

**Poverty and the Distribution of Land**

By

Keith Griffin,  
Azizur Rahman Khan  
and  
Amy Ickowitz

Department of Economics,  
University of California,  
Riverside

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Land reform is a many-splendoured thing. The term has been used to include not only redistributive reforms of ownership rights but also the establishment of collective or communal forms of farming, state sponsored land colonization schemes in frontier areas, and land tenure reforms, i.e., changes in the contractual arrangements between the landowner and those who cultivate the land. In addition, tax (and credit) measures intended to create incentives for large landowners to sell part of their holding sometimes are described as “market friendly” land reforms. These include penal tax rates on uncultivated or underutilized land, progressive land taxes with rates that rise sharply with the size of holding, and self-assessed land tax schemes under which the state may purchase the land at the self-assessed value if it believes the landowner has undervalued his land.<sup>1</sup> In this paper the term land reform will be restricted to programmes which redistribute land ownership from large private landowners to small peasant farmers and landless agricultural workers. We are thus concerned with a redistribution of wealth.

Other types of “land reform”, while not uninteresting, are excluded from consideration for a variety of reasons. Communal farming systems, for example, could in principle contribute to equity, efficiency, agricultural growth and a reduction in rural poverty, but their time has passed.<sup>2</sup> They have become politically discredited and the emphasis now in the ex-socialist countries, where communal systems were widely adopted, is on decollectivizing and privatizing state and collective farms. In sub-Saharan Africa, where customary or communal ownership systems are widespread, but where cultivation is done by individual households, there has been a tendency to privatize land and to transform customary tenure arrangements by introducing land

titling programmes. The time also has passed for large state-sponsored land colonization programmes. They enjoyed a brief period of popularity in countries such as Bolivia and Indonesia, but they proved to be very costly and an inefficient use of resources. They also tended to create ethnic tensions between the settlers and local people which sometimes erupted into violence. Finally, in many countries spontaneous colonization has populated the agricultural frontier and consequently state-sponsored colonization has become less of an option: the frontier has disappeared or is rapidly shrinking.

A more persistent argument is that agricultural development has been hampered and rural poverty perpetuated by a defective land tenure system. The claims here are subtle and have to be considered carefully before being dismissed.

There are four main types of tenure contracts or land tenure systems that one can observe throughout the world. They are:

- (i) cultivation of the land with household labour by peasant owner-operators;
- (ii) cultivation of the land by the landowner with the help of hired labour (both seasonal and permanent) at fixed wage rates;
- (iii) cultivation of the land by a tenant who pays the landowner a fixed rent for the use of the land; and
- (iv) cultivation of the land by a tenant who pays the landowner a fixed share of the output for the use of the land.

Each tenure system, at one time or another, has been the subject of criticism. Small peasant farming systems based on household labour – tenure type (i) – have sometimes been criticized for failure to exploit economies of scale. That is, peasant farms are said to be too small for efficient farming because they are not large enough to justify the use of mechanical

equipment such as tractors and combine harvesters. This argument however is fallacious. Given the factor proportions and hence the social opportunity costs of capital and labour in most developing countries, a high degree of mechanization would be inappropriate and represent an inefficient use of resources. Hence the “lumpiness” of capital at the farm level does not give rise to economies of scale in cultivation. Indeed, as we shall argue below, small farms often are more efficient than large, not less efficient. Where economies of scale do arise – as in the management of canal irrigation systems, agricultural processing and marketing – appropriate institutional arrangements will be necessary, e.g., a government owned irrigation authority, a private food processing company and a cooperative marketing association. Such institutions are ubiquitous even in countries which have not had a land reform.

Large farms owned by absentee owners and cultivated by hired wage workers under the supervision of a manager – a variant of tenure type (ii) – often are thought to be inefficient. An attack on absenteeism, as in many parts of Latin America, has been justified on these grounds. In fact, however, there is no evidence that absentee ownership is associated with non-maximizing behaviour and poor management, and there is abundant evidence from many parts of the world that absentee ownership by, say, a large corporation or an educational or religious institution is compatible with good resource use. Economic results on large farms with absentee owners are just as good as those from owner operated farms. One issue that is highlighted in tenure type (ii), however, is tied or bonded labour. In many societies agricultural labour is unfree in the sense that workers are tied to the land through a variety of mechanisms that historically have included slavery, debt peonage, serfdom, encomienda (in colonial Latin America), inquilinaje (in Chile) and huasipungo (in Ecuador and Peru). Tied labour in its various forms reflects the fact that a central problem for landowners everywhere is how to

acquire an adequate supply of labour and ensure that the labour force that is acquired works hard. The existence of tied or bonded labour is not intrinsic to tenure type (ii) and does not imply that tenure type (ii) should be abolished, but it does draw attention to the fact that conditions of employment in rural areas cannot be ignored. We shall consider this in greater detail below.

Fixed rental systems in developing countries – tenure type (iii) – often are combined with insecurity of tenure, so that the landowner is able to dismiss his tenants after, say, an agricultural year if he so wishes. Here the criticism is not that the rural poor are tied to the land but that their relationship to the land is highly insecure and hence their livelihood is under constant threat. Reform minded policy makers frequently are tempted to respond by abolishing insecure tenancies and instead giving tenants extended rights to cultivation, perhaps for their entire life and in some cases extending tenure rights even to their children.

Assuming insecurity of tenure can in fact be abolished and landowners prevented from evading the law, if tenants are granted secure tenancies landowners will have an incentive to switch from fixed rental farming (and sharecropping) to cultivation with the use of hired labour. That is, tenants will be converted into wage workers and their net gains from the “reform” will be zero or even negative. Moreover, insecurity of tenure serves an economic function. It enables landowners to adjust frequently the terms of the contract with their tenants in order, for example, to reap the full benefits of new technology. If landowners are unable to alter contractual arrangements because tenancy agreements are fixed, they will have less incentive to invest in their land and agricultural growth consequently will be reduced. As a result, rural poverty will be greater than otherwise.

Critics reply that absentee landlordism and insecure tenancy rights combine to reduce investment incentives for tenants and landowners alike. This however is not true. As long as the

landowner can increase rents (whether a fixed rent or a share of the crop) when investment results in an increase in total returns, his incentive to invest will be unimpaired. And as long as the tenant can take his capital with him when his tenancy is terminated, the tenant's incentive to invest will be unimpaired. In practice this means that landowners almost always assume responsibility for investment in land improvements and in fixed assets such as buildings, fences and irrigation systems, while tenants invest in movable assets such as livestock, small farm implements, wagons and even small tractors.

If the other tenure systems have been poorly understood, the greatest misunderstanding and the most severe criticism has centred on sharecropping, i.e., tenure type (iv). Adam Smith, for instance, argued that sharecropping reduced the incentive of the tenant to invest.<sup>3</sup> He took it for granted that the landowner would not invest. Alfred Marshall argued that in addition the tenant would have no incentive to cultivate the land efficiently, since the tenant would receive only a fraction, say one half, of any additional output created by applying additional work effort.<sup>4</sup> That is, the input of labour under sharecropping would be less than under the other three tenure types and consequently total output would be lower, as would be the incomes of both landowners and tenants; rural poverty would be correspondingly higher.

This then raises a puzzle. If sharecropping makes everyone worse off, why is it so widespread? Why don't large landowners switch either to a fixed rent tenure system or to cultivation based on wage labour? The answer, according to some, has to do with risk. In the absence of crop insurance markets, sharecropping enables landowners to reduce risk arising from crop failure or a fall in crop prices by sharing the risk with their tenants. The problem with this answer is that a landowner can achieve any degree of risk avoidance that he wishes by cultivating part of his land under a fixed rent system (where the landowner bears no risk) and

part under a wage labour system (where the landowner bears all the risk). By combining tenure types (iii) and (ii) in the appropriate proportions, the landowner can determine the amount of risk he is willing to bear without having to suffer a lower average income allegedly associated with the inefficient sharecropping system. Consequently contracts based on fixed shares of output should disappear.

A second explanation for the persistence of sharecropping is that it enables the landowner to reduce the cost of monitoring and supervising labour. This is true if one compares sharecropping with wage labour tenancy arrangements, but if the comparison is with fixed rent tenancies, the argument is unpersuasive. Indeed, if one accepts the argument that sharecropping is inefficient and lowers both the tenant's and the landowner's income, it is far from obvious why sharecropping contracts are so widely used. If, however, sharecropping is not inefficient, its advantages in spreading risk, lowering costs of monitoring labour and reducing costs of obtaining information about potential yields and rents become clear.<sup>5</sup>

The presumed inefficiency of sharecropping arises because it is thought that tenants have no incentive to supply the optimal amount of labour time and effort. If however mechanisms could be devised which ensure that tenants do in fact supply the optimal amount of labour, then sharecropping would be as efficient as any other tenure system. In fact three such mechanisms have in practice been devised. First, the lease contract can be expanded to include not only the share of output received by each party but also the levels of inputs, including labour, to be supplied by the tenant and landowner.<sup>6</sup> Second, the contract can specify that the landowner and tenant share costs in the same proportion as they share output. For example, in North Africa and parts of the Middle East a sharecropping system called khamassa can be found. Under this system inputs are divided into five categories – land, water, seeds, animal power, and labour –

and each input is awarded 20 per cent of the output.<sup>7</sup> Thus if the tenant supplies labour and draught animals and the landowner everything else, the tenant would be entitled to 40 per cent of the output and the landowner 60 per cent.

Third, and most common, the contract can specify the share of output and the (short) duration of the lease, e.g., one year. The insecurity of tenure enables the landowner to review the performance of his tenants at frequent intervals and to dismiss those who perform poorly. The threat of dismissal provides a strong incentive for tenants to work hard and supply the optimal quantity of labour. That is, tenure insecurity is an integral part of an efficient sharecropping arrangement. If a reform-minded government were to abolish insecurity, sharecropping would become inefficient and landowners would shift to another form of contractual arrangement, such as farming with hired labour. Tenants would be transformed into wage workers. Similarly, if sharecropping as such were prohibited, landowners would switch either to fixed rent contracts or to farming with hired labour.

The four basic types of tenure system produce very similar results as regards the volume of production and the distribution of income between the landowner and his tenants and workers. Land tenure reform either will have no significant effect or will make matters worse. The case for land reform rests not on the existence of defective tenure contracts but on the concentration of land ownership rights and the inefficiency, inequality and poverty which this creates. The core of a land reform is thus a redistribution of property rights in cultivable land.



## 1. The Case for Redistributive Reforms

Many countries have adopted a development strategy that neglects agriculture and the rural areas. Policy is sometimes said to have an “urban bias”.<sup>8</sup> This bias can take many forms, but we wish to underline three specific problems. First, relative prices, or the rural-urban terms of trade, often have been turned against agriculture. Second, public sector investment has been allocated in favour of urban areas, to the relative neglect of the countryside. The rural areas have been starved of investment in physical infrastructure such as transport, power, communications and irrigation. Third, expenditure on human capital has been biased against the rural areas. This includes expenditure on such things as basic education, training, extension services, primary health care and agricultural research. This general bias of policy against the rural areas makes it difficult to reduce rural poverty regardless of the distribution of property rights in land.

Furthermore, within the agricultural sector, policy often has discriminated against small farmers and in favour of large landowners. That is, policy is said to be “landlord biased”.<sup>9</sup> Again, this bias can take many forms and the following list is merely illustrative:

- (i) extension policies that concentrate on large farmers, often called “progressive farmers”;
- (ii) research policies that favour export crops and “superior” grains and neglect “inferior” grains and poor people’s crops such as sorghum, millet and maize;
- (iii) agricultural price support policies that provide greater support for, say, wheat (often grown by relatively large farmers) than for rice (which is often grown by small farmers);

- (iv) regional development policies that favour more fertile and more accessible regions, where for historical reasons land ownership tends to be more concentrated;
- (v) water distribution policies of large scale, public irrigation systems which favour large landowners;
- (vi) credit policies which discriminate “naturally” in favour of literate, large landowners who have a large marketable surplus, and against small farmers where lender’s risk and administrative costs are higher;
- (vii) institutional policies which discourage organizations of the poor, and often view them as subversive, including peasant leagues, small farmers cooperatives and rural labour unions.<sup>10</sup>

Landlord bias discriminates against the rural poor and accentuates agrarian poverty. Its removal is essential, especially if there is a redistributive land reform. The reason for this is that redistributive reforms will alter the balance of land holdings in favour of small farmers and hence the negative quantitative impact on total output and the incomes of small farmers will increase if the policy bias against them persists. In other words, a successful redistributive land reform requires the simultaneous elimination of both landlord bias and urban bias. One cannot, as has often happened, simply give land to the peasants and then abandon them, and expect that all will be well.

#### Fragmented factor markets

The market environment in which small peasant farmers and large landowners operate is quite different. Relative prices vary from one locality to another and relative factor prices vary across farm sizes. The “law of one price” does not prevail, particularly in factor markets, and as

a result, small farmers often adopt different techniques of production from large landowners and this, in turn, leads to differences in factor productivities.

It is widely recognized that the cost of finance capital is in general lower for large landowners than for small peasants. Large landowners have access to commercial banks and other formal sector lending institutions whereas small peasant farmers often are denied access to commercial banks because they are illiterate, lack collateral, have insecure titles to land or because for other reasons they are perceived to be less credit worthy. The consequence is that small farmers usually have to rely on informal credit markets – specialized moneylenders, merchants and shopkeepers, traders and (in the case of tenants) their landlords – where interest rates are substantially higher than in the formal credit markets. The irony is that in most countries small farmers have better records as regards arrears and lower default rates than large landowners, who are protected from their creditors by their political influence, and this superior repayment record should more than compensate banks for the higher overhead costs associated with making small loans to small farmers. In practice however large landowners receive preferential treatment from the banking system, although in recent years microcredit programmes aimed at the poor have begun to have some impact.

The market for land is equally fragmented. Land markets are highly localized and the volume of sales is low. In other words, land markets in developing countries are “thin”. The poor seldom sell their land except in periods of distress. Because land to them is very scarce, the opportunity cost of land or the implicit rental rate of land is high. The opposite is the case with large landowners. The relative abundance of land in their possession implies a lower opportunity cost and a lower rental rate. In an integrated, competitive market, there would be an incentive for large landowners to sell some or all of their land to small farmers since the latter can obtain a

relatively higher return and hence would be willing to pay a relatively higher price for land. This does not happen because, as we shall explain, in fragmented markets, possession of large holdings of land gives landlords monopsony power in local labour markets. If large landowners sold their land to small peasants, the landlords would lose control over the labour market. They would be forced to pay higher wages or charge fixed rent tenants a lower rent or agree to give their sharecroppers a higher share of the crop. Their total income consequently would decline, regardless of the tenure system adopted.<sup>11</sup>

Thus landless workers, small tenant cultivators and small farmers usually must pay a higher “price” for credit and land than large landowners. The reverse occurs in the labour market. The money cost of labour to a large landowner typically is higher than the opportunity cost of labour or the implicit wage rate of a small peasant. In extreme cases the opportunity cost may be close to zero for the rural poor, but all that need be assumed for the purposes of our argument is that the opportunity cost of labour is lower for the poor than for large landowners.

The fragmented factor markets and the consequent variation in relative factor prices across farm size have implications for the allocation of resources because small farmers and large respond to a different set of incentives. The relatively low ratio of interest rates to wage rates faced by large landowners encourages them to adopt higher capital-labour ratios in cultivation, i.e., to use more mechanized techniques. In other words, small farmers tend to economize on capital compared to large landowners. Similarly, the relatively low ratio of land rental rates to wage rates faced by large landowners encourages them to cultivate their land extensively, i.e., to adopt lower labour-land ratios. In other words, small farmers cultivate the land more intensively and generate more employment per unit of land. Given that capital is scarce and labour abundant in the rural areas of developing countries, the methods of cultivation

used by small farmers more closely approximate the socially optimal methods than the capital and land intensive methods typically adopted by large landowners.

