CMIWORKINGPAPER

Is Bonded Labor Voluntary? A Framework against Forced Work

Espen Villanger

WP 2006: 7

CMI CHR. MICHELSEN INSTITUTE

Is Bonded Labor Voluntary?
A Framework against Forced Work

Espen Villanger

WP 2006: 7

CMI CHR. MICHELSEN INSTITUTE

CMI Working Papers
This series can be ordered from:
Chr. Michelsen Institute
P.O. Box 6033 Postterminalen,
N-5892 Bergen, Norway
Tel: + 47 55 57 40 00
Fax: + 47 55 57 41 66
E-mail: cmi@cmi.no
www.cmi.no

Price: NOK 50

ISSN 0805-505X
ISBN 82-8062-146-6
This report is also available at:
www.cmi.no/publications

Indexing terms
Coercion
Debt slavery
Power
Bonded labor
Nepal
Asia

JEL classification: C72, D40, J41, K31, O10

Project title
Bonded labor in South-Asia

Project number
23109

Contents

1. Introduction

Bonded labor remains a widespread problem, and the UN has estimated that some 20 million people are held in such working conditions around the world (UNHCHR 1999). Many reports on the livelihood of these people indicate that they are deprived of their basic liberties, and many live their lives in destitution. This has spurred several governments of countries where bonded labor is a large problem to ban these institutions, and also some regional agreements to prohibit forced labor.[1] India implemented a bonded labor act in 1976 and Pakistan in 1992, while Bangladesh has made the institution illegal in their constitution. In Nepal, bonded labor has been prohibited under the constitution since 1990. In order to initiate enforcement, a government declaration against the *kamaiya* system of bonded labor contracts was set forth in July 2000, and a widespread liberation program was undertaken (Hatlebakk 2006 and references therein). Moreover, the Nepali Government passed an act in parliament in 2002 banning the *Kamayia* bonded labor (Anti-Slavery International 2003).

On this background, however, it is puzzling that much of the economic literature analyzing bonded labor and servitude claims that this is a voluntary relationship, at least ex-ante (see for example Genicot 2002). According to this view, bonded laborers choose to become bonded since the outside options are worse than rendering themselves in the hands of the landlord. If this is in fact the case, then, we would expect that banning bonded labor as an institution and emancipating these workers, ceteris paribus, would usually have a negative welfare effect on these people. Moreover, if working in subordination for the landlord is their best option, then they would return into the same subordinate relationship after the emancipation. However, even if one finds that *some* freed laborers return to the same conditions with their landlord after they have been emancipated (see for example Kloosterboer 1960, Prasad and Chandra 1994, and www.anti-slavery.org 2005), there is no reason to generalize and assume that *all* the previously bonded laborers would prefer to return to bondage. Taken together, there seems to be a dichotomy in the characterization of bonded labor where it is both described as a voluntary and as a non-voluntary relationship.

This paper addresses this dichotomy and provides a clear definition that distinguishes voluntary from non-voluntary labor contracts, where only the latter relationship is defined as bonded labor. Moreover, we demonstrate the importance for policy of making this distinction in practice. Even though we find rather different mechanisms in the literature that give rise to bonded labor, the definition we suggest captures the essential feature for the non-voluntary relationship that these laborers are worse off as compared to their feasible alternatives. Moreover, we propose a simple test that can be used for empirical assessments prior to interventions to help bonded laborers, and this test reveals the extent of coercion implicit in these labor relationships that can be crucial for policy intervention. Finally, our paper specifies a new simple model that captures the mechanisms that has made it possible for the landlord to disguise forced bonded labor as a voluntary relationship, and discusses its implications for the efforts to emancipate these workers.

A natural starting point for assessing the voluntariness of bonded labor is to compare the situation of those who do not have a better option than to return to bondage, with those who were actually trapped in the relationship. Finding the mechanisms that lock the laborer to the landlord may give important insight into the nature of bonded labor. Our model highlights the difference between voluntary bonded labor contracts and workers in an unfree relationship with the landlord. We assume that there are different types of landlords, bondage landlords and normal landlords, and that this is not revealed to the laborer before the contract is agreed upon. The bondage landlord has an incentive for bonding a laborer while the normal type has not. In our set-up there will be

[1] Two regional agreements are Article 6 (2) of the American Convention on Human Rights (1969) and Article 4(2) of the European Convention for the Protection of Human Rights (1950) affirms “No one shall be required to perform forced or compulsory labour” (Anti-Slavery International; ICFTU 2001: 5).

