Land Reform in India

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Introduction

Land reform usually refers to redistribution of land from the rich to the poor. More broadly, it includes regulation of ownership, operation, leasing, sales, and inheritance of land (indeed, the redistribution of land itself requires legal changes). In an agrarian economy like India with great scarcity, and an unequal distribution, of land, coupled with a large mass of the rural population below the poverty line, there are compelling economic and political arguments for land reform. Not surprisingly, it received top priority on the policy agenda at the time of Independence. In the decades following independence India passed a significant body of land reform legislation. The 1949 Constitution left the adoption and implementation of land and tenancy reforms to state governments. This led to a lot of variation in the implementation of these reforms across states and over time, a fact that has been utilized in empirical studies trying to understand the causes and effects of land reform.

In this essay, we will briefly discuss the economic and political arguments in favour of land reform, and review the Indian evidence on the effects of land reform on agricultural productivity and poverty, and economic and political determinants of the speed and intensity of implementation of land reforms.

Economic Arguments in Favour of Land Reform

The most obvious argument in favour of land reform is equity. In a land-scarce country with a significant section of the rural population below the poverty line, the case for ensuring that everyone has access to some minimum amount of land seems compelling from this point of view. However, this is a general argument in favour of redistribution, not necessarily redistribution in kind (i.e., land). To make that case, one needs to understand the economic forces that govern the allocation of land.

We begin with two empirical observations. First, small farms tend to be more productive than large farms. This inverse farm-size productivity relationship is widely documented (see Banerjee, 1999 for a review of the literature). Another empirical regularity is that owner-cultivated plots of land tend to be more productive than those under sharecropping tenancy (Shaban, 1987).

Given these observations, one could make an argument in favour of land reform based not only on equity considerations, but also on efficiency considerations. For example, the inverse relationship between farm size and productivity suggests that land reform could raise productivity by breaking (less productive) large farms into several (more

productive) small farms. Also, lower productivity under sharecropping suggests that land reform could raise productivity by converting sharecroppers into owner-cultivators.

But this raises the question as to what prevents market forces from getting rid of the asymmetry and the resultant inefficiency? Saying that the inverse farm-size productivity relationship is driven by diminishing returns is not satisfactory, since that assumes that land cannot be sold or leased. For example, if a small farmer is more productive, and a large farmer less productive, then the latter would be better off leasing some land to the former. Similarly, if sharecropping is inefficient relative to owner-cultivation, a landlord should sell the land to the sharecropper to make him an owner-cultivator, and get a share of the resulting productivity gains.

Clearly, an explanation of these facts must be based on some frictions in the operation of the land market, or some other input relevant for agricultural production.

A leading explanation of both these facts is based on incentives. A small farmer cultivates his land with own and family labour, while a large landowner uses hired labour who have lower incentives to put in effort. Similarly, a sharecropper effectively faces an income tax of 50% (the most commonly observed sharing rule in the absence of tenancy legislation being 50:50) and naturally puts in less effort. This however, raises a deeper question: why cannot these parties design contracts that would get rid of the incentive problem?

A key assumption here is that some inputs, such as effort, care and maintenance of land, are inherently difficult to monitor. As a result, unless the party that is supplying these inputs are full residual claimants (i.e., retain 100% of the profits) they will undersupply these inputs.

A landowner can offer a contract that has this property: a fixed rent contract. This says the landlord simply gets a fixed fee, and the tenant keeps all the residual earnings. If everyone lived for one period, this would be equivalent to selling the land to the tenant. However, if the tenant is poor, then even though this contractual arrangement would be efficient, it might not be in a landlord’s interest to do so.