One implication of this analysis is that output per unit of land, or yield, often is higher on small farms than on large. Indeed, there is a great deal of empirical evidence showing that yields vary inversely with the size of farm.<sup>12</sup> The higher productivity of land on small farms, or more precisely, the higher value added per unit of land, is due to a combination of three things: (i) a lower proportion of land left fallow or uncultivated and a higher cropping ratio, (ii) a cropping pattern or crop mix which favours crops with higher value added and (iii) higher physical yields for individual crops.

A second implication of our analysis is that the productivity of labour tends to increase with farm size. Large landowners tend to economize on labour relative both to capital and land, and hence output per worker usually is higher on the large farms. Land productivity and labour productivity thus move in opposite directions as the size of farm increases. Which ratio should a country attempt to maximize? The answer is neither. One should attempt to maximize total factor productivity, i.e., value added or net income divided by the sum of all factors of production correctly valued at their social opportunity costs. Given that labour is abundant (and hence has a low opportunity cost) and land and capital are scarce (and hence have relatively high opportunity costs), small farms have a higher total factor productivity than large and hence utilize resources more efficiently.<sup>13</sup>

### Systems of labour control

Contrary to much conventional thinking, those who own large amounts of land face a major problem in mobilizing and organizing labour for purposes of production and extracting effort from their workers and tenants. Even where labour is apparently abundant in the physical

sense that there are potentially lots of “bodies” available to undertake work, large landowners encounter a natural resistance from people to engage in arduous work when most of the fruits of their efforts will accrue to the landowner. In order to overcome this resistance elaborate systems of labour control have been devised. These systems can be found in virtually every country although the combination of ingredients can vary substantially from one country to another.

The systems of labour control affect the dimensions of rural labour markets, normally creating small, fragmented, partially isolated labour markets that may coincide, for example, with the boundaries of a village, a river floodplain or a mountain valley. The systems of labour control also affect the relative bargaining strength of the participants, tilting power in favour of large landowners. The general effect is to create monopsony power in an archipelago of small, fragmented labour markets or, alternatively, to shift local labour supply curves to the right, so that in either case wage rates are reduced below what they would have been in a competitive market.

One can conceptualize systems of labour control as being composed of three primary elements. These are called social controls, environmental controls and institutional controls. The strength of these different types of controls will vary from one country or region to another, and will of course change over time, but all three elements are likely to be present in greater or lesser degree in most countries. The central point, however, is that land concentration should be understood as constituting just one element in a larger system of labour controls.

The function of social controls is to segment the labour market into non-competing groups by introducing various forms of discrimination. The basis of discrimination can be almost anything, e.g., racial or ethnic differences, caste differentiation or sex. In some societies labour market discrimination has been based on religion; in others, even on such a commonplace

thing as dress; and in still others, in the absence of universal education, on language. In Andean America, for example, there is very strong labour market discrimination against native Americans (on the basis of ethnicity) who speak Quechua or Aymara rather than Spanish (language barriers) and who wear native costume rather than modern European dress. The purpose of social controls is to keep people in their “place”, to prevent upward occupational mobility, to increase the supply of low-skilled labour, to increase the bargaining position of large landowners and thereby to lower the cost of labour.

Environmental controls increase the geographical isolation of the rural poor. Because of the inadequate transport and communications facilities which are characteristic of many rural areas, geographical or spatial mobility is hampered and occupational mobility is further reduced. Low levels of literacy, poor general education, lack of skills and training, and a lack of information all contribute to widespread ignorance and this in combination with poor physical infrastructure helps to perpetuate a myriad of local, segmented labour markets in which wage rates for similar types of labour can vary significantly from one village to another or one valley to another. Low public expenditures on physical and human capital, in other words, is functional. It is part of a system of labour controls and is not merely a reflection of badly designed and implemental public policy.

Institutional controls further strengthen the power of landlords. These controls include the laws that regulate behaviour in the countryside, the ways the laws are administered in practice and the ways the instruments of coercion are used, including the police, militia, armed forces and private gangs controlled by landowners. Institutional controls also include the different types of landowners’ associations (organized by crop, by region, by size of holding) and the mechanisms used to suppress organizations of the poor, such as peasant leagues, cooperatives

of small farmers, rural trade unions, women's groups, etc. In parts of Latin America religious institutions have been part of the system of labour controls, and of course this was explicit during the colonial period when the conquistadores were given control over the "Indians" in exchange for a promise to instruct them in the beliefs of Christianity. Almost everywhere the institutions of the state have supported the "men of property" rather than the poor and those without property, and the institutions of civil society which the state has allowed have had a similar bias.

Within this framework, the high degree of land concentration should be understood as an important institutional control. In many countries a large proportion of the active agricultural population owns little or no land at all and these landless farm workers have little alternative but to try to earn a livelihood as an agricultural wage labourer or as a tenant farmer. Even among those who do own land, the degree of ownership concentration often is very high, i.e., a small proportion of the landowners possess a very high proportion of all the land. A few figures may illustrate the point. In Peru in 1981, 20 per cent of the economically active agricultural population were landless and the Gini coefficient of land concentration among landowners was 0.95; in Pakistan in 1985, the incidence of landlessness was 11 per cent and the Gini coefficient of land concentration was 0.61; in Egypt in 1977, landlessness affected 26 per cent of the agricultural population and the Gini coefficient of land ownership was 0.53.<sup>14</sup>

The economic effect of concentrated land ownership in a context of small, fragmented, local labour markets is to give large landowners a high degree of monopsony power in the labour markets in which they operate. That is, most rural people either work for the local landowner or they work for no one. This monopsony power, in turn, lies at the root of "surplus labour", production inefficiency and rural poverty. This can best be demonstrated with the aid of a diagram.



### The economic consequences of land concentration

In Figure 1 below we describe a small, local labour market in the rural area of a developing country. The marginal revenue product of labour is drawn as a straight line ABC. Under competitive conditions this would be the demand curve for labour. The supply curve of labour is SI and because labour markets are highly fragmented, it is assumed to be upward sloping. The supply and demand curves intersect at E and under perfect competition this would be the equilibrium position. Landowners would employ OD amount of labour at a wage rate of  $w$ . Total output would be the area OAED. The wage income of hired workers would be OwED and the landowners would receive the residual output of wAE.

If instead of a tenure system based on wage labour, landowners preferred a fixed rent system, they would offer their tenants a contract with a fixed rent of wAE and the tenants would bear all the risk, receiving an average residual income of OwED. Similarly, there is a sharecropping contract (not drawn) that would produce the same total output and distribution of income between landowners and sharecroppers. The tenure contract is essentially irrelevant to production and distribution outcomes.<sup>15</sup>

What matters is the degree of land concentration because monopolization of the land transforms large landowners into “price makers” in the labour market. This can be seen in Figure 1.

A monopsonistic landowner influences the income received by workers and tenants. If a landowner engages more labour, he must offer a higher wage or a lower fixed rent or a higher share of output to his sharecropper, depending on the tenure system in place. The marginal cost of labour (represented by the MCI curve) rises faster than the average cost of labour (represented by the supply curve SI). An income maximizing landlord produces where the marginal revenue

product of labour equals the marginal cost of labour. This occurs at B, a new equilibrium position.

The amount of labour landlords would wish to employ (as hired workers or tenants) at this new equilibrium is  $Od$ . From the supply curve it can be seen that this amount of labour can be obtained by offering a wage of  $y$ . Notice that from the perspective of the large landowner the marginal cost of labour ( $m$ ) is much higher than the average cost of labour ( $y$ ) and it is of course the marginal cost that determines employment, output and factor productivities.

Total output at the new equilibrium is  $OABd$ . The total wage bill is  $OyFd$  and the residual income received by the landlord is  $yABF$ . As before, the distribution of income between the landlord and his workers and tenants is unaffected by the type of tenure contract in place. The same result could be obtained if the landlord were to offer a tenant a contract with a fixed rent of  $yABF$ , leaving the tenant with an average residual income of  $OyFd$ . There is a corresponding sharecropping contract that is not drawn.

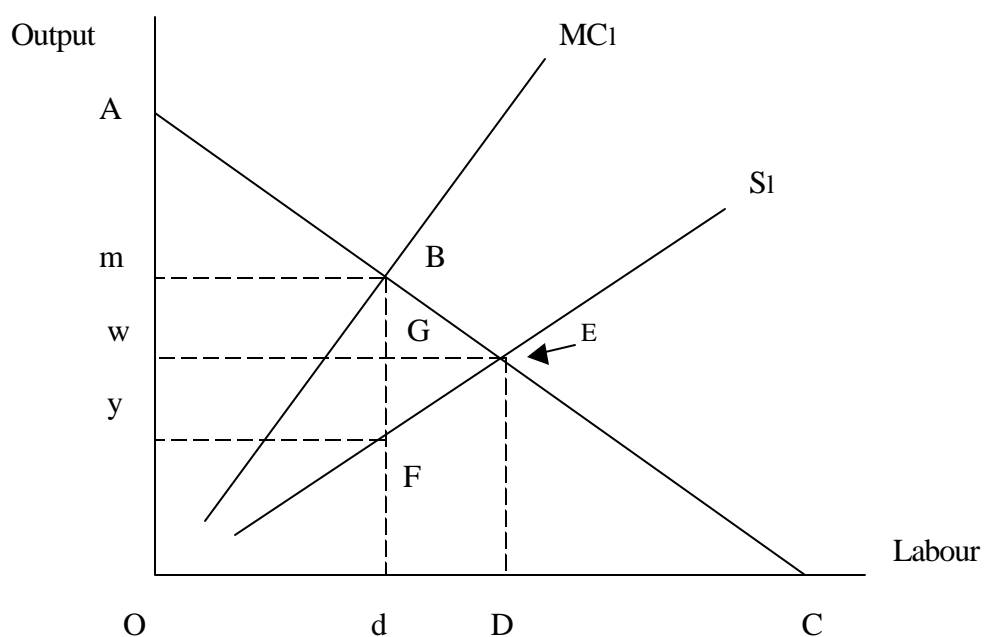


Figure 1

We can now examine the implications of a high degree of land concentration for the rural population. First, land concentration leads to a decline in the rural wage rate by  $wy$ . Compared to competitive conditions, there is exploitation of labour. The cost of labour on the margin ( $m$ ) is higher than the opportunity cost of labour ( $w$ ) which, in turn, is higher than the wage received by workers and tenants ( $y$ ):  $m > w > y$ . As a result, the techniques of production used by large landowners tend to be insufficiently employment intensive ( $w < m$ ) and yet actual wages are below the opportunity cost of labour ( $y < w$ ). Second, total employment on large farms declines by  $dD$ . This is the origin of rural underemployment or surplus labour. The combination of surplus labour ( $dD$ ) and depressed wages ( $y$ ) lowers the “reservation wage” in urban areas and thereby accentuates urban poverty. This takes the form of low incomes in the “informal sector” or open unemployment, or both.

Third, total output falls by  $dBED$ . That is, land concentration results in inefficiency and a lower average level of income. Fourth, the large landowners, however, benefit absolutely. Their income rises by  $ywGF-GBE$  and hence inequality in the distribution of income increases dramatically. Finally, the total wage bill, or the income of workers and tenants, falls partly because there is less employment and partly because the rate of remuneration declines. The decline in their income is represented in Figure 1 by  $ywGF+dGED$ . That is, land concentration produces widespread rural poverty.

Even if one does not accept our argument that systems of labour control increase the supply of low-skilled rural labour and create monopsony power for large landowners in local labour markets, land concentration alone is enough to produce inequality and poverty. Where labour is abundant relative to land, as in most of Asia, the returns to land will be high and the

returns to labour will be low. In such an environment, if land ownership is unequally distributed, income inequality will be high and poverty among the assetless is likely to be widespread. The purpose of our analysis, however, is to go beyond this simple point and suggest that in most countries the actual condition of the rural poor is worse than would be implied by unequal landownership alone.

### Implications

The implications of our analysis are straightforward. A redistributive land reform which reduces land concentration would have multiple benefits. In contrast, a reform of land tenure systems or the contractual relationship between landowners and tenants would have negligible benefits and might well be harmful. The agrarian problem arises from the monopolization of land, the most important factor of production, and the consequences of this monopolization for the labour market. Land concentration, especially when reinforced by a wider system of labour controls, creates monopsony power in the labour market while simultaneously shifting the supply curve of low skilled rural labour to the right. The purpose of land reform is to rupture the system of labour controls and bring to an end the monopoly and monopsony power of large landowners.

Land redistribution, we have argued, would raise total output and average income. In other words, it would increase allocative efficiency in the use of resources. One consequence of this is that it would increase the demand for labour and generate more employment in the countryside, partly by increasing the labour intensity of cultivation and partly by creating more employment opportunities in non-farm rural activities. A redistribution of land to tenants, wage workers and minifundistas obviously would lead to a more equal distribution of productive wealth, although the net effect on the distribution of assets would depend on the extent to which

land is confiscated, the terms and conditions under which landowners might be compensated and the provisions made for the beneficiaries to purchase land in order to obtain a legal title.

Land redistribution also would result in a more equal distribution of income. The benefits to low income groups, however, are unlikely to be uniform unless special efforts are made to be inclusive. Many reforms, for example, have redistributed land to sitting tenants and have excluded agricultural wage workers, especially seasonal workers. Thus some low income groups have gained much more than others, depending in effect on the type of tenure contract their landowner chose to adopt just prior to the reform. In principle, even in such cases of an uneven distribution of gains, wage workers should benefit from the reform indirectly, through its effects on the level of employment and wage rates, but the rise in their income evidently would be much less than that experienced by the direct beneficiaries of land redistribution.

Land reform could make a major contribution to reducing both rural and urban poverty. In the rural areas, poverty would decline in part because average incomes should rise as a result of increased efficiency in the allocation of resources and in part because the distribution of income should become much more equal. In addition, if “urban biased” and “landlord biased” policies were removed at the time of implementation of the redistributive land reform, the trend rate of growth of rural incomes should accelerate. This would provide a third, longer term, factor helping to reduce rural poverty. In the urban areas, too, poverty should decline. The reason for this is that the incomes of the rural poor set a floor for urban wages, since no one will migrate from the countryside to the city unless they expect to be at least as well off as before migration. Higher rural incomes will therefore raise the “reservation wage” of the urban poor and this will help to reduce urban poverty. All of the poor, in other words, whether they reside in

the countryside or the towns, stand to benefit from a well conceived and implemented land reform.

## 2. Varieties of Regional Experience

The discussion so far has been rather abstract and has ignored the rich experience of individual countries and regions. While it is not possible to discuss the agrarian problem in every country in the world, we shall try below to identify a few themes that highlight central issues confronting many countries in three broad regions. We begin with sub-Saharan Africa which is struggling to overcome the colonial heritage (e.g., in Zimbabwe) as well as, in some countries, a lengthy period of “internal colonialism” (e.g., in South Africa). We then turn to Latin America, the home of the classic latifundio-minifundio complex, and the location of four major land reforms of the twentieth century (Mexico, Bolivia, Cuba and Nicaragua). Finally, we discuss the problem of reforming collective and state farms in the ex-socialist countries of the former Soviet Union and in central and eastern Europe.

### Sub-Saharan Africa: overcoming the colonial heritage

There are two features of the colonial heritage in Africa that we wish to emphasize. First, in some regions, notably in areas of European settlement, colonial penetration led to a high degree of land ownership concentration and a displacement of the African population to less fertile or more arid land and to land more distant from markets. Typical examples of countries where this occurred are Kenya, Namibia, South Africa and Zimbabwe and, in North Africa, in Algeria and Morocco. In Ethiopia under the empire, land ownership was concentrated, but the poor were not displaced to marginal land; instead they served the landlords as tenants.

Second, even in areas where European settlement was thin, European notions of private property rights were gradually introduced, displacing African tenure systems based on communal ownership rights. This displacement of indigenous land institutions by an exotic one continued after independence, although there is growing recognition of the suitability of communal systems in the African context. Extinguishing communal property rights and replacing them with private property rights often failed to bring about the anticipated efficiency gains yet it did create a tendency for inequality in the distribution of productive wealth to increase.

