leads people to spend about 20 percent more on space in houses and gardens. ...” For this reason, according to the authors, the technological boom has not reduced the significance of land but has accelerated a shift in the relative economic importance of different types of land use.

The third major feature of land, according to the book, is its specific vulnerability to expropriation. Because land is immobile, landowners seek to protect their land from expropriation by seeking political power. The historical development of constitutional democracy as a mechanism that protected landowners from taxation exemplifies this fact.

Land and “Economic Rent”

The discussion on “economic rent” in land is perhaps the most significant aspect of the book. The authors explain that since every piece of land is essentially unique, control over every piece of land is monopolistic. Landowners can therefore benefit from their use of land unrelated to the costs of bringing it into production. And, since, over time, unowned land becomes scarcer, rent is determined more and more by locational value and less so by the investment the landowner makes for its use. In a growing economy, therefore, it is possible for landowners to capture almost all the benefits of growth by increasing rents as the economy grows.

In addition, the ability to extract rent is also distortionary as it incentivizes over-allocation of capital toward land relative to other productive uses. Therefore, the ability to capture rents is not just intuitively unfair but also inefficient. Urban centers that are successful often see soaring land prices that often drive away valuable human capital as well as productive enterprises, undermining the success of the city.

This monopolistic characteristic of land markets, along with the propensity to generate economic rent, creates a natural tendency toward market concentration and absorption of a disproportionate share of growth.
Land, Finance, and Wealth

This book argues that as land values in developed economies like the UK and the U.S. continue to increase, the “distinction between the use value of land or property . . . and its market value as a financial asset . . . is becoming blurred.” The share of mortgage lending in these economies has increased significantly since the 1970s, highlighting the degree to which land has become financialized. Why do the authors consider this a problem? They cite other economists to argue that because of this trend, “. . . land and house prices are separating themselves from growth and incomes in the wider economy.”

The authors argue that banks essentially create credit and money to lend against existing land and that this has inflationary effects on land and property prices, which then requires borrowers to borrow more to become landowners or homeowners. This in turn leads banks to issue more credit, and so on. The authors show that at least in the U.K., “relatively elastic credit supply” has been the major cause of housing price increases in the last thirty years. This easy credit, according to them, is the primary reason why land and housing prices have diverged significantly from the much slower income growth.

Conclusion

Each of these discussions has relevance for India. Indian metropolitan cities have some of the most expensive real estate markets globally, and policymakers continuously grapple with issues of providing housing and infrastructure at affordable costs even as the economy continues to grow. The political economy incentives of balancing property rights while reducing the accrual of economic rent plays out in discussions over decentralization and municipal governance. In this regard, this book provides a good theoretical perspective on the economic incentives of different stakeholders and the difficulties of choosing policy alternatives in the land and property market.
Contemporary scholarly debates on wealth inequality have often pointed to the rising share of housing wealth that is contributing significantly to this phenomenon (see Piketty, La Cava, and Rognlie). According to this literature, the increasing share of wealth is due to the rise in housing and/or housing rents accruing to landowners. This linkage of housing prices to inequality increases the salience of Henry George’s idea of a single tax on land values.

Henry George was an American economist in the late nineteenth century, whose book *Progress and Poverty* laid out ideas for taxing land value to the exclusion of all other taxes. George’s argument that monopoly ownership over land leads to the creation of economic rent captured by the landowner was based on the ideas first articulated by Adam Smith and David Ricardo. He was, however, among the first to support the idea of a flat land tax to levy the economic rent being generated by landlords. Milton Friedman called Henry George’s land tax on the unimproved value of land the “least bad tax.”

However, the objective behind George’s proposal was not just to identify the most efficient method of taxation but to find a solution to the increasing economic inequality within rapidly industrializing western economies. This makes the idea of a land tax relevant to contemporary debates. Two recent publications, “Impact of Land Value Tax on the Equity of Planning Outcomes” (2023) by Joseph Morgan and Sina Shahab and an IMF Working Paper titled “Equity and Efficiency Effects of Land Value Taxation” (2022) by Gregor Schwerhoff, Ottmar Edenhofer, and Marc Fleurbaey, study whether land value taxes lead to more progressive outcomes in incomes and wealth.
The proposal for a land tax itself originates from the peculiar characteristics of land as a factor of production. Useful land is a scarce resource, and ownership rights give landowners monopoly rights over useful land. Second, land itself does not depreciate in quality, therefore giving the landowner the power to withhold land from use until the price offered to them meets their expectations. Third, the quantity of useful land does not increase or decrease due to taxation since land is a natural resource. This is in contrast to other goods and services, where tax rates affect how much of a particular good or service is produced.

Taxing the value of land should, in theory, pressurize landowners to either use the land to be able to pay taxes or to sell it off to someone who can, bringing such land into use in the process. Land taxes are also considered more efficient than others because they do not affect the amount of land available in the economy. Lastly, the equity argument in favor of land taxes is that taxing away the increase in property value accruing to property owners purely on account of their ownership should, in theory, reduce inequality.

The two aforementioned papers study the equity and efficiency arguments concerning land value taxation. Schwerhoff, Edenhofer, and Fleurbaey explore why land value taxes are rarely used despite their theoretical appeal. Their paper focuses specifically on the “distributional concerns” of land value taxes. It also explains that while some research hints toward the possibility of land taxes being regressive, other research argues that economic rents reduce inequality and that, therefore, land value taxes could reduce inequality.

The authors begin with the assumption that households are heterogeneous in their wealth and asset portfolios and that, therefore, “the share of land in total wealth may vary systematically across households of different wealth. As a result, a land value tax may be more or less progressive.”

They note that since a land value tax is applied on the value of the land rather than the area of the land, the tax base would be non-distortionary, given that the value of all land would fall within the tax base. This will not encourage or discourage the use of land based on its taxability. Second, they consider the case of economies where landowners are largely subsistence farmers. In such cases, they argue that it may not be optimal to tax land rents fully for equitable reasons. Therefore, according to them, there are “situations in which it is optimal to tax land rents fully and other situations where distributional concerns call for less than full land rent taxation.” The decisive factor is the portfolio composition of households in the economy.

To study this empirically, the authors examine price trends for housing and land in the United States and France. Through this, they try to understand the degree to which land value contributes to total wealth. The paper finds that in the United States, the share of land in housing prices has doubled between 1930 and 2010. In France, the increase has been sharper. The share of land in housing prices in France has increased from 40 percent in 2000 to 60 percent in 2010. The paper argues that in these two countries, while a land value tax would be useful in removing other distortionary taxes, the degree to which the land tax is progressive will depend on two factors.
First, it will depend on the degree to which households are indebted. For such households, a land value tax “would also raise a serious concern that the most exposed households may be unable to service their debt.” Second, the degree to which such a tax is progressive will depend on the corresponding reduction in other taxes. A reduction in labor or income taxes should, according to the paper, reduce the net tax burden on both lower and middle-income households.

The paper therefore concludes that land value taxes can be more equitable in some situations, but adjustments will be necessary due to distributional concerns in some cases. It also emphasizes the importance of considering the effects of land value taxation in conjunction with reductions in other taxes.

Morgan and Shahab study the equity-related arguments in the context of a proposal to implement a land value tax in Wales, and the UK’s Labour Party proposal to replace their municipal tax, also known as the “Council Tax,” with a variant of a land value tax. The paper is different from the one by Schwerhoff, Edenhofer, and Fleurbaey not just because of the geographies but also because Morgan and Shahab study land value taxes in the context of the local urban planning system. Their paper is based on semi-structured interviews with local tax officials, public sector planners in Wales, private sector planning consultants, private sector surveyors, academics, and valuation officials.

