The central question of Indian agriculture since independence has been the land question and the prevalent mode of production. The mode of production and subsequent peasant-classes that have emerged over the years has had significant implications for the trajectory of growth of agriculture in our country. There is a large volume of literature investigating and debating the mode of production that has become prevalent in Indian agriculture over time. A correct identification of the mode of production is fundamentally important for determining the potentialities of capitalist development of agriculture, ascertaining the different peasant-classes and most importantly to analyze the impact of the neo-liberal economic policies on the organizational basis of agriculture in our country. Therefore, in order to take a look at the agricultural situation in our country in the post-liberalization period, a brief discussion of the ‘mode of production’ debate in Indian agriculture in the post-independence period is necessary.

The rich Indian debate on ‘mode of production’ has mainly revolved around the issue of capitalist penetration in agriculture. Two major ideas that were thoroughly debated upon by a whole range of economists were whether capitalism was ushering into agriculture, and to what extent, and whether peasant classes were emerging over time in rural India.

Since early 1960s some authors propagated the idea that capitalist penetration of agriculture was occurring. Gupta (1962) and Kotovsky (1964) both put forward their estimates of the use of hired labour in farming to argue that there was an
increasing trend of development of capitalist production relations in agriculture. While both their estimates were based on secondary data, Thorner (1967) was the first to make use of first hand experience in the debate. Thorner, from the experience of his village tour in seven states, concluded that a new breed of enterprising cultivators was emerging in the countryside. He termed them as ‘gentleman farmers’ who were more prone to make investments in agriculture leading to capital accumulation and higher mechanization of agriculture.

Thorner’s proposition provoked a study in the state of Punjab by Rudra, Majid and Talib (1969). From his study of 261 farms, Rudra found that the class of ‘gentleman farmers’ identified by Thorner was as small as three percent. He rejected the latter’s thesis of capitalist penetration of agriculture. Rudra further went on to outline a criterion for identifying a capitalist farmer. According to him, a capitalist farmer would essentially (a) tend to cultivate the land himself rather than leasing it out; (b) tend to use hired labour more than family labour; (c) tend to use more farm machinery; (d) market an important share of his produce; and (e) organise his production so that it yields a high rate of return on his investments. Rudra used the following variables to represent the above characteristics respectively: (1) percentage of land rented out to total land owned, $X_1$; (2) wage payment in cash per acre of land size, $X_2$; (3) value of modern capitalist equipment per acre of farm size, $X_3$; (4) percentage of produce marketed in total produce, $X_4$; (5) cash profit per acre, $X_5$. Rudra argued that for a proper capitalist farmer, there exists a high positive correlation between each pair of these variables ($X$s). Since his field data failed to exhibit any strong association for any of the pairs, he concluded that the category of a capitalist farmer was absent in the economy.

Thorner pointed out that while Rudra’s estimate of the size of the class of capitalist farmers is not in contradiction with his own observations, he stressed more on the dynamism that this minuscule class had brought with itself in rural India. However, the basic theoretical framework of Rudra’s analyses was challenged and criticized by R.S. Rao (1970) and by Patnaik (1971). Rao raised certain objections regarding the appropriateness of the variables used to represent characteristics of a capitalist farmer. As far as wage payment and use of modern equipment in a farm is concerned, both show an increasing trend with development of capitalism over time. However, in a cross-sectional analysis, it may not be necessary for a farmer to make high cash wage payments to qualify as a ‘capitalist’. There may be instances where
farm servants may be employed and wages are paid in kind or a similar thing may be
done under a food-short inflationary economic situation under pressure from labour. This does not necessarily make a farmer non-capitalist. According to Patnaik, the methodology of analyses applied by Rudra was 'unhistorical'. The kind of results that Rudra had set as the criterion for determining a capitalist class can be possible only in an idealized world where the different classes are already well polarized. Such a situation comes into existence when the capitalist processes have already run its full course and capitalism is the dominant mode of production. Patnaik points out that a capitalist farmer in most cases is likely to be a former landlord or rich peasant emerging from within the historically existing economic structure which over time is transcended.

Patnaik rejects 'use of hired labour' and 'production for market' as sufficient conditions for capitalism. She states that an essential characteristic that a capitalist farmer should possess is accumulation and reinvestment of the surplus value that is appropriated through exploitation of wage-labour and sale of a high proportion of output in the market. The objective over time should be a continuous expansion of the scale of production and generation of more and more surplus value. An increasing trend should be exhibited by the organic composition of capital augmenting the land and labour productivity when the capitalist processes are on. The reinvestment of the surplus in productivity-raising techniques (in equipments, livestock and other material inputs) would allow the producer to enhance the output without lowering labour productivity i.e. by entering a new level of production on an expanded Production Possibility Frontier.

The pre-occupation of the mainstream neo-classical theorists with owner-tenant efficiency leads them to completely miss out on this important aspect of agrarian development. The gradual development of capitalist relations in agriculture reduces the scope of an ideal owner-tenant production structure that the neo-classicals tend to assume. The very effort to categorize the peasantry into owners and tenants is a misplaced one due to the existence of the more fundamental class differentiation within the peasantry based on economic status and varying resource endowments (land, livestock, etc.). The Marxist framework encompasses a whole range of owners starting from rich peasants using hired labour, self-employed middle and small peasants and poor peasants who are often forced to hire out their labour (Patnaik U., 1976). This has been briefly discussed below. A similar picture can be traced out
among the tenants also. However, the static allocation framework of 'efficiency' of the neo-classical school of thought leads them to overlook both the issue of surplus-generation as well as who will generate and reinvest the surplus.

In a survey carried out by Patnaik in 1969, which covered 66 big farmers in Orissa, Andhra Pradesh, Mysore, Madras and Gujarat, she did identify an emerging class of capitalist farmers within the non-capitalist setup. Although, it is true that capitalist development of agriculture has been regionally specific in our country to a large extent due to the crop-specific nature of the Green Revolution but the development of capitalism in Indian agriculture is hard to ignore.