There has been a revival of interest in the last decade in the issue of land reform in sub-Saharan Africa. Depending on the country, both land ownership distribution and land tenure have been the focus of discussion. Sub-Saharan Africa as a whole, however, differs from some other regions of the world in that landless wage workers are relatively uncommon; at least they were until recently. Communal land tenure systems traditionally gave almost all rural Africans access to land and these systems still exist on most of the continent. In some areas, however, this is beginning to change. "Land scarcity due to population pressure is changing the land-person ratio, shortening fallow periods, and putting new pressure on traditional laws and customs, which in the past adequately assured land use rights."<sup>16</sup>

The type of "land reform" that is most often advocated for sub-Saharan Africa by Western trained analysts is generally focused on changes in land tenure. "The vast majority of the continent still recognizes customary rights to land."<sup>17</sup> These customary land rights give households the right to use land, but the right to transfer land is assigned at a broader social level, such as to the lineage, clan or chiefdom.<sup>18</sup> Under customary tenure, land usually is neither registered nor is it accepted as tradable collateral. This had led mainstream economists to argue that land titling (usually accompanied by privatization) would enhance economic efficiency since

legal title to land enables its owner to use land as collateral and this, in turn, increases access to scarce finance capital for investment. In addition, it is argued that when there is uncertainty or insecurity about ownership, farmers will be less likely to invest in their land for fear that they will not be able to reap the rewards of the investments in future. These arguments have led various African governments and international agencies to push for the privatization of land.

Since independence, the majority of sub-Saharan African countries have attempted various types of land tenure reform. Private titling efforts were most seriously attempted in Kenya, Côte d'Ivoire and Malawi, but Botswana, Cameroon, Ghana, Lesotho, Liberia, Mali, Senegal, Sierra Leone, Somalia, Swaziland, Uganda and Zimbabwe have all had land titling programmes.<sup>19</sup> Tanzania, Ethiopia and Mozambique attempted to create systems of collectivized agriculture, but in none of them was collectivization a success.

Nor is it evident that land titling programmes have been a success. Many have failed to elicit a big response from farmers to register their lands. One reason for this is that land registration fees have been beyond the means of poor people. As a result, in many countries it was the relatively better educated and wealthy who took advantage of opportunities to register land and in consequence inequalities were accentuated.

Evidence is increasing from a variety of sources “that even the longest running national privatization efforts are unraveling, reverting to customary rights, and show few, if any, investment and productivity benefits over indigenous systems.”<sup>20</sup> Africa slowly may be overcoming its colonial heritage. In Kenya, for example, there have been consistent efforts to register and privatize land since the 1950s, and it is estimated that 90 per cent of all land in farming districts had been privatized by 1993. Today, however, “there is considerable evidence



of reversion to customary tenure in titled areas, even those areas that prior to titling were experiencing indigenous shifts toward privatization.”<sup>21</sup>

If the resistance to Western-style land privatization is as strong as this evidence suggests, doubts are raised whether land tenure insecurity really exists in sub-Saharan Africa and, if so, whether it has the negative consequences conventional theory would lead one to predict. It certainly is plausible that insecurity of tenure could lead to underinvestment in land, but it is also possible that in African conditions, farmers with insecure tenure might try to establish secure claims to use-rights by making visible improvements to their land, i.e., undertaking investments which later can be used to justify a claim to use-rights or even ownership. In other words, if one of the motives for investment in agriculture is the appropriation of rights, then “it is possible that indigenous tenure may provide incentives that are superior to freehold.”<sup>22</sup>

Thus it is likely that the efficiency losses associated with communal land tenure have been exaggerated. In many cases, for example, the right to cultivate communally owned arable land is heritable and this in itself will increase the incentive of the cultivator to invest. Indeed one recent study has found that investment is more highly correlated with the right to bequest than with the right to sell.<sup>23</sup> Moreover, many communal tenure systems recognize an individual’s rights to arable land when improvements such as planting tree crops, digging irrigation furrows or constructing buildings are made. Provision even exists to compensate the individual for such investments if the land is redistributed. Finally, “although communal systems prohibit land transactions with outsiders, rentals – and often even sales – within the community...are normally allowed.”<sup>24</sup> That is, land is at least partially “commercialized” and this provides scope for efficiency-enhancing transfers.

Thus Western-style privatization of land may be unnecessary. It may also be undesirable. Creating a system of communal titles may be more cost effective: “in cases where there is no clear demand for the demarcation of individual plots, communal titles that are administered internally in a transparent fashion could provide security at a fraction of the cost of individual titles.”<sup>25</sup> This cost advantage plus other advantages of communal tenure systems – provision of public goods, exploitation of economies of scale in non-farm activities, risk reduction through output diversification – suggest that strengthening communal systems often may be a better strategy than discarding them. This is especially true where several people hold different rights to use the same resource, as is common. In Cameroon, for example, women may hold rights to cultivate food crops on a plot of land, men may hold the right to plant tree crops and the traditional authorities may have the right to harvest wild game or timber.<sup>26</sup> An attempt in such circumstances to privatize land in the conventional sense inevitably will deprive one or more groups of people of their right to use a productive asset. This, in turn, is likely to increase inequality of wealth and impoverish the most vulnerable. Efficiency may not increase, but the concentration of landownership almost certainly will.

#### Latin America: from latifundia to capitalist farming

The distribution of land in Latin America has long been the most unequal in the world.<sup>27</sup> At the peak of their influence around 1960, large landowners (latifundistas) accounted for about 5 per cent of all landowners and roughly 80 per cent of the land. At the other extreme, the smallest landowners (minifundistas) accounted for about 80 per cent of all landowners but only 5 per cent of the land. In between was a small group of family farms which accounted for 15 per cent of the landowners and 15 per cent of the land. Approximately one-third of the agricultural

labour force was landless. The landless and most minifundistas worked on the latifundia as permanent or seasonal workers, as tied labourers under service tenancies or as sharecroppers.

Not surprisingly, this extreme inequality resulted in persistent rural unrest, periodic agitation for agrarian reform and occasional social upheaval. In four countries, in fact, there were sweeping land reforms, namely in Mexico (1917), Bolivia (1952), Cuba (1959) and Nicaragua (1979). In each case, land reform was part of a profound socio-political revolution and indeed one of the lessons of Latin American experience is that sweeping land reforms almost always require revolutionary change or, as in Japan, South Korea and Taiwan, are a product of war combined with the threat posed by revolutionary change elsewhere. In three out of the four Latin American cases – Bolivia is the exception – communal institutions of one sort or another were created and played a prominent (but not exclusive) role. That is, these major land reforms centred on state, collective and cooperative forms of organization. In Mexico nearly half the land was expropriated and nearly half the rural population were beneficiaries of the land reform. In Bolivia and Cuba, about 80 per cent of the land was expropriated and about 75 per cent of the rural population were beneficiaries. In Nicaragua, the proportions were lower, namely, less than half the land and roughly a third of the rural population. At times, as in Nicaragua and Cuba, government policy as a whole was strongly anti-peasant and hence one must be cautious when talking about the “beneficiaries” of sweeping land reforms.<sup>28</sup>

There were more modest land reforms in a number of other Latin American countries, e.g., Chile, Colombia, Ecuador, El Salvador and Peru.<sup>29</sup> In a few cases the redistributive measures were reversed (Guatemala, 1954) or partially rescinded (Chile, 1973). In most cases, however, the small farmers who benefited from these modest reforms were left to fend for themselves. Governments continued to pursue policies with an “urban bias” and, within

agriculture, a “landlord bias”.<sup>30</sup> Small farmers received neither the financial nor the technical support needed to make land reform a success; governments continued to neglect investment in human capital in the countryside; and public investment in rural transport, power and communications continued to be meagre, particularly in areas where small farms predominate. As a result, the benefits from land reform often were disappointing.

This does not imply that land reforms are destined to fail, but the evidence from Latin America strongly suggests that land reforms are most likely to succeed when they are part of a comprehensive strategy for rural development. This is a second important lesson from the region. The potential benefits of redistributive reforms enumerated in section 1 above do exist, but in order to realize those benefits more is required than a transfer of property rights in land from large landowners to tenants and agricultural workers. Also required are price reforms (which the neo-liberal policies of the 1990s in Latin America are addressing), improved access to credit, greater emphasis on human capital formation and improved physical infrastructure.

Even the modest land reforms in Latin America, however, helped to destroy parts of the system of labour control which kept the rural poor in their place. In addition, as an unintended consequence, land reform and even the mere threat of land reform, helped to transform many latifundia into capitalist, commercial farms.<sup>31</sup> The reason for this is that priority for land expropriation in Latin America often centred on large farms owned by absentee landlords, where cultivation was thought to be inefficient and where much of the land was in natural pasture or was left uncultivated. Large landowners thus had an incentive to sell some of their land (usually the less fertile, marginal bits) or to sub-divide the rest among members of their family in order to avoid forced redistribution. They also had an incentive to increase efficiency, i.e., to use their land more intensively by reducing the amount in fallow, bringing uncultivated areas under the

plow and transforming natural pastures into managed grazing land. Since large landowners retained their capital equipment and most of their farm buildings after selling parts of their holding, the capital-labour and capital-land ratios on the remaining holding tended to rise. Thus in a relatively short space of time, large landowners were able to transform themselves into “progressive farmers” and the latifundia became modern “capitalist farms”. In this way, land reform in Latin America altered the agrarian structure, not by raising the economic status of the rural poor but by putting the fear of expropriation into the minds of the rural rich.

#### Former Soviet bloc countries: agricultural involution and the rise of minifundia

Land reform in the former Soviet Union and in eastern and central Europe is occurring within a context of systemic transformation, a switch from a centrally planned economy to an economic system which is much more market oriented. The transition, on the whole, has not gone well.<sup>32</sup> There have been severe macroeconomic imbalances, very high rates of inflation, negative rates of economic growth and sharply falling rates of investment. Total output has declined, sometimes dramatically, and per capita income has fallen well below the pre-transition average. In addition, the distribution of income has tended to become much more unequal, sometimes approaching levels of inequality found mostly in Latin America. Because of the fall in average incomes combined with an increase in income inequality, the proportion of the population living in poverty has risen more than fourfold.

Agricultural output has declined along with output in other sectors of the economy. In most transition economies, however, agriculture declined less than gross domestic product as a whole and, when overall growth resumed, agriculture tended to expand more rapidly than GDP as a whole. In other words, the share of agriculture in GDP tended to rise. Between 1989 and 1995, for example, the average share of agriculture in GDP in the transition economies rose from

20.7 per cent to 22.8 per cent.<sup>33</sup> Thus agriculture helped to cushion the shock of the sharp decline in output. Even so, according to UNDP estimates, the proportion of the population of the transition economies that was living in poverty rose from 8.1 per cent in the late 1980s to 34.7 per cent in 1993/94.<sup>34</sup>

Although agricultural output declined, both the number of people employed in agriculture and the share of the labour force engaged in agriculture tended to rise. As a result, the productivity of labour in agriculture fell precipitously and with the fall in productivity came a fall in incomes. The movement in opposite directions of output and employment created a powerful mechanism of impoverishment. The countryside experienced, in effect, a process of “agricultural involution”.<sup>35</sup> Production fell, the degree of mechanization declined on most farms, techniques of cultivation became increasingly labour intensive, output per worker diminished, disguised unemployment rose, incomes fell and, as we shall see, most farmers found themselves cultivating very small farms reminiscent of the Latin American minifundia.

In Romania, for instance, between 1989 and 1994, the share of agriculture in GDP rose from 14.2 per cent to 19.6 per cent. At the same time, agriculture’s share of total employment rose from 27.5 per cent to 35 per cent.<sup>36</sup> Meanwhile, agricultural production declined by more than 16 per cent. The implication is that the productivity of agricultural labour must have fallen by more than a third in Romania and this, in turn, must have led to a substantial fall in incomes in the countryside. A similar process occurred in Uzbekistan.<sup>37</sup> Between 1989 and 1994, agricultural output declined only slightly (3.8%), but the labour force grew rapidly and the share of the labour force employed in agriculture also increased substantially (from 39 to 44 per cent of the total labour force). As a result, the productivity of labour in the agricultural sector fell by nearly 24 per cent and rural poverty rose sharply.

Thus land reform in the transition economies occurred in a highly unfavourable macroeconomic and sectoral context. Indeed it is hard to imagine a worse setting for attempting to introduce radical institutional change. Prior to the transition, agriculture was organized into collective farms (kolkhozes) and state farms (sovkhoses) which typically contained hundreds of workers each and covered several thousand hectares. The state specified the composition of output, supplied the necessary inputs and took responsibility for marketing through compulsory delivery schemes. On the state farms, workers were paid a fixed money wage and the state received the residual income whereas on the collective farms, the state received a fixed output quota and the members of the collective received the residual income. In addition, each household was entitled to a small plot of land on which it could grow crops for household consumption or for sale in local markets.

There were exceptions to this general picture, notably in Poland and parts of the former Yugoslavia, where agriculture was not fully socialized and a large private farming sector remained. Most of the other countries differed primarily in terms of the balance between state farms and collective farms. There were three major institutional problems in the former Soviet bloc countries that land reformers had to resolve. First, on the state farms one had to decide whether to convert rural wage workers into workers on large, private corporate farms or to try to transform them either into peasant cultivators on family farms or into members of voluntary, private cooperatives. Second, in the case of collective farms the two obvious possibilities were to transform them into voluntary cooperatives or break them up and create a system of small peasant farms. Third, there was the issue of how to maintain efficiency in those activities where capital is “lumpy” or indivisible and hence economies of scale are important. This includes farm

machinery (large tractors, combine harvesters, trucks needed to transport produce to market), storage facilities, irrigation systems, etc.

In most countries the stated objective of land reform was to create a system of private agriculture under individual farming. Moreover, family farms were to be embedded into an institutional structure based on private marketing of output and private or voluntary cooperative service associations. In practice, however, land reform has proceeded very slowly and most countries have succeeded neither in maintaining a functioning system of collective agriculture nor of creating an efficient system of private agriculture.<sup>38</sup>

Property rights often remain unclear. In some countries the state has retained ownership, namely, in parts of the Russian Federation, in Belarus and in the five states of Central Asia (Uzbekistan, Kazakhstan, Turkmenistan, Kyrgyzstan and Tajikistan). In all the other countries, land can in principle be privatized. Land markets, however, have been slow to develop. An efficient land market does not necessarily require private ownership of land; all that is necessary is that land be “commercialized” so that, say, those who possess a private lease of state owned land can sell (or rent) their lease-rights to others if they wish. In many countries this is not possible: individuals who lease farm land from a collective cannot trade their lease but must cultivate the land themselves. This makes it very difficult to reallocate land and create a functioning land market. This is especially important if the average size of a private holding is small and the holding is fragmented into several parcels.

In those countries where it is intended to redistribute land from the collective to the private sector, several different criteria for redistribution can be found. First, in the three Baltic countries (Latvia, Lithuania and Estonia) and in many countries of eastern and central Europe, the restitution of land to the former owners or their heirs is the top priority. Second, in the



European parts of the former Soviet Union and in Albania, collective land is to be distributed to workers free of charge. Some countries (Hungary and Romania) combine these two approaches. Third, in a few eastern and central European countries, collective land is to be distributed to workers, but they are expected to pay for the land they receive (either a rental payment or a purchase payment).

Actual land redistribution however has occurred very slowly and the distribution of land in most countries has become rather unequal. In four countries of eastern and central Europe (Albania, Latvia, Poland and Slovenia) and in two countries of the former Soviet Union (Armenia and Georgia) decollectivization is complete and almost all the land is held under private, individual tenure. In the rest of the transition economies corporate or collective farms are dominant. The collective farms often have been re-named (as joint-stock companies, farmers associations, reconstructed production cooperatives) and “shares” of collective land have been distributed to members of the former kolkhozes, but the land continues to be collectively cultivated. Land reform, in other words, has been largely formal. The reality is essentially unchanged.