The authors highlight the non-distortionary and equitable potential of land value taxes and note that several countries have tried using land value taxes, but their widespread adoption has been difficult. Their research focuses on the difficulties in implementing land value taxes, and the paper lists and illustrates multiple issues that their interviewees highlighted.

First, assessing land values is technically difficult. This is often the case because of the different kinds of ownership and land rights that are hard to understand. Second, according to the authors, Wales has a “discretionary planning system,” which is “…unlike most European countries that employ zoning as the main policy instrument.” If a land value tax were introduced with the current system of planning that is in place in Wales, “it would create a cyclical relationship where the local authority would be encouraging landowners to develop through increased taxation while simultaneously preventing development [through planning restrictions], which would be politically untenable.”

Third, the taxation rates are crucial, and unless the taxation rate is penal, landowners would not have sufficient incentives to develop the land, as some land value would still be available to capture. However, imposing a penal tax rate on land values would be politically difficult.

Interviewees also highlighted the necessity of having clear objectives for the implementation of a land value tax. They argued that a land value tax for revenue generation would run into jurisdictional issues. Landowners living outside a revenue area may not receive commensurate benefits from the tax and may object to the tax itself. On the other hand, if such a tax is intended for redistributive purposes, it would have to be imposed nationally rather than locally.
Morgan and Shahab’s research highlights the fact that while land value taxes are more efficient and equitable in theory, the practice of implementing such a tax is subject to the same kinds of political negotiations and implementation constraints that other taxes suffer from.

These difficulties have been corroborated in cities that have tried to faithfully implement Henry George’s idea of a single land tax to the exclusion of others. Altoona, a city in Pennsylvania, United States, adopted a municipal tax system that shifted from property taxes to land value taxes in 2011. In 2016, the city discarded the practice because the tax never generated sufficient revenues to offset the loss of property taxes.

Pennsylvania, being Henry George’s home state, was one of the few U.S. states to adopt a land value tax. According to S. C. Bourassa in “Land Value Taxation: Theory, Evidence, and Practice” (eds. R. F. Dye and R. W. England 2009), the land value tax experiment failed in Pittsburgh, Pennsylvania, because “the enterprising use of land value taxation was unfortunately combined with substandard assessment practices. An overdue reassessment of property in Allegheny County in 2000–2001 led to substantial increases in assessed land values and tax bills... In the end, land value taxation in Pittsburgh was the scapegoat for infrequent and inaccurate assessments and clumsy rate-setting procedures that did not adequately adjust taxes in response to large increases in value.”

The literature reviewed in this essay is consistent when it comes to the theoretical appeal of a land value tax as an efficient, less distortionary, and more equitable tax system relative to existing systems of income and property tax. This literature is equally consistent about the difficulties of implementing a land value tax. It documents in detail the nuances to be kept in mind while considering the tax burden of a land value tax based on the income distribution and asset portfolios of households. It also highlights the political and administrative difficulties of assessing and persisting with a land value tax system and points out quite clearly the reasons for the demise of this system, even in countries where it has been enthusiastically applied.

At the same time, the literature reviewed implicitly highlights the degree to which incumbent landowners oppose land value taxation and the kinds of constraints proponents and administrators face when adopting a land value tax. It also shows that, while a land value tax system may be difficult to implement, the economic rent accruing to landowners does need to be taxed through different mechanisms for achieving planning objectives as well as redistributive goals. This literature focuses on an important problem at a time when relative economic inequality has become politically salient, and the lessons from the implementation of land value taxation must be studied carefully in order to find measured responses to this issue.
Land use regulations have been instrumental in planning cities throughout history. The twentieth century, however, saw the development of a novel mechanism of land use regulation and urban planning—zoning. As an instrument of urban planning, zoning is now used ubiquitously, to the extent that people frequently conflate an absence of zoning with an absence of planning. In truth, zoning is just one of the many planning tools aimed at controlling land use and its intensity in cities.

The stated purpose of zoning is to promote orderly urban development by preventing “incompatible” land uses and to control congestion, pollution, and other negative externalities. This is done by directly allowing and disallowing certain activities on any given piece of land in an urban area. Because zoning has direct implications for what is permissible on a parcel of land, it affects property rights and property values. In addition, zoning presupposes that a centralized planning vision can account for all likely problems with urban land use.

India’s experience with zoning as part of master plans is reflective of this high modernist, centralized idea of planned development. As Alain Bertaud’s *Order without Design* 11 and Jane Jacobs’ *The Death and Life of Great American Cities* 12 explain, this centralized idea of planning cities is incapable of accounting for the organic dynamism of city life. There are therefore good reasons for why the practice of zoning is a contested one.
Proponents of zoning argue that it allows cities to deal with negative externalities in an orderly fashion. For example, zoning allows you to avoid costly negotiation and litigation when a noisy bar opens up next to your house. The technocratic literature on zoning—E. Sclar et al. (2020) and Connor Murphy (2019), by way of examples—sees a way to use the practice to maximize social benefit and argues for a distinction between “good zoning” and “bad zoning.” Meanwhile, opponents to the practice of zoning—for example, William A. Fischel (2015)—argue that it is mostly used for protecting the interests of incumbent groups at the cost of the economic development of the city.

Within this opposing group, M. Nolan Gray’s book, Arbitrary Lines: How Zoning Broke the American City and How to Fix It (2022), provides clear and lucid arguments against zoning as an instrument of planning and a means of land use regulation. Gray explains how the seemingly banal activity of segregating land uses and regulating population densities is a significant contributor to several issues—the stagnation of economic development in U.S. cities, spatial racial segregation, highly inefficient use of land (making housing unaffordable for many Americans), and a significant negative impact on the environment. The book is a breezy read about the different ways in which the use of zoning is problematic, and it makes its case succinctly.

Though zoning is a planning tool, Gray provides a political account of its national adoption as one. The city of New York first adopted zoning to meet the interests of the following groups—landlords desirous of remaining insulated from the falling rent of commercial real estate, homeowners interested in protecting the aesthetics of their communities, and politicians interested in promoting the ideal of single-family housing.

The introductory chapters introduce the concept and its origins. According to Gray, zoning was both a progressive central planning idea aimed at a rational restructuring of cities as per the planner’s vision and an idea promoted by local incumbents in cities to control land prices and protect the character of existing neighborhoods.

Gray emphasizes the political and ideological purposes that the concept of zoning has served since its inception. To burnish this argument against the more technocratic and utilitarian arguments for zoning, he points out that cities had already started regulating areas for certain kinds of activities, such as brickyards and tanneries—these were barred from city limits. In other cases, residents could register common law claims against nuisance by neighbours, routinely receiving relief from courts. Many cities had also begun to adopt stricter housing standards during the early nineteenth century. In this milieu, the introduction of zoning had more political purposes. However, Gray claims that the rationalist appeal for the scientific management of cities was sold to local constituencies by bureaucrats in a way that appealed to their interests. He writes:

*Early Progressive promises of rationally planned cities quickly yielded to a basic pitch designed around this constituency: zoning will maintain your real estate investments, keep your neighborhood as it exists today, keep unwanted groups out of your community, and prioritize—above all else—the protection of your beloved detached single-family home.*
Under President Hoover, zoning received a push from the U.S. federal government. Hoover, according to Gray, was “moved by an urban ideal of mass ownership of detached single-family houses, both to restore the ‘national character’ and to stimulate the building industry.” During Hoover’s presidency, the federal government provided incentives and grants to push the implementation of zoning regulations. By the 1970s, most U.S. cities had adopted zoning regulations in some form or the other.

