Chapter Six

Issues in Agrarian Stagnation & Dynamism

Modes of extraction in Indian agrarian systems have always been deeply intertwined with the hegemonic ideology of patriarchal caste-feudalism. The peculiarity of backwardness in the Indian context flows from the extremely slow changing nature of agrarian stratification - itself a manifestation of the class-caste overlap. Thus the deliberate manipulation of institutions to establish/retain hegemony by certain castes in the agrarian system is not possible without the dominant groups being simultaneously the ruling agrarian classes\(^1\). The previous two chapters demonstrated precisely these mechanisms of surplus extraction and establishing hegemony in agrarian systems.

Bhaduri's (1983, 1986, 1991, 1997) seminal work on forced commerce and the concept of class efficiency in backward agriculture provides me with the theoretical framework for studying agrarian stagnation or dynamism in Indian agriculture. The Bhaduri model of forced commerce explained the working of the debt mechanism in backward agriculture under conditions of semi-feudalism. The landlord was also the moneylender (in the model of semi-feudalism) and the reason for debt was consumption loans. I quote, from a later work by Bhaduri (1997) which sums up this condition of backward agriculture.

"The model of semi-feudalism was constructed (Bhaduri, 1973) to show why the incentive to invest in land improvement may be weak in situations where the semi-feudal landlord is also the moneylender to his tenants. Low productivity of land in traditional agriculture resulting in low income-share for the tenant keeps him perpetually dependent on his landlord for regular consumption loans." The theory of forced commerce shows how primitive accumulation in historically specific forms relies on "market forces" or the

\(^1\) See Bhaduri (1997) for an exposition on this issue where he demonstrates how agrarian ruling classes deliberately manipulate institutions in backward agriculture and this outcome is class efficient. I will come to Bhaduri's definition of class efficiency in the next section.
debt mechanism for accumulation in backward agriculture. The direct/personalized mode of extraction (outlined earlier in the schematization in Chapter Four: Modes of Extraction) is symptomatic of such a form of forced commerce. Indian agriculture today is structured by capitalist principles with an ever increasing magnitude of market forces. The generalized mode of extraction (outlined earlier in the schematization in Chapter Four: Modes of Extraction) captures this specificity of capitalist accumulation. In this chapter, I study the role of markets to see the specificities of the generalized mode of extraction in agrarian systems. I construct a simple model (based on Goodwin’s (1967) model of Class Struggle) of the generalized mode of extraction to illustrate the following issues – persistence of interlinkages and underpricing, insufficient accumulation and depressed labour shares in backward agrarian systems. Finally, we come to the question of agrarian dynamism and backwardness.

Mechanisms of Debt

I use primary data to explore the various aspects of debt-dependence which prevails in backward agrarian systems at present. In the section which follows, I briefly look at the pattern of indebtedness today in Jharkhand, Madhya Pradesh and Chattisgarh. The primary survey reveals that most dalits, adivasis and OBCs have higher proportions of indebtedness.

**Table 6.1: Pattern of indebtedness**

<table>
<thead>
<tr>
<th>States</th>
<th>Debt Dependence (%)</th>
<th>Average Amount Outstanding (Rs)</th>
<th>By Caste</th>
<th>Average Amount Outstanding (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chattisgarh</td>
<td>26.8</td>
<td>13441</td>
<td>ST</td>
<td>42.4</td>
</tr>
<tr>
<td>MP</td>
<td>37.5</td>
<td>5518</td>
<td>SC</td>
<td>52.3</td>
</tr>
<tr>
<td>AP</td>
<td>85</td>
<td>34403</td>
<td>OBC</td>
<td>54.5</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>56.7</td>
<td>6035</td>
<td>General</td>
<td>32.2</td>
</tr>
<tr>
<td>Total</td>
<td>44.2</td>
<td>17073</td>
<td>Total</td>
<td>44.2</td>
</tr>
</tbody>
</table>

Source: Himanshu, Ghose and Kaustav.
The following tables (6.2 and 6.3) give the distribution of the credit by source and purpose.