Apart from this debate of whether the development of Indian agriculture can be termed as capitalist or not, the other major strand of thought regarding the existent mode of production is the idea of semi-feudalism. The main proponent of semi-feudalism has been Bhaduri (1973) (also supported strongly by the likes of Nirmal Chandra, Pradhan Prasad and Ranjit Sau) who drew his conclusions from his study of 26 West Bengal villages. Bhaduri used the term *Kishan* to represent a class of small tenants who were largely engaged in cultivation under semi-feudal production conditions. The dominant mode of exploitation was a dual one based on both the ownership of land and usury. The prominent features of such semi-feudal relations according to Bhaduri were share-cropping, perpetual indebtedness of the tenants, concentration of both the above mentioned modes of exploitation in the hands of the same economic class and inaccessibility of markets for the small tenants. Through his rigorous mathematical exercise, Bhaduri showed that the continual need for consumption loan by the tenants perpetuates their indebtedness and hence leads to the concentration of both economic and political power in the hands of the land-owning class. The important conclusion that he drew is that usury was a barrier to the application of advanced profit-enhancing technology to cultivation as the latter leads to the lessening of the importance of usurious relationships and the income from usury. According to Bhaduri, with a rise in the productivity of land and labour, the need for consumption loans might be eliminated and hence the extra-economic control that the landowner enjoys over the tenant would decrease. This is cited as the reason why the landed class would resist any advancement of technology in agriculture.

Bhaduri (1984) further developed his ideas on the operations in the informal credit markets in the context of backward agriculture. He observed that collaterals,
which were not accepted in the formal credit market, were considered creditworthy by the private moneylender. The latter simultaneously under-valued the collateral and charged high interest rates with an objective of inducing default by the borrower. This enabled the private moneylender to gain access to the borrower’s collateral assets and even his labour. Basu (1984) also constructed a single model to incorporate these factors like under-pricing of collateral, existence of high and multiple interest rates in the informal credit market in order to explain the role of usury in backward agriculture.

A major drawback of Bhaduri’s model of semi-feudalism is that he analyses his data considering only his category of Kishan thus undermining and ignoring the differentiation that exists within a peasantry. The assumption in his model is that the two major classes—the landlords and the peasants, are pitted against each other based on feudal production relations where the peasantry is assumed to be a homogeneous class in line with the neo-populist or Chayanovian school of thought. While we postpone a critical discussion of the Chayanovian theory of organizational basis of farming for the time being, an important point needs to be mentioned that the neo-populist assumption of a homogeneous peasantry does not hold ground when we consider the data on land ownership and leasing in Indian agriculture. Patnaik (1976) had developed the Labour-Exploitation Criterion (E) to capture the class-differentiation of the peasantry that sets in due to the dynamics of capitalist exploitation. On the basis of this E-criterion, she classifies the peasantry into Landlords, Rich Peasants, Middle Peasants, Poor Peasants and Full-time Labourers on the combined basis of net labour hired in and net area leased out. Such a classification actually represented the reality of the peasantry in rural India where capitalist relations were beginning to penetrate. We shall discuss this issue in further detail later when we discuss the Chayanovian theory.

Apart from this flawed approach of not considering the entire differentiated peasantry, the description of the Kishan that Bhaduri has given does not match the definition of a tenant. A tenant is someone owning some means of production and is essentially involved in the production decisions of which there is no mention in the model. The category of the peasantry that Bhaduri has been talking about is really a class of bonded labour through whom the landowner cultivates his land.

The other very important question is, under what economic conditions the landowner would undertake investment with the motive of increasing the land and
labour productivity through an advance in the level of technology, thus expanding the scale of production; and what are the barriers that prevent him from undertaking such investments. It is necessary to have a brief discussion of the classical rent theories in order to comprehend these barriers and how they can be overcome.

The mainstream economic theories predominantly subscribe to the Ricardian theory of rent. According to Ricardo in his ‘Principles of Political Economy and Taxation’, the producers face an average profit based on the ‘price of production’. Assuming the market prices and the ‘price of production’ to be identical, he argues that producers with below-average unit cost of production make individual profits above the average profit. This excess of individual profits over the average profit is termed as ‘rent’ and attributed by Ricardo to the varying fertility of different parcels of land. Ricardo further assumes that all producers accrue this ‘rent’ except the ones cultivating the worst lands (‘worst’ in terms of fertility) that generate a ‘zero rent’. Here the individual profit equals the average profit.

Marx in his discussion of the Ricardian rent throws light upon the logical contradictions of the theory. Ricardo’s theory of excess profits due to lower than average costs of production (which can occur not only due to higher fertility of lands but also due to more intensive application of capital which raises the yield) has no connection with landed property and hence is incorrectly labeled as ‘rent’. Where there is land monopoly, Ricardo’s ‘rent’ need not necessarily exist if all the parcels of land are equally fertile and operate with the same production technique. Similarly, in the absence of land monopoly, the individual owners of the parcels of land would accrue ‘rent’ if the parcels were of varying fertility or applied different intensities of capital. Private property in land is neither necessary nor sufficient for the existence of the Ricardian rent. In fact, Marx had renamed it as ‘differential rent’ with the presupposition that under land monopoly, variations in fertility and/or production techniques would generate a rent over and above the Absolute Ground Rent (which we will discuss shortly). Not only is the Ricardian rent not related to land monopoly; it is also not exclusive to agriculture. We can have a variation of individual profits around the average profit in industry also due to varying production techniques used by different firms.