For Gray, the practice of zoning is pernicious not merely because it regulates land use, but specifically because it regulates land uses and densities. This determines factors such as the height or size of a building one can construct on a plot of land, and whether it should be allocated for residential, commercial, or industrial purposes. These powers have been used to restrict development to such a degree that, according to Gray, zoning is essentially about preventing growth and controlling development. He provides startling facts to bolster this argument, such as:

1. According to one study, a startling 40 percent of buildings in Manhattan couldn’t be built today, owing mainly to density restrictions.

2. In nearly every major U.S. city, apartments are banned outright in at least 70 percent of residential areas.

3. In addition to heavily restricting apartments, many zoning codes ban the most affordable housing typologies outright. In cities, this means prohibiting single-room occupancies . . .

The restrictions imposed by zoning essentially make housing and real estate unaffordable because of the degree to which they control urban development. This intense degree of control is, however, more recent than the advent of zoning. According to Gray, this development began occurring from the 1970s onward for the following reason:

Beginning in the mid-1960s, inflation crept up and remained high through the 1970s. At the same time, the federal government enforced a tax code that heavily favored homeownership, with generous deductions for mortgage interest payments and the capital gains made off of home value appreciation. As a result, many Americans parked their life savings into their home.

This issue, of increasing the stakes in the value of housing, is discussed in much greater detail in Fischel’s _The Homevoter Hypothesis_ (2005). As Fischel points out, housing is not an easily diversifiable asset—this makes homeowners much more invested in protecting not only the value of their property but also the value of their neighborhood. For Fischel, this is not necessarily a bad thing. In some cases, it encourages greater community involvement and often leads to better outcomes in the delivery of local services. However, it can also encourage some homeowners to strongly resist any development that reduces the value of their houses.
In addition to reducing affordability and promoting stagnation, Gray points out the significant opportunity cost of not being able to live in the most productive cities in the United States because of them being unaffordable. As a result, most of the wealthiest cities in the United States are showing significantly lower population growth rates than those close to or at the median-income level.

Gray unravels the negative impact of zoning on multiple fronts—the economy, race relations, and the environment—while highlighting significant exceptions that can serve as examples for reform. He takes the example of Houston, which had land use regulations and environmental and nuisance-related regulations but no zoning regulations.

As Gray explains, the residents of Houston have repeatedly resisted demands for zoning from the wealthy elites of the city. Proposals to zone narrowly but decisively have been defeated through repeated referendums. Gray outlines that this success is a result of allowing the residents of wealthy neighborhoods to regulate their communities through the use of private zoning mechanisms called restrictive covenants, which the city has agreed to enforce using public funds. This political bargain has enabled the rest of the city to remain free of zoning restrictions. And this absence of zoning has, in turn, led to rapid growth:

*Houston builds housing at nearly three times the per capita rate of cities like New York City and San Jose…It isn’t all just sprawl either: in 2019, Houston built roughly the same number of apartments as Los Angeles, despite the latter being nearly twice as large.*

To conclude, Gray provides articulate and concise arguments against zoning and its preeminent use to protect incumbent homeowner interests at the cost of the larger city and the country and highlights the problems inherent in using a high modernist planning tool to impose order on cities.
Land Pooling: The Unanticipated Benefit of Reforming Land Acquisition Law

Anirudh Burman | August 30, 2022

Making state coercion fiscally expensive can reduce state coercion. This is the lesson that emerges from the experience of reforming India’s land acquisition law. India’s urban development seems to be becoming increasingly reliant on non-coercive land pooling mechanisms, compared to the comparatively draconian mechanisms of land acquisition. This is because reforms in 2014 made land acquisition significantly more expensive, which in turn rendered its use as a mechanism for urban development unviable for many city and state governments.

State-led urban development in many states and territories (like Delhi, Noida, Punjab, Kerala, and Karnataka) relies primarily on land acquisition. This is especially so when a new stretch of land is sought to be developed and supplied with urban infrastructure. As Indian cities expand outwards, and the focus of urban development shifts to urban peripheries, land is frequently acquired by development authorities for providing urban amenities.

However, this practice has become increasingly difficult after the new law on land acquisition was enacted in 2013. The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 increased the compensation payable for urban land acquired to two times the market value of the land and four times the market value for rural land. It also introduced new requirements like Social Impact Assessments that made land acquisition both more expensive and more time-consuming. This has limited the ability of already fiscally constrained development authorities to use land acquisition as a method of planning urban development.
For example, the Delhi Development Authority (DDA) introduced a land pooling scheme for developing specific parts of Delhi in 2018. Compared to land acquisition, DDA’s policy does not require the DDA to acquire land. Landowners can agree to pool their land, form consortiums, and transfer their pooled land to the DDA. Once 70 percent of the landowners in a given locality agree to pool their land, the DDA will develop this land. It will use up to 40 percent of the pooled land to provide public amenities and infrastructure like roads, hospitals, etc. Once the amenities have been provided, the remaining 60 percent of the land will be used by the landowners or their consortium for developing residential, commercial, and other facilities.

This is fiscally advantageous for the DDA, which reportedly has a cash deficit of Rs. 9,600 crores. While the DDA would have to spend money to acquire land under a policy of acquisition, land pooling does not require any such expenditure. In the latter, the DDA’s expenditure will be limited primarily to the infrastructure development in pooled areas. In fact, the DDA is charging external development charges of Rs. 2 crores per acre from every owner/consortium for providing this infrastructure.

This also has important implications for the political economy of urban development—implementing pooling the way the DDA is doing it means that it is increasingly planning for the creation of housing and real estate, rather than both, planning and providing such infrastructure themselves. The actual provision of housing will be undertaken by private developers. This is a significant shift. One of the key failures of the DDA in Delhi, for example, has been its inability to deliver housing as per its own projections for the state. The rising costs of undertaking planned development through acquisition has therefore forced the DDA to look for more voluntary and consensual systems of undertaking urban development.

As per a report prepared by the Administrative Staff College of India, land pooling has many strategic benefits for urban development bodies. First, the upfront costs are minimal, compared to those of land acquisition. Second, the cost recovery mechanism is less risky. In the conventional model, a city development authority will acquire land, build housing and real estate, and recover costs by monetizing these assets. In land pooling, by contrast, the landowners bear the costs of improvements in urban amenities and also profit from the increase in land values due to improved infrastructure. Third, conflicts are fewer. There is no permanent transfer of land ownership in land-pooling schemes, and landowners are not displaced due to the development. Some states like Gujarat and Maharashtra have followed “land readjustment” mechanisms for urban development. These share many of the same features as land pooling and are generally regarded as being less conflictual and costly.