One genuine change however has been the creation of large numbers of minifundia, particularly in the countries of the former Soviet Union but also in parts of eastern and central Europe. These minifundia consist in part of the old household plots on the former kolkhozes, but usually enlarged in size; in part in dacha-gardens which both rural and urban inhabitants use for subsistence cultivation to cushion the impact of economic decline; and in part of land sub-contracted from the collective farm by individual households. These are not family farms in the usual sense because they are too small to provide employment to all members of a normal household or to generate an adequate income. They usually provide only part-time employment

to one member of the household and supplement income earned in other activities. In other words, they are a symptom of agricultural involution.

These minifundia may occupy less than half the land, but they account for a large proportion of total agricultural output. In Uzbekistan, for instance, household plots occupying 15 per cent of the irrigated land produce 76 per cent of the country's meat, 81 per cent of its milk and 66 per cent of its eggs.<sup>39</sup> Most important, because a large proportion of the population is attached to these minifundia, there is a danger they will become a poverty trap and be neglected by policy makers who concentrate resources on the transformed collective sector.

In Bulgaria there are 2,344 "new cooperatives".<sup>40</sup> These are the reorganized collective farms. The average size is 815 ha. and they account for 41 per cent of the land. At the other end of the spectrum are 1.8 million small private farms. They occupy 52 per cent of the land but the average size of farm is only 1.4 ha. Within this small farm sector, however, land concentration has been increasing rapidly. By 1995 private farms larger than 10 ha. accounted for only 0.2 per cent of all private farms, but they occupied 41 per cent of the private land and enjoyed an average size of 252.7 ha.<sup>41</sup> These farmers clearly are commercially viable. The question is what are the prospects for the 99.8 per cent of private farms that are small in size, undercapitalized and incapable of providing full employment to a farming family?

A somewhat different agrarian structure but with similar implications has emerged in Romania.<sup>42</sup> There has been a shift from large collective and state farms to very small and fragmented peasant farms. The state farms have been renamed commercial companies. Their average size is 2,372 ha. and they occupy 13 per cent of the land. The old collective farms have been reorganized and reduced in size. Their average size is 447 ha. and they occupy 15 per cent of the land. Next come the so-called family associations. These are informal cooperatives that

lack formal legal status. They are really loose associations of families that pool their land and cultivate cooperatively. These informal cooperatives occupy 14 per cent of the land and on average are 114 ha. in size.

Private family farms account for as much land (41%) as the other three types of farms combined. Yet the average size of farm is only 2.6 ha. and most farms are fragmented into several parcels. They are not commercially viable; they do not have machinery suitable for small, fragmented farms and yet the “state-owned over-sized machinery is more and more unemployed.”<sup>43</sup> These minifundia have absorbed labour but only at the cost of declining labour productivity and falling income per head. Cultivation has become more labour intensive, average capital-labour ratios have declined and the allocation of resources in agriculture has become less efficient. Indeed the agricultural sector as a whole has become decapitalized.

The policy of restitution of land to former owners has aggravated the problem of inefficiency. A high proportion of the new owners of private family farms, namely 43.1 per cent, are city dwellers who have neither the interest nor the skills needed for profitable farming. Many others are elderly folk who are semi-retired, part-time farmers. In fact only 17.8 percent of the small farmers are peasants of working age. This underlines the need to create a land market so that those wishing to engage in active farming can acquire a viable holding and consolidate parcels into units which permit small scale mechanization. This can be done either by bestowing formal, legal land titles on the new owners or by creating a market in land leases. In addition, in order to enable small farmers to obtain working capital and to provide an incentive to invest in the land and recapitalize agriculture, land redistribution should be complemented by creating a mortgage-based rural credit system.

Finally, consider the case of Uzbekistan.<sup>44</sup> State farms were abolished and converted into collective farms. Between 1990 and 1994, the amount of land occupied by state farms fell from 58.7 per cent of the total to 1 per cent. The main implication of this reform is that the state no longer has a responsibility to pay the majority of rural workers a wage; the members of the newly created collectives are entitled only to the residual income that remains after making compulsory deliveries of output to the state. The collective farms then became the dominant institution in rural areas, their share of the land rising from 34.9 per cent to 75.3 per cent over the same period.

The collective farms were then themselves reformed. A bewildering variety of new types of farms was created, but the two most important changes occurred within the collective farms. First, the size of private plots was increased substantially, up to 0.25 ha. of irrigated land. Second, contract farming with individual households was introduced. In effect, a small, private farm sector was created based on land that continued to belong to the collective. There were very few independent family farms (dekhqon) established. The independent peasant farms were given 10 year leases but no credit or equipment or marketing support. Hence, like the smallholding (minifundia), the peasant farms (dekhqon) were dependent upon the collective farms for their survival.

Uzbekistan thus has a three-tiered rural economy. At the top are the collective farms which control most of the land. Their average size is 1,700 ha. In the middle is a thin layer of peasant farms with an average size of 14-15 ha. And at the bottom is the true private sector, the smallholdings inside the collective farms, each occupying about 0.22 ha. on 1.3 plots of land. These smallholdings, curiously, are not so different from the labour service tenancy arrangements that one used to find on the latifundia in Latin America. It would be an

exaggeration to say that land reform in many transition economies has reinvented the defunct latifundio-minifundio complex that dominated Latin America for centuries, but the parallels are disturbing.

Regardless of the farm structure that is emerging, from Russia<sup>45</sup> to Bulgaria the institutions needed to support agricultural development and reduce rural poverty have not been put in place. Land ownership has not been privatized nor has land been “commercialized” and consequently land markets have not been able to play an allocative function. Partly because of this, rural credit has not been available, particularly to what we have called the minifundia sector. This, in turn, has depressed the level of output (because of inadequate working capital) as well as the rate of growth of output (because of the inability to finance fixed investment). In some cases, e.g. Uzbekistan, the state has deliberately turned the terms of trade against agriculture. In other cases, the state has continued to exercise monopsony power over procurement. In still other cases, e.g. Russia, the state procurement system has collapsed as well as many agricultural processing industries. Marketing has thus become a major difficulty.

One response has been the growth of barter trade. Another has been the growth of self-provisioning from dacha-gardens, household plots within collective farms and family owned or leased smallholding minifundia. Yet another has been the growing practice of payment in kind rather than in cash. We have interpreted these responses as forms of agricultural involution. The shift of production, but not land ownership, to household plots has not been accompanied by the benefits one would anticipate from a redistributive land reform.

The collective farms in their new incarnation have continued to receive priority from the state. Input markets are missing or functioning poorly. Small farmers have poor access to technology; extension services are lacking or are inadequate. Market information is difficult to

obtain or inaccurate. Transport services have broken down and the physical infrastructure has been allowed to deteriorate. The small farms carved out of the collectives are poorly equipped, most of the capital stock being retained by the collective farms or their large farm successors. In some countries small farmers have lost access to social services because education and health facilities have traditionally been part of the collective farm system. Like many reforms in Latin America, but unlike the successful reforms in China and Vietnam which we discuss below in section 3, the land reforms in the transition economies have tended to leave small farmers on their own, to sink or swim as best they can. Unfortunately, large numbers have failed to swim and the consequence is likely to be a continued rise in rural poverty.

### 3. Land Reform Successes

In the period since the Second World War five Asian countries successfully transformed their agrarian structures into a system of individual peasant farming with a highly egalitarian access to land. These countries are Japan, Taiwan, South Korea, China and Vietnam. The redistribution of land in these five countries was perhaps the most comprehensive ever implemented and their experience is unmatched.<sup>46</sup> The initial conditions were similar in all five countries, namely, extreme scarcity of land,<sup>47</sup> a very large agricultural sector, high incidence of tenancy and an unequal distribution of landownership. But the five countries followed two distinct paths which ultimately led to the creation of an egalitarian peasant farming system.

Japan, Taiwan and South Korea followed a policy of “land to the tiller” and distributed land ownership rights among households in a highly egalitarian manner. China and Vietnam also followed radically redistributive policies after expropriating the landlords, but they quickly replaced peasant farming by collective farming. Collectivization was not reversed for several decades, but eventually, in what might be called a second land reform, both China and Vietnam

created a system of individual peasant farming. In what follows we shall discuss the cases of Taiwan and South Korea in some detail, and make only a brief reference to Japan, and then discuss the Chinese case in some detail, while again making only a brief reference to the similar experience in Vietnam.

### Taiwan

Land reform in Taiwan, South Korea and Japan was based on compulsory purchases of land by the government from those who had land in excess of a specified amount. The ceiling was set very low and the price paid by the government was well below a hypothetical free market price. There was thus a substantial element of confiscation. Land was distributed among tenants and landless households at a low price and payments by recipients were financed by granting them credit. Let us consider the case of Taiwan.<sup>48</sup>

In Taiwan in 1950 there were 871,000 ha. of cultivated land and a cropping ratio of 1.65. The amount of land per agricultural worker was 0.62 ha. and land per person in the farm population was 0.22 ha. This implies that land was as scarce as in Bangladesh and nearly as scarce as in South Korea. The tenancy rate before land reform was high: 39 per cent of farm families were pure tenants and another 25 per cent were part tenants. Tenancy contracts were oral and tenure was insecure. Rents were often half the anticipated harvest and were paid in advance, with no subsequent adjustment for harvest failures.

Land reform was introduced between 1949 and 1953 by the newly arrived Guomindang government that had lost the Chinese civil war to the communists and had been forced to retreat to the island. The land reform was complemented by a series of measures that were intended to stimulate agricultural growth while improving the distribution of income. These measures included investment in rural infrastructure, the use of price incentives to encourage a shift in

production away from rice to higher valued crops and government sponsored research in plant breeding and agronomy.

The land reform itself had three components that were implemented sequentially. First, in 1949, came a reduction in rents paid by tenants and the introduction of more favourable tenure contracts. The maximum rent was set at 37.5 per cent of the anticipated annual output of the main crop. When the harvest failed, tenants could apply to farm tenancy committees (which were created in all rural localities) for a reduction in rent below the ceiling. In addition, tenants were no longer required to pay rent in advance. Written contracts were required and were registered and leases were fixed for a minimum of three years. Lastly, if landowners wished to sell their land, the tenants had to be given the first option to purchase it.

These land tenure reforms affected 43 per cent of all farming households or more than two-thirds of tenant and part-tenant households. One consequence of the tenure reforms was to reduce the market price of land sharply and this, as we shall see, later facilitated the redistribution of land ownership. Another consequence was to increase the incentive of tenants to invest in the land. Enforcement of the tenancy reforms was greatly facilitated by the presence of the local tenancy committees.

The second component of the land reform consisted of the sale of public land. The new government came into possession of about 170,000 ha., or roughly 20 per cent of the cultivated area, which had been abandoned by the Japanese at the end of the Second World War. This land had belonged to the Japanese owned Sugar Corporation, which rented some of the land to tenants. The new government began to sell this land in 1948 and sales accelerated after the tenure reforms proved to be successful. The average size of a parcel was one chia, or 0.97 ha. Priority in sales was given to tenants who were already cultivating public land and to other



landless households. The sales price was well below the market price and was fixed at 2.5 times the value of the annual output of the main crop. Payment was in kind and spread over ten years. Thus the annual payment was equivalent to 25 per cent of the harvest and was well below the maximum rent paid by tenants. By 1958 nearly 80 per cent of the public land had been sold.

The third component of the land reform, and the most important, was the compulsory sale of land by private landowners to the government. Landowners were allowed to retain only three chias of land of average quality. Any excess above this was sold to the government at the same price at which the government sold public land, namely, 2.5 times the value of the annual output of the main crop. Landlords were paid partly in land bonds denominated in kind (70%) and partly in shares in four public enterprises that had previously been owned by the Japanese (30%). The terms of sale of land to the reform beneficiaries were the same as in the case of sales of public land.

The effect of the compulsory land sale programme was huge. Between May and December 1953 tenant households acquired 244,000 ha. of land, or approximately 28 per cent of the cultivated area. The combined effect of the three components of the land reform was to transform Taiwanese agriculture and greatly improve the distribution of income and wealth. Poverty declined substantially. Pure tenancy declined to only 17 per cent of farm households and the burden of rent they had to bear was much reduced; 48 per cent of farm households received land and as we have seen, the burden of repayment was of short duration and annual payments were well below even the reduced rental rates. Agricultural growth accelerated: between 1952 and 1964 total production grew five per cent a year and crop production per worker grew three per cent a year.<sup>49</sup> It is hard to imagine that the overall performance could have been better.

## South Korea

Both the initial conditions and the process of land reform in South Korea were similar to Taiwan.<sup>50</sup> Land was even more scarce in South Korea and tenancy more widespread: 49 per cent of farmers were pure tenants and 35 per cent were part tenants. Rents were 50-60 per cent of the crop, leases were oral and insecure and evictions were common. Tenants were responsible for all costs of cultivation and hence the net income of many was less than 25 per cent of the crop even in a good year. Purchases of land by tenants were virtually impossible. Landownership prior to the reforms was highly unequal: the richest 4 per cent of farm households owned 50 per cent of the land and the Japanese owned another 20 per cent of the land. Operational holdings, however, were evenly distributed: only 6.7 per cent of the land was cultivated in holdings larger than 2 hectares. This made it easy to transfer land from non-cultivating owners to their tenants without disturbing the pattern of operational units.

The reform process began with land tenure reforms in 1945. These were introduced by the U.S. military government which occupied South Korea at the end of the Second World War. Rents were fixed at one-third of the value of all crops produced or at the level currently being charged, whichever was lower. Payment of rent was to be in cash, not in kind as previously, and output was to be valued at prices set by the military government or at “reasonable existing market prices”. Tenure contracts were registered at the local land office.

These reforms applied only to land under the control of the U.S. military government, i.e., to land abandoned by the Japanese and Korean “collaborators”. There was no mechanism to enforce tenure reforms on land owned by ordinary Korean landlords. Many of these owners, however, became fearful of land reforms and attempted to coerce their tenants to buy their holdings at prices highly favourable to the landlords. The alternative was eviction. Thus it is

clear that, because there was no effective enforcement mechanism, poor farmers benefited little if at all from the tenancy reforms.

The U.S. military government then prepared a “Homestead Act” under which ownership of land would be transferred to tenants. Implementation of the Act, however, was postponed until a civilian government could be formed. In 1948 the Provisional Government issued an ordinance which provided for the sale of land previously held by the Japanese and for 15 per cent of the land owned by Koreans. Priority beneficiaries were tenants who owned less than 2 ha. of land. The price was set at 3 times the value of average annual production, to be paid in kind over 15 years. In practice, however, the true price was only about 1.8 times the value of yearly output because calculation of the “average” value of production was based on the immediate post-war years when output was unusually depressed.

In 1949 and 1950, under a civilian government, further reforms were introduced. All land in excess of 3 ha. per household and all land of any size that was owned by absentee landlords was to be compulsorily acquired by the government. Compensation to landowners was based on the size of holding; the average price was 1.5 times the average annual output, payable over five years in negotiable land bonds. Land was sold to the reform beneficiaries at the same price, payable over five years in cash or in kind. Tough enforcement provisions were introduced, including confiscation of land from landlords who attempted to evade the law. Land committees were created with representatives from government, tenants and landowners to oversee the process. Finally, landlords were allowed to use their compensation payments to purchase shares in commercial and industrial enterprises acquired by the government from the departing Japanese. These enterprises accounted for about 80 per cent of the industrial sector in the country.

Table 1  
The Distribution of Land in South Korea Before  
And After Land Reform

<u>Tenure category</u>	<u>Land Distribution (%)</u>	
	<u>1945</u>	<u>1954</u>
Full owner	13.8	50.4
Part owner	34.7	39.3
Full tenant	48.8	7.2
Other	2.7	3.1

<u>Size of Operational Holdings (ha.)</u>	<u>Land Distribution (%)</u>	
	<u>1947</u>	<u>1953</u>
Below 0.5	41.2	44.9
0.5 – 1.0	33.3	34.2
1.0 – 2.0	18.8	16.5
2.0 – 3.0	5.3	4.3
Above 3.0	1.4	0.1

Sources: Ownership distribution: Sidney Klein, *op. cit.*; distribution of holdings: Robert Morrow and Kenneth Sherper, "Land Reform in South Korea," U. S. Agency for International Development, AID Spring Review, Washington, D.C., June 1970.