Table 6.2: Percentage distribution of credit by various sources

<table>
<thead>
<tr>
<th>By Source</th>
<th>By State</th>
<th>By Caste</th>
<th>General</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>CG 3.6</td>
<td>MP 2.3</td>
<td>JK 2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Cooperative/SHG</td>
<td>CG 12.7</td>
<td>MP 20.5</td>
<td>JK 2.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Bank</td>
<td>CG 32.7</td>
<td>MP 9.1</td>
<td>JK 44.1</td>
<td>11.8</td>
</tr>
<tr>
<td>Institutional</td>
<td>CG 49.1</td>
<td>MP 31.8</td>
<td>JK 47.1</td>
<td>15.7</td>
</tr>
<tr>
<td>Employer/landlord</td>
<td>CG 2.3</td>
<td>MP 1.5</td>
<td>JK 0.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Moneylender</td>
<td>CG 20.0</td>
<td>MP 45.5</td>
<td>JK 36.8</td>
<td>49.0</td>
</tr>
<tr>
<td>Shopkeeper/trader</td>
<td>CG 9.1</td>
<td>MP 6.8</td>
<td>JK 15.5</td>
<td>25.5</td>
</tr>
<tr>
<td>Relatives</td>
<td>CG 20.0</td>
<td>MP 4.5</td>
<td>JK 13.2</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>CG 1.8</td>
<td>MP 9.1</td>
<td>JK 7.8</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Source: Himanshu, Ghose and Kaustav.

Table 6.3: Percentage distribution of credit by various purposes

<table>
<thead>
<tr>
<th>By Source</th>
<th>By State</th>
<th>By Caste</th>
<th>General</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>CG 9.1</td>
<td>MP 7.3</td>
<td>JK 13.6</td>
<td>30.0</td>
</tr>
<tr>
<td>Education</td>
<td>CG 3.6</td>
<td>MP 1.5</td>
<td>JK 2.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Consumption</td>
<td>CG 3.6</td>
<td>MP 14.6</td>
<td>JK 13.6</td>
<td>34.0</td>
</tr>
<tr>
<td>Marriage/ceremony</td>
<td>CG 21.8</td>
<td>MP 14.6</td>
<td>JK 19.7</td>
<td>20.0</td>
</tr>
<tr>
<td>Land/building</td>
<td>CG 12.7</td>
<td>MP 9.8</td>
<td>JK 27.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Other productive</td>
<td>CG 34.5</td>
<td>MP 43.9</td>
<td>JK 16.7</td>
<td>10.0</td>
</tr>
<tr>
<td>Repayment</td>
<td>CG 1.8</td>
<td>MP 43.9</td>
<td>JK 16.7</td>
<td>10.0</td>
</tr>
<tr>
<td>Others</td>
<td>CG 12.7</td>
<td>MP 9.8</td>
<td>JK 7.6</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: Himanshu, Ghose and Kaustav.

Almost two thirds of the loans taken come from non-institutional sources. The loan provided by moneylenders accounted for the same percentage as institutional sources. Institutional sources account for 50% of the loans in Chattisgarh. Chattisgarh also has the highest average debt. Further segregation of the data reveals that the high value loans in Chattisgarh is coming from institutional sources. In states (like Jharkhand and Madhya Pradesh) the average loan is considerably lower and further segregation shows that it is mainly in the control of the moneylenders. In Jharkhand and Madhya Pradesh, almost
50% of the respondents reported taking loan from the money lender. Looking at the source of loan by caste reveals that the general category of households and the dalit households (mostly in Andhra Pradesh) depend more on institutional sources while the adivasis and OBCs had to turn to the money lender. Dalits in other states were mostly dependant on the moneylenders in most places. In both Jharkhand and Madhya Pradesh, the absence of institutional sources has led to high dependence on moneylenders and shopkeepers in these states. SHGs (e.g. in Chattisgarh) are also an important source of credit; however most of these loans are low value loans.

Majority of the high value loans taken from the institutional sources are for land and building purchases. However, only 2% of households in Jharkhand have taken loans for buying land. Further caste disaggregation reveals that it is primarily dalits who have taken loan to buy land. The severity of hunger in the case of Jharkhand shows up in the data as it is primarily consumption loan for day to day needs including food that have led to indebtedness. This is coupled with the fact that a weak Public Distribution System (in Jharkhand) reinforces the dependence of vulnerable families on the shopkeepers and moneylenders for even basic food requirements. This pattern is true for most dalit and adivasis households who take loans for subsistence compared to the general caste households. The lack of access to subsidised public health in Jharkhand also explains why a high percentage of households reported taking loans for medical purposes.