In fact, once Ricardo had mislabeled the excess profits as ‘rent’, he had to commit a further logical fallacy of assuming that the least fertile land would generate ‘zero rent’. This problem arises due to Ricardo’s confusion between the categories of
'profit' and 'rent'. If the excess profits denoted 'rent', the 'deficit profit', which would arise from the above-average unit cost of production, would denote a 'negative rent'. To do away with this deficit profit, he made the assumption of the 'zero rent' case but the logical contradiction persisted. How can the average profit remain 'average' if all the producers are making individual profits either in excess of the average profit (generating a positive rent) or that equal to the average profit (the zero rent case) and no one generating a profit less than the average!

The problems of the Ricardian theory of rent can be attributed to his strict adherence to the assumption that market prices are identical to the 'price of production' (which compels him to formulate the category of 'rent' in a way so as to not affect the market price) and his simultaneous confusion between the categories of profit and rent. These problems are resolved in the concept of the 'absolute ground rent', which Marx had developed from Adam Smith's concept of rent. According to Smith, ground rent clearly arose due to monopoly of property. The landlords demanded a rent as tribute even for the natural produce like wood and grass on their land due to inherited monopoly power. The absolute ground rent fundamentally caused by land monopoly is a feature exclusive to agriculture unlike the Ricardian rent. The absolute ground rent also creates an upward pressure on the market price causing it to deviate from the 'price of production'. This occurs because a tenant farmer cultivating even the least fertile land has to generate a rent over and above the wage-bill and the profit to pay to the landlord. The ground rent is solely a return to the ownership rights of the landlord over the piece of cultivable land.

Marx further developed this concept of absolute ground rent to show how it acts as a barrier to investment in agriculture and its development on capitalist lines. Patnaik (1983) also uses this concept of absolute ground rent developed by A. Smith and Marx to explain the reasons for stagnation of investment in agriculture. Consider a landlord who wishes to replace tenant-cultivation by operations through hired labour i.e. wants to shift to a capitalist mode of production. The money-capital that he will invest as capital (both 'constant and 'variable') on the farm has to generate a return not only equal to the average rate of profit that the money-capital was already getting elsewhere in the economy but will also have to account for the rent that the landlord will lose on evicting the tenant. A high rent component as in the case of most developing countries (around 35 to 40 percent of the output) would imply that the return on the landlord's investment has to be exceptionally high. Such a high rate of
return is not possible with production on the same scale, technique and organization. If the latter does not change overnight, there is no reason for the landlord to shift to operations through hired labour. In case of a capitalist tenant also, the ground rent component would act as a barrier to investment through this same logic. The money-capital that he would like to invest would have to generate a higher enough return so that it gets the prevailing average rate of return in the market after paying the rent to the landlord. The recognition of the absolute ground rent (which goes gratis to the landowning class) as a barrier to investment in agriculture has allowed the Marxian school of thought to develop its theory against landlordism.

This barrier of ground rent to investment can be overcome by a technical upgradation, which raises the yield or labour productivity by leaps and bounds so that the return generated on the investment can account for both categories of profit and rent. The other more radical way to break this barrier is through the abolition of landlordism and carrying out land redistribution and tenancy reforms. This will do away with the absolute ground rent or significantly reduce the exorbitant amounts of rent thereby facilitating the expansion of the scale of agricultural production.

Absolute Ground rent is the fundamental barrier to investment specifically for its relationship with landed property and also due to the fact that it is accrued gratis by the landlords without any additional investment. In fact, the return from usury can be considered as one of the returns to money capital among many others, catering to the formation of an average return to money capital. There is no reason why a superior technology that overcomes the barrier of ground rent should not induce a cultivator to undertake investment (unlike what Bhaduri concludes) and set the process of capital accumulation in agriculture rolling.

In the background of the above discussion, we shall look at some of the neo-classical and neo-populist positions on land redistribution policy, which essentially build their arguments within an ahistorical ‘efficiency’ framework. The contemporary debate regarding the agrarian question land distribution particularly in developing countries have become lively with the recent reassertion of the theory of redistributive land reforms. The bold objective of this theory presented by Griffin, Khan and Ickowitz is the simultaneous enhancement of agricultural productivity and eradication of rural poverty in the developing countries in a neo-populist framework. Simultaneously, over the last five years, the World Bank has also included market ‘friendly’ land reforms in its agenda for Third World agriculture. This is based on the
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The neo-classical 'willing buyer-willing seller' model. Although the current discourse on land distribution and redistribution is largely dominated by these two theories, they miss out to a large extent the reality of Third World agriculture. These theories are unable to recognize the ongoing capitalistic processes in developing country agriculture. The crucial role played by capitalist exploitative relations and power structure of the rural countryside in determining the organizational basis of farming and the distribution of land is missed out completely by these theories.

Redistributive Land Reforms

In a recent article - 'Poverty and Redistribution of Land', Griffin, Khan and Ickowitz (2002), have made an apparently radical case for land redistribution in a well-clarified manner. However, their arguments popularly referred to as the GKI case, suffer from the tension between neo-classical and neo-populist schools of thought, which the authors have tried to forcefully reconcile. The GKI case, not surprisingly, is flawed of being ahistorical in the proper neo-classical traditions as well as of undermining the capitalist processes in agriculture as is normal to any neo-populist position. Before we move on to a discussion of the GKI model, a detailed appraisal needs to be made of the Chayanovian school of thought, which is undoubtedly a primary source of all neo-populist literature that the world of economics has witnessed.