Land pooling is being adopted steadily in Indian states and cities. The use of pooling for urban development was perhaps best exemplified in the case of Amravati. After Andhra Pradesh and Telangana were bifurcated, the state of Andhra Pradesh required a new capital. The government sought to develop this new capital city—Amravati—by pooling land rather than by acquiring it. The land pooling scheme was completely voluntary, but unlike in the case of Delhi, the land was to be transferred to the state government for development. A host
of benefits was provided to all residents, irrespective of whether they owned land: one-time agricultural loan waivers, housing for homeless people, skill development for tenant farmers, annuity for crop loss, health, and education benefits, etc. The state government cited the use of a transparent and consultative process, along with the generous benefits provided, as key to its success. The imperative of requiring a new capital city, the potential for conflict and delay in using land acquisition to develop the city, and fiscal constraints probably led to the use of land pooling.

Like Delhi, other capital cities like Guwahati, the capital of Assam, have introduced land pooling schemes that seek to invite participation from private real estate developers. Punjab introduced a land pooling policy in 2013, where landowners are encouraged to transfer their land to city development authorities. The developed land will then be sold, and 80 percent of the profits will go to the landowners. Haryana, one of the fastest growing states in India, has had a land pooling policy since 2012. Hyderabad has one of the earliest policies on land pooling since 2008, which allows the private sector to propose land pooling schemes for urban development within the city. Rajasthan also introduced a law to promote urban development through land pooling in 2016.

The enactment and introduction of new laws and policies are, in themselves, not a measure of an idea’s success. However, they do provide a measure of the prevalence of the idea. The steady increase in land pooling policies indicates a willingness to move away from using more coercive eminent domain measures where feasible. Like any policy, its success is contingent on local circumstances and the specific design of the policy. For example, while land pooling was successful in Amravati, the DDA land pooling scheme is mired in problems. The fact that these policies exist, however, means that state and city governments are increasingly open to the benefits of consensual and less costly mechanisms for urban development.

The use of land pooling, specifically where private sector developers are encouraged to develop real estate in pooling schemes (as opposed to development authorities), can potentially also lead to better use of land in urban areas. This is because the private sector will face higher market pressures to maximize the land available to it and will only participate in schemes that allow it to do so. This is likely to lead policymakers to allow a more liberal and intense use of land than they otherwise would. In Delhi, for example, the land pooling scheme was tweaked to make it more attractive—allowances for plotted housing and high-intensity, mixed-use development being two of them.

Urban development could possibly become much more market-oriented than it otherwise would because of reforms in land acquisition laws in 2013. Development authorities and municipalities will be incentivized to pay greater heed to the demands and concerns of stakeholders wherever land pooling relies mostly on consensus and encourages private sector activity. Conversely, it may be advantageous for policymakers to design land pooling schemes that encourage private sector-led development of real estate, precisely to force local urban development authorities to pay greater heed to market conditions.
India’s patterns of planned urban development could therefore shift slowly but inexorably from high-state modernism to market-based development because Parliament has made it costlier to acquire land.
State policies in land markets show considerable evidence of both replication and experimentation. In my last essay in this newsletter, I analyzed Delhi’s land pooling scheme. In this essay, I continue my examination of land pooling by looking at how different states are using it for urban development. In my previous essay, I highlighted the features of Delhi’s land pooling scheme and its issues. There are, however, many other examples of land pooling schemes and policies in India, many of which have been designed in the past decade. In this essay, I look beyond Delhi to examine the design and deployment of land pooling in two other states, Haryana and Maharashtra. While both states have land pooling mechanisms, there are differences in their designs. Understanding these differences will also highlight the degree to which Indian states experiment with land policies.

Land pooling is the consensual acquisition of land for development by the state. In a land pooling project, landowners surrender their plots of undeveloped land to the government and receive a developed but smaller plot of land from the government. The balance land is used by the government to provide public amenities like roads, utilities, and community facilities. Within this broad framework, it is possible to design incentives for landowners in many different ways. It is also possible to design the role of the state in different ways. As the designs of the land pooling schemes in Haryana and Maharashtra show, both are rooted in local necessities.
Land Pooling Schemes in Haryana

In 2012, the Haryana State Industrial and Infrastructure Development Corporation, or HSIIDC, introduced a land pooling (LP) scheme for industrial development projects. This LP scheme was part of the land acquisition process for developing industrial infrastructure, where landowners were given the option of either having their land acquired and receiving compensation or surrendering their land under the LP scheme and receiving 1200 square yards of developed land for each acre of pooled land. This was a limited scheme applicable only in cases where land acquisition proceedings had been initiated under the land acquisition law for HSIIDC projects.

In the same year, the Haryana Urban Development Authority (HUDA) also introduced an LP policy for the development of residential sectors. Again, the LP scheme was used only in areas where land acquisition proceedings had commenced, and the design of the scheme was very similar to the one notified by the HSIIDC.

After a decade of these two LP schemes—one under the HSIIDC and another under the HUDA—the Haryana Government in 2022 announced an LP policy, the Haryana Land Pooling Policy, 2022, or HLPP. This made pooling a state-wide mechanism for “planned development including development of infrastructure and for the purpose obtain land through voluntary participation of land owners, interested to become partners in the said development.”

Compared to the policies introduced in 2012, the HLPP is simultaneously more expansive and more refined. It is expansive because it permits landowners to voluntarily come forward and offer their land to the government for development, even if the government has not initiated a development project. It is more refined because, compared to the 2012 LP schemes, it clearly lays down that the allotment of the developed land to the landowner will be based on the market value of the undeveloped land that the owner surrendered and that this value will be calculated by a government-empowered valuer based on established government policies. This stands out in contrast to many other LP schemes where the owner is returned a fixed percentage of the surrendered land. In the HLPP, the emphasis is on returning land with equivalent economic value. The HLPP states that development projects ought to be completed within three years, and landowners will be entitled to interim support of Rs. 1 lakh per annum per acre of land surrendered.

The design of the HLPP, the guarantees made in the policy regarding the value of the developed plot, the provision for interim payments, and so on show a high degree of commitment to avoid conflict and litigation and to ensure the continued participation of the landowners in the development project. This is also apparent from other initiatives taken by the Haryana government to reduce disruptions and conflicts related to land. One such initiative is the Haryana Land Partnership Policy, 2022. While the partnership policy also focuses on the consensual use of land for development, it is different from the HLPP in two significant ways. First, any landowner who surrenders land that comprises more than 10 percent of the project area will become a director on the board of the company set up...
to implement the project. Second, there is a well-laid-out mechanism for cost and profit sharing, implying that the nature of this arrangement is entrepreneurial rather than just benefiting from the value of developed land.

The state of Haryana has therefore clearly prioritized the consensual acquisition of land for development and is willing to expend considerable fiscal resources to achieve this objective. The state’s policy documents repeatedly discuss landowners as partners, and the land partnership policy actually proposes that the participating landowner’s land be treated as equity for the development project. This in turn highlights the degree to which state-led development is becoming increasingly participatory in many cases and the increasing difficulty in persisting with the old mechanisms of compulsory land acquisition for urban development in all cases. If land pooling through the use of such fiscal incentives is the preferred alternative for urban development, we must consider that the alternative of compulsory land acquisition must be even more expensive.

**The Case of NAINA, Maharashtra**

The Navi Mumbai Airport Influence Notified Area, or NAINA, is a project to develop the region around the proposed new international airport in Navi Mumbai. The new international airport is expected to cater to the rising demand for air transport services, which the existing international airport in Mumbai is unable to satisfy. The area intended for development under the project is larger than the existing city of Mumbai.

While the Haryana HLPP is a policy designed to apply to all development projects within the state, the NAINA scheme is a specific development project for which land pooling was proposed as the tool for land assembly/acquisition.