The pattern of indebtedness reveals that the second most important purpose of taking loan was for marriage and ceremonies. Given sanskritisation, it is not surprising that it is mostly the general or upper castes who continue to take loans for this purpose to show off their status even if it means large loans. Very few households reported taking loan for educational purposes but of the few who did it were mainly dalit and adivasi households. The historical denial of access to education for these castes till recently along with the lack of provisioning of such facilities in these districts by the state is probably the sole reason for taking such loans.

2 The high dependence of dalits on institutional sources is primarily due to the Andhra Pradesh where dalit respondents have accessed high value loans from Banks.
The prevalence of usury on these loans varied a great deal with the maximum being 42% per annum. The method of usury was prevalent mainly amongst the shopkeepers and moneylenders who charged ‘interest’ monthly and in case of non-payment also compounded it monthly. This system (especially in Jharkhand and Chattisgarh) is still tightly controlled by the moneylenders with the illiterate villagers not owning any piece of paper showing the amount of either principal borrowed or the rate of interest charged. A lot of respondents also did not have any idea of how much they have actually paid. Depending on the power of the moneylender the debt continues or is considered repaid. A common complaint especially in remote areas was that despite having paid the interest and principal, the moneylender continued to show them large amounts of debt and sometimes had even taken away cattle and land. All India debt and Investment Survey reveals that proportion of non-institutional debt in rural areas have gone up from 9.8% in 1991 to 15.5% in 2001. A large proportion of this debt is from moneylenders. This is confirmed by the primary data.

Interlinkages (between various markets) and the central role of usury has always been a peculiar feature in backward agrarian systems. The neoclassical theories of contracts or that of markets can not quite capture the specificities of backward agriculture. But capitalist penetration in Indian agrarian systems at present is almost all pervasive even though the theoretical framework that legitimizes capitalism (specifically the neoclassical school) is unable to correctly characterize the workings of such systems.

Capitalist restructuring in backward agrarian systems works through two mechanisms. One mechanism operates through perpetual debt-dependence as a mechanism of control over the peasantry, especially small peasants. Default in such situations leads to land alienation. The method of forced commerce relies on such a mechanism. The other mechanism is best described by the classical Marxist argument of reserve army of labour – capitalist restructuring of the labour process by depressing wages. The necessity of unfree labour for this process was studied in a previous chapter (chapter III, Unfree

---

1 Bhaduri (1997)
Labour. The aim of the method of forced commerce is to control marketing of products and thus operates in the sphere of exchange. The wage mechanism aims at control of the labour process in production and thus lies in the sphere of production. Surplus extraction and its realization involve both these mechanisms.

The Bhaduri model of semi-feudalism is a description of the direct/personalized mode of extraction. The semi-feudal landlord extracts product rent (share cropping arrangement) from the tenant and also provides consumption loans. The process of control involves the landlord inducing default so that there is a perpetual debt dependence which ties the debtor to the landlord. His income consists of rent from property (land) and usury. My schematization of the generalized modes of extraction visualizes autonomous extractors. This gives rise to different extractive shares which results in separate accruals - income accrual due to (property) rent and income accrual due to debt.

In the discussion on unfree labour (chapter three), I argued that there has been an emergence of a coercive class of people in backward agrarian systems – the contractor and the trader-lender. The trader-lender emerges due to increasing commercial exploitation; the contractor emerges due to more capitalist exploitation. The control of the product market is a necessity for the trader-lender while for the contractor it is unfree labour (as I demonstrated earlier in the thesis - workers get lower than minimum wages). Thus debt repayment or wage is the flexible variable causing fluctuations. I return to this later but first we see what happens if we have different extractors.

**Generalized Modes of Extraction with Autonomous Extractors**

The generalized mode of extraction with autonomous extractors helps in discerning the general mechanisms of surplus extraction in agrarian systems. To keep the model tractable and simple I assume that labour L and capital K produce an output X (like paddy). Given that we are looking at autonomous extractors we see the income accrual from property (ground rent) and the income accrual from the debt mechanism separately. Thus we can write the **income accrual from Property as** $\phi X; \ 0<\phi<1$. Also, the **income**
accrual from Debt: $\lambda X; 0 < \lambda < 1$. Thus autonomous extractors have different extraction shares depending on their economic power, hence $\phi$ and $\lambda$. The Bhaduri model had the landlord as moneylender which in terms of our model would mean that $\phi$ and $\lambda$ went to the landlord alone. Given the complex production relations of backward agrarian systems this may not always be the case and hence we are looking at them separately. Now we can assume that the share received by a small peasant in terms of the output is denoted as $u = (1- \phi - \lambda)X$ and $w$ if he is landless. The share workers get depends on the various extractive shares which the landlord or the moneylender extracts. Thus $\phi$ (extraction from property) and $\lambda$ (extraction through debt) determines the labour share. One thing stands out from this equation, i.e. the higher is the extraction through property or debt the lower is the share of that comes to the worker.