Consider a simple example. Suppose given the scarcity of land, the fixed rent that would induce the landlord to lease out a given plot of land is Rs. 100. However, since the tenant is poor and does not have enough liquid wealth, he may not be able to pay this rent up front, or guarantee to pay it irrespective of whether the output is high or low. He may be able to pay a guaranteed fixed rent of only Rs. 50. It is in the landlord’s interest then to ask for a share of output, even though that would reduce effort, since he gets a higher expected rent. He would not ask for too high a share of output though, since at some point reduced effort would start reducing his expected rent (this is like the Laffer curve in the context of income taxes: if tax rates are too high, cutting taxes may actually raise revenue via increased labour supply).

This rent extraction vs. incentives trade-off (see Banerjee, Gertler and Ghatak, 2002 for a formal analysis) can explain the persistence of inefficiency in the land market. This would explain both the stylized facts mentioned above, and why market forces will not necessarily get rid of the implied productivity losses.

An alternative form of friction that can explain these facts is that, due to an imperfect legal system, the market for land does not operate well. For example, if leasing out land entails a risk that it might be hard to evict the tenant if the landowner wishes to withdraw land for owner-cultivation at some later point, then the land leasing market would not work well. Indeed, in their cross-state analysis of tenancy laws in India, Conning and Robinson (2005) show that tenancy laws, though designed with the aim of helping tenants, actually reduced the extent of tenancy.

So far we did not consider the issue of heterogeneity of farmers in terms of ability, and of and in terms of soil quality. For example, a key econometric concern is whether the empirical observations mentioned above control for unobserved heterogeneity. If these observations are *purely* driven by unobserved variations in farmer quality or land quality then the efficiency case for land reform is weakened. For example, if higher ability farmers prefer to cultivate smaller plots of land (as opposed to being constrained to do so) or landowners prefer to lease out lower quality plots to sharecroppers, then in the absence of any other frictions such as those mentioned above, land reform will not raise average productivity.[1] However, there is some evidence (e.g., Rosenzweig and Binswanger, 1993 on farm size and productivity, and Shaban, 1987 on sharecropping) to suggest that these empirical facts are not purely driven by heterogeneity in farmer quality or land quality. For example, Shaban (1987) finds, after controlling for land quality, that the *same* farmer puts in less effort in plots of land that he cultivates as a sharecropper compared to plots of land that he cultivates as an owner-cultivator.

To sum up, incentive problems and imperfect property rights are the leading explanations for the distortions in the allocation of land. These arguments imply that land reform will raise productivity as well as serve the goal of equity.

As a matter of fact, redistributive policies that fall short of full-scale land reform can also have positive productivity effects. These include policies that increase- the wealth or income of the rural poor or their bargaining power vis-à-vis landowners (Banerjee, Gertler, and Ghatak, 2002 refer to these as empowerment strategies).[2] Given that the loss of efficiency is due to the trade-off between rent extraction and incentive provision, any strategy that reduces the ability of landowners to extract rents will raise efficiency, even if they fall short of land reform, and will also serve the goal of equity. However, some of these strategies, such as regulation of tenancy, might have a negative effect from the

[1] Of course, heterogeneity combined with the frictions discussed above may accentuate or mitigate the loss of efficiency. For example, if land quality and effort are complements in the production function and landowners tend to lease out inferior quality land, then land reform that transfers land from the landlord to the cultivator will still raise efficiency, although to a lesser degree than if the land was of higher quality.

[2] Examples of the latter include tenancy laws that stipulate an upper bound to the share that can be charged as rent, or public works programmes that raise the rural wage rate.

point of view of reducing the incentive of landowners to lease out land. This is likely to be a particularly important concern for poorly-implemented tenancy reform legislation: the presence of the tenancy law would have the negative effect on the land lease market as described above, and at the same time the positive incentive effect on tenants may only be partially realized. We will return to this point in our discussion of empirical work on land reform in India.

The above arguments also suggest that even if equity is the only consideration, there may be a case for redistribution of land as opposed to any other form of redistribution. For example, if, because of imperfect property rights the market for land sales and rental is very thin, then a direct intervention in the land allocation method may be required to improve the conditions of the rural poor. This would typically require a combination of reforming property rights in land (e.g., formalization of land records and legal protection of ownership rights) and redistribution (stipulating a land ceiling and redistributing surplus land).