According to the draft development plan for the NAINA project, it was felt that the local area close to the new airport would see a significant increase in economic activity due to the presence of the airport. The NAINA project was conceived in order to prevent “unplanned and haphazard development” in the region.

One of the key features of the NAINA LP scheme is the degree of preparation that the draft development plan records prior to the scheme’s execution. The planners conducted a detailed topographical and socioeconomic survey of the area under the scheme, which mapped land use patterns, housing infrastructure, road and transport networks, water and electricity usage, and so on. The proposed development plan was based on these detailed assessments of the economic potential of the NAINA region, and the plan for using land for development was in service of this proposed plan. The land use plan provided for flexible zoning regulations, in line with an approach toward transit-oriented zoning, and an assessment that it was necessary to develop the core areas of NAINA in the near future while developing other areas over a longer span of time.
Based on these, the NAINA draft plan proposes land pooling and land readjustment for provisioning land for public purposes. The plan notes that while land pooling allows for land value capture and lower fiscal costs to the exchequer, it also has the potential to create holdouts since pooling is consensual. They note that land values in the NAINA area have already been increasing in anticipation of development there and will increase further, providing an avenue for the presiding government agency, the City and Industrial Development Corporation of Maharashtra (CIDCO), to use the gains from increases to fund further development. The NAINA scheme therefore proposes pooling but does it through incentivizing aggregation by private individuals. That is, if individuals aggregate and surrender land above a certain threshold, they will be provided incentives, such as an additional floor space index. In addition, the owner will retain 60 percent of the surrendered land, while the CIDCO will use the remaining 40 percent to build public infrastructure and amenities.

These proposals, however, have turned out to be inadequate for convincing landowners in the long run. In 2018, the CIDCO approached the Maharashtra government to change course and use the compulsory town planning instrument in the NAINA area due to nonparticipation in the voluntary LP scheme by landowners. Maharashtra has a long history of using town planning schemes for urban development and redevelopment. Town planning schemes (TPS) are consultative and participatory, but they are not voluntary. Local landowners do not have the option of not participating in the scheme. Except for the aspect of voluntary participation, the TPS process works on the same principles as LP: a portion of the landowner’s plot is surrendered for public amenities and infrastructure, and the landowner receives an upgraded plot with better amenities and an increase in property value. TPS is the dominant method of urban development and redevelopment in Gujarat and Maharashtra.

The use of TPS was invoked in the NAINA within a year of the LP proposal being made. This quick reversion to TPS as opposed to the initial plan of using land pooling indicates that all LP schemes suffer from a potential problem of delays unless sufficient incentives are provided. Haryana’s HLPP and other policies are arguably more favorable to landholders than the NAINA LP proposal was.

**Conclusion: Contrasting Experiences and Policy Outcomes**

In Haryana, the success of land pooling schemes by state development agencies eventually led to the wider adoption of land pooling within the state. By contrast, in NAINA, though land pooling was proposed, CIDCO reverted to the use of town planning schemes within a year of its draft development plan. This highlights the contextual variations and learnings that development agencies in India are employing to develop strategies for using land for development. Since both Maharashtra and Haryana fare relatively well on using land for development, it is difficult, normatively, to claim whether their experiences highlight the success of one instrument over another.
Instead, this comparison reveals that successful use of policy instruments is dependent on contextual factors, the imperative of the development project among the priorities of the state government, the availability of fiscal resources, and the specific design of the policy instrument. As India transitions from a period of compulsory land acquisition under land acquisition laws, careful attention will need to be paid to how different states are developing different strategies to provision land for urban development.
Is land a binding constraint to economic development in India? I have written elsewhere on the lack of reforms in land markets, and more eminent scholars have pointed out to land being one of the primary constraints to India’s economic development. I was therefore intrigued to see a statement by the Union Minister for New and Renewable Energy and Power, Mr. R. K. Singh, in Parliament this July, saying that 170,000 acres of land (687,965,592 square meters, or 68,700 hectares) have been made available for the development of solar power parks. This is more land than the entire urban territory of Mumbai. This essay examines how land has been acquired for solar power parks in India and, through this examination, seeks to understand the degree to which land was a binding constraint in this project.

**Solar Power in India**

Today, India is the fourth-largest solar power producer in the world. This is commendable given the constraints that initial efforts to develop solar power faced in India. The government’s initial approach envisaged incentives for smaller solar power plants and projects. This, however, did not work. According to the government, “projects developed in scattered manner leads to higher project cost per MW and higher transmission losses. Individual projects of smaller capacity incur significant expenses in site development, drawing separate transmission lines to nearest substation, procuring water and in creation of other necessary infrastructure. It also takes longer time for project developers to acquire land, get all types of clearances and permissions etc. which ultimately delays the project.”
To overcome these issues, in 2014, the Indian government introduced a scheme titled “Development of Solar Parks and Ultra-Mega Solar Power Projects,” which was to last until 2023–24 and has now been extended until 2025–26. The scheme proposed “supporting the States/UTs in setting up solar parks at various locations in the country with a view to create required infrastructure for setting up of solar power projects. The solar parks provide suitable developed land with all clearances, transmission system, water access, road connectivity, communication network, etc.”

This scheme allowed the creation of solar parks by government entities, state governments themselves, and private firms. While the scheme envisaged the commissioning of 40 GW of solar power, according to the minister’s statement in July 2023, about 12 GW had been completed, and in all, 38 GW of cumulative capacity has been sanctioned. While only 12 GW of capacity has been added so far, this has already made India the third-largest solar power producer in Asia and the fourth in the world.

**Land as a Constraint for Solar Park Development**

Solar power generation is land-intensive, and the government estimates that 1 MW of solar power addition requires around 4 acres\(^50\) to 5 acres\(^51\) of land. It is estimated that the total land requirement for meeting the government’s target of producing 175 GW through renewable energy is in the range of 55,000–125,000 square kilometers (5,500,000–12,500,000 hectares). So far, 170,000 hectares have been developed. While this is a small proportion of the total land required, the fact that this much land has been acquired within a relatively short period of time begs the question of whether land is truly a binding constraint.

On the one hand, the availability of land has been flagged by many as one of the most important problems when it comes to setting up solar parks. For example, according to one news report, “Apart from module prices, land acquisition has been a major challenge for solar power manufacturers.” A source quoted in the report said, “Installing a megawatt of solar power requires on average four acres of land. So various developers face challenges in acquiring it and that’s one reason for the delay.”\(^52\)

Another news report states that land continues to be an issue for renewable energy projects because of poor land records, a lack of explicit land allocation policies for renewable energy, and delays in clearances for land use.\(^53\)

According to another article, while most of the land favorable for solar radiation coincides with wasteland in India, “wasteland is also not favoured by project developers.\(^54\) Developing projects in wastelands increase costs partly because of the inhospitable terrain and partly because of the lack of supporting infrastructure.\(^55\) Transmission infrastructure required to move power generated to consuming centres also increase cost.” This means that agricultural land with good locational characteristics is in higher demand.
On the other hand, land is being acquired through different mechanisms for the development of large solar power parks. This shows that despite the persistence of long-lasting problems in land markets, these do not become binding constraints. It is true that, in all probability, they do create significant transaction costs for all parties concerned, but, as the next section highlights, these problems do not prevent transactions from taking place.