As can be seen in Table 1, the land reform in South Korea resulted in an enormous change in the distribution of landownership, but the distribution of operational holdings was left largely unaffected. Land under full tenancy fell from 48.8 per cent of the total to 7.2 per cent whereas land cultivated by owner-operators increased from 13.8 per cent of the total to 50.4 per cent. By 1954 roughly 90 per cent of South Korea's farmers owned all or part of the land they cultivated. The improvement in the distribution of income and productive assets did not come at the expense of growth and efficiency. In fact between 1952 and 1971, agricultural output increased 3.5 per cent a year. This was a substantially faster rate of growth than for any other Asian country at the time. Moreover, this growth occurred in a sector where output per hectare already was higher than in all other Asian countries except Japan. Income inequality remained

low, with the Gini coefficient fluctuating mildly between 0.30 and 0.31 during the period 1965-71. Finally, rural households saved and invested a rising proportion of their income, showing again that there is no conflict between equality and savings, investment and growth.<sup>51</sup>

### Japan

The land reforms in Japan were broadly similar to those in Taiwan and South Korea. The Japanese reforms, like those in South Korea, were initiated by a U.S. military government, and the land reform advisor to the military authorities, Wolf Ladejinsky, also was influential in the design of the Taiwanese reforms.<sup>52</sup> Thus the similarity of the three reforms is not coincidental.

In Japan, all land owned by households in excess of 4 hectares was compulsorily bought by the government which then sold the land to tenants on extremely easy credit terms. Compensation to landowners was based on the nominal value of land prior to the post-war inflation. That is, inflation was allowed to erode the real value of the purchase price and, in effect, there was a substantial element of confiscation in the redistribution programme. The reform itself was implemented by elected local land commissions consisting of 5 tenants, 3 landowners and 2 owner-cultivators. Thus evasion of the land reform by local landlords was extremely difficult.

As a result of the reforms, the amount of land cultivated by tenants fell sharply from 46 per cent of the total to 10 per cent. Rent payments on the residual tenant-cultivated holdings were reduced to modest levels. By the time the reforms were completed, Japan had created a system of small peasant farming based on owner-cultivators.

### Reasons for success of the redistributive reforms

Several elements contributed to the success of the first type of Asian land reform that was implemented in Taiwan, South Korea and Japan. There are seven points we wish to highlight.

First, land was very scarce in all three countries. This is often used as an excuse to avoid a redistributive land reform since it is argued that “there is nothing to redistribute”. In Taiwan, South Korea and Japan, however, the scarcity of land was an important justification for redistribution because land scarcity inevitably is associated with high rents and a high factor share of land in total rural income. Unequal land ownership results in great inequality and a high incidence of rural poverty. Thus the greater is the scarcity of land, the stronger is the need for an equitable distribution of land. The reformers in the three countries adopted a low ceiling of landownership, the maximum amount of land allowed being about 2.5 times the average amount of land available per household.

Second, in Taiwan and South Korea, redistribution was made easier by the fact that the state owned as much as 20 per cent of the cultivated land, which it received as a windfall gain when the Japanese colonial regime collapsed at the end of the Second World War. Thus a significant amount of land was available for distribution before having to expropriate land from local private landowners. In addition, the problem of financing compensation for expropriated land was eased by the fact that the state acquired industrial enterprises that had been abandoned by the departing Japanese. Shares in these enterprises were given in part payment for expropriated land. Thus two historical accidents associated with the war and the end of colonialism were put to good advantage.

Third, even with the cushion provided by the two windfall gains from historical accidents, land redistribution was not based on market principles. In all three cases there was a substantial element of confiscation of landowners’ property and a substantial element of subsidy to tenant beneficiaries. In South Korea landowners received between 1.5 and 1.8 times the value

of annual output and in Taiwan landowners received 2.5 times the value of the annual output of their land.

Thus, fourth, strong and determined governments were necessary to implement such radical redistributive reforms. In all three cases the government was not dependent on landowners for support. In Taiwan, the Guomindang government had few ties to the island. Furthermore, the land reforms being implemented on mainland China by the communists made it important for the Nationalist Chinese to create support among the Taiwanese peasantry and thereby reduce the threat of agrarian rebellion. In South Korea, the U.S. military government spearheaded the reforms and it was able to do this in part because it had no links to the landed aristocracy. Moreover, the threat from North Korea gave added impetus to the reforms when a civilian government came to power in South Korea in 1948. And of course the land reform in occupied Japan was designed and implemented under the authority of the U.S. military government. Thus special circumstances prevailed, as they always do in such cases, e.g., in the transition economies today.

Fifth, in Taiwan and South Korea, tenure reforms were introduced before land was redistributed. In Taiwan, the tenure reforms apparently were successful; they led to a fall in land rents and in land values which subsequently made it easier to purchase land at low prices. In South Korea, the tenure reforms were not successful; indeed they led to perverse outcomes which harmed tenants. One explanation for these differences is that at the time South Korea did not have strong grassroots rural organizations, although it later developed them, whereas Taiwan created strong rural organizations at the beginning of the process.

Indeed a sixth lesson is that when it came time for the government to purchase and re-sell land at below market prices, there were strong local organizations to implement and monitor the

reforms and to reduce corruption and bribery. Taiwan, as we have seen, had an extensive network of rural institutions; South Korea, a little later, created an equally extensive network of tripartite land committees, with representatives of tenants, owners and government; and Japan had its network of locally elected land commissions. In other words, active participation in the reform process by the intended beneficiaries was an essential ingredient of success.

Finally, pre-reform institutional arrangements in Taiwan, South Korea and Japan were broadly similar yet very different from those found, say, in South Asia. The incidence of agricultural wage labour was low, absentee or non-cultivating ownership was high and operational holdings appear to have been evenly distributed. This was certainly true in the case of South Korea. Land redistribution in essence represented a transfer of land titles from the predominantly non-cultivating landlords to the actual tenant cultivators. Thus redistribution did not displace those who actually tilled the soil. Farming continued to be carried out by the same people and there was no disruption of production. On the contrary, the improved structure of incentives led to a rapid rise in production.

The reasons for the distinctive tenure arrangements are unclear, but the combination of an evenly distributed pattern of rainfall and extreme scarcity of land may have played a role by reducing the importance of animal power in cultivation. This meant that even those households which did not own draught animals could nevertheless be satisfactory tenants, whereas in South Asia a would-be tenant without draught animals is at a severe disadvantage and is likely to find employment only as an agricultural wage worker. The result in East Asia was that there were few agricultural labourers; most poor people were tenants and tenanted land was very evenly distributed. This made it easier for a redistribution of land to reach the very poor.



## China

China and Vietnam followed a different path to a redistributive land reform. In both countries the landlords were overthrown after a revolutionary upheaval. Initially land was redistributed among peasant households and an egalitarian peasant farming system was created, but that system soon was abolished in order to create a system of collectivized agriculture. After decades of struggle to create an efficient system of collective agriculture, the attempt was abandoned and instead land was once again distributed among individual households and a system of egalitarian peasant farming was reinstated.

China's first land reform was completed in 1952, three years after the communists came to power. The distribution of land by household in 1955, following a Maoist classification based on the socio-economic status of households prior to the revolution, is depicted in Table 2. Landlords, according to this classification, are those who in pre-revolution China were largely non-cultivating landowners. Rich farmers are those who cultivated their own land themselves but who also used hired workers. Middle peasants were farmers who owned some land and may have rented some land as well but who did not use hired workers. Poor peasants either rented the land they farmed or hired themselves out as wage workers, or both.

Table 2

The Distribution of Landownership in China, 1955

<u>Socio-economic Status</u>	<u>Per cent of Households</u>	<u>Per cent of Total Area Owned</u>	<u>Average Area Owned (ha.)</u>
Poor Peasants	57.1	46.8	0.81
Middle Peasants	35.8	44.8	1.23
Rich Peasants	3.6	6.4	1.75
Landlords	2.6	2.1	0.80

Source: Azizur Rahman Khan, "The Distribution of Income in Rural China," in ILO, Poverty and Landlessness in Rural Asia, Geneva, 1977, p. 259.

A pre-reform survey from the 1930s shows that landlords at that time accounted for 3.8 per cent of rural households and owned 30 per cent of the land. While a direct comparison of the 1930s survey with the data in Table 2 for 1955 is impossible, it is very clear that most of the land in possession of landlords was confiscated and distributed to poor peasants. Indeed, after the reform, the average landlord household owned slightly less land than the average poor peasant. Rich peasants, in comparison, were treated more gently than landlords and even after the reform they had more than twice as much land on average as poor peasants. The main target of the reform was the class of non-cultivating households that lived off rent.

Radical land confiscation and redistribution did not slow the pace of agricultural growth. On the contrary, during the period 1950-57, total grain production increased 5.2 per cent a year and the production of rice and wheat, the two most important grains, grew even faster.<sup>53</sup> This growth performance in agriculture was not equaled for a comparably long period during the collective era that followed. In addition, the reforms resulted in a highly egalitarian distribution of rural incomes.<sup>54</sup> Finally, post-reform agriculture made a substantial contribution to national capital formation. In fact estimates by Victor Lippit suggest that by 1952 about 35 per cent of the country's gross investment was financed by savings generated as a direct consequence of the land reform measures.<sup>55</sup>

Despite these achievements, a process of agricultural collectivization was begun in 1956 and completed in 1958. Chairman Mao attacked the egalitarian peasant farming system on two grounds. First, it was argued that peasant farming was bound to be inefficient because the small size of farm did not allow mechanization and modernization to occur. This is the economies of scale argument. Second, it was argued that peasant farming systems ultimately would be inequitable because sooner or later the rich peasants would contrive to take over the land of poor

peasants.<sup>56</sup> Actual experience in China, however, contradicted these arguments. Collective agriculture did not result in a more equal distribution of income than under the peasant farming system and collective agriculture failed to produce the promised efficiency gains. Indeed the system proved to be highly inefficient.<sup>57</sup> In the late 1970s China began to dismantle the commune system and by the early 1980s it had restored a system of private peasant agriculture.<sup>58</sup>

This process usually is described as decollectivization, but it could equally well be described as a land reform. Land that had hitherto been owned by the state and leased to the communes was redistributed to individual households. The state retained ownership of the land but individual households had secure rights to use it. Initially the usufruct rights were for a limited period, but they were soon made permanent and heritable. In this way, China recreated an individual peasant farming system after three decades of experimentation with various forms of communal agriculture.

Within each locality, land usually was distributed on an equal per capita basis. Thus any differences among households in the amount of land per person were due to differences in per capita land endowment across localities. These differences could of course be quite substantial when considering China as a whole and its great regional variation.

This second, redistributive land reform was complemented by other measures to promote rural development, e.g., an improvement in agriculture's terms of trade, liberalization of output markets and improved access to inputs. The result was a sharp acceleration in the rate of growth of agricultural output, namely, from 2.8 per cent a year between 1965 and 1975 to 5.7 per cent a year between 1978 and 1988. That is, the agricultural growth rate doubled. Equally important, land reform and accelerated agricultural growth became the driving force behind the remarkable

transition in China from a planned economy to a more market oriented economic system. This transition raised growth rates and living standards throughout the entire country.

The distribution of income in the countryside actually became more equal during the early phases of this second land reform. The Gini coefficient of income distribution in the rural areas declined steadily from 0.32 in 1978 to 0.22 in 1982. Thereafter inequality began to increase and the Gini coefficient rose to 0.34 in 1988 and 0.42 in 1995. Was this rise in income inequality one of the consequences of restoring a peasant farming system? The data in Table 3 will help us answer this question.

The Table includes data on the distribution of income, on land unadjusted for differences in quality, and on “adjusted land”, where each hectare of irrigated land is treated as being equivalent to two hectares of unirrigated land. We report both the Gini coefficients and the “concentration ratios”, where households are ranked by their per capita income. The concentration ratio for a particular variable, say land, is estimated by first obtaining the cumulative distribution of land among the cumulative per cent of the rural population ranked by per capita rural income. The concentration ratio is then calculated from this distribution in the same way that the Gini coefficient is calculated. If the concentration ratio of a variable is lower than the Gini coefficient of income distribution then it can be said that the variable is more equally distributed than income. In other words, its distribution is said to have an equalizing effect on the distribution of income.

Table 3

The Distribution of Land and Income in Rural  
China, 1988 and 1995

	<u>1988</u>	<u>1995</u>
Gini coefficient		
Income	0.34	0.42
Unadjusted land	0.50	0.43
Adjusted land	0.47	0.41
Concentration ratio		
Farm income	n.a.	0.24
Unadjusted land	0.02	0.00
Adjusted land	0.06	0.05

Sources: Azizur Rahman Khan and Carl Riskin, "Income and Inequality in China: Composition, Distribution and Growth of Household Income, 1988 and 1995," China Quarterly, No. 154, June 1998 and Mark Brenner, Re-Examining the Distribution of Wealth in Rural China, Ph.D. thesis, University of California, Riverside, 2000.

The distribution of land in China, whether measured in unadjusted or in irrigation adjusted units, is much more equally distributed than in a typical developing country. Moreover, as the Gini coefficients in the Table indicate, the distribution of land in China appears to have become more equal between 1988 and 1995. Thus there is no evidence that the reintroduction of a peasant farming system has led to greater land concentration. It can also be seen in the second column of the Table that, at least in 1995, the only year for which we have data, income from farming has an equalizing effect on the distribution of rural income as a whole: the concentration ratio for farm income (0.24) is less than the Gini coefficient for rural income (0.42). The equalizing effect of farm income on the overall distribution of income is explained by the very low concentration ratio for land. This implies that people at different levels of per capita income have virtually the same amount of land. Thus the distribution of land is not a source of inequality in the distribution of income. Furthermore, between 1988 and 1995, the concentration

ratios for land actually declined, indicating that the egalitarian distribution of land had an even stronger equalizing effect on the distribution of income in 1995 than it did in 1988. Income inequality in rural China increased substantially over the period because of growing inequality in non-farm sources of rural incomes. The land reform, by providing remarkably equal access to land, helped to contain the forces generating inequality.

### Vietnam

Vietnam followed a path similar to China's.<sup>59</sup> When the communists came to power, land initially was redistributed to the rural poor, but this was soon followed by agricultural collectivization. Prolonged stagnation of production led to a gradual move away from collectivized agriculture and indeed the move to family-based farming began several years before the economy-wide reforms were introduced in 1989 and Vietnam entered into a transition to a more market oriented economy.

In 1981, roughly two years after the start of the second land reform in China, the Vietnamese government authorized individual households to enter into production contracts with the agricultural cooperatives, which however continued formally to exist. It is widely recognized that this system of contract farming greatly improved the structure of incentives and accounts for the rapid increase in agricultural output in the early 1980s. Decollectivization, as in China, consisted of a redistribution of rights of access to land. The resulting distribution of usufruct rights was highly egalitarian within a given locality, although per capita holdings of land differed across regions because of differences in the land endowment per person.

The state continues to own the land. Peasant farmers, however, enjoy the right to use, inherit and transfer the use of land, to rent out the land and to use land as collateral for loans. Thus land has been commercialized rather than fully privatized. Farmers enjoy security of

tenure, for 20 years in the case of crop land and 50 years for forest land. The sale of land is not permitted. There is a land tax, typically a fixed proportion of a benchmark output per hectare. Some restrictions remain on the pattern of land use. The most important is that rice land generally is not permitted to be converted to other crops. So far this restriction has not been significant because the area allocated to rice has increased rapidly since the reforms were introduced. It is possible however that in particular localities the restriction on reallocating rice land has prevented farmers from adopting a more profitable cropping pattern.

The reforms in Vietnam have not yet resulted in unrestricted peasant farming, but the country has moved a long way towards creating a small farm system. Most important, the effect of the reforms on incentives, initiative and effort have been dramatic. As in China again, land reform was accompanied by a number of other improvements. Compulsory deliveries of output to the state at low, fixed prices were abolished. Peasants were allowed to sell their marketable surpluses to private traders. Restrictions on non-farm private enterprises were removed. The result was a rapid rise in rural output and incomes and a sharp fall in poverty in the countryside.