The Chayanovian Model of Farm Organisation

A.V. Chayanov, a Russian economist, wrote the book 'Peasant Farms Organization' in the 1920s, which is one of the most original neo-populist writing. Chayanov put forward his theory of 'peasant economy' which he envisaged as a separate category like slave economy, serf economy, capitalist economy etc. The 'peasant economy' is an aggregation of Chayanov's basic analytical unit the 'family farm'. With an implicit assumption of a homogeneous peasantry, the peasant economy was presented as consisting of numerous 'efficient' and 'viable' small farms cultivated predominantly with the use of family labour. Chayanov explains the difference in land holdings in his 'peasant economy' with the theory of demographic differentiation. According to this, the farm size is determined by the family size and also adjusts to the changes in the latter over time. Thus, as a family size naturally increases due to biological reasons, the farm size also increase in order to feed the
larger family. Chayanov presented a correlation exercise between gross agricultural income (which served as a proxy for area) and family size. High positive correlation coefficient of 0.61 and 0.64 were cited as proof for such demographic differentiation. The other statistical exercise cited by Chayanov in favour of demographic differentiation was the one from Kushchenko, which shows percentage land holdings by size class. Chayanov uses this data to further claim that the process of farm size getting determined by family size is not only a static phenomenon but a dynamic one too. While a household with an increasing size acquired more land over time on one hand, the holdings of a household whose children grew up got subdivided owing to division of property.

The other important strand of argument that Chayanov’s theory has is regarding the superior ‘viability’ and ‘efficiency’ of family farms vis-à-vis capitalist farms. This, of course, is the central argument of any neo-populist theory. According to this, a small farm can absorb adverse price changes unlike a capitalist farm due to greater variability in the degree of self-exploitation of labour. The ‘pressure of consumption demand’ determines the latter in Chayanov’s framework. A higher consumer-worker ratio in a household leads to a higher amount of labour put into the farm by each worker. This is consistent with the kind of ‘subsistence farms’, the only type that exists in the Chayanovian peasant economy.

The argument goes that a family farm cultivates its plot more intensively producing a higher output per acre than a capitalist farm and this is what makes it more efficient. The advocates of redistributive land reforms use this inverse relationship of farm size and productivity to justify the breaking up of large farms into small ones (i.e. into family farms). This will supposedly lead to a simultaneous growth of agricultural output and efficiency and a fall in rural poverty. Chayanov further goes on to establish through his famous numerical exercise (Table 1.1) the greater viability of the family farm by comparing the latter with a capitalist farm in a situation of price fall.

If we look at Chayanov’s before and after price fall situation, we find that while the capitalist farm moves into a loss-making situation after the price fall, the family farm still remains in production by accepting a lower return to labour (only two-fifth of the original rate) at 0.64 Rouble per day. Chayanov precisely draws our attention to this capacity of small farms to remain viable by allowing the ‘payment per working day’ to slide down in the face of a price fall. Given that both the family farm
and the capitalist farm operate with the same production function, the example clearly indicates the greater shock-absorbing capacity of a family farm.

The family farm pushes down the marginal productivity of labour below the market wage rate through greater self-exploitation of labour and remains viable unlike the capitalist farm. Chayanov explains this greater degree of self-exploitation through the subjective utility-disutility framework. The worker in a family farm labours till his subjective drudgery of labour relative to utility from income is just compensated by the marginal product.

Table 1.1: Chayanov's before and after price-fall situation

<table>
<thead>
<tr>
<th></th>
<th>Before price fall, with 60 pood output</th>
<th>After price falls to 0.6 Rb., with 60 pood output</th>
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</thead>
<tbody>
<tr>
<td><strong>Capitalist farm</strong></td>
<td></td>
<td></td>
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<tr>
<td>Gross income: 60 x 1Rb=60 Rb.</td>
<td></td>
<td></td>
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<tr>
<td>Expenditure: Rb.</td>
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<td>Materials</td>
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<tr>
<td>Wages</td>
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<tr>
<td>Net income (profit)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Family farm</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross income: 60 x 1Rb=60 Rb.</td>
<td></td>
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<tr>
<td>Expenditure: Rb.</td>
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<tr>
<td>Wages</td>
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<td></td>
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<tr>
<td>Net income (loss)</td>
<td></td>
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</tbody>
</table>

Source: modified version adopted from Patnaik (1979)

Note: Both the farms use 25 working days, with wage at capitalist farm being 1 Rb. per day

Sen (1966) has resoundingly emphasized this last point through the following model of an economic equilibrium of a peasant family. This model assumes that there is a community of identical peasant families, with α working members and β total members (β≥α). The stock of land and capital is assumed to be fixed. The family output Q, at a given point of time, is a function of labour L alone. The function Q=Q(L) is smooth and normal (i.e. Q''(L)<0). Apart from this, the marginal productivity of labour is assumed to either become zero at some finite value of labour (L), where output (Q) is maximum, or approaches zero asymptotically. The model assumes that each member of the family have a personal utility function (U=U(q)), where q is their individual income. Also, each worker has a personal disutility
function \((V=V(l))\), where \(l\) is the individual labour. The marginal utility from income is positive and non-increasing while the marginal disutility from labour is non-negative and non-decreasing.

It is also assumed that each person in the family has the notion of family welfare, say \(W\). The peasants are assumed to be guided by the aim of maximizing the happiness (or welfare) of the family subject to their individual utility and disutility functions. By giving equal weight to each person's happiness, the following welfare function \((W)\) can be formulated.

\[
W = \beta \sum U_i - \alpha \sum V_i
\]

The above welfare function is maximized with the further assumption that all the work is equally divided between the workers and the income is done so within all the members of the family. The welfare maximizing exercise yields the following centrally important result of Sen's theory of greater efficiency of small peasant owner-operated farms.

\[
Q'(L) = \frac{V(l)}{U'(q)} = x,
\]

where \(x\) is the 'real cost of labour'.

The above result shows that a peasant farm (or family farm) applies labour up to that point where the marginal product of labour equals \(x\), the 'real cost of labour'. According to Sen, as the peasant farms are characterized by a flexible 'real cost of labour', they are capable of pushing down the marginal product of labour even below the market wage rate. Hence, such farms are both efficient and viable compared to a capitalist farm. This model strongly endorses Chayanov's conclusions regarding the same issue.