**Procuring Land for Solar Parks**

A quick survey of state documents and news reports throws up a combination of at least five different strategies to make land available for solar power parks. These are:

1. **Private land leasing:** Under this model, the developer of the solar park is a private entity that enters into a voluntary agreement with landowners to lease out their land for a period of 25–30 years on the payment of annual rent. This mechanism has been announced as part of the policies of many state governments, such as Maharashtra, Karnataka, Tamil Nadu, Uttar Pradesh, Himachal Pradesh, and Delhi. Projects developed under a land lease mechanism are operational or under development in many of these states.

2. **Leasing government land:** The alternative leasing mechanism is to lease out government land, either empty land or wasteland, for these projects. The Indian government’s guidelines encourage states to do so: “Land for setting up of the Solar Park will be identified by the State Government unless the implementing agency has its own land. In order to provide for such a large tract of contiguous land with appropriate insolation levels, the State Government may prioritize the use of government waste/non-agricultural land in order to speed up the acquisition process.”

Andhra Pradesh is pursuing a hybrid of these two mechanisms, where a government agency, acting as an intermediary, took advance possession of the required land and leased out the land to the power company: “The District Collector shall hand over advance possession of land including path ways to NREDCAP (New and Renewable Energy Development Corporation of Andhra Pradesh) and the land shall be allotted on alienation basis to NREDCAP by fixing reasonable market value. After getting advance possession of the land, NREDCAP will allow the developer to start the construction duly taking necessary undertakings. NREDCAP shall enter into lease agreement with the developer once the project is commissioned.”

3. **Purchasing land privately:** The third option is, of course, for the private firm to purchase land privately. In this regard, some states, like Maharashtra, have made the process of converting the usage of agricultural land for non-agricultural purposes much easier. Developers do not require prior permission from land revenue...
authorities if they wish to convert agricultural land for setting up power projects. Only an intimation is required.

4. Land acquisition by the government: While this option is not being used or discussed in policy documents, it always remains an option.

5. Consensual land acquisition by the government: Madhya Pradesh has a “voluntary” land acquisition policy, which was used to acquire land for a solar power project in Rewa.65

These varying mechanisms therefore highlight a certain degree of adaptability in dealing with the constraints present in land markets. Solar power parks have been approved, commissioned, and developed through these mechanisms. There are two aspects of these coping mechanisms that are worth noting:

1. The emphasis on the use of unused government land: This is a welcome development since large tracts of government land remain unused or underutilized. The use of these lands for the development of power projects signals a shift in approach toward greater utilization and monetization of unused land and reduces the stress on land that is already being used for other purposes, such as agriculture.

2. The shift toward land leasing as opposed to purchases or acquisition through eminent domain: The high costs of land mean that either purchasing land or acquiring it under land acquisition laws is becoming increasingly difficult. This is necessitating a shift toward the leasing of land. This is beneficial for the following reasons:

• Under most of the policies I studied for this essay, the title to the land remains with the owner, and the possession reverts back to the owner after twenty-five to thirty years.

• Leasing is beneficial for agricultural landowners who are not assured of a regular and viable income stream either due to the absence of guaranteed markets or the relative infertility of the soil. Leasing out the land provides landowners with regular rent and provides income stability.

• Importantly, given the history of often unfair and conflictual land acquisition in India, land is not compulsorily acquired from landowners and leasing is voluntary.
What Does This Show About Land Being a Binding Constraint?

These developments can be interpreted either way.

One is to argue that these coping mechanisms are an indication of binding constraints in the land markets in India. The official targets for solar park projects have not been met, and the nonavailability of land is a serious constraint. Governments are adapting to these constraints through different mechanisms to make land available for solar power parks. The other argument, which I have increasing sympathy for, is that these coping mechanisms and their relative success are an indication of the fact that land availability is not a binding constraint in every case. This is because:

- A large amount of land has in fact been made available through the use of different mechanisms. The fact that these mechanisms are working is an indication of the fact that land markets can be made to work if the correct policy mechanisms are adopted. In many cases, revenue land/government land has been provided. Unused government land is being monetized.

- The fact that leasing agreements are working successfully highlights the fact that we cannot use the most extreme examples—of failure to purchase or acquire—to understand the nature of land markets. Land leasing is a perfectly viable and legitimate transaction in land markets, and the willingness of landowners to lease out their land to industry highlights the fact that private transactions in land markets do work well, provided, again, that the right policy mechanisms are used.

We should not care about whether these transactions are occurring in the absence of a policy framework or are being facilitated by it. The absence or presence of land leasing policies by themselves is not a metric by which to judge the eventual outcome of whether private developers are able to lease-in or purchase land required for their projects.

The fact that innovations in policy mechanisms are occurring after the reform of the 1894 land acquisition law also gives rise to an additional thought: maybe the old acquisition law was an intellectual binding constraint. The wide discretionary powers enjoyed by the Indian state under that law and the low amounts of compensation payable made it easy to acquire land, and compulsory land acquisition became the default for facilitating all industrial development. Its reform in 2013 has probably forced the Indian state to think out of the box.

In conclusion, land policies and approaches toward land utilization seem to be a bigger binding constraint than land availability.
Developing countries see a high demand for land as the economy transitions from rural to urban, and one consequence of that is an increase in land and real estate prices. India is bearing witness to this phenomenon too. This broad-brush narrative can sometimes obfuscate the specific behavior of actors within land markets, the incentives of buyers and sellers, and the role of the accompanying regulatory framework. Looking at specific geographies can help disaggregate this phenomenon of rising prices better.

Among major Indian cities, Hyderabad is seeing one of the steeper increases in housing prices. The Residex index maintained by the National Housing Bank shows this. In the figure below, Hyderabad’s housing price index in the Residex is tending much higher than that of cities like Mumbai, Bengaluru, and Delhi during the period between 2018 and 2023.
My attention was also drawn to the city’s real estate rush by the eye-popping numbers being bid for land parcels. According to news reports, one of the plots being auctioned by the government was sold at Rs. 100.75 crore an acre, a record for the city. This was 40 percent higher than the previous record bid for a single plot, Rs. 60 crore an acre, which was set last year. The bid amounts have been so high that the Telangana government has reportedly earned over Rs. 6,000 crores in revenue through land auctions this year alone, an amount that is significantly higher than its expectations.

While these prices are nowhere close to high-value land transactions in other major cities in India, they are remarkable at first because of their distance from the city center. For example, the land parcel that fetched the bid price of Rs. 100 crore an acre was part of an auction of land parcels in Kokapet, an area adjacent to the western part of the Outer Ring Road of Hyderabad. Similarly, many of the land parcels being auctioned by the government are away from the city center and also some distance away from the office spaces occupied by major information technology (IT) companies in HITEC City, Gachibowli, and so on.

This demand for real estate is not limited to land parcels being auctioned by the government. Hyderabad is seeing a secular increase in demand for housing-related investment as well. For example, a news report argues that there has been a rise in demand for larger houses in Hyderabad. Residex data seems to corroborate this—the prices of larger houses seem to have increased more than the demand for smaller houses in the city. The slope of the green line in the figure below highlights this.

![Housing Price Index](image)

What is driving demand for land in Hyderabad? Prices are a reflection of the underlying dynamics of demand and supply. I spoke to private sector professionals in the real estate market to try and understand these dynamics. While each gave me a slightly different perspective on the developments based on their vantage points, these conversations were helpful in understanding the aggregate data in terms of its constituent dynamics. I therefore deal first with factors leading to demand, followed by the role of supply-side factors.
Factors Leading to Demand

Before delving into this section, one obvious fact has to be stated: land markets in India are no longer local, but global. They are shaped by migrants and capital flows emanating from other parts of the country as well as the world. The local demand for land and real estate is therefore shaped by global economic forces.