situations where the bondage landlord offers a credit contract where the laborer pledges his future services as a servile laborer as collateral for the loan. We show that strategic moves by the landlord to make the laborer default on the loan can make the laborer permanently trapped in servility. The lack of contract enforcement mechanisms and alternative credit providers in the rural economy thus plays a crucial role in explaining bonded labor. In contrast to the existing models of bonded labor, our model explains how the laborer enters into bonded labor, and is kept in this relationship, in a non-voluntary manner. Imposing a ban, providing proper conflict resolution institutions over labor-contract disputes and offering alternative credit would then be major tools for emancipating bonded labor, and this would make the laborers better off.

One important contribution to the understanding of the bonded labor relationship comes from those that argue that dependency similar to the bonded labor institution may rise from institutions where the outcome of one laborer depends on the actions and beliefs of the others. One example is found in the widely cited paper of Akerlof (1976), where he models the caste system as an institution where one agent will be punished by all other agents for deviating from the caste rules. Hence, if the agents believe that they will be punished for deviation by the others, then the caste system becomes a self-fulfilling prophecy. Then it is not in the interest of one individual of breaking out of the system, but if banned, all those who are discriminated under the caste system would be better off. Similarly, if the laborers' loss of bonding themselves decreases in the number of other laborers that bonds themselves, then Schaffner (1995) shows that the laborers can be better off if bonded labor is banned when the workers are not conscious of such group reference effect.

Another explanation where the choices of other individuals restrict the options for the laborers is illustrated by the model in Genicot (2002). She shows that if the landlords give credit to laborers that renege on the loan to a formal credit institution if they become bonded labor, this can imply that these laborers will be denied formal credit in the first place. Hence, no formal credit institution will exist, and the landlord can charge higher interest rate on lending to the bonded laborers as compared to the market rate. In this case, banning such bonded labor contracts would contribute towards the creation of formal credit institutions, and once in place, this would make the bonded laborers better off due to the cheaper credit. For other models that describes how the outside option of the laborer can be made less attractive by the strategic behavior of the landlord, i.e. where the laborer's reservation position can be influenced by the landlord, see Hatlebakk (2006), Chambers and Quiggin (2000) and Basu (1986).

However, when we observe bonded labor in markets with alternative credit opportunities for these laborers so that Genicot's (2002) model does not apply, and when there is no evidence of threats of reciprocal punishments as in Akerlof (1976) or substantial reference group behavior as in Schaffner (1995), then we are still left with the question of what are the mechanisms that keep *these* bonded laborers in servility. There are frequent observations of workers asserting that they are trapped in the relationship with the landlord against their own will, and the existing literature is not able to explain the mechanism behind such non-voluntary labor relationships. Hence, our approach is complimentary to the above mentioned models as they describe different mechanisms that lock workers into the bonded labor institution. Moreover, our framework gives the opportunity to discuss the extent of voluntariness in the different bonded labor relationships and compare them, and we show that this has important implications for policies. Note an important difference in that most of the models analyzing bonded labor incorporates multiple equilibria, i.e. they focus on how the landlord can act strategic to change the conditions for all the laborers in the economy. Our approach differs since we assess the direct contracting between the landlord and the laborer as two individuals, and show that the bonding mechanism will not impact on the other laborers' contracts per se. This approach has strong empirical support, but is lacking in analytical work on bonded labor.

In order to put a frame around our focus, a remark on slavery is necessary. There are some observations of slavery in the empirical literature on labor relations in poor rural areas. However, this institution is quite distinct from bonded labor since slaves are usually treated as capital goods, and can be considered to be the properties of the employer (Ray 1998). In contrast, empirical evidence indicates that bonded labor is not traded. Moreover, there is probably no disagreement on the concepts and necessary policies to implement for abolishing slavery, as it is illegal in all countries of the world (www.anti-slavery.com). Hence, we will not go into this form for exploitation.

This paper is structured as follows. In the next section, we present some definitions and anecdotal evidence on different types of bonded labor. Then, in section 3, we compare bonded labor to other long-term rural labor contracts. Section 4 contains a simple model clarifying one mechanism that has not been modeled that distinguish bonded labor from other long term labor contracts and voluntary servitude, and analyze which of the types of relationships makes the laborer worst off. Section 5 discusses policy implications, and section 6 provides the conclusions.