In the context of the present discussion if the share of workers increases (say due to good harvest) then the moneylender demands more in form of repayment. This can be interpreted as repayment of outstanding stock of debt in better times\(^4\). Repayment of outstanding debt reduces the share of workers. When times are not so good (say bad harvest) the moneylender relaxes the repayment amount which leads to an increase in the workers share. I have described the deliberate mechanisms of perpetual indebtedness which operate with different classes of extractors. Thus deliberate manipulation of shares can best be studied through the notion of class efficiency\(^5\) which will lead us to the question of productivity.

**Class Efficiency and Productivity in Agriculture**

I modify slightly the Bhaduri model and assume that the pool of "potentially" investible share in my generalized mode of extraction model then becomes

\[^4\] The repayment due to outstanding stock of debt is not present in the Bhaduri model.

\[^5\] Bhaduri (1997) defines class efficiency of institutions (e.g. interlinked markets or interlocked transactions) in backward agrarian systems as follows: "An institutional arrangement is class efficient if the more powerful class can maintain a higher income in its favour, despite lower productive efficiency of the system. Productive efficiency (including rules of Pareto efficiency) may be violated deliberately if it helps in manipulating sufficiently the distribution of income in favour of the more powerful class."
$Z = \phi X + \lambda X$, income due to property (rent) and debt. In case of the Bhaduri model (landlord and moneylender was the same) this was $Z = \phi X$.

So, income accrual due to property (rent) and usury is $dZ = \phi dX + \lambda dX + X d\phi + X d\lambda$.

We can say that $(\phi + \lambda) dX$ may constitute the part which increases income due to increase in production, i.e. productive investment and $(d\phi + d\lambda) X$ as the unproductive investment which keeps output unchanged. The matrix below presents the various possibilities.

<table>
<thead>
<tr>
<th></th>
<th>Productive</th>
<th>Unproductive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural-lender</td>
<td>$\phi dX$</td>
<td>$X d\phi$</td>
</tr>
<tr>
<td>Trader-lender</td>
<td>$\lambda dX$</td>
<td>$X d\lambda$</td>
</tr>
</tbody>
</table>

We can see that if the rates of extraction increase then it has an inverse effect on productivity. What is more important is that $d\phi$ and $d\lambda$ depend on the economic power of the different class of extractors. Hence we see that agrarian classes could deliberately try and maintain higher rates of extraction and this is class-efficient (Bhaduri definition). Interlocked transactions in rural markets throw up skewed economic power relations which might help different classes to manipulate them more easily. The result of this on productivity can be negative as we have tried explaining through the matrix. Agrarian ruling classes can and do deliberately manipulate institutions and production relations to suit their class interest, which crucially links the question of power to productivity.

Power assumes the central role in studying the presence of interlocked transactions in labour, land, credit and product markets in backward agrarian systems. I have outlined in the previous chapters how the dominant agrarian castes are also the ruling classes in backward agrarian systems. I have used the model of autonomous extractors to understand the complexity of power in agrarian systems. Thus for example different kinds of lenders accept different kinds of collateral in backward agrarian systems.

Moreover there is empirical evidence (see Yotopoulos and Floro, 1992) which suggests that the impact of different collaterals might result in some sort of sorting behaviour by type of collateral. We can expect such sorting behaviour to emerge even more strongly in
a system where personalized extraction of surplus is replaced or existing side by side with
generalized extraction of surplus value, which then affects productivity and hence
agrarian dynamism.

A peculiar feature of backward agrarian structure is interlocked nature of transactions
which can be traced to the complex relations of power among dominant groups/classes.
In the following section I study interlinkages and the question of power in backward
agrarian systems. In terms of the model this would mean looking at who or what
determines \( \phi \) (extraction from property) and \( \lambda \) (extraction through debt).