1. Local demand for housing and commercial real estate: Over the past three decades, Hyderabad has emerged as a dynamic economic center with a thriving IT and pharmaceutical industry. It is also the capital of Telangana and was the capital of the erstwhile undivided Andhra Pradesh. The city’s economic boom was both fueled by the development of good-quality infrastructure and is, in turn, generating a demand for more and better infrastructure. As per one of my interviewees, real estate in existing IT parks like HITEC City is saturated. Demand for land is therefore increasing partly due to the increasing needs of locally situated industries.

Rising incomes in the city are also leading to increasing demand for real estate as an investment opportunity. While this is a common phenomenon across many Indian cities, Hyderabad’s real estate has been relatively more affordable than other major cities like Mumbai, Bengaluru, and Delhi. Real estate is therefore an asset class into which incomes within the city are being invested. Investment in real estate is attractive for retail investors because, relative to other investments, it also provides investors the opportunity to avoid paying capital gains taxes under the Income Tax Act, 1961.

This demand for real estate investments is reflected partly in the increasing sale of undivided shares of land within the city. An undivided share of land (UDS) is the fractional ownership over the land parcel a homeowner receives when he or she buys an apartment in a real estate development project. The General Secretary of the Hyderabad chapter of the Confederation of Real Estate Developers’ Associations of India (CREDAI) estimates that “about Rs. 20,000-30,000 crore has been invested in the UDS sales,” and the Telangana Real Estate Regulatory Authority (RERA) has cautioned against transactions in UDS, stating that the UDS is being sold even prior to the registration of the real estate project with RERA. One of my interviewees stated that though the general practice is to have UDS registered along with the apartment, it has become increasingly prevalent to transact purely in the UDS and then divert the money into other projects. The implication is that while the land is purportedly being bought by developers for real estate projects, in fact, the land itself is the asset and not the eventual project.

2. Investments by nonresident Indians (NRIs): Telugu speakers account for the fastest-growing part of the Indian diaspora in the United States. Naturally, this diaspora, both in the United States and other countries, is seeking to invest savings in India. According to some reports, Hyderabad is either the most or among the most preferred Indian cities for investments by NRIs. Most NRIs prefer to invest in “luxury and ultra-luxury properties,” and this may be the reason why one report finds that
Hyderabad has experienced the highest rise in the luxury homes segment among major cities in the past five years. Another news report states that this is driving demand for gated communities and “senior living” real estate projects for parents and grandparents.

3. Interest from developers in other states: Real estate developers from other states have also been interested in Hyderabad due to relatively more affordable land prices. For example, real estate developers from Bengaluru have, over the past few years, invested in Hyderabad due to these factors. While real estate is fixed, capital is mobile. Considering the now-botched development of the city of Amravati in neighboring Andhra Pradesh, real estate investors also reportedly shifted their focus to Hyderabad.

Supply-Side Factors

While demand is driven by both local and global factors, supply-side responses are predominantly local. If one were to look at the consistent increase in land and housing prices, one may expect supply to be lagging behind demand. It is therefore strange, as the foregoing analysis shows, to see that there has been a significant response from the supply side to keep up with increasing demand. In fact, supply-side responses may be the cause of price appreciation.

The Telangana government has done plenty over the past decade to bring more land and real estate into the market. One important mechanism has been to develop transport infrastructure to expand the city. This has largely followed the program outlined in the city’s Vision 2020 document, which “suggested making Hyderabad as one of the engines of growth through the creation of high-tech knowledge enclaves.” As the road network has grown, developments have started coming up along this infrastructure. For now, it is focused predominantly on the western part of the city leading up to the Outer Ring Road. The recently auctioned land parcels in Kokapet and other areas are in this region. However, the government is now taking steps to develop infrastructure to promote industrial development in other parts of the city. In 2020, for example, it issued orders to increase the dispersion of its electricity grid to provide better electricity services to newly converted IT parks (erstwhile industrial parks).

The government is also continuing the sale of open plots through auctions in the western part of the city. The recent land auction that generated the high bid of Rs. 100 crore per acre was located in Kokapet, abutting the Outer Ring Road on the western side. In addition, in a controversial move, the Telangana government repealed its long-standing order G.O. 111 in 2022, which “demarcated a 10-sqkm radius of two century-old reservoirs Himayath Sagar and Osman Sagar outside Hyderabad city” and prevented development in this area. While it is currently being litigated in the Telangana High Court, this repeal brings another 1,32,000 acres of land around these two lakes into the city’s land market. For comparison, Hyderabad’s total area is currently approximately 1.6 lakh acres.
Lastly, the government has also allowed greater intensity of land use, which enables more development per acre compared to many other Indian cities. For example, it has allowed unlimited floor space index (FSI) in the land parcels auctioned in Kokapet\textsuperscript{95} and Budvel.\textsuperscript{96} While Hyderabad scrapped uniform FSI restrictions in 2006 in other parts of the city as well, it still limits FSI for buildings based on factors such as road width. According to one of my interviewees, in unlimited FSI land parcels, this has led to a significant increase in how much real estate can be built up per acre. Normally, while developers estimate an ability to develop around 1.5 lakh square feet per acre, with unlimited FSI, they are now estimating an ability to develop about 7 lakh square feet per acre of land. According to one news report, Hyderabad in general records a much higher average FSI (6–7) than the national average (2–2.5).\textsuperscript{97}

It therefore seems paradoxical: supply-side responses are not leading to a decrease in prices even though the responses seem significant. How does one make sense of this?

**Concluding Thoughts**

One of the interviewees told me that the real estate market is run by investors, not consumers. Prices go up when investors see value, and in this sense, investors are also consumers. From this perspective, the state’s supply-side responses seem designed to drive up value rather than to regulate prices. Its attempt seems designed to ensure that Hyderabad’s real estate market remains attractive for investors. This is one role of all governments. States should attempt to make their respective geographies attractive for investment. Increasing prices are an indicator of success—higher real estate prices reflect increased demand. Prices that at first seem remarkable—Rs. 100 crore an acre—make more sense when seen from this perspective. When one considers that the government has developed infrastructure around a set of land parcels, liberalized land use restrictions, and allowed unlimited FSI, all to cater to a burgeoning demand for office space and commercial use, the value of these land parcels is higher than one may instinctively assume.

Investors in local real estate markets in Hyderabad, and indeed other major Indian cities, are no longer local. Land prices are not set by local factors alone. Instead, they are an amalgamation of local and global demand for real estate, either for use or for investing in a safe asset class. While supply-side responses are local, they are designed to attract investment from as wide a catchment as possible.

This has obvious implications for local planners. First, how does one do long-term planning other than thinking of infrastructure development? As local land markets become global, predicting population growth, infrastructure requirements, and so on, is going to be much harder. A twenty-year economic vision begins to sound like a much better plan for a city than a twenty-year master plan.
Second, who looks after consumer protection issues if some of the mechanisms for investment, like the UDS, are used to defeat the purpose of land allocations? If such transactions become rampant, they will soon begin to resemble Ponzi schemes. It is therefore necessary to have consumer protection laws like RERA enforced effectively, even as this investment-led real estate boom takes place.