#### The two Asian paths compared

Despite their different trajectories, the final outcome of the Chinese and Vietnamese experiences seems to be remarkably similar to the experiences of Taiwan and South Korea (and even Japan). The two paths ended by creating an egalitarian small peasant farming system.

In Taiwan and South Korea the financial costs of transferring land from large landowners to the poor were kept low in part because land and industrial assets left behind by departing Japanese colonialists fell into the hands of government and in part because government policies deliberately and severely depressed the price of land, and this enabled the government to expropriate land at confiscatory prices. Equally ruthless methods were adopted in Japan. In

China and Vietnam, land reform was implemented after a successful revolution. The financial cost of transferring land was approximately zero because the land was confiscated and the landlords were left with very small holdings.

Radical land reform was politically possible in all five cases because of exceptional circumstances. In Japan and South Korea an occupying army played a decisive role. In Taiwan, too, one could say that land reform was introduced by an occupying army, or at least by an alien political force that had no ties to the landowning elite. In China and Vietnam, those who came to power after a long revolutionary struggle viewed the landowning class as representatives of an obsolete feudal order and their political enemies. In three cases, namely, South Korea, Taiwan and Vietnam, land reform occurred in the aftermath of decolonization, while in China, the first land reform can be seen as an aspect of national rejuvenation after years of national humiliation by the presence of foreign spheres of influence and a painful period of occupation by the Japanese army during the Second World War.

In several cases the relatively equal distribution of tenant holdings made it technically easier to create an egalitarian distribution of landownership; one could simply transfer land titles from the non-cultivating owners to the actual tillers of the land. In all five Asian cases the redistributive land reforms were complemented by other policies which increased the access of small farmers to markets and inputs and improved production incentives. These complementary policies were important for promoting agricultural growth and ensuring that the once-for-all benefits of the redistribution of productive assets were reinforced by improved long run performance.

The big difference between the two paths is that China and Vietnam took a long detour after their initial redistributive land reforms to explore collective agriculture. In the end they



returned to a small peasant farming system, but it is clear in retrospect that on balance the detour was wasteful. Had China and Vietnam persevered with and strengthened their small peasant farming systems it is likely that they would have avoided the long periods of slow growth, the consequent persistence of massive rural poverty and the periodic disasters, in China, of the “great leap forward”, famine and the “cultural revolution”. In retrospect it is evident that Mao was wrong to believe that a small peasant farming system was necessarily inefficient and that it inevitably would result in a concentration of landownership.

It must be recognized that within the overall framework of central planning that China and Vietnam adopted, a successful system of peasant farming was impossible. The same is true of course of a successful system of collective farming. Indeed the irrational set of relative prices, the arbitrary procurement policies and the bureaucratic control over inputs and agricultural services were incompatible with efficient agriculture of any type, but perhaps they were especially incompatible with an egalitarian small peasant farming system. If so, given the choice of central planning, the subsequent choice of collective agriculture may not have been totally irrational. The key point, however, is that a small farm system is more likely to thrive in a decentralized economy where market forces are given considerable room to operate.

#### 4. Land Reform in a Macroeconomic Context

The impact on poverty of a redistributive land reform is strongly affected by the macroeconomic context. The successful land reforms in Taiwan, South Korea, China and Vietnam contributed subsequently to rapid economic growth. Poverty declined over time in part because the land reforms resulted in a more equal distribution of income and wealth and in part because rapid growth raised the average level of income. In contrast, the land reforms in the former Soviet Union and in eastern and central Europe occurred in an environment of negative

growth and falling average incomes and this made success much more difficult; indeed it resulted in a process of agricultural involution. Similarly, the land reforms in Bolivia and Nicaragua were disappointing in part because they occurred in an unfavourable economic context.

The direction of causality runs both ways. There is evidence that a more equal distribution of land leads subsequently to faster growth,<sup>60</sup> for reasons discussed in section 1, and rapid growth increases the likelihood that a redistributive land reform will help to reduce rural and even urban poverty. The pattern of growth, however, is as important as the pace of growth. If growth is income disequalizing, e.g. because the incentive structure favours a high degree of mechanization or because growth is based on natural resource rents from the extraction of minerals and petroleum or because economic policy strongly favours the industrial sector, then the income and wealth equalizing effects of a land reform will be partly or (eventually) wholly offset by the disequalizing effects of the pattern of growth. This is what happened in China in the second half of the 1980s when the development strategy shifted from reliance on the domestic market to heavy reliance on external markets.<sup>61</sup> On the other hand, if growth is employment intensive and hence income equalizing, land reform and growth will reinforce one another and poverty will decline rapidly. This is what happened in China between 1978 and 1985.

Land reforms are unlikely to succeed if development policy has a pronounced urban bias. It is neither necessary nor desirable that policy should discriminate positively in favour of agriculture, but strong discrimination against agriculture virtually guarantees that redistributive land reforms will be disappointing. This is what happened to many land reforms in Latin America, where import substituting industrialization policies discriminated against agriculture

both before and after land redistribution measures were introduced. Something similar occurred in Ethiopia. Land reform is not a substitute for policies to promote agricultural development; on the contrary, agricultural development and land reform should be seen as complementary.

The removal of urban bias is therefore a necessary condition for a successful redistributive land reform. One implication of this is that “distortions” in the structure of incentives should be corrected so that resources are not artificially channeled away from agriculture. Relative product and input prices should reflect their opportunity costs – the terms of trade should not be deliberately turned against agriculture – and equally important, agriculture should have equal access to scarce resources such as foreign exchange and finance capital. The structure of incentives encompasses more than relative prices.

Another implication is that the allocation of public investment should not be biased against the agricultural sector. Public investment (taking into account complementarities and externalities) should be allocated to projects with the highest social rates of return. Often this has not occurred: governments have favoured large scale industry and the major metropolitan areas (particularly the capital), and have neglected socially profitable investments in the rural areas in transport, power, communications, irrigation. The same is true of human capital formation. The countryside has been relatively neglected when it comes to public expenditure on education, health, family planning services, agricultural extension, research, and so on. Yet adequate investment in human and physical capital are necessary to support a land reform and ensure agricultural growth.

The rural poor, however, confront more than urban bias; they also confront landlord bias. That is, within the agricultural sector, government policy often favours large “progressive” farmers and large “capitalist” or “commercial” farms, to the neglect of peasant cultivators and

small family farms. In many countries where there has been some redistribution of land, the peasantry in effect has been abandoned and resources have been concentrated on the remaining large farms. This occurred, for instance, in Mexico after its land reform (where state investment in irrigation and research on new varieties of wheat favoured large farmers in the north) and more recently in many of the ex-socialist transition economies (where the re-named collective farms continue to dominate the agricultural sector). It is hardly surprising that in such circumstances small farms fail to flourish or that rural poverty fails to diminish. Land reform is doomed to failure unless it is accompanied by the removal of landlord bias in government policy, and in its place pro-poor policies are implemented.

This has numerous implications for a broad range of policies, e.g., human capital formation (with priority for primary education and primary health care), extension (target small farmers), agricultural research (concentrate on crops produced or consumed by the poor), credit (develop programmes which reach small farmers, the landless and the poor in general), irrigation (develop mechanisms to ensure that water is allocated equitably) and associations of the poor (create an environment which encourages the poor to form organizations to represent and defend their interests). Urban bias and landlord bias can be understood as parts of a wider system of labour control. Land concentration, too, is part of a system of labour control.

The thrust of a programme to reduce rural poverty should be to undermine the system of labour control, by reducing the concentration in the ownership of land, by eliminating landlord bias, by correcting urban bias and by weakening the social, environmental and institutional controls that obstruct the material and human development of the poor. A successful redistributive land reform is thus likely to be only one part of a comprehensive effort to reduce both income and human poverty. Land reform in this broader context is extraordinarily difficult;

it is inevitably confrontational and the outcome of struggle; and it is a rare event, occurring only when the balance of political forces is propitious. Land reform is not a technocratic exercise; it is a transforming political event.

Major land reforms, whether redistributive or of some other type, have occurred under unusual circumstances, namely, as part of a social revolution (Mexico, Bolivia, Nicaragua, Cuba, Russia in 1917, China in 1949), as the outcome of war (Japan, Taiwan, South Korea, eastern and central Europe after 1945), as part of the process of liberation from a colonial power (Kenya, Algeria, eastern and central Europe after 1989) or as part of a process of systemic change (Ethiopia, Vietnam, China in 1978, the former Soviet Union in 1991). Land reforms of more limited scope have occurred in many other countries, and the benefits from limited land reforms should not be dismissed lightly, but by definition they have not been transformative and their effects on the incidence of rural poverty have been modest.

Some analysts have expressed scepticism about the wisdom of redistributive land reforms and the value of creating a small farm system. Some sceptics favour the status quo in agriculture, whatever that may be, on grounds that land reform is a cause rather than a consequence of violent upheaval and that it usually results in a severe contraction of output. While there is truth to the assertion that land reform often is associated with violent change (revolution, war, decolonization), the two do not always go together, as the recent experience in China indicates. Moreover, there are many cases where land reform did not lead to a fall in output but rather to a substantial increase, e.g., (Taiwan, South Korea, China in 1949-52 and after 1978).

Other sceptics of redistributive land reforms favour instead the creation of large farms, either collective farms or large private farms, on grounds that small farms make it difficult to

exploit economies of scale. Again, there is some truth to this, but the argument should not be overstated. In countries where labour is abundant, economies of scale in cultivation are unlikely to be important and small farms consequently are likely to be efficient. At some point however, as development proceeds, the size of the agricultural labour force will begin to decline absolutely. Farm mechanization will become increasingly necessary and economies of scale may become important. Continued efficiency in resource use will then require consolidation of farms and an increase in average farm size. This should not pose a problem provided land can be freely bought and sold or, alternatively, there is an active market in land leases. That is, land must either be privatized or commercialized.

Where farms are too small to justify the purchase of machinery or where credit markets function poorly and farmers are unable to borrow capital in order to purchase equipment, rental markets for machines may emerge and, if so, they will enable farmers to overcome problems of economies of scale in cultivation. Indeed in many developing countries it is possible to rent not only mechanical equipment but also bullocks and other draught animals for plowing. Economies of scale are likely to be a bigger issue in other rural activities such as agricultural processing, marketing, purchasing of inputs such as fertilizer and investment in irrigation and drainage systems. If a country adopts a small farm strategy and implements a redistributive land reform, solutions to the problem of economies of scale in off-farm activities will have to be found. One possibility is to look for market solutions, i.e., to rely on private enterprise to supply the service in response to profit opportunities. Another possibility is to organize the small farmers and help them create and manage an irrigation association or a multi-purpose cooperative. A third possibility would be for the local or provincial government to invest in and manage a facility, e.g., a canal irrigation project. In other words, there are several obvious solutions and there is no

reason why the existence of economies of scale in some rural activities should be an insuperable obstacle to the creation of a small peasant farming system.

Even so, a third group of sceptics opposes redistributive land reforms because of what they believe are unfavourable behavioural characteristics of small farmers. The hoariest argument is that small farmers tend to be tradition-bound, subsistence-minded and hence unresponsive to economic opportunities. According to this view, small farmers respond neither to price incentives nor to new profitable technologies. Research, however, has shown this view to be wrong.<sup>62</sup> Peasant farmers do respond to changes in relative prices. It is true, as we have argued above, that small farmers typically face a different structure of incentives compared to large landowners, and in particular they face a different set of relative factor prices, but when the prices they face change, small farmers respond as quickly as anyone else. Similarly, there is abundant evidence that small farmers eagerly grasp opportunities to raise their incomes by adopting new technologies, when these become available and are profitable to them. The problem is not the motivation of small farmers but the inability of small farmers to innovate, e.g., because of lack of access to finance capital.

A more sophisticated argument is that small farmers behave differently from large because they are exceptionally risk averse.<sup>63</sup> Small farmers cannot afford to produce for the market because if the market price of their crop were to fall, the family could starve. Hence peasant farmers concentrate on subsistence crops and self-provisioning. Similarly, it is claimed that small farmers could well reject a new technology that promises higher average output and income if that technology also has a higher variance of output associated with it. Risk averse small farmers would prefer a traditional technology with low average output and low variance to an improved technology with higher average output but also higher variance. Those living in

poverty and on the margin of subsistence, it is argued, cannot afford to take a chance because the consequences of a crop failure could be catastrophic.

In an ideal market economy, risk averse farmers, whether small or large, could reduce the risks they face by purchasing crop insurance. In the real world, of course, this seldom is possible. None the less, mechanisms do exist which enable small farmers to spread risks. Sharecropping contracts is one such mechanism. A diversified cropping pattern is another. The division of a holding into several parcels is yet another, since land fragmentation allows a peasant to have bits of land which may differ in terms of micro-climate, soil quality, altitude, availability of water, etc. Fragmentation, in other words, enables a peasant household to have a diversified stream of income from, say, annual crops, tree crops and livestock. Networks of relatives, friends and compadres – so common in developing countries – provide mutual help in difficult times and thereby also spread risks. Finally, informal credit markets, too, enable small farmers to spread risk, albeit at a high price, since if things go badly a peasant borrower can default on his loan from the moneylender. Given the variety of ways in which small farmers can cope with risk, it is very unlikely that risk aversion makes small farmers less entrepreneurial and small farm systems less dynamic.

Finally, it is frequently claimed that because of the vicious circle of poverty, small farmers save a much lower proportion of their income than large landowners. This implies that in the long run a redistributive land reform and the creation of a small peasant farming system will result in a lower rate of investment in agriculture, a slower rate of growth and hence a higher incidence of poverty. The evidence, however, does not support this pessimistic view. Savings in the rural areas of low income countries depend primarily on the availability of profitable investment opportunities rather than on the level of income of the household.<sup>64</sup> That is, in the



absence of well functioning capital markets, people save in order to invest and the decision to save becomes indistinguishable from the decision to invest.

Households can finance investment either by setting aside part of their income, i.e., consuming less or saving in the conventional sense, or by working longer and harder, i.e., by reducing leisure time. Low income households are unlikely to consume less or work more unless they have a profitable investment opportunity within their grasp. Those who do not possess productive assets, such as a landless agricultural wage worker, have few investment opportunities and hence have a low propensity to save. But if a wage worker is transformed into a small peasant farmer by a redistributive land reform, opportunities to invest in the land will arise and the propensity to save will increase. Investment and growth will accelerate, partly because households reduce their consumption temporarily (e.g., to buy a plow) and partly because households increase the number of days of work (e.g., to dig a drainage ditch or level a field). As a result, rural poverty declines.

Similarly, a redistribution of land among already existing landowners, or from landowners to their tenants, should not have a significant effect on the rate of investment. Certainly there is no reason to suppose that levels of investment would decline. Indeed the redistributive reforms in Taiwan and China appear to have led to an increase in household investment in a wide range of activities, including rural housing and non-farm rural activities.

In conclusion, the arguments against an agricultural system based on small farms are unpersuasive. Family farms use resources efficiently and can be just as dynamic as large farms. In addition, the distributions of income and wealth are much more equal, and equitable, under a small peasant farming system than under a system based on concentrated landownership. The advantages of a small farm system become most apparent when macroeconomic policies

promote employment intensive growth, when sectoral policies promote human development and avoid urban bias, and when agricultural policies avoid landlord bias and weaken the system of labour control. Under these circumstances, a system of small family farms would contribute massively to the elimination of income poverty and human poverty in rural areas, and it would contribute significantly to a reduction in urban poverty as well.