2. Definitions and some evidence

There seems to be quite some disagreement on the exact meaning of what constitutes "bonded labor", and in particular, whether these laborers finds themselves in a voluntarily relationship with the landlord. In this section, we start with the definitions and empirical observations of bonded labor that undoubtedly stems from a *voluntary* relationship between the landlord and the bonded laborer. These descriptions of the laborers' servility stem from the poverty of these workers; they agree to subordinate since this is in fact their best option. Hence, we term these relationships *poverty-induced subordination*. Then, in section, 2.2, we discuss definitions and empirical descriptions of working relationships which are *non-voluntary*, and start out by proposing a new definition of forced bonded labor and an empirical test for this relationship. In the case of such forced work, the employer usually has some kind of power that is applied to keep the laborers servile. We hence term these relationships *power-induced bondage*.

2.1 Poverty-induced subordination

One mechanism often claimed to be a source of bondage is that the laborer takes a loan from the employer using his future labor services as collateral. Then if the laborer is not able to repay the loan, he looses his collateral, and is deemed to work for the employer and only having his basic needs covered. This institution is called debt-bondage, and Anti-Slavery International highlights that many of these bonded labor relationships are caused by the poverty of these laborers:

> "Debt bondage is a system created by severe poverty and perpetuated by heredity. India, Pakistan, and Nepal are just some of the countries where debt bondage exists. For centuries, the destitute have pledged their own labor and that of family members as security against a loan - a loan usually taken out in a time of crisis. Tragically, the original sum is rarely paid off. Workers inevitably incur new debts for food, clothing, and shelter." (www.anti-alavery.org)

However, debt bondage created by the inability of a borrower to service his debt is not a new phenomenon. Bonded labor was defined by United Nations in 1956 as:

> "the status or condition arising from a pledge by a debtor of his personal services or those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined".[2]

[2] Article 1 (a) of the UN Supplementary Convention on the Abolition of Slavery, the *Slave Trade and the Institutions and Practices Similar to Slaver*.

This definition applies to many of the descriptions of bonded labor by Anti-Slavery International (see www.anti-slavery.org). The literature tends to argue that the laborer is bonded because he has pledged his labor to the landlord for an open-ended period as security for the loan. Bardhan (1983) defines bonded labor as "a person who is tied to a particular creditor as a laborer for an indefinite period until some loan received in the past is repaid" (se also Busse and Braun 2003). However, the *length* of the period of the arrangement does not impact on whether it is a voluntary relationship since the discounted life-time value of the arrangement is used as a yard-stick. Moreover, taking a loan from the employer that needs to be repaid when the employee quits is a common arrangement also in developed countries, and is an option for the laborer and not a requirement for being employed. It is hard to argue that there are any non-voluntary aspects of this relationship where future labor services can be pledged as collateral in the same voluntary manner as pledging a property as collateral, even if the former implies life-long laboring for the creditor. In the situation that the laborer has pledged his future labor as collateral and subsequently lost it, one can argue that he is ex-post unfree. This does not imply, however, that the relationship is non-voluntarily since the scenario of becoming un-free must have been a part of the laborer's assessment when entering the loan contract.

The view that the laborer enters the relationship voluntarily, and is subsequently bonded for the rest of his life, is mirrored in recent academic literature. Moreover, the voluntarily nature of the relationships embedded in these definitions are not only highlighted in the presentation of the problem, but also operationalized in economic modeling. In a paper analyzing bonded labor, Genicot (2002) gives a good example of this perspective where it is the laborer's deliberate choice of bonding himself to the landlord:[3]

> "Interestingly, bonded labor is ex-ante voluntary. In the case of debt bondage, a tenant or debtor voluntarily places himself in a servile position, even though he may have little or no choice in the matter. Just as a serf is tied to his master by apparently voluntary acts of fealty, the bonded laborer is a technically free wage laborer whose state of servitude may be terminated on repayment of the debt (see Watson, 1976, p7). So, although once bonded, a worker is unfree, the act of choosing to be bonded is usually one freely made to avert acute poverty or starvation."

Another contribution to the perception that bonded labor is voluntary is provided by Schaffner (1995). She defines servility as laborers rendering their services to the landlord around the clock, being subordinated socially and even involves in political activity in support of the landlord. Since there is a cost to the laborer of being servile, she argues that the landlord needs to compensate the bonded laborer in order to make them accept such subordination. However, being compensated in full for the negative aspects of the work indicates that such a relationship should be classified as a voluntary exchange.