To conclude, understanding the constitutive forces of demand and supply in Hyderabad’s land markets helps understand the nature of the market itself and provides important hints as to why prices are behaving the way they are. This analysis also leads to a clearer distillation of the policy problems in need of solutions.
Land is one of India’s least reformed factor markets, and the quantum of land litigation is often treated as an indicator of the underlying malaise with land policy. I too have pointed toward land litigation statistics in the past to problematize India’s land policies. In this essay, I argue that this attribution is incorrect based on available evidence. I argue specifically that the volume of land litigation by itself does not convey any useful information about the problems of land policy.

A DAKSH survey in 2016 found that two-thirds of civil disputes in India were related to immovable property. An overwhelming majority of those surveyed were poor and had low levels of education. This fact has been used as a call to action to change land laws and argue for a focus on land laws that give rise to litigation. This assertion is based on the premise that litigation adds to transaction costs in business and is a sign of underlying inefficiencies in the land market due to faulty land laws.

Understanding whether land litigation is caused by bad land policy is important for understanding how to improve India’s land markets. It would seem that the fact that two-thirds of litigation comprises property disputes is, in itself, a call for action to reform land laws.

However, one runs into immediate problems when trying to use this statistic for designing policy responses. How do we know how much extra litigation land laws cause, relative to other laws? If not two-thirds, what is the proportion of property cases Indian policy makers should aim at—half or one-third? Most importantly, how do we draw a causal connection between land-related litigation and land policies? It is possible that many other factors, which have nothing to do with land laws and policies, could be leading to land litigation.
The dominant paradigm for understanding such causal links rests on the arguments posited by the nineteenth-century sociologist Emile Durkheim. He posited that changing socioeconomic structures lead to changes in how legal institutions are created and used. This theory has been developed further by others over the years. Researchers have tried to test this theory empirically by studying the links between socioeconomic changes and trends in litigation.

David S. Clark (1990) analyzes intra-country litigation trends in six civil law countries with a view to link them to socioeconomic changes within these trends. He finds a positive correlation between economic development and rising litigation within economically similar regions for all six countries. Frank Munger (1988) reviews similar literature to state that even if increasing economic complexity does not by itself lead to litigation, studies have indicated that rapid changes lead to conflicts and a need for intervention through law.

This is also the theme of a study on the causes driving the rise of civil litigation in China. The researchers Doug Bujakowski and Joan Schmit (2022) study Chinese province-level data across more than two decades to understand the links between litigation and structural transformation. According to them, in the twenty-four years of study, the "proportion of China's GDP generated from service sector activities increased from 34.5 percent to 51.6 percent, and the proportion of China's workforce employed by private enterprises rose from 21.6 percent to 84.0 percent." They find that privatization "can explain at least 15 percent of the growth in civil litigation rates” between 1993 and 2016, but they do not find a similar relationship between litigation rates and the change in the composition of GDP in the economy.

Others have sought to test the prevalence of societal norms on litigation rates. One study, by Tom Ginsburg and Glenn Hoetker, on Japan's litigation increase in the 1990s sought to understand the reasons for the low litigation rates in Japan compared to the U.S. in the period prior to this. The study sought to test the dominant discourse that the Japanese had a greater preference for informal mechanisms of dispute resolution compared to the U.S. The study found the rapid increase in litigation in the 1990s attributable to "an increase in attorneys per capita". The authors point out that starting in the 1990s, there was a conscious policy decision to expand the size of the bar, and the number of law graduates doubled by the year 2000, compared to 1991. The prefectures that added the most lawyers saw the highest increases in litigation. Second, reforms to civil procedure law in 1998 that reduced the costs of litigation, and the addition of judges also had a positive effect on litigation rates. They use these findings to make the case that institutional constraints, not cultural norms, were responsible for low litigation rates in Japan prior to the 1990s.

Sometimes, reforms in land governance systems may themselves cause an increase in litigation. This is the focus of a study in Benin that aims to understand the “consequences of formalizing land rights by focusing on the causal effects that different types of land rights institutions have on land-related litigation.” Data from Beninese rural villages indicates
that the “formalization of land rights significantly increases the likelihood of land related litigation.” This is because the land titles awarded by the government remained incomplete in some respects, and title recipients sought to complete these by using courts as a complementary mechanism. The formalization of land rights increased the land’s value and reduced eviction, but also created a demand for perfecting the land title awarded by the government.

This brief review of research on the causes of litigation patterns highlights that land litigation in India could be due to several factors other than land laws and policies—structural transformations in the economy, modernization, and so on. Some litigation could also be a positive effect of improvements in land governance policies and institutions. Therefore, we should be careful in drawing a direct correlation or causal linkage between land laws and land-related litigation in the absence of better evidence. Immovable property is the most ubiquitous asset in an Indian household’s portfolio. It should not be surprising that a large volume of civil disputes in India pertain to immovable property, and neither does it by itself reflect a problem with land policy.

Another implication of this line of research is that an increase in litigation is not necessarily bad if it is symptomatic of positive transformations occurring in the economy. An increase in litigation becomes a problem only if courts cannot deal with them in a timely and affordable way. However, this is a courts problem, not a land policy problem.

The opposite inference has also been made—to argue that litigation is leading to inefficiencies in the land market. Again, we run into problems of demonstrating causation and correlation. How do we establish that, the optimum transaction cost for sale of land is X, and litigation increases the cost to X+Y? Second, to the extent that Indian courts are bad in general, how do we establish that land litigation is especially costly compared to all other litigation? In other words, the quality of the judicial system imposes a standard transaction cost on all disputes that end up in courts, not just the land-related ones. So, again, the problem is courts, not land policy, unless otherwise demonstrated.

This is not to say that studying court cases is not useful. Unpacking the nature of litigation can provide many useful indications to policy makers. For example, a study of Supreme Court cases on land acquisition done by Namita Wahi at the Center for Policy Research finds that procedural irregularities were an issue in one-third of the cases they studied. Devendra Damle and Karan Gulati have unpacked litigation in the Delhi High Court to find a much smaller proportion of cases pertaining to land than the DAKSH survey. Scholar Nick Robinson has empirically demonstrated that a disproportionate number of litigants who file cases in the Indian Supreme Court are based in and around Delhi, raising important questions of access.

Common to these studies is the fact that they seek to study the underlying attributes of litigation rather than attribute causality on the basis of the litigation itself.
To further unpack land-related litigation and to determine whether such litigation poses a land-policy problem, we first need to:

1. Establish reliable benchmarks of litigious behavior against which to measure land litigation rates.
2. Measure land litigation rates in proportion to those owning land.
3. Identify the causes of land litigation.
4. Measure the costs of land litigation as compared to other litigation.
About the Author

Anirudh Burman is an associate research director and fellow at Carnegie India. He works on key issues relating to public institutions, public administration, the administrative and regulatory state, and state capacity. He has also worked extensively on financial regulation and regulatory governance.
Notes


29. Ibid, 34.


69. Arvind Kumar [@arvindkumar_ias], “#NeoPolis Ph 2 Auctions at #Kokapet A Record ₹3319.6 Crs Realised in Today’s Auctions”, X, August 3, 2023, https://twitter.com/arvindkumar_ias/status/1687113111114334678.


73. “MNCs Have a Sweet Tooth for Land Parcels in Hyderabad!,” TMR Group (blog), March 17, 2022, https://www.tmrinfra.com/blog/ mncs-have-a-sweet-tooth-for-land-parcels-in-hyderabad/.


101. Ibid.

102. Ibid.


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