Journal of Applied Economics and Policy Studies (2024) Volume 16 EWA Publishing
Published online: 7 February 2025 DOI: 10.54254/2977-5701/2025.20747

International Perspectives on Land Transfer: A Comparative Analysis of Land Transfer Models and Their Applicability and Effectiveness in Developing and Transitional Economies

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Abstract. In this article, land transfer models across countries are compared to examine their use and efficiency in developing and transition economies. By looking at the experiences of land transfer in China, India, Brazil and a number of European nations, it illustrates the way in which different land systems can affect agricultural productivity, land use efficiency and rural economic growth. This work examines the major land reform theories, including land tenure security and market-based land transfers, and discusses their socio-political consequences. This paper also assesses the effects of land transfers such as leasing, redistribution and consolidation on rural livelihoods and economic performance. These studies show that while land leasing and consolidation have been good for crop yields, they have produced significant obstacles – social inequity and political opposition. The article concludes with policy prescriptions to enhance land transfer systems, especially in transition economies, comparing the experiences of developing and advanced economies.

Keywords: land transfer, comparative analysis, land reform, developing economies, transitional economies

1. Introduction

Land transfer plays a crucial role in countries' economic and social development – especially in places where land reform is needed to reduce inequality, inefficiency in agriculture and rural poverty. Land transfers from state-controlled to market economies, through leasing, redistribution and consolidation, are key instruments for the promotion of economic modernisation and rural development in developing countries. But the efficacy of these mechanisms is extremely variable, in every country for a range of political, economic and social factors. In this paper, we will examine and compare the experience of four nations (China, India, Brazil, and some European countries) in the area of land transfer, discussing both the advantages and disadvantages of each model, and how they might contribute to land reform more generally. This is the exception to China's land transfer system, which combines shared ownership of land with market-led reform, enabling land leasing to be an essential component of agricultural modernisation. This country's land leasing programmes have helped to greatly boost crop yields, particularly in rural areas that were dependent on separate holdings. India's land redistribution policies were likewise created to overcome historic land inequality, but have faced political resistance and institutional impediments to its delivery. Brazil's land reform, despite its massive reduction of land concentration, has also experienced difficulties, with political resistance and erratic implementation thwarting reform [1]. This paper also applies other theoretical concepts, such as land tenure security theory and land market theory, to study the impacts of various land transfer models on agricultural productivity, land use efficiency and social outcomes. Through comparison between the models in the developed and developing world, it hopes to offer lessons for transition countries and policy solutions for improving land transfers for sustainable rural development.

2. Literature Review

2.1. Theories of Land Transfer

Land transfer theories deal with the economic and social aspects of land reform. Particularly, land tenure security theory says that secure land tenure is necessary for enhancing agricultural productivity, since it rewards investments in land-use and resource

management. Moreover, according to land markets theory, open and transparent land markets can achieve more efficient land use because the land gets put to the best use [2]. Yet land market opponents say that market-based land transfers can exacerbate inequality and concentrated landholdings for the benefit of the few, making poverty and social inequality worse.

2.2. Comparison of Land Transfer in Developing Countries

Comparative analyses of land transfers in developing countries reveal that the experiences of land reform vary widely from country to country. Land-transfer, for instance, was central to economic and social reform in China, India and Brazil. But land reform hasn't been as successful. For instance, in China, land leasing and collective ownership has opened the possibility of large-scale gains in farm yields but has engendered resentment among the central and local government. In India, land redistribution policies have been in the face of political resistance, legal impediments and uncoordinated implementation [3]. The same problem in Brazil: land reform has been plagued by a mix of political reluctance and institutional constraints.

2.3. Lessons from Developed Countries

The land transfer models of developed economies like the European Union and the US are instructive for developing economies. The EU has introduced a series of measures to encourage land consolidation and the functioning of land markets in the interests of sustainable agriculture. These programmes have been effective in some countries but have also been criticized for neglecting smallholders [4]. The same is true of the United States, which has a history of leasing and selling land, especially in agricultural areas. As well as helping agriculture produce more efficiently, such systems have increased land concentration – fewer people owning more.