**Interlinkages and Power: A detailed look into how \( \phi \) and \( \lambda \) work.**

Hegemony of dominant groups or classes in backward agrarian systems have a crucial
role to play in the persistence of unfreedom. The extent of unfreedom can be gauged from
the prevalence even today of underpriced collaterals (land, labour, other assets) and
interlinked markets (land, labour, product, credit) that prevails in backward agrarian
systems in this country. Typically in backward agrarian systems we still find
underpricing of collateral to be the major device for extraction. The collateral can be
land, future labour services, future harvest, other assets (like livestock, gold, silver,
utensils etc.). The underpricing of collateral assumes crucial significance if we are to
understand unfreedom. Two questions regarding underpricing of collateral becomes
important a) what is the personal valuation of the collateral to the lender\(^6\), which will lead
us to a clearer picture as to what is extracted and b) more importantly what is the class
efficiency that occurs there of\(^7\), i.e. who benefits from this extraction?

General classifications of the different collaterals that can be offered are

i. Immovable assets like land, house

ii. Part of produce

iii. Labour

\(^6\) See Bhaduri, 1997 for more details.

\(^7\) See Bhaduri, 1997.
The next question that I turn to is who gets to decide the following:

i. price of collateral. (e.g. land as collateral. The fact remains that the poor (mostly depressed castes) also have the worst ‘quality’ of land. Hence the underpricing of their land occurs with a higher probability)

ii. interest rates

iii. wages for women, dalits, adivasis etc caste defined labour.

The dominant classes ability to influence various markets in backward agrarian systems is a direct indicator of the higher economic power wielded by such groups. Usury for example (between a landless dalit agricultural labourer and a sahukar) would let the sahukar (moneylender) extract a higher return from the debtor and in effect underprice the collateral (here labour). Thus if the debt servicing ‘contract’ is such that the debtor has to work for the sahukar to repay the amount of loan then the sahukar definitely would extract as much labour of the debtor as possible. Historically this method would lead to ruination of indebted families resulting in bonded labour (debt bondage). Sometimes the mahajan can also give loan but would undervalue the collateral (say family assets like gold, house, land, livestock). In this the less marketable the collateral the more will it be undervalued by the method of usury. The less marketable nature of collaterals that can be offered in backward agrarian systems itself is a result of the specific nature of the market that prevail. The Bhaduri model of forced commerce outlines precisely this type of relations in backward agriculture. The semi-feudal landlord in Bhaduri’s model could use the method of usury by giving consumption loans to tenants for subsistence and then extract exhorbitant sums as repayment (often resulting in land being seized for failure to repay). This power of the semi-feudal landlord stemmed from the fact that he was also the source of credit to his tenants. Thus the labour market and the land market as well as the market for credit and products could be influenced by him. The twin roles played by the underpricing of collateral and usurious interest rates in turn continue to affect the process of capitalist accumulation in backward agrarian systems.

The model of forced commerce characterizes capitalist accumulation through expansion of market forces. The element of force would change with the specificities of capitalist
accumulation. The mechanism of debt which works in food crop growing areas would be somewhat different from those growing crops for commercial use. What I am terming newer forms of forced commerce is precisely to do with the latter kind. Where demands of the capitalist system forces farmers to grow commercial crops. The debt mechanism that comes into being is fundamentally of a different kind. Instead of hunger/subsistence loans (primarily consumption loans but could be production loans also) which were characteristic of the agrarian systems studied by theorists before, the reasons for loan now could be different, e.g. higher loans for working capital.

The uncertainty of commercial agriculture in backward agrarian systems are intrinsic to newer forms of forced commerce. This newer form is studied in a comparative approach to outline the differences with the older form. Specifically I look at debt dependence in agrarian systems which are ‘forced’ to grow cash crops and are thus prone to the uncertainties of the market even more. The growing numbers of farmers’ suicides in cash crop growing regions form the backdrop of my approach to what is termed newer forms of forced commerce. Advance cash loans for working capital instead of consumption loans for subsistence are a typical example of newer forms of forced commerce. The role of uncertainty in this newer form provides an insight into the working of capitalism in backward agrarian systems.

There are two kinds of loans to be considered consumption loans and production loans\(^8\):

a] Consumption loans for subsistence, rituals (food deprivation linked to caste status as well as spending on rituals which follow a caste logic). Default on loan means would mean that assets are confiscated or bondage.

b] Production loans (more prevalent in cash crop areas and do not necessarily follow a caste logic). It is in these areas that the question of uncertainty in agriculture show signs of a newer form of forced commerce.