Clearly, it is possible to make many individuals subject to unwarranted treatment as long as the compensation is high enough, or their alternative option is worse. Sen (1987) argues similarly:

> "…the compulsion to acquire enough food may force vulnerable people to do things which they resent doing, and may make them accept lives with little freedom."

The same line of argument is found in a lawsuit organized by the Washington, D.C.-based International Labor Rights Fund against the American tire producer Firestone in Liberia in 2005. There, it was stated that the rubber plantation workers are modern day slaves, forced to work by the coercion of poverty, with the prospect of starvation just one complaint about conditions away (www.allafrica.com 2006). This type of working relationship where workers are subjected to harsh

[3] For additional literature describing the entry into bonded labor contracts as voluntary, see Srinivasan 1980 and 1989.

treatment with a worse outside option highlights the importance of distinguishing between voluntary and non-voluntary labor relationship when it comes to policy intervention. Destitute people that render their services in exchange for some extra remuneration could come in a difficult position if such opportunities were removed, especially in poor rural areas where seasonal income fluctuations can exacerbate their hardship. Hence, banning the relationship that enables people to acquire enough food may have severe implications for the welfare of these people, and, for example, if the Firestone plantation in the above example was closed down the workers would be worse off. When policies for poverty reduction are discussed, we seldom encounter arguments in favor of using the law to curb the problem. Similarly, when servility is induced by poverty, it is less likely that banning the institution would have a positive effect for the laborers.

Taken together, we suggest that if the laborer is rational and enters voluntarily into the bonded relationship, then the bonded labor relationship should be classified as a voluntary institution. In section 3 we show that voluntary poverty-induced bondage as described in the literature is incorporated in existing concepts like *tied*, *permanent* and *attached* labor. One important distinction is lacking, however. The literature usually does not differ between labor relationships where the laborer has pledged his future work as collateral to the landlord and subsequently lost it, to the situations where the laborer has lost this collateral. The nature of those two working relationships is very different and requires a distinction, which we propose in section 4.

2.2 Power-induced bondage

In order to distinguish between voluntary and non-voluntary working relationships, we suggest that the term “bonded labor” is reserved for power-induced bondage. In section 4, we relate bonded labor to other long-term working relationships. Our definition of bonded labor, which will be used subsequently in this article, is hence as follows:

- *Bonded labor* is a laborer that is coerced by the landlord into providing services for the landlord, with the result that never entering the relationship with the landlord would have been preferred from the laborer’s point of view.

Our definition should clarify many of the observations where tied laborers and workers with credit-labor interlinked contracts are mistakenly taken for non-voluntary bonded laborers. We also propose a simple test that will usually reveal whether the relationship can be categorized as bonded labor or not. Take the typical relationship often claimed to be bonded labor: A laborer has such a high debt that he is not able to repay the landlord and is therefore required to work for the landlord for the rest of the laborer’s lifetime. Now, whether this is a *bonded* relationship, or just an artifact of not having any other opportunities than to choose such a *tied* relationship, can be empirically tested by assessing the following counterfactual question:

- Would the laborer be better off if the landlord had not used his power to lock-in the laborer?

If the answer is yes, then the worker is a bonded laborer according to our definition. Counterfactual questions are usually difficult to answer, however, and we return to the empirical application of this test and its implications for policy in section 4 and 5.

Several anecdotes support our clarification that there are two main types of relationships included in the concept of “bonded labor” as used in the literature. As noted in the introduction, the countries with most bonded laborers have imposed a ban on bonded labor, and this seems to stem from a perception that the bonded laborers are *forced* into the relationship by the landlord.

Similarly, the International Labor Organization defines bonded labor as forced work where the worker can be penalized for not complying[4].

Looking at the observations in the field, we get a similar picture. The subsequent observation where landlords keep false records reveals one mechanism that can force the laborers to remain with their particular landlord despite a better outside option: "… the employer/money lender often charges an exorbitant interest rate and keeps false records." (www.anti-slavery.com) .To see how such a worker can end up as a bonded laborer assume that a laborer has agreed on taking a loan from the landlord on the condition that if he is not able to service the debt, then the laborer must render his future labor services to the landlord for a minimum compensation. If the landlord manipulates the debt up to an amount so large that the laborer is unable to repay, then the laborer is locked in a non-voluntary relationship with the landlord. If this situation is worse than his outside option before taking the loan, then the worker has become a bonded laborer. Observations by Breman (1974) in his anthropological study of southern Guarjat, India also suggest that manipulation of the debt is one approach for the landlord to lock-in bonded laborers:

> "For that matter, the landlords have it in their power to prevent repayment, and they do not shrink from wrongfully adding all kinds of expenses to the debt… A striking instance is that of a master who went to the hut of a *Dubla* servant to lecture him about his absence. On the way there he hurt his foot on a thorn, with the result that the *Dubla's* account was debited with 5 rupees, the amount the master had spent on medicines. Another *Dubla* entered into marriage at the same time as his brother, and together they obtained 275 rupees from an *Anavil* (i.e., Brahmin of the landlord class). When, after three months, one of them died, the master charged the remaining brother with the total amount."