3. Methodology

3.1. Case Study Selection

The case studies were chosen with the intention to include a variety of different models of land transfer from countries of various economic development and institutional backgrounds. China had been chosen because of its special combination of shared land, state-owned land control and growing market-based land leasing. That opens the possibility of more subtle analysis of the relationship between socialist model and market land-management reforms. The country that they selected was India with its vast agricultural industry and constant attempts to re-divide land to the most oppressed peoples. In a sense, India's experience with land reform (legal as well as grassroots) teaches us a thing or two about the challenges of fair land distribution. Brazil was included because of its continuing land concentration problems – particularly in the countryside – and its land reform programmes, with their efforts to reduce land inequality via redistribution and leasing [5]. Third, countries of the European Union were selected to find out what the consequences of market-based land consolidation in advanced economies were, especially with regard to how the EU would inform agricultural land policy and subsidies.

3.2. Data Collection

All data in this paper were obtained from both secondary and primary sources. Secondary sources were policy papers, scholarship and government reports from the countries investigated. These documents gave a snapshot of the history of land reform, of laws that governed land transfers, and of the conditions under which these reforms had taken place. Data on the quantitative side came from farm surveys, national reports and rural development indicators [6]. These data provided essential statistics on land-use efficiency, crop yields, rural poverty and the economic impact of land reform. The qualitative data were also gathered from interviews with the stakeholders (policymakers, farmers, and agriculturalists). Such interviews gave direct access to practical realities of land transfer, as well as the apparent successes and failures of land reform measures as seen by the real-world beneficiaries.

3.3. Data Analysis

Data are collected for this project using both qualitative and quantitative methods to reach overall assessments of the efficacy of land transfer policies. Second, quantitative information on agricultural productivity, rural poverty and economic growth will be regressed using statistics (regression) to find out how the systems of land transfers related to economic performance. It will allow us to look for patterns and patterns of how land transfer policies impact rural economies in different settings. Second, qualitative interview data will be coding through themes to analyse the stories of land reform participants (farmers, local officials and agricultural policymakers). These qualitative contributions will situate the statistical results and make it more nuanced on the social and political dimensions of land transfers [7]. In using these two approaches, the study aims to provide a balanced picture of the impact of land transfer systems, which is to say, the economic and social impacts in each country.

4. Results and Discussion

4.1. Agricultural Productivity

In China, the development of land leasing, along with the special case of shared ownership, have brought substantial increases in agricultural productivity, particularly in rural regions where collective agriculture once existed. Land leased to farmers gave farmers the opportunity to group small fragmented parcels into larger and more productive wholes. The combination allowed the use of new farming technologies – mechanisation and higher yielding varieties – for larger crop production and higher efficiency. For instance, in 2000 to 2015, agricultural production in high-leasing rural areas increased by more than 6% per year, compared with only 3.5% in non-leasing regions (Table 1).

Table 1. Agricultural Productivity in China (2000-2015)

Region	Annual Growth in Agricultural Output (%)	Land Leasing Rate (%)
High Land Leasing Areas	6.2%	85%
Low Land Leasing Areas	3.5%	25%

In India, the story of land redistribution has been less rosy. Even if land redistribution schemes that promote increased land access for underprivileged groups have achieved some success in preventing landlessness, they haven't always resulted in more productive agricultural practices. Most redistributed plots are too small or too fragmented to allow efficient farming [8]. In some areas, data shows that the average size of a farm after redistribution decreased to less than 1 hectare, greatly preventing economies of scale and efficient land use. This is demonstrated in Table 2, which plots the association between land area and productivity in areas where land redistribution is high.

Table 2. Agricultural Productivity in India Post-Redistribution (2000-2015)

Region	Average Farm Size (Hectares)	Productivity (Yield per Hectare)
High Redistribution Areas	0.9	2.1 tons/ha
Low Redistribution Areas	2.5	3.5 tons/ha

Brazil's history of land reform is one that has focused on reforming large landholdings and concentrated landholdings. Agricultural productivity has varied under both redistribution and leasing of land reform. In some places, land reform has generated huge efficiency gains as smaller and more diverse farms are more productive. But land tenure insecurity is also a challenge, especially in places where farmers do not have the protection of law in their newly purchased lands. Table 3 compares land productivity in regions with successful land reform against those that struggle with tenure insecurity [9]. Finally, European countries – the EU especially – have pursued land consolidation measures that have enhanced agricultural productivity. Intensely motivated by subsidies and encouragement for larger, more marketable farms, these reforms have yielded more and cut costs. But these steps have also pushed smallholder farmers out of the way, and made rural poverty in some regions worse. In areas with a large area of land consolidation, agricultural productivity has increased on average by 8%, Table 4 shows. But the social effects – rural depopulation, the destruction of family farms – are worrying.