Indian Evidence on the Causes and Effects of Land Reform

The two key empirical questions are: what is the effect of land reform on productivity and poverty, and what are the factors that drive its success? These are clearly inter-dependent: factors that affect the success of land reform are also likely to affect productivity and poverty. For example, if a left-wing administration comes to power, as it did in Kerala and West Bengal, it will implement land reforms more actively and also implement other reforms (e.g., empowering local governments) that might have a direct effect on productivity and poverty. The challenge is to isolate the effect of land reforms.

Land reform legislation in India consisted of four main categories: abolition of intermediaries who were rent collectors under the pre-Independence land revenue system; tenancy regulation that attempts to improve the contractual terms faced by tenants, including crop shares and security of tenure; a ceiling on landholdings with a view to redistributing surplus land to the landless; and finally, attempts to consolidate disparate landholdings.[3] Abolition of intermediaries is generally agreed to be one component of land reforms that has been relatively successful. The record in terms of the other components is mixed and varies across states and over time. Landowners naturally resisted the implementation of these reforms by directly using their political clout and also by using various methods of evasion and coercion, which included registering their own land under names of different relatives to bypass the ceiling, and shuffling tenants around different plots of land, so that they would not acquire incumbency rights as stipulated in the tenancy law. The success of land reform has been driven by the political will of specific state administrations, the notable achievers being the left-wing administrations in Kerala and West Bengal.

Besley and Burgess (2000) have used state-level data for the sixteen major Indian states from 1958 to 1992 and exploited the variation across states and over time in land reform

[3] See Besley and Burgess (2000) who also provide a systematic description of these laws and their amendments that were passed in individual states over time.

legislation to identify the effect of land reform on productivity and poverty. They generate a cumulative variable that aggregates the number of legislative reforms to date in any particular state. Controlling for state and year fixed effects, and a number of time varying economic and policy variables, they find that the lagged version of their cumulative land reform variable has had a negative and significant effect on poverty. Interestingly, they find that this is due primarily to the tenancy reform component of land reform. However, this also seems to have had a negative effect on agricultural productivity, suggesting an equity-efficiency trade-off. Abolition of intermediaries had a negative effect on poverty, but no effect on productivity. Imposing a ceiling on landholdings does not seem to have had much effect on either poverty or productivity, while land consolidation had a positive effect on productivity without having any effect on poverty. The authors conclude that land reforms did not have much effect on the distribution of land and seems to have operated mainly through altering the contractual relations in agriculture.

The previous study takes land reform legislation as the measure of land reform, and not its implementation. Given the widely acknowledged gap between the two, one concern is that, as discussed in the previous section, a poorly implemented tenancy reform may have a net negative effect on productivity by freezing up the land lease market even though it might improve the productivity as well as the income of some tenants. Indeed, a study by Banerjee, Gertler and Ghatak (2002) that focuses on West Bengal, a state where tenancy reforms were implemented very thoroughly, yields very different conclusions: tenancy reforms improved agricultural productivity. Within a year of being elected in 1977, the left-wing administration launched Operation Barga, a program designed to implement and enforce the long-dormant agricultural tenancy laws that regulated rents and security of tenure of sharecroppers. Under these laws, if tenants registered with the Department of Land Revenue, they would be entitled to permanent and inheritable tenure on the land they sharecropped as long as they paid the landlord at least 25 percent of output as rent. In the decade following the launching of Operation Barga, there was a significant improvement in the terms of tenants' contracts and more secure tenure.

The authors use two different approaches to estimate the effect of this reform on agricultural productivity.