\(^8\) This is just for conceptual clarity since in most of the areas I have visited (e.g. Jharkhand, Chattisgarh) this difference has no meaning, e.g. even for small or marginal peasants loans taken for production can’t be distinguished into these two categories as such.
Further loan inelasticity linked to backward area credit market is marked sometimes by demographic isolation (remote areas according to the state). Basu (1983) has termed this as isolation. Isolation can occur due to absence of most state provided amenities like infrastructure (roads, irrigation, electricity etc.) which make the agrarian system cut off from the larger markets. There is more demand for cash today alongside a more iniquitous distribution of money balance in such isolated areas. It is the power of the lender to influence decisions in backward interlinked markets says credit and lab, or lab and product, or say land and credit and labour that makes the vice tighter.

Different agrarian systems in the country have their own patterns of debt relations. E.g in areas under the jajmani system underpricing is generally combined with consumption loans. This is a typical labour tying method in backward agriculture. Patriarchal caste-feudalism plays a crucial role in these kinds of areas. Thus areas under semi-feudalism (Bhaduri) generally had landlords who were also the moneylenders and grew food crops mostly. underpricing of collateral especially labour as necessary condition for usury in backward agrarian systems

The kind of ‘contract’ underlying the process of underpricing with production loans is fundamentally different from the older form. Here the burden of uncertainty (say cotton growers in Maharasthra and global prices for the same) is transferred on to the borrower in the following way. Trader-lenders offer a forward contract of seeds in return for part of the produce as repayment obligations. The price of say Bt cotton seeds is higher than traditional varieties. Now Bt. Seeds manage to at best reduce crop damage and this is claimed as an increase in yield hence higher prices. Now the farmer takes higher value loans for working capital which makes the total debt for production purposes higher than traditionally. Thus a single bad harvest or global prices crashing can lead to ruination. Not only is the farmer who uses Bt on his fields exposed to such uncertainty. The other plots around his plot are susceptible to heavy bollworm attack (Bt seeds are supposed to resist bollworms) if they do not use Bt seeds. This is a specific case of what is termed newer/modern forma of forced commerce. Also the trader-lender manages to extract
through usury (depending on his economic power) a larger part of the produce if the harvest is good. This he manages to do because the farmers do not access to 'good prices' for a variety of reasons discussed before. Thus the trader-lender operates by interlocking transactions for the borrower in both the credit and product market.

Comparison between Traditional and Newer Forms of Forced Commerce

Loan taken depends on interest rate $i$ and price of collateral $p$.

So the loan function can be written as

$$L = L(i, p_\theta), \text{ where } \theta \text{ is type of collateral; } L_i \leq 0; L_{p_\theta} \geq 0. \quad [1]$$

This is similar to the loan function used in Bhaduri and Basu. The assumption about the loan function leaves out uncertainty. Given the uncertainty of agriculture, call it good harvest (good rains, good prices) or bad harvest the amount that can be paid back is affected. But first we see what affects the amount of loan without uncertainty.

Let, the proportion of debt defaulted be $d$. The amount of debt defaulted depends on the interest rate $i$, the amount of loan taken $L$. Higher the interest rate the higher is the proportion that can be defaulted. The same can be true for the amount of loan. Hence we can write $d_i > 0; d_L > 0$.

Also the type of collateral that the person can offer would in turn affect the amount of loan and hence the proportion of default. Not just collateral but marketable collateral provides more access to loans for the borrower. Here we take landholding $j$ to be a surrogate for collaterals that can be offered (This is too simplistic an assumption since there is no market for all pieces of land but we hold on to it for the time being). Thus we can look at indebtedness among differentiated peasantry and not use farmers as a homogenous category of the peasantry. Say $j=1,2,3,4,5$ corresponds to a five fold classification of the peasantry – landless = 1, poor peasants = 2, middle peasants = 3, rich peasants = 4 and landlords = 5. So higher class means more loans and hence may result in more proportion of default. We can write $d_j > 0$. 
Now we introduce uncertainty in agriculture, i.e. the proportion defaulted would differ depending on uncertainty. Hence the loan demanded would be different for different periods. We capture this in the following way. There are lets say two states state $E_1$ (good harvest) and state $E_2$ (bad harvest). While this binary is an oversimplification but we can have a continuum of in between states. This would complicate the model and reduce the analytical focus. Hence we stick to these two states. So we can have one of the four situations in two immediate time periods: good year followed by good year, good year followed by bad, bad followed by bad and bad followed by good. The advantage of using this simplistic framework is because it gives us a realistic notion of the fluctuation of the amount of loan demanded in agriculture. So in a good year the proportion of default would be less. i.e. $d_{\text{Good}} < d_{\text{Bad}}$.