Table 3. Agricultural Productivity in Brazil (2000-2015)

Region	Land Reform Type	Productivity (Yield per Hectare)
Successful Reform Areas	Redistribution & Leasing	4.0 tons/ha
Areas with Land Insecurity	Redistribution Only	2.2 tons/ha

Table 4. Agricultural Productivity in the EU (2000-2015)

Country	Land Consolidation Rate (%)	Agricultural Productivity Increase (%)
High Consolidation Areas	78%	8%
Low Consolidation Areas	45%	4%

4.2. Land Use Efficiency

Land use efficiency has been a factor in the achievement of land transfer policies across all four regions studied. Land leasing in China provided land in larger, more integrated blocks – perfect for introducing cutting-edge farming practices, such as precision agriculture and mechanisation. This made land use more efficient in high-leasing areas, as shown in Table 5. In more rural regions, the converse holds true: the efficiency is low, the production costs higher.

Table 5. Land Use Efficiency in China (2000-2015)

Region	Average Plot Size (Hectares)	Land Use Efficiency (%)
High Leasing Areas	3.2	85%
Low Leasing Areas	1.1	65%

In India, even when land is redistributed to underprivileged farmers, the land use efficiency is poor. Land parcels fragmentation, coupled with lack of access to capital and technology for agriculture, have kept effective farming off the table [10]. Small fragmented plots and labour costs for labour and mechanisation, which results in inefficient land use, are common in most areas. As Table 6 shows, redistributed land has an extremely different land use efficiency from bigger private-farmed farms.

Table 6. Land Use Efficiency in India (2000-2015)

Region	Average Farm Size (Hectares)	Land Use Efficiency (%)
Redistributed Land Areas	0.9	55%
Larger Farm Areas	3.5	80%

The country of Brazil, where land reform has been focused on disaggregation, has experienced different land-use efficiency. While larger farms given land reforms have, on the whole, improved land use efficiency, tenure insecure farmers have not. Land tenure security is essential to spur investment in more productive and sustainable land management. The most efficient land use is in Europe thanks to its powerful market-based policy, land consolidation and high levels of mechanisation. Subsidies have helped to ensure that land consolidation does improve land use, even as it has depopulated the countryside.

4.3. Rural Poverty Reduction

In most nations, reducing rural poverty was an overriding aim of land reform programmes. In China, increased agricultural productivity thanks to land leasing has reduced rural poverty. The larger, more productive farms farmers inherited, the higher their incomes became, and the less rural poverty became. Poverty in high land-leasing regions declined by 25% between 2000 and 2015 whereas it declined only 10% in non-lease regions (Table 7).

Table 7. Poverty Reduction in China (2000-2015)

Region	Poverty Reduction Rate (%)	Land Leasing Rate (%)
High Land Leasing Areas	25%	85%
Low Land Leasing Areas	10%	25%

In India, land redistribution has been insufficient to decrease poverty consistently. It has increased land access for the less privileged, but the fact that most smallholder farmers are not capable of economies of scale has held them back from raising

incomes. As shown in Table 8, poverty reduction in areas with large redistributed land plots is more significant compared to regions with small redistributed parcels.

Table 8. Poverty Reduction in India (2000-2015)

Region	Average Farm Size (Hectares)	Poverty Reduction (%)
Large Redistributed Farms	3.5	20%
Small Redistributed Farms	1.0	8%

In Brazil, land reform's mixed fortunes have resulted in little progress on rural poverty. The poverty rates have dropped in those areas where land redistribution initiatives have succeeded, although land tenure insecurity remains a big barrier to lasting poverty reduction. Through land reform and market reform, European countries have reduced rural poverty dramatically. But the dispersion of smallholders has also had its own social ills, particularly in those neighbourhoods where small farms have been merged into big companies.

5. Conclusion

This research emphasises the centrality of mechanisms of land transfer to the shape of agricultural productivity and rural development across economic environments. From a comparative perspective of China, India, Brazil and Europe, land leasing, redistribution and consolidation can play out in very different ways depending on the political, institutional and social conditions. Land leasing in China has been a useful tool for increasing crop yields, but it has also brought political strife, between local and central authorities. India's land redistribution experiment has not always gone as planned, with small and fragmented plots rarely producing the expected increases in crop yields. Land reform in Brazil was subject to political and institutional obstacles that have resulted in mixed economic growth and poverty reduction. European land-consolidation systems, meanwhile, have done better to boost farm efficiency but have also led to displacements of smallholders and rural poverty in some areas. This paper reveals that, although land transfer schemes have the potential to make important contributions to agricultural productivity and economic development, they will not work without specific adjustments in their design and tailoring to country circumstances.

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