Their first approach is to compare the growth in productivity in West Bengal districts with that in the districts in the neighboring country of Bangladesh. Except for religion and political boundaries, the two regions are very similar in most respects. This includes agro-climatic conditions, prevalence of tenancy, and agricultural technology and so we can expect technological shocks to agricultural yields to be similar between these two regions. Indeed, during this period agricultural productivity in both regions (and much of Eastern India) grew in part due to the belated arrival of the Green Revolution permitted by the spread of a locally suited high yield variety (HYV) of rice, a fall in the price of fertilizers, and an increase in small scale private irrigation. However, the authors find that even though the rate of adoption of HYV rice was faster in Bangladesh than in West Bengal, the rate of growth in rice productivity was higher in West Bengal. They attribute this difference to the implementation of tenancy reform. There are two concerns with this

approach: first, there are some concerns that the date collection method concerning agricultural production underwent some changes under the new administration that could have inflated West Bengal's growth performance relative to Bangladesh. Also, during this period a number of other policy reforms were undertaken in West Bengal, such as decentralization of certain public programs, and this approach could be picking up the effects of these other policies.

The second approach utilizes the fact that this reform was implemented in different districts of West Bengal at different rates due to bureaucratic frictions. The authors use inter-district variations in the rate of implementation of this program (captured by the fraction of sharecroppers who were registered under this program) as exogenous changes in the availability of a new contractual regime. That is, districts that received the program earlier are the "treatment" districts and the districts that received it later are the "control" districts. The resulting changes in productivity are attributed to the reform, after controlling for a number of other policy and economic variables that also changed during the period when the program was implemented. Since this approach studies *inter-district variation* in agricultural productivity, it is not likely to be affected by concerns about any possible upward bias in the *level* of agricultural productivity due to changes in the data collection methods. Also, since it looks at variation in the intensity of implementation of tenancy reform, its less likely to pick up the effect of other programs. This approach yields similar results regarding the effect of tenancy reform on agricultural productivity as the previous one, suggesting that tenancy reform did have a positive effect on agricultural productivity.

To sum up, it seems likely from the above studies that tenancy reform had a direct positive effect on tenants who were directly affected by it, but the indirect effects of this reform on the rural land market as a whole are less clear. This explains why Besley and Burgess (2000) find a negative effect of tenancy reform on rural poverty and Banerjee, Gertler, and Ghatak (2002) find a positive effect on agricultural productivity. However, both the above studies are based on aggregate data (state or district level) and cannot distinguish between the direct and indirect effects of land reform. Only micro-level studies can throw more light on this question.

So far we discussed the effects of land reform. Now we turn to the question of what determines its success.

Besley and Burgess (2000) find that political factors had a significant effect. In particular, Congress administrations had a negative effect on the passing of land reform legislation, especially tenancy reform. In contrast, left-wing administrations had a significant positive effect. Besley and Burgess use these political variables as instruments for their land reform measure to address the concern that land reform is endogenous and could be driven by factors that also affect the dependent variables of interest.

Conning and Robinson (2005) pursue further the investigation of determinants of land reform and find that, after controlling for other variables including state and year effects,

the likelihood of reforms increases when land inequality is higher and where peasants have greater political power. Bardhan and Mookherjee (2005) study village-level data from West Bengal and find that land reform activity is highest where left-wing parties hold a larger number of seats in the state legislature *and,* interestingly, where they faced greater political competition.

To sum up, land reform is clearly driven by political factors. One important ingredient is the strength of left-wing parties in the state. We can think of the support for left-wing parties as "demand" for land reform. The "supply" of land reform seems to depend on the electoral success of left-wing parties, as well as how tight the electoral competition is.

Conclusion

In this essay we reviewed the economic arguments in favour of land reform and showed that they are based on frictions in the allocation of land. These frictions could either be due to agency costs or imperfect property rights. We then evaluated the evidence on land reforms in India. The evidence suggests that land reforms had a negative effect on poverty, while the effect on productivity is mixed. In states where these measures were strongly implemented, the effect of land reform on productivity seems positive.

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