Before moving on to the critical analysis of the case for 'peasant economy', one needs to discuss some of the basic tenets of their analytical framework. The very concept of 'peasant economy' as presented by Chayanov is an ahistorical one. It is more of a descriptive category reflecting a one-time cross-sectional view of the peasantry with no conception regarding the origin of such a system. In the Marxist framework, the 'family farm' is nothing other than a 'petty commodity producer'. There is also a lack of perspective regarding the future dynamics of the system. In a nutshell, the framework is static. This drawback is also linked to the other serious flaw of grossly undermining the capitalistic processes in agriculture. The penetration
of capitalism in agriculture, no matter upto what extent, is completely ignored. This again leads to the confident assumption of a homogeneous peasantry free of any differentiation due to exploitative production relations. As mentioned earlier, Patnaik (1976) through her Labour-Exploitation Criterion (E)\(^2\) classified the peasantry into different peasant classes, Landlords and Full-time Labourers based on net labour hired-in and net area leased-out. This classification is not only largely convergent with that of Lenin for the Russian peasantry and Mao-Tse-tung for the Chinese peasantry but has also survived the empirical testing done with the data for 236 land-operating households in Haryana (Patnaik, 1980). Patnaik’s Labour-Exploitation Criterion has also been empirically tested for the two villages Sarfaraz and Platoon in the North-West Frontier Province of Pakistan with positive results (Lodhi, 1993). A different ‘Surplus Criterion’ also captured the differentiation of the peasantry into Surplus Appropriators, Upper Middle Peasant, Middle Peasant, Lower Middle Peasant and Poor Peasant based on a survey in six villages in the Tiruchy district in Tamil Nadu, India (Athreya et al., 1987). In fact, with these evidences of peasant classes in mind, we shall look at the concept of ‘demographic differentiation’ put forward by Chayanov that directly challenges the Marxist theory of class differentiation.

Patnaik (1979) has made a detailed critical appraisal of the Chayanovian model of peasant economy. She points out the fallacies of both the statistical exercises that were cited in support of demographic differentiation. Chayanov had committed the fallacy of attributing causation to correlation. The high level of positive association between family size and farm size is more likely to be due to the fact that small farms have a lower land-worker ratio than large farms. A lower amount of sown area per worker poses a problem for achieving a subsistence level of consumption. The low level of per capita consumption leads to higher infant mortality and lower adult life expectation. Thus, households with small farms more often end up with smaller families than large farms. This is a more realistic explanation as Chayanov’s own data from Starobel’sk show that sown area per worker increases almost five hundred times as family size doubles. This is clearly indicative that a situation of egalitarian distribution of land based on family size is certainly not there. The other statistical exercise quoted in this regard based on data from the repartitional commune

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\(^2\) The criterion has been discussed in detail in Chapter 3 on Methodology
area is really redundant as the *Mir* (ruler) of this area periodically redistributed land in the allotment area on the very basis of family size.

Chayanov’s proposition of determination of the amount of labour input in a farm by the ‘pressure of consumption demand’ is commonsensically true for small peasant owner-operators but cannot be generalised for the whole agricultural community. The working day per worker generally shows a rising trend with a rising consumer-worker ratio (c/w) on a farm. It is at this point we take note that the c/w ratio is not only positively associated with the family size but also with farm size (as Chayanov himself would also suggest). A large farm has a larger per capita sown area enabling the workers to be employed to a higher extent unlike a small farm no matter how intensively the latter is cultivated. Certainly, a large capitalist farm with an associated larger family, which extracts investible surpluses over and above a high level of consumption, cannot have a determination of labour amount per worker predominately by the ‘pressure of consumption demand’.

Finally, we examine Chayanov’s central argument of superior viability and efficiency where the fundamental fallacy of the entire model can also be traced. If we look at his numerical exercise (Table 1.1), we find that the peasant farm remains viable during a price fall by cutting down on labour payments by 60 percent. The intriguing point here is that if the family farm were just satisfying its consumption requirements as per the principles of the peasant economy, then how such a massive cut down on returns to labour can still satisfy the consumption demand. A peasant farm surely must be more viable than the capitalist farms only at the cost of the workers remaining half-fed. A peasant farm cannot make ‘losses’ as that category has been omitted in the framework of analysis. In such a situation, there must exist some historically derived consumption level that should determine whether the farm is viable or not. Both Chayanov and Sen have formulated a subjective disutility-utility framework to resolve this point. However, an in-depth study of the models reveals the tautological character of their arguments. Whatever level the marginal productivity of labour is pushed down to is taken for granted as the equilibrium and then they go on to justify that this point is the equilibrium because here the subjective drudgery of labour relative to utility from income is just compensated by the marginal product of labour (or alternatively, as the marginal product of labour is equal to the subjective ‘real cost of labour’). Such a tautological argument can only be followed by the
conclusion that peasant farms are always viable even in a situation where the peasants are subject to starvation.

It is surprising that while Sen criticizes economists who discovered that most small farms in India were making losses for they had imputed the market wage-rate to labour in their study, he himself has no difficulty in imputing an entirely subjective 'real cost of labour' to determine the viability of a farm. A historically evolved category like wages is more likely to be a reliable indicator for a minimum return to labour than the 'real cost of labour'.

However, the fundamental fallacy of Chayanov's model is the assumption of identical production function for 'family farms' and 'capitalist farms'. It is essential for the coexistence of the two types of farms that their production functions are different. A family farm produces with the objective of satisfying its consumption needs and does not produce a surplus (like 'profits' on a capitalist farm). Subsequently, a capitalist farm, which runs on profit motive, with the same production function can never be able to produce a profit from its production. It can only generate a profit when the wage bill is lower than the consumption of family workers of the peasant family for the same reference period. The contradiction continues to persist, as there is no reason why wage-workers should consume less than their counterparts on the family farm. Thus, the capitalist farm then ceases to exist in the Chayanov's framework of comparison. The same argument can be traced out from the other side as well in which case the peasant farm will cease to exist. It is precisely due to these overbearing contradictions that Chayanov had to take recourse to a tautological and subjective argument. Whatever the peasant is observed to achieve is taken as the 'objective' and all levels of consumption are then said to 'just' satisfy the requirements. These drawbacks of the theory really need to be kept in mind when we study the GKI case for redistributive land reforms, which is a more developed neo-classical-neo-populist position.