So the default function reads as $d = d(i, L, j, E_k)$, where $k$ is the state good, bad. [2]

Uncertainty that is a feature of capitalist restructuring of agriculture (especially seen in areas which have cash crops) affects the amount of loan repaid or unpaid debt taken by small and poor peasants. I construct a simple frame for comparison between traditional and modern forms of forced commerce.

The underlying assumption is $d_{M} \gg d_{T}$ i.e. Modern debt consists of fixed plus working capital and is higher in value than traditional debt. The possibilities outlined in the frame above are as follows: in traditional forced commerce the borrower takes loan for consumption and escapes (i.e. repays the amount) if it is a good year. In modern forced commerce higher share means repayment of past debts especially due to outstanding stock of debt. Therefore higher working capital acquires a certain justification because of higher productivity (yield increase). These in turn generate “success stories” of genetically modified seeds which given the informational dispersion prevalent in Indian agrarian systems spreads far and wide. But suppose the crops fail in the first year, then the farmer has to risk taking on higher loan for next year to pay back that much. Then if bad state occurs again (say rainfall fails) again the farmer faces ruination. This is because
with such loans the costs are sunk but output (or global prices for commercial crops) remains uncertain and every year working capital cost increases. The spate of farmer's suicides in Vidharbha can probably be traced to such newer form of forced commerce.

The modes of extraction approach thus allow for a classification of the extractors by the kind of control over debt relations that they exert. In other words the agricultural-lender and the trader-lender would exert different pressures on the agrarian systems. The manipulation of institutions in these particular cases would depend on the power that these different classes have. The accepted feature of agricultural backwardness is low levels of accumulation or insufficient accumulation. This leads us back to the question of productive investment versus unproductive investment in backward agrarian systems.

**Wage Mechanisms**

The emergence of the contractor in capitalist restructuring was demonstrated in the discussion on unfree labour, in chapter three. The model that follows is in continuation from the initial formulation on different extractors and follows Goodwin's model (1967) of class struggle. I have slightly modified the model to the context of a typical backward agrarian system. Also, in order to be able to explain both the mechanisms in the context of backward agrarian systems, I have added the tenant (say small peasant) to the worker. For simplicity, constant productivity of labour is assumed, i.e. Labour productivity: 
\[ a = \frac{X}{L} \]  
[\[ a = a_0 e^{\alpha t} \text{ } [\alpha = \text{constant}] \] Now a landless labourer receives \( wL \). So labour income share = \( \frac{wL}{X} \). Thus, if we take the landless labourer’s share and the tenant’s share as the labour share of output we get \( (1 - \phi - \lambda) \frac{X}{X} + \frac{wL}{X} \). Thus labour’s share of output \( u = (1 - \phi - \lambda) \frac{X}{X} + \frac{wL}{X} = (1 - \phi - \lambda) + \frac{w}{a} \). 

So we can rewrite \( u = (1 - \Omega) + \frac{w}{a} \), where \( \Omega = \phi + \lambda \).  \[ 1 \]

One thing stands out from this equation, i.e. the higher is the extraction through property or debt the lower is the share of that comes to the worker. Also lower wage implies lower share. For the time being we lump together both extractions \( \phi \) and \( \lambda \) as \( \Omega \) and take the
share coming to worker as \((1 - \Omega)\) in case he is a tenant and \(w/a\) if he is a landless labourer. Thus the capital income of the extractor class = \(X - (1 - \phi - \lambda) \cdot X - wL\) \[2\]

So, capital share = \((\phi + \lambda) - w/a = \Omega - w/a = 1 - u\). \[3\]

Now investment in the next period is made out of savings. So we can denote savings as \((1 - u)X\) \[4\]

We have seen in the chapter on Unfree Labour the prevalence of massive levels of open unemployment in agrarian systems of this country. This reconfirms the existence of a reserve army of labour (as defined by Marx) in agrarian systems. Now the Employment ratio: \(v = L/n\), \(n\) being population of labourers. Also, we can take labour supply to be \(n = n_0 e^{\beta t}\), where \(\beta\) is a constant.

\[\dot{K} = \text{Investment} = \text{Savings}\]

\[\text{So, } K = (1-u)X\]