If the arguments in principle in favour of a small farm system are so strong, and if these arguments are strongly supported by the historical experience of Taiwan, South Korea, Japan, China and Vietnam, why have our Asian success stories not been replicated in other parts of the world? Part of the answer has to do with the fact that land confiscation was a prominent feature of all five success stories. In countries such as Brazil, India, Pakistan and the Philippines, the political power of large landowners, in the absence of a social revolution, is large enough to prevent a confiscatory redistribution of assets. In addition, international organizations (the UN, World Bank and the IMF) and the great powers acting independently would align themselves with the landlords and oppose confiscatory land reforms. This was not always true. In Japan and South Korea the U.S. military initiated the land reform process and in Taiwan it strongly supported it. Today, however, a country implementing a land reform with a similar element of confiscation would encounter international hostility and a possible suspension of foreign aid and lending from development agencies.<sup>65</sup>

If confiscation is ruled out for domestic and international political reasons, the alternative is full compensation. That is, land redistribution can occur only if it is possible to pay large landowners the full market price for their land. The likely implication is that the beneficiaries of the reform – tenants and the landless – would be required to pay the full or nearly full market price for the land they receive and hence they would receive little or no subsidy. The reason for

this is that unless the land redistribution programme is very small, the financial cost to the government of a “market friendly”, full compensation land reform is bound to be onerous and the government is likely to feel compelled to shift as much of the financial burden as possible on to the beneficiaries.

Consider an illustrative example from Bangladesh. Land is very scarce and ownership is concentrated. The top 10 per cent of rural households owns 47.2 per cent of all the land while the poorest 50 per cent of rural households owns only 5.7 per cent of the land. Assume the government decides to acquire one quarter of all the land from the richest 10 per cent in order to redistribute it to the poorest 50 per cent of the population. The resulting overall distribution still would not be as equal as in our five success stories.

This redistribution would require the government to purchase just over 2.1 million hectares of land. At an average market price of \$12,000 per ha., the total cost of land purchase alone would be \$25.5 billion. Each hectare of land produces a yearly net income of about \$700. Assume next that the beneficiaries of the redistribution are required to pay a third of this over a 15 year period in order to acquire legal title to the land. Given that rents typically are about 50 per cent of net income, these payment terms imply a modest subsidy to asset-poor households. The beneficiaries in our five success cases received a much higher subsidy and hence the redistributive element was significantly larger. Indeed less generous terms than the ones assumed would result in very little redistribution.

Even so, the cost to the government of such a programme would be high. The subsidy per hectare would be \$8,500 and the total net cost to the government would be just over \$18 billion, excluding administrative and interest costs. This cost is equivalent to 40 per cent of gross domestic product or 4.5 times annual government revenue. It is inconceivable in present

circumstances that domestic and international resources of such a magnitude could be mobilized. A market friendly land reform of East Asian magnitude is a non-starter.

The financial problem is due primarily to the high ratio of the price of land to the annual value of the net output of land. In our example from Bangladesh, the ratio is 17 whereas in South Korea and Taiwan it was between 1.5 and 2.5 at the time of the land reform. In addition to a low price of land, those two countries also had public lands, equivalent to about 20 per cent of the total, that could be redistributed to poor tenants. This public land (and other assets that could be used to finance the land reforms) was left behind by departing Japanese colonialists and nothing comparable exists in most other developing countries. There are state enterprises that could be privatized to finance land reform and some countries do have state owned land that could be redistributed, but the volume of resources is likely to be small relative to needs. The inescapable conclusion is that a major redistributive land reform is impossible if land transfers are based on free market prices; either government must act to depress land prices or there must be outright confiscation of some land. This is a painful nettle to grasp, but it is unavoidable if there is to be any hope of success.

## Appendix

### How Should Land Concentration Be Measured?

Data on the distribution of land are scarce and unreliable. Moreover, measures of inequality in the distribution of land differ in so many ways that careful attention should be paid to their comparability over time for a single country and to their comparability across countries. In addition, as we argue in the main text, land markets often are highly fragmented and the degree of land concentration can vary substantially from one locality to another, and hence an overall measure of inequality for an entire country may obscure more than it illuminates. Indices of inequality are consequently only of limited use to policy makers interested in reducing poverty and creating a more equitable society.

In Table 1.A below we present Gini coefficients of land inequality for selected developing countries divided into six major regions. The table is merely illustrative and is intended to give the reader some sense of how the degree of inequality in the distribution of land holdings varies, say, from Latin America (where inequality is perhaps the highest in the world) to east Asia (where inequality is perhaps the lowest).

Table 1.A

Land Concentration in Selected Developing Countries

	<u>Date</u>	<u>Gini coefficient<sup>a</sup></u>
<u>Sub-Saharan Africa</u>		
1. Kenya	1981-90	0.77
2. Nigeria <sup>b</sup>	1973	0.37
3. Botswana	1991-2000	0.49
<u>Latin America</u>		
4. Colombia	1981-90	0.77
5. Brazil	1971-80	0.85
6. Mexico	1961-70	0.75
<u>South Asia</u>		
7. Bangladesh <sup>c</sup>	1995	0.65
8. India	1981-90	0.59
9. Pakistan	1981-90	0.58
<u>Southeast Asia</u>		
10. Indonesia	1971-80	0.56
11. Malaysia	1971-80	0.58
12. Philippines	1980	0.61
<u>Middle East &amp; N. Africa</u>		
13. Morocco <sup>b</sup>	1981	0.47
14. Syria <sup>b</sup>	1979	0.59
15. Tunisia <sup>b</sup>	1980	0.58
<u>East Asia</u>		
16. China <sup>d</sup>	1995	0.43
17. South Korea	1971-80	0.30
18. Taiwan	1961-70	0.47

<sup>a</sup> All reported Gini coefficients, unless otherwise noted, are based on distribution of land holdings and are taken from IFAD, Rural Poverty Report 2001, Oxford: Oxford University Press, 2001, Table 3.1, pp. 117-9.

<sup>b</sup> Gini coefficients are taken from Idriss Jazairy, Mohiuddin Alamgir and Theresa Panuccio, The State of Rural Poverty. New York: International Fund for Agricultural Development, 1992.

<sup>c</sup> The Gini coefficient is for the distribution of land among all rural households.

<sup>d</sup> The Gini coefficient for China is calculated using the entire rural population and not just those who hold land. It is taken from Mark Brenner, Re-Examining the Distribution of Wealth in Rural China, Ph.D. thesis, UCR 2000, Table 3.1, p. 80. The Gini coefficient for “irrigation adjusted” land is 0.41 and for land value is 0.39.

Let us now consider some of the important sources of difference in published indices of inequality in the distribution of land. First, some indicators (a minority) measure inequality in the distribution of landownership whereas others measure the distribution of land holdings, i.e., the degree of equality in access to land through renting (either fixed rent or sharecropping arrangements). Each has a distinct meaning. Ownership permits the appropriation as income of the productivity of land (including “rent” arising from monopsony power in the rural labour market) and hence gives rise to the factor share of land in total income. Access to land through renting does not permit the renter to appropriate part of the factor share of land as income, but it does enable the renter to apply labour and managerial skills to earn an income. Without access to land, the net income of the landless would be lower than otherwise because of various market imperfections in rural areas.

A difference between the two distributions of landownership and holdings can have very different consequences depending on resource endowments and agrarian institutions. For example, the disequalizing effect on income of an unequal distribution of landownership may be mitigated by a less unequal distribution of access to land, depending on tenancy arrangements and rental conditions. If land is scarce and tenancy arrangements are unregulated, the factor share of land will be high and the distribution of landownership will be a major determinant of the distribution of agricultural income. If, on the other hand, land is relatively abundant or tenancy arrangements are effectively regulated, the factor share of land in total income may be low and the distribution of access to land, i.e. holdings, may be an important determinant of the distribution of agricultural income. Even here, however, systems of labour control may come into play. Hence, while it is useful to estimate the distribution of both ownership and operational

access, one must be careful to avoid confusing one for the other or drawing incorrect inferences from simple indicators.

Second, only rarely do indicators of land concentration take into account differences in the quality of land. That is, land is treated as if it were homogeneous. Yet in principle it would be desirable to convert land area into units of comparable productivity. It is of course impossible to ensure a strict comparability of quality, but some adjustment for differences in the “original and indestructible” quality of the soil is essential. Ten hectares of arid land represents a smaller resource endowment than five hectares of land well watered by an even distribution of rainfall. Available indicators of land concentration seldom make any adjustment for variations in quality. At best one occasionally encounters a conversion of land area into some crude “irrigated equivalent” units.

Better still would be estimates of land value, rather than land area, whether or not adjusted for irrigation. It is, after all, the distribution of land as an income generating asset that lies behind the incidence of rural poverty and the distribution of rural incomes. The monetary value of land reflects not only the physical productivity of the land but also economic phenomena such as proximity to markets and the capitalized value of monopsony power in the labour market.

Third, indicators of land concentration differ because some are based on individuals whereas others centre on households. Ownership of land typically is an attribute of a family or household. Yet it makes little sense to rank families according to the amount of land owned or held irrespective of the size of household. The best procedure is to rank individuals according to per capita ownership (or holding) of land.



An associated issue is whether all households should be counted or only those who own (or hold) land. We believe that when calculating the distribution of landownership, all households should be counted (including the landless) because it is ownership that gives one the right to appropriate the factor share attributable to land. Most of the available indicators, however, only include those who own some land (however little that might be) and exclude altogether those who own no land. This is highly misleading. Consider a situation in which all the land is owned by households representing the richest 10 per cent of the population, each landowning household owning an equal amount per capita. The remaining 90 per cent of the population is landless and survives on income from labour alone. The Gini coefficient of landownership would be zero if only landowners were considered whereas it would be 0.9 if the entire rural population, including those who own no land, were taken into account. Particularly if one is interested in poverty, the poor should count and the Gini coefficient that includes the landless is the better indicator of inequality of landownership and of the distribution of entitlements to the share of total income attributable to land.

When it comes to measuring the distribution of operational holdings, the same principle does not apply. The reason for this is that, as argued in the text, the return to workers is much the same whether one is a wage labourer, a sharecropper or a fixed rent tenant. The lack of landownership deprives each of them of a share of the factor income attributable to land, but there is no additional burden on those landless households that obtain an income as wage workers as opposed to tenants.

Finally, it should be recognized that land is not an equally important determinant of rural incomes in all agrarian societies. Non-farm rural activities are much more significant in some countries than in others and where this is the case, the distribution of the ownership of land is

relatively less important in determining the distribution of rural incomes. Similarly, in agricultural systems in which non-land assets such as irrigation equipment, machinery and working capital are important, ownership of land may be less central, provided of course that ownership of land and other productive assets are not highly correlated. Whatever the case may be, it is useful to know how important a determinant of total income is income from land. An unequal distribution of landownership clearly is of less concern where land is not a major determinant of income.

In order to have a reasonably complete picture of the consequences of land concentration on the distribution of income, one really needs a set of indicators such as the following:

- (i) The Gini coefficient of landownership. This should be measured after converting land into monetary units or adjusting for differences in land quality. The ranking should be of individuals according to per capita ownership of land and all rural households should be included.
- (ii) The distribution of operational holdings. This should include only agricultural households. Because of limitations of data and the difficulty of distinguishing between agricultural and non-agricultural households, it is difficult to calculate this indicator properly. An alternative measure is the ownership-ranked “concentration ratio” of land holdings, in which the ranking of individuals is the same as in the case of the Gini coefficient of landownership.
- (iii) The income-ranked concentration ratio of landownership and land holdings. In this case individuals are ranked according to per capita income. The concentration ratios are then estimated from these distributions.

Taken together, this set of indicators makes it easier to interpret the implications of land concentration for poverty and income inequality. For example, a high Gini coefficient of landownership is a cause for concern, but if the income-ranked concentration ratio of landownership happens to be low, this implies that the source of income inequality is not primarily inequality in the ownership of land. Public policy intended to reduce poverty should focus on the other sources of inequality and give somewhat lower priority to reducing land inequality. Similarly, a high Gini coefficient of landownership could be less worrying if the ownership-ranked concentration ratio of land holdings were low and (because of tight tenancy regulations or other reasons) the factor share of land in total income were low.

Consider the specific case of Bangladesh. Six different indicators of land concentration and income inequality are presented in Table 2.A below for two different years. The Gini coefficient of landownership in the Table is based on the method of calculation we recommend except that land is measured in physical units unadjusted for quality. In the case of Bangladesh this may not matter too much since there is not much evidence that the quality of land varies systematically with the size distribution of farms.

Notice, first, that income from farming (row 2) is more unequally distributed than total rural income (row 1) and hence farm income exerts a disequalizing influence on the distribution of income as a whole. However the disequalizing influence diminished between 1991 and 1995, because of a fall in the concentration ratio of farm income relative to the Gini coefficient of rural income. This occurred despite a slight rise in the concentration ratio itself.

Table 2.A

Land and Income Concentration in Rural Bangladesh

	<u>1991</u>	<u>1995</u>
1. Gini coefficient of rural income	0.28	0.31
2. Concentration ratio of farm income	0.33	0.34
3. Gini coefficient of landownership	0.65	0.65
4. Concentration ratio of landownership (individuals ranked by per capita landownership)	0.53	0.47
5. Concentration ratio of landownership (individuals ranked by per capita income)	0.36	0.37
6. Concentration ratio of operational land holdings (individuals ranked by per capita income)	0.32	0.27

Note, next, that land concentration is high (row 3) and that inequality in the distribution of landownership is greater than inequality in the distribution of rural income. The concentration of landownership is an important source of rural inequality. The evidence for this is that the income-ranked concentration ratios of landownership (row 5) are higher than both the Gini coefficient of total rural income (row 1) and the income-ranked concentration ratios of farm income (row 2). However, the concentration of landownership became somewhat less disequalizing between 1991 and 1995. This is demonstrated by the fact that, although the income-ranked concentration ratio of landownership actually increased slightly between the two years, there was a fall in the concentration ratio of landownership relative to the Gini coefficient of rural income.

Consider, thirdly, the distribution of operational holdings. The renting out of land by the larger owners appears to have offset in part the disequalizing effect of a high degree of land concentration on the distribution of income. The evidence for this is that the ownership-ranked concentration ratio for land holdings (row 4) is smaller than the Gini coefficient of landownership (row 3). Moreover, the income-ranked concentration ratio of land holdings (row 6) is considerably lower than the income-ranked concentration ratio of landownership (row 5), especially in 1995. Even more remarkable, the income-ranked concentration ratio of land holdings (row 6) is lower than the concentration ratio of farm income (row 2). This indicates that the distribution of land holdings has an equalizing effect on the distribution of farm income while the distribution of landownership has a disequalizing effect.

Between 1991 and 1995 land holding switched from having a disequalizing effect on the distribution of total income to having an equalizing effect. As we saw, inequality in the distribution of farm income contributed proportionately less to overall income inequality in 1995 than it did in 1991. This probably was due in part to the reduction in inequality in the distribution of land holdings between the two years, as indicated by the rather sharp decline in the concentration ratio (row 6). Between the two years the Gini coefficient of landownership remained exactly the same.