The GKI case for redistributive land reforms

The GKI case for redistributive land reforms (GKI, 2002) has been a reassertion of Griffin's earlier thesis for land distribution that he wrote in 1974 and 1979. The GKI case adopts the same neo-classical neo-populist framework of analysis. It simultaneously pursues the twin goal of efficiency (in neo-classical lines) and equity (in typical neo-populist tradition). It suffers from the same drawbacks like
the Chayanovian ‘peasant economy’ of being bereft of any historical perspective, grossly undermining capitalistic processes in agriculture and an unrealistic assumption of a dichotomous class structure in the rural countryside of the developing countries. GKI’s agricultural community consists of the landlords and a homogeneous peasantry. Before going into a critique of the model, we will look at their central arguments for redistribution of land.

As we have mentioned above, GKI starts their argument with the assumption of a dichotomous class structure. With that assumption, they enter their neo-classical world of fragmented factor markets. According to them, the markets for land, capital and labour are fragmented in the rural countryside due to better collateral situation and land monopoly of the large landowners. According to them,

"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" (GKI, 2002).

This leads to higher land-labour and capital-labour ratio on the farms of the large landowners who economize on labour while in the small farms it is the reverse. Different techniques of production are adopted in the small farm compared to the large farm. GKI concludes that the method of production in the small farm with labour-intensive techniques is more socially optimal given that rural areas are capital-scarce and labour-abundant. Figure 1.1 explains the whole situation in a more clarified manner.

Figure 1.1: The monopsonistic labour market model

In Figure 1.1, AC is the derived demand for labour. SI is the supply curve of labour and shows the market wage rate at each level of employment. MCI is the marginal cost for the large landowner who has been assumed to be a monopsonist and hence has a control over wages. The MCI curve lies higher to the SI curve as the additional cost of hiring the last worker at even a slightly higher wage is much higher than the wage itself, since all the workers have to be paid that higher wage. From the diagram, we can see that the profit-maximizing monopsonist will employ Od of labour where his marginal cost equals the additional revenue generated by the last worker. Contrary to this, the labour is employed up to OD in the competitive market where the additional revenue generated by the last worker is equal to the wage rate. The monopsonist’s profit \((a+b+d)\) will be always greater than the collective profit of the peasants \((a+b+c)\) since \(d>c\) by definition. Any price that the small farmers would offer for the monopsonist’s land will be a present discounted value of the current stream of profits. As ‘d’ is always greater than ‘c’, it is not possible for the efficient farmers to offer the price that will compensate the landlords for their loss of monopsony power.

Based on this, GKI proposes that productivity of land on small farms are always higher due to three reasons, namely, a higher cropping ratio, a crop mix that favour crops with higher value-added and higher physical yields of crops. Due to these reasons, the small farms are more productive and efficient in terms of output and employment. The inverse farm size--productivity relationship is supreme to the GKI argument like any neo-populist theory. The GKI in this framework strongly makes the case for a redistribution of land to establish a preponderance of small farms in developing country agriculture. This, they believe would enhance the productivity and growth in agriculture along with a fall in rural poverty.

The GKI also points to the monopsony power of landlords over labour, which prevents an automatic redistribution of land from under less efficient method of production to more efficient ones through the land market. The monopsony is created through different institutional and social controls on labour (based on ethnic, caste and even geographical reasons). This monopsony power of landlords prevent them from selling their lands as no price can be offered to them by the production-efficient small farmers that can compensate for their loss of the monopsony power and the related large profits.
According to GKI, redistributive land reform will be successful only with the removal of the urban bias that exists in developing countries’ policies. The urban bias is supposedly manifested in the unfavourable relative prices for agriculture, more public sector investments for urban areas compared to agriculture and greater expenditure on human capital in urban areas relative to rural areas. Byres (2004) not only raises a doubt regarding the argument that relative prices are always biased against agriculture but points out to the fact that urban areas are taxed significantly higher than agriculture in developing countries. He also takes note of the lack of historical perspective because the experience of several countries show that rural poverty has been largely tackled by the expansion of the industrial sector and the consequent absorption of the underemployed rural labour.

The intra-sectoral ‘landlord bias’, on the other hand squeezes the already less funds available for agriculture due to ‘urban bias’ further for the small farmers. The GKI states that research and agricultural support policies, irrigation, credit and institutional policies in a developing country favour the landlords. They prescribe the removal of this bias for successful redistributive land reforms. Byres rightly criticizes this recommendation by noting that in a dichotomous landlord-peasant class structure, the bias of policies towards the landlords will automatically disappear once land is distributed to small farmers. While the recommendation is redundant in nature, Byres also points out that the benefit of agricultural policies in any Less Developed Country (LDC) is more likely to reach the capitalist farmer/rich peasant (like in India). GKI’s ignorance of capitalism in Third World agriculture does not allow them to capture this bias.

We now turn to an examination of the broad strands of argument of the GKI case discussed above. The GKI forwarded three distinct reasons (stated above) for the inverse farm size-productivity relation, which is the backbone of their redistributive land reform model. Byres argue that all the three reasons are derived from the highly intensive application of labour per unit of land. In fact, these are the main reasons forwarded in all neo-populist theories for the superior efficiency of the small farms. This intensive cultivation is done by small farms to reach a bare subsistence. The highly unequal distribution of operated holdings lead to a very low sown area per worker on small farms which also has to generate high amounts of surplus (a high rent burden in GKI’s dichotomous economy) over and above the subsistence. This fallibility of the argument that small farmers are supposedly ‘efficient’ even when the
peasants are below subsistence level of production and sometimes close to starvation has also been pointed out by Patnaik (1979) in her discussion of the Chayanovian economy. In fact, Dyer (2004) rightly notes that the higher labour input per acre in small farms actually reflect their ‘relative distress’ rather than efficiency.