Rejecting the laborer's repayment with the expectation that the loan may go to default later on, or the landlord's practice of "wrongfully adding" his expenses to the laborer's debt can both be strategies to force laborers into bondage. Note, however, that when the brothers in the example are taking a loan to cover marriage costs - it need not be manipulation or coercion to demand that the brother repays the full amount of loan if it was taken with joint liability between the siblings. On the contrary, most banks will secure themselves against borrowers passing away by offering loans where the obligation to repay the full amount is put on those of the joint borrowers remaining alive. Most common, perhaps, are housing loans taken by spouses, where if one dies the other must continue servicing the full loan. If this was the case in Breman's anecdote, then the debtors may have taken this into account before entering the credit contract. If so, the expected well-being of taking the loan must have been higher than abstaining from the loan (i.e., their outside option), and hence the worker can not be categorized as a bonded laborer.

Other accounts of bonded labor relationships point in the same direction where it is some sort of manipulation with the credit contract that traps the worker into bondage. Rudra (1982) describes bonded laborers, and how they enter this institution, in the following way:

> "There is such a phenomenon as some labourers being attached to certain employer families over years, sometimes over generations, in an unequal relation of mutual dependence, the basis of the relation being some loan taken a long time back. In

[4] ILO's Forced Labour Convention ILO Convention NO. 29, Article 2(1) defines *forced labor* as: "all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily." ILO developed the first comprehensive report on forced labour in 2001. The report distinguishes between eight types of contemporary forced labour: (1) slavery and abduction for forced labour; (2) compulsory participation in public works; (3) coercive recruitment practices; (4) domestic workers in forced labour situations; (5) forced labour exacted by the military; (6) bonded labour or debt bondage; (7) trafficking in persons; and (8) prison labour.

> such cases, quite often, both the parties have lost track of the loan accounts in terms of principal and interest, which accounts are in any case outrageous and total arbitrary. It is the non-significant part played by the loan accounts and the essential part played by the relation of personal dependence and personal domination which qualifies the coercive relationship as being extra-economic."

Hence, if the laborer is required to work for the employer and being dominated on the basis of an amount of credit that has been arbitrarily changed by the employer, then this mechanism is in essence the same as in Breman's accounts where the credit contract can be a pretext for acquiring cheap labor. On the other hand, if the laborer's options are worse than continuing in the relationship with the employer and playing along with the debt scheme, then the relationship is not classified as bonded labor.

To exemplify the exact distinction between the two types of bonded labor, assume that there are two laborers working for two different types of landlords, a normal landlord and a bondage landlord, where the type is not revealed to the laborer ex-ante. Assume further that the laborer working for the normal landlord enters the relationship with the intent of binding himself to the landlord, and hence takes up debt above what can be repaid, and that the laborer working for the bondage landlord has the intent of being able to repay the debt in order to have the ability to enter another working relationship later on. Now, if the bondage landlord manipulates the debt upwards so that the laborer is not able to repay, then it is a very different relationship compared to the laborer staying with the normal landlord. Paralleling the situation to most other areas of commerce and trade, the former situation would be close to an ordinary transaction, while the latter could be a case for the judicial system to re-establish justice.

The ability of the strong part to change the outside option of the weak part can clearly be important in deciding whether a transaction is voluntarily or not. Basu's (1990) example of a man asked for his wallet at gun-point is illustrative. He has the opportunity to decline, but few people would argue that the choice of parting with his wallet in this situation is a voluntary act. Hence, this cannot be claimed to be ex-ante voluntary and is clearly a different kind of situation as the one described by Genicot (2002) quoted above where the laborer chose to enter the relationship. Our example is more in line with Basu's where one option is removed from the weak party's set of feasible alternatives: the man asked for his wallet no longer has the option of walking from the scene unhurt with his wallet, and the laborer has no longer the opportunity to get out of the relationship with the landlord after the laborer's loan has been manipulated up to an amount so large that the laborer will never be able to repay.