Finally, land concentration evidently is a major source of income inequality and poverty in rural Bangladesh. But it is not the only source. This is clear from the fact that the income-ranked concentration ratio of landownership (row 5) is lower than the Gini coefficient of landownership (row 3). This implies that there are major sources of rural income inequality apart from the inequality of landownership. Of course these other major sources of inequality may be associated with land inequality, e.g. as part of a system of labour control, and perhaps the

various sources are inextricably linked together. This would arise, for example, if landownership gives large landowners opportunities to obtain additional income by acting as moneylenders to their tenants or by providing transport and grain marketing services or by using their land as collateral to obtain loans to establish non-farm industries, etc. Clearly in such cases a reduction in land concentration would help to reduce poverty and income inequality, but land redistribution should ideally be only part of a more comprehensive strategy of rural development which includes several other policies to reduce rural inequality.<sup>66</sup>

## Notes

- <sup>1</sup> For a carefully conceived “market friendly” land reform for the Philippines, see Yujiro Hayami, Ma. Agnes R. Quisumbing and Lourdes S. Adriano, Toward an Alternative Land Reform Paradigm, Manila: Ateneo de Manila University Press, 1990. The World Bank is now promoting “negotiated” land reform, under which the beneficiaries are given a grant by government to cover, say, 70% of the negotiated land purchase price, as in Colombia. See Klaus Deininger, “Making Negotiated Land Reform Work: Initial Experience from Colombia, Brazil and South Africa”, World Development, Vol. 27, No. 4, April 1999. For a sceptical view of market friendly land reforms see M. Riad El-Ghonemy, The Political Economy of Market-Based Land Reform, UNRISD Discussion Paper, DP104, Geneva, June 1999, and Jeffrey M. Riedinger, Wan-Ying Yang and Karen Brook, “Market-Based Land Reform: An Imperfect Solution,” paper presented at an International Conference on Agrarian Reform and Rural Development, Tagaytay City, Philippines, 5-8 December 2000.
- <sup>2</sup> See Keith Griffin, ‘Communal Land Tenure Systems and Their Role in Rural Development,’ in Sanjaya Lall and Frances Stewart, eds., Theory and Reality in Development, London: Macmillan, 1986.
- <sup>3</sup> Adam Smith, The Wealth of Nations, Modern Library edition, New York: Random House, 1937, p. 367.
- <sup>4</sup> Alfred Marshall, Principles of Economics, 8<sup>th</sup> ed., London: Macmillan, 1948, p. 644.
- <sup>5</sup> It is of course possible that it is the sharecropper rather than the landlord who wishes to reduce risk. Rick aversion by the sharecropper combined with the monitoring and supervision advantages of sharecropping to the landowner imply that sharecropping would be preferred to a fixed rent contract by both parties.
- <sup>6</sup> S.N.S. Cheung, The Theory of Share Tenancy, Chicago: University of Chicago Press, 1969.
- <sup>7</sup> For a description of this system in Algeria and Morocco, see Keith Griffin, Land Concentration and Rural Poverty, London: Macmillan, 1976, pp. 32-3 and 87-9.
- <sup>8</sup> Michael Lipton, Why Poor People Stay Poor: Urban Bias in World Development, London: Temple Smith, 1977.
- <sup>9</sup> Keith Griffin, The Political Economy of Agrarian Change, London: Macmillan, 1974.
- <sup>10</sup> For an analysis of both successful and unsuccessful attempts by peasants to organize for collective action, and of the types of events which induce peasants to become organized see Gerrit Huizer, Peasant Mobilization for Land Reform: Historical Case Studies and Theoretical Considerations, UNRISD Discussion Paper, DP103, Geneva, June 1999.
- <sup>11</sup> Large landowners benefit from land concentration in the form of lower wages but implicitly lose from relatively lower land productivity. The economy as a whole is moved away from a fictitious first best allocation of resources, but the distributional gains to the large landowner in the actual second best dominate the efficiency loss to him so that he experiences an overall net gain.
- <sup>12</sup> For an early influential study, see Albert Berry and W. R. Cline, Agrarian Structure and Productivity in Developing Countries, Baltimore: Johns Hopkins University Press, 1979. Also see G. A. Cornia, “Farm Size, Land Yields and the Agricultural Production Function: An Analysis for Fifteen Developing Countries,” World Development, Vol. 13, No. 4, April 1985.
- <sup>13</sup> In other words, in the conditions that typically prevail in low income countries, output per unit of land is a better proxy for total factor productivity than output per unit of labour.
- <sup>14</sup> Keith Griffin, Alternative Strategies for Economic Development, London: Macmillan, 2<sup>nd</sup> ed., 1999, Table 7.2, p. 176.

- <sup>15</sup> In a multi-period analysis, production and distribution outcomes will also be affected by “shocks” (whether positive or negative) and by the ways tenure contracts distribute risks arising from these shocks. However, seen from an aggregate perspective, the “risk premium” attached to a contract, whoever gets it, is likely to be quantitatively insignificant given the other forces affecting the distribution of income.
- <sup>16</sup> Dunstan Spencer and Rudolph Polson, “Agricultural Growth and Sustainability: Conditions for Their Compatibility in the Humid and Subhumid Tropics of Africa,” in Stephen Vosti and Thomas Reardon, eds., Sustainability, Growth and Poverty Alleviation: A Policy and Agroecological Perspective, Baltimore: John Hopkins University Press for IFPRI, 1997.
- <sup>17</sup> Jean Ensminger, “Changing Property Rights: Reconciling Formal and Informal Rights to Land in Africa,” in John Drobak and John Nye, eds., The Frontiers of New Institutional Economics, San Diego, Harbourt Press, 1997.
- <sup>18</sup> P. Matlon, “Land Tenure Security and Agricultural Performance in Africa: Overview of Research Methodology,” in J. Bruce and S. Migot-Adholla, eds., Searching for Land Tenure Security in Africa, Dubuque, Iowa: Kendall Hunt, 1994.
- <sup>19</sup> Jean Ensminger, op. cit., p. 177.
- <sup>20</sup> Ibid., p. 167.
- <sup>21</sup> Ibid., p. 177.
- <sup>22</sup> Epsen Sjaastad and Daniel W. Bromley, “Indigenous Land Rights in Sub-Saharan Africa: Appropriation, Security and Investment Demand,” World Development, Vol. 25, No. 4, April 1997.
- <sup>23</sup> Andrea Cornia, “Neglected Issues on the Decline of Africa’s Agriculture: Land Tenure, Land Distribution and R & D Constraints,” in Andrea Cornia and Gerald Helleiner, eds., From Adjustment to Development in Africa, New York: St. Martin’s Press, 1994.
- <sup>24</sup> Klaus Deininger and Hans Binswanger, “The Evolution of the World Bank’s Land Policy: Principles, Experience and Future Challenges,” World Bank Research Observer, Vol. 14, No. 2, August 1999.
- <sup>25</sup> Ibid.
- <sup>26</sup> Kathryn Firmin-Sellers and Patrick Sellers, “Expected Failures and Unexpected Successes of Land Titling in Africa,” World Development, Vol. 27, No. 7, July 1999.
- <sup>27</sup> The classic paper on land concentration in Latin America is Solon Barraclough and Arthur Domike, “Agrarian Structure in Seven Latin American Countries,” Land Economics, Vol. 42, No. 4, 1966. Also see Solon Barraclough, Agrarian Structure in Latin America, Lexington, Massachusetts: D. C. Heath, 1973.
- <sup>28</sup> For a discussion of the Nicaraguan case see Keith Griffin, Studies in Globalization and Economic Transitions, London: Macmillan, 1996, Ch. 9 and Appendix and L. J. Enriquez, Harvesting Change: Labor and Agrarian Reform in Nicaragua, 1979-1990, Chapel Hill: University of North Carolina Press, 1991.
- <sup>29</sup> For an admirable and comprehensive survey of land reforms in Latin America see Christóbal Kay, “Latin America’s Agrarian Reform: Lights and Shadows,” in FAO, Land Reform, Land Settlement and Cooperatives, Rome: FAO, 1998. For a discussion of events in Central America see Eduardo Baumeister, Iniciativas Campesinas y la Sostenibilidad de los Resultados de las Reformas Agrarias en América Central, UNRISD Discussion Paper, DP105, Geneva, June 1999. For non-economic arguments in favour of land reform, based largely on Latin American experience, see Solon Barraclough, Land Reform in Developing Countries: The Role of the State and Other Actors, UNRISD Discussion Paper, DP101, Geneva, June 1999.



- <sup>30</sup> For an analysis of the Chilean case see Christóbal Kay, "Political Economy, Class Alliances and Agrarian Change in Chile," Journal of Peasant Studies, Vol. 8, No. 4, 1981.
- <sup>31</sup> Alain de Janvry, The Agrarian Question and Reformism in Latin America, Baltimore: John Hopkins University Press, 1981 and Alain de Janvry and Elizabeth Sadoulet, "A Study in Resistance to Institutional Change: The Lost Game of Latin American Land Reform," World Development, Vol. 17, No. 9, September 1989.
- <sup>32</sup> See Keith Griffin, Studies in Development Strategy and Systemic Transformation, London: Macmillan, 2000, Ch. 6.
- <sup>33</sup> UNDP, Regional Bureau for Europe and the CIS, Central Asia 2010, New York: UNDP, 1999.
- <sup>34</sup> Ibid.
- <sup>35</sup> The phrase originally was coined by Clifford Geertz in his Agricultural Involution: The Process of Ecological Change in Indonesia, Berkeley: University of California Press, 1963.
- <sup>36</sup> Mihail Dumitru, "Romanian Agriculture in Transition," in Max Spoor, ed., The "Market Panacea": Agrarian Transformation in Developing Countries and Former Socialist Economies, London: Intermediate Technology Press, 1997, Table 8.1, p. 131.
- <sup>37</sup> Azizur Rahman Khan, "The Transition to a Market Economy in Agriculture," in Keith Griffin, ed., Social Policy and Economic Transformation in Uzbekistan, Geneva: ILO, 1996.
- <sup>38</sup> For a survey of land reform in the transition economies see Zvi Lerman, "Land Reform and Farm Restructuring: What Has Been Accomplished to Date?," American Economic Review, Vol. 89, No. 2, May 1999.
- <sup>39</sup> Alisher Ilkhamov, "Shirkats, Dakhqon Farmers and Others: Farm Restructuring in Uzbekistan," Central Asian Survey, Vol. 17, No. 4, December 1998, p. 551.
- <sup>40</sup> The data in this paragraph come from Diana Kopeva, "Transition, Land Reform and Adjustment in Bulgaria," in Max Spoor, ed., op. cit.
- <sup>41</sup> Ibid., Table 7.2, p. 123.
- <sup>42</sup> Mihail Dumitru, op. cit.
- <sup>43</sup> Ibid., p. 140.
- <sup>44</sup> Azizur Rahman Khan, op. cit., Alisher Ilkhamov, op. cit., and Max Spoor, "Agrarian Transition in the Former Soviet Union: The Case of Central Asia," in Max Spoor, ed., op. cit.
- <sup>45</sup> Peter Wehrheim, "Agrarian Reform in Russia: The Case of Pskov, Orel and Rostov Oblasts," in Max Spoor, ed., op. cit.
- <sup>46</sup> Estimates of the Gini coefficient for land distribution are 0.39 for Japan, 0.47 for Taiwan, 0.20 for South Korea and 0.21 for China. Examples of Gini coefficients for other developing countries are 0.86 for Argentina, 0.85 for Brazil, 0.59 for India and 0.77 for Kenya. The only other developing countries with a Gini coefficient as low as the highest one reported for our successful land reform countries are Egypt (0.46) and Ethiopia (0.47), both of which had redistributive land reforms. (The data on Gini coefficients were obtained from IFAD, Rural Poverty Report 2001, Oxford: Oxford University Press, 2001, Table 3.1, pp. 117-9.) In Ethiopia, however, the redistributive reforms were quickly followed by forced villagization and collectivization, and in Egypt we suspect the Gini coefficient understates inequality because it excludes the landless and possibly counts tenants in effect as landowners. (See Samir Radwan, "The State and Agrarian Change: A Case Study of Egypt, 1952-77," in Dharam Ghai et al., Agrarian Systems and Rural Development, London: Macmillan, 1979.)

- <sup>47</sup> The amount of agricultural land per agricultural worker was 0.3 ha. in South Korea (1960), 0.62 ha. in Taiwan (1950) and 0.82 ha. in China (1952). The land-labour ratio in Vietnam (1995) was 27% higher than in China. In India, in contrast, cultivated land per agricultural worker was 1.37 ha. (1950/51). (See Azizur Rahman Khan, "Population Growth and Access to Land: An Asian Perspective," in Ronald Lee *et al.*, eds., Population, Food and Rural Development, Oxford: Clarendon Press, 1988.
- <sup>48</sup> See Chao-Chen Cheng, Land Reform in Taiwan, Taipei: China Publishing, 1961; Anthony Y.C. Koo, The Role of Land Reform in Economic Development: A Case Study of Taiwan, New York: Frederick A. Praeger, 1968; and Shirley W.Y. Koo, Gustav Ranis and John C.H. Fei, Rapid Growth with Improved Distribution in the Republic of China, 1952-79, Boulder, Colorado: Westview Press, 1981.
- <sup>49</sup> Shirley W.Y. Koo *et al.*, *op. cit.*, Ch. 3.
- <sup>50</sup> See Sidney Klein, The Pattern of Land Tenure Reform in East Asia After World War II, New York: Bookman Associates, 1958; Sung Hwan Ban, Pal Yong Moon and Dwight Perkins, Studies in the Modernization of the Republic of Korea: 1945-75, Cambridge: Harvard University Press, 1980; and Albert Ravenholt, Rural Mobilization for Modernization in South Korea, Hanover, New Hampshire: American University Field Staff Reports, 1980.
- <sup>51</sup> See Eddy Lee, "Egalitarian Peasant Farming and Rural Development: The Case of South Korea," in Dharam Ghai *et al.*, *op. cit.*
- <sup>52</sup> See Louis J. Walinsky, ed., The Selected Papers of Wolf Ladejinsky: Agrarian Reform as Unfinished Business, New York: Oxford University Press, 1977.
- <sup>53</sup> Dharam Ghai, *et al.*, *op. cit.*, p. 258.
- <sup>54</sup> Azizur Rahman Khan, "The Distribution of Income in Rural China," in ILO, Poverty and Landlessness in Rural Asia, Geneva, 1977, pp. 253-280.
- <sup>55</sup> Victor D. Lippit, Land Reform and Economic Development in China: A Study of Institutional Change and Development Finance, White Plains, NY: International Arts and Sciences Press, 1974.
- <sup>56</sup> Mao Tsetung, "On the Question of Agricultural Co-operation," in Selected Readings from the Works of Mao Tsetung, Beijing: Foreign Languages Press, 1971.
- <sup>57</sup> See Azizur Rahman Khan, "Institutional and Organizational Framework for Egalitarian Agricultural Growth," in Allen Maunders and Kazushi Ohkawa, eds., Growth and Equity in Agricultural Development, London: Gower, 1983.
- <sup>58</sup> The process of transforming the commune system into a system of private peasant farming is analyzed in Keith Griffin, ed., Institutional Reform and Economic Development in the Chinese Countryside, London: Macmillan, 1984.
- <sup>59</sup> See Azizur Rahman Khan, "Vietnam's Rural Economy: Performance and Prospects," in Keith Griffin, ed., Economic Reform in Vietnam, London: Macmillan, 1998.
- <sup>60</sup> Alberto Alesina and Dani Rodrik, "Distributive Politics and Economic Growth," Quarterly Journal of Economics, Vol. 108, 1994 and Klaus Deininger and Lyn Squire, "New Ways of Looking at Old Issues: Inequality and Growth," mimeo., 1996.
- <sup>61</sup> Keith Griffin and Azizur Rahman Khan, "Poverty Reduction in China," in Keith Griffin, Studies in Development Strategy and Systemic Transformation, *loc. cit.*, Ch. 11.

<sup>62</sup> The argument of peasant unresponsiveness to economic opportunities was widely held to be true in Africa. For a careful refutation see Gerald Helleiner, "Smallholder Decision Making: Tropical African Evidence," in Lloyd G. Reynolds, ed., Agriculture in Development Theory, New Haven: Yale University Press, 1975.

<sup>63</sup> Michael Lipton, "The Theory of the Optimising Peasant," Journal of Development Studies, Vol. 4, No. 3, 1968.

<sup>64</sup> Keith Griffin and Amy Ickowitz, "The Distribution of Wealth and the Pace of Development," in Keith Griffin, Studies in Development Strategy and Systemic Transformation, loc. cit., Ch. 5.

<sup>65</sup> For a discussion of "external" factors and their implications for land reform see Peter Dorner, Technology and Globalization: Modern-era Constraints on Initiatives for Land Reform, UNRISD Discussion Paper, DP100, Geneva, June 1999.

<sup>66</sup> For a discussion of ways of reducing rural inequality in Bangladesh apart from land redistribution, see Azizur Rahman Khan and Binayak Sen, "Inequality and its Sources in Bangladesh, 1991/92 to 1995/96: An Analysis Based on Household Expenditure Surveys," Bangladesh Development Studies, Vol. XXVII, No. 1, March 2001.