Both Byres and Dyer note that the inverse relationship is assumed to exist on the basis of the wrong assumption of constant returns to scale in agriculture. GKI and their main evidence of the inverse relationship, Berry and Cline both deny the existence of economies of scale. However, in reality, with penetration of capitalism in agriculture, the large farmers (capitalist ones) may apply a superior technology that counters the relative advantage of higher labour application by the small farms. Thus, the economies of scale can break the inverse relationship. Finally Byres points out the central fallacy of holding the inverse relationship true for all places and all times. He states—"To maintain such a static approach in a dynamic context is clearly methodologically inadequate". This fallacy prevents GKI from realizing that the presence of economies of scale or the arrival of a superior technology in future can create a more direct relationship between farm size and productivity.

GKI’s argument regarding the presence of fragmented factor markets and monopsony, which prevents a natural reallocation of land from less efficient production techniques to more efficient ones, is essentially possible in a pre-capitalist situation. Byres draws our attention to the fact that with the penetration of capitalism in agriculture, the labour force will be increasingly free in both senses of more freedom to move and detachment from the means of production. This will lead to the gradual dissolution of the fragmented labour markets characterized by essentially pre-capitalist extra-economic means of coercion. The conflict between landlords and peasants would also transcend towards that between capitalist farmers and wage labourers.

M. H. Khan (2004) forwards a strong criticism of the neo-classical framework of analysis where monopsony prevents an efficient reallocation of land. He draws our attention to Figure 1.1 through which GKI shows that automatic reallocation of land is not possible as the efficient small farmers would not be able to offer a price that would compensate for the loss of monopsony (as \(d>c\)). Khan agrees with GKI on the point that the small cultivators themselves would not be able to buy out the inefficient landlords but argues at the same time that as per the standard neo-classical theory of transaction cost economics, it is always possible to buy out inefficient institutional
arrangements in a situation of zero transaction cost. In a zero transaction cost world, Khan thinks of a coalition where peasant owner-operators, currently without any land as the buyers of the landlord's land. They would offer a price that would be a present discounted value of \((a + b + c + d + e + f)\) as SI represents their opportunity cost of family labour and anything above that is their surplus. Even if some of these potential buyers are currently employed on the monopsonist's land, their potential surplus would be as large as \((a + b + c + d + e)\) which would enable them to offer a high enough price to the monopsonist. Thus, if a natural reallocation of land is not occurring, it is more due to the transaction costs that are associated with formation of coalitions and raising of money initially by the peasant owner-operators and not due to monopsony. Therefore, it is only the sudden non-adoptation of the neo-classical theory that enables GKI to present their case of redistributive land reforms as radically opposed to the World Bank's 'market friendly' land reforms. With proper neo-classical treatment the GKI case collapses into the World Bank case.

Khan also raises his valid questions regarding the possibility of a situation where only one landlord is in control of labour. He goes on to state that within the neo-classical framework, more than one landlord would lead to an oligopolistic situation and push the employment and wage towards the competitive equilibrium unless collusion is formed. He also notes that even a collusive oligopoly has its' own costs of maintenance and has an in-built incentive of breaking down (since the equilibrium under collusive oligopoly is not a Nash Equilibrium).

Byres also criticizes the very attempt by GKI to resolve the agrarian question in a neo-classical framework. GKI provides a utopian solution where a one-time reform will take care of the problems of agriculture in the developing countries. It is rightly noted that the GKI case only recognizes exploitation of labour in the neo-classical sense where the latter is paid less than its marginal product. Such a view completely overlooks the element of exploitation in any capital-labour relationship. The GKI argument hence goes in the favour of a competitive output and employment. Given their framework of peasant owner-operators, we can precisely identify this with the Chayanovian position, which holds that self-exploitation of labour, rises only in the interest of maintaining a superior efficiency of the farm even if the return to labour is abysmally below the subsistence level of consumption.

The other fallacious assumption made by GKI is that the marginal cost of labour (MCL in Figure 1.1) is higher than the competitive wage. It is because of this
assumption that the employment level in landlord farms is less than that on the owner-operated farms (which are at competitive equilibrium). A closer look reveals that there is no reason as to why a landlord (especially in a coercive situation portrayed by GKI in detail) would not be able to employ more labour and extract a higher surplus without offering a higher wage. In spite of GKI’s ardent efforts, the tension between their political economy and the neo-classical framework continues to persist. It precisely points to the inadequacy of a neo-classical framework to analyse the dynamics of an agrarian economy. We shall now turn our attention to the market ‘friendly’ land reform theory being propagated by the World Bank in recent times and make a comparison of the GKI case to examine how different the two models are.

**Market ‘Negotiated’ Land Reforms vis-à-vis redistributive land reforms**

The market ‘friendly’ or ‘negotiated’ land reforms propagated by the World Bank as a prescription for developing country agriculture also starts from the same premise of an inverse farm size-productivity assumption like the GKI case. Deininger (1999) argues that since agriculture requires high level of supervision during cultivation, the small ‘family farm’ is more cost-efficient compared to a capitalist farm using wage labour. As the costs of supervising labour on a large farm are high, the capitalist farms cultivate their land more extensively. On the other hand, in a small farm cultivated by family labour, associated supervision costs are low as each worker has a stake in the output. Such a farm goes for intensive cultivation and is said to be more efficient than a wage-operated large farm. Hence, it is argued that an increase in the number of such family farms by breaking up of the larger farms would provide both equity and efficiency benefits to agriculture.