Or, \(\frac{\dot{K}}{K} = (1-u) \frac{X}{K} = \frac{(1-u)}{\sigma} = (1-u)\text{inverse of the capital output ratio.} \tag{5}\]

We have also seen how the existence of huge reserve army in the agrarian scenario along with migrant workers definitely affects the real wage rates. So, \(\frac{w}{w'} = f(v); f'(v) \geq 0\). \[6\]

This entire system is now the same as Goodwin’s model (1967) of class struggle. I modify the model to depict the context of a typical backward agrarian system. Goodwin’s model had the wage relation as \(\frac{w}{w} = -\gamma + \rho v\). Instead I slightly modify this assumption to include the upward pressure on wages as a result of higher labour share in wage bargaining. So I can write this as \(\frac{w}{w} = -\gamma + \rho v + \theta u\). \[7\]

We can easily check that \(\theta = 0\) reduces this to the Goodwin model. Below I derive the basic model.
\[ L = \frac{X}{a} \]

so,
\[ \frac{\dot{L}}{L} = \frac{\dot{X}}{X} = \frac{a}{L} \]

Now,
\[ \frac{\dot{X}}{X} = \frac{K}{K} = (1 - u) \frac{1}{\sigma} \]

Also, \[ \frac{a}{a} = \alpha \]

Therefore,
\[ \frac{\dot{L}}{L} = (1 - u) \frac{1}{\sigma} - \alpha \]

Also, \[ v = \frac{L}{n} \]

so,
\[ v = \frac{L}{n} - \frac{n}{n} = (1 - u) \frac{1}{\sigma} - \alpha - \beta \]

Now, \[ u = (1 - \Omega) + \frac{w}{\alpha} \]

so,
\[ u = \frac{w}{u} - \frac{a}{w} \]

Now, \[ w = -\gamma + \rho v + \theta u \]

\[ \therefore \frac{u}{u} = (-\gamma + \rho v + \theta u) - \alpha \]

So we can write this system as
\[ v = [(1 - u) \frac{1}{\sigma} - (\alpha + \beta)]v \tag{8} \]

And \[ u = [-(\gamma + \alpha) + \rho v + \theta u]u \tag{9} \]

Now the system represented by equations [8] and [9] is the Predator – Prey system (Lotka-Volterra system) with \( u \) as predator and \( v \) as prey. This is the classical result on the reserve army of labour. Capitalism restructures labour processes to maintain control.
and this job is done at present by the contractors. We can easily check that $\theta = 0$ reduces this to the Goodwin model\(^9\).

**Agrarian Dynamism and Backwardness**

Different modes of extraction thus help us in understanding the lack of agrarian dynamism or backwardness. The resistances to change in our agrarian systems seem to stem from the complex class relations which prevail in them. A major thrust of this chapter has been to show that the ruling classes might be the significant barrier to agrarian dynamism. The relentless manipulation of institutions to suit class interest may be the most important reason for backwardness. In other words low levels of productivity can be explained in our case to be a direct result of the antagonisms embedded in relations of production, not only between the exploiter and the exploited but also between the different class of exploiters. Also this framework can take us into analyzing the agrarian system where the landlords are not the only ones making investment decisions, there is a significant role played by the moneylender. Whether the moneylender is a trader-lender or a agricultural-lender will then influence agrarian dynamism and we can see the effect in a bit more detail though this approach.

The newer forms of forced commerce that I outlined in this chapter reveals the changing role of the state although implicitly. Issues in agrarian stagnation and dynamism dealt specifically with the role of markets and social groups in analysing class relations. However the process of capitalist accumulation and its effect on backward agrarian systems is heavily dependant on the role of the state. The agrarian relations which in turn affect stagnation are altered or preserved by the state. The different tenurial systems to the different kinds of crops were all a result of state intervention. In the context of backwardness in Indian agrarian systems, the colonial state played a defining role. The fundamental alteration of property rights to the various institutions in agrarian systems of this country was a result of colonisation. The following two chapters look at the role of

---

\(^9\) Goodwin’s (1967) model is structurally unstable for any $\theta \neq 0$. See Mukherjee (2005) for a detailed exposition of structural instability of such a system. However for our purpose it suffices to show how extractive shares (both by landlord and moneylender) drive down labour share.
the state in creating/perpetuating backwardness in agrarian systems. I first look at the role of the state in colonisation (Chapter VII) to grasp the historical reasons for the backwardness which prevails even today in the post-colonial state.