However, this theory rejects the idea of a forced redistribution of land and recommends a voluntary transfer of land through the land market based on the ‘willing buyer-willing seller’ model. The implicit assumption behind this recommendation is that an automatic transfer of land from non-efficient production to efficient ones (small farms) does not occur due to high transaction costs. The lack of well-defined property rights in the rural countryside leads to a significant addition to the buyer’s cost or a subtraction from the seller’s price. Along with this, a lack of proper information dissemination in a poorly functioning land market prevents ‘willing’ buyers and sellers from coming together and negotiating. Therefore market
‘friendly’ land reform talks about policies like registration of land under the legitimate owner’s name and setting up of a better information system. These policies would supposedly reduce the high transaction costs in the market and allow the buyers and sellers to negotiate regarding transfer of land. In a zero transaction cost world, land would be transferred to more efficient production system without the requirement of any coercion.

This model of market ‘negotiated’ land reforms has been started in Colombia, Brazil and South Africa. The initial assessments do not reveal a success story for this model. Although the World Bank’s Policy Research Report (PRR) attributes the failure of the model to the ‘bureaucratic processes’ in South Africa and to the high operational costs of INCORA, the institution that had undertaken this project in Colombia, the reality does not support the view. Paasch (2002) in his comments on the PRR states that the ‘bureaucratic processes’ like the requirement of ‘business plans’ from the beneficiaries were very much a part of the World Bank’s own recommendations. In fact, he raises the question as to why the majority buyers of lands in Colombia have been unable to repay their debts. Contrary to the World Bank’s claims of success of their reforms programme in Brazil, Paasch points out that even in those cases the average income of most of the beneficiaries has reduced and that a large number of them have been unable to pay their debts like in Colombia.

Paasch categorically points out to the major drawbacks of the model. According to him, the very expectation that poor farmers would be able to buy land at market prices after facing decades of exploitation and adverse resource transfers is a fundamentally wrong idea. He also points out to the unfairness of letting the poor farmer negotiate directly with the landlord who is at the higher end of the power structure of the society. Along with this, the assumption of the model that the local authorities would play a positive role to ensure justice to the poor farmers also indicate the model’s lack of perception regarding the capitalist exploitative relations that exist in the rural countryside. The local authorities are more likely to be strongly linked to the land oligarchies. Finally, Paasch criticizes market ‘assisted’ land reforms for not having any element of redistribution of wealth. In fact, M.H.Khan (2004) aptly makes the point that if high transaction costs were the only obstacle to a redistribution of land and enhancement of efficiency in agriculture, why did the Third World farming community not realize this until the World Bank came and declared it. A more efficient system where everyone is supposedly better off should automatically
bring down high transaction costs if the latter is a hurdle before that system. The very fact that in spite of World Bank's programme of market 'assisted' land reforms, the transaction costs continue to remain high shows that there are strong elements in the society who are not benefited by such a programme and has been successful in resisting it.

As we have already discussed earlier in the neo-classical framework, the GKI model for redistributive land reforms collapses into the World Bank's case of market 'friendly' land reforms if the sudden non-adoption of the neo-classical framework is done away with (M.H.Khan, 2004). Both the models start with the assumption that the inverse farm-size productivity relationship holds due to certain market failures although they differ on the nature of such market failures. While the GKI refers to the fragmented factor markets as the reason behind the relationship, the other model identifies high costs of labour supervision as its reason for the same. The GKI case appears to be radical when it argues that monopsony power of landlords is the central reason for the lack of spontaneous transfer of land to efficient farmers. However, as we discussed above, within the neo-classical framework there is no reason why different coalitions would not be formed to buy out the inefficient producers (like landlords). The only case when this would not happen is when transaction costs are not zero, which is also the argument put forward by the World Bank. Hence, the GKI case is not really very far away from the World Bank model, like it appears at first sight.

If we look at the agriculture of post-independence India, we will find it difficult to apply both the GKI model as well as the World Bank model due to the non-validity of the assumptions of these models of land reform. The agricultural sector in our country is clearly characterized by a differentiated peasantry instead of a homogeneous one due to the growth of capitalist relations of production after independence. Although small yet we can trace an emerging class of capitalist farmers in most areas if not the 'pure' capitalist farmer of the ideal type. There are instances where the capitalist farmer might employ farm-servants bonded to him by some extra-economic means and not use an entirely free labour. However, as several studies enumerated above have shown, the structure of Indian agricultural production by no means resembles that of a classical homogeneous peasantry.

With the introduction of the neo-liberal policies entailing liberalization of trade in primary commodities, a new situation has emerged for the Indian peasantry.
New relations of exploitation of the primary commodity producers through price movements are set to work with this change in the policy regime. Developing country farmers are exposed to the volatility of world prices and also have to compete with developed country agricultural production, which is heavily subsidized. The simultaneous adherence to fiscal discipline by the government as part of the neo-liberal doctrine has led to a curtailing of expenditure for sectors like rural development. Lesser government spending on agricultural research and phasing out of subsidies equally affect the agricultural sector as a whole.

However, even under such a regime where agriculture experiences retrogression, the structure of peasant production remains important. With a differentiated peasantry having developed as in the case of India, the impact of any policy will be differential although there may be a lessening of the degree of difference across the peasant classes in the neo-liberal regime. This differential impact will not be captured in any analysis, which starts with the premise of a homogeneous peasant production. Therefore, it is important that we recognize the capitalist processes that exist within agricultural production in our study.

In the next chapter, we shall discuss the impact of the neo-liberal policies in greater detail. We shall also look at the land and credit relations in Indian agriculture from the post Green revolution period to the current regime. A study of the trends in production conditions of agriculture in the longer run is necessary to comprehend the role played by the secondary relations of exploitation in agricultural production. This will not only provide us with a background for a field-based study but also to trace the changes in agriculture that are occurring under the current neo-liberal policy regime. We shall undertake this exercise in the subsequent chapter using the National Sample Survey Data.