Clarifying the actual mechanisms that distinguish bonded labor from voluntary labor arrangements, like tied labor and interlinked contracts, clearly have great importance for policy. Banning a voluntary labor institution, ceteris paribus, would usually leave the laborers worse off since they would otherwise have chosen the alternative they have to stick to after the ban. On the other hand, banning an institution where the laborers are trapped and in fact would escape if they could, will clearly improve the situation of this group. With this as a background, it is more understandable why we observe that some emancipated laborers return to their landlord after they have been set free. The simple explanation for this may be that they are poor people with no better option than to stay tied to the landlord.

Looking beyond the bonded labor literature, it is clear that what is often termed bonded labor can actually be defined by more common labor-credit interlinked contracts where the duration is very long-term in nature. The relevant economic literature is discussed next.

3. Literature review: long-term rural labor contracts and bonded labor

3.1 Labor or credit contracts

The economic literature on permanent labor arrangements focuses on personalized labor relationships usually lasting a year or more, and this type of contract is interchangeably called tied labor, estate labor, farm servant or attached worker. The two-tier labor market models analyze the co-existence of casual labor with permanent workers, and usually investigate the efficiency of such contracts and the role of each type in production. Bardhan (1979) shows that landlords may have incentives to offer such long/term contracts to avoid costly recruitment of workers in the peak season, while Shapiro and Stiglitz (1984) and Eswaran and Kotwal (1985) analyze how these contracts can give incentives for agricultural laborers to work effectively in the slack season.

There is a large literature that argues that the long-term labor relationships can be efficient. Moreover, the two-tier labor models emphasize that the laborers utility in the permanent labor relationship is equal or higher than the utility of being a casual worker (Ray 1998). Being a day-to-day worker is then taken to be the permanent laborer's reservation position, and in order to prevent the permanent laborer form shirking, the landlord offers him a wage premium sufficiently high to make the loss of this job an unwarranted situation for the worker. Hence, the permanent laborer is better off in this relationship as compared to his feasible alternatives. Finally, permanent labor arrangements function as a substitute for insurance (Ray 1998). In terms of hardship, the permanent laborer will still have his daily minimum support from a landlord in contrast to the casual laborer who might be unemployed in this situation. Hence, all these two-tier labor models indicate that the permanent labor is at least as good off as their alternative, and the laborer is always free to choose this outside option. Hence, we cannot define these relationships as non-voluntary. Moreover, since there are many observations of bonded laborers that claim that they are *worse off* than the alternative they would have if they were freed from the landlord, we need to go beyond the standard labor models to investigate the mechanisms of bonded labor.

Several authors raise the concern that there is more coercion in the actual relationship than is accounted for in the two-tier labor models. Bardhan (1991), Schaffner (1995) and Genicot (2002) emphasize that the traditional permanent labor models tend to conceal the power relations implicit in these labor relationships. Similarly, Eswaran and Kotwal (1985) argues that permanent labor is highly personalized and involves a high degree of patronage where the landlord demands total loyalty, but this is not incorporated in their model. One interesting contribution where the employer's power is explicitly taken into account in the modeling is provided by Schaffner (1995). Combining the power of the landlord with the laborers' limited perception of the attractiveness of alternative labor opportunities gives the opposite result as compared to the two tier models: The permanent labor contracts need not be efficient, the laborers are bonded to their landlord and banning the institution could make the laborers better off.

Since Schaffner (1995) points to *one* interesting explanation for bonded labor it is worthwhile to have a closer look at the actual mechanisms that brings out the results. The model incorporates the psychological findings that human beings' attitudes and behavior depend on the perceptions and behavior of members of what is called a reference group, i.e. the group that the individual identifies itself to belong to. Hence, the larger the number of members of a community that subordinates themselves under the landlord and behaves servile - the lower the cost for a single individual of such behavior. Moreover, if the members of the group that is behaving servile do not fully appreciate that the behavior of the other members influence their own behavior, then there may exist situations where no member breaks out of the group even if they all have knowledge about the better life lived by groups in other areas. Taking advantage of these perceptions, the landlord can isolate the laborers working for him and hence incur lower costs of making the laborers servile compared to a situation where the laborers work among laborers who behaves in a non-servile manner. Hence, the often observed requirement that the laborers must live on the landlord's farm is important economically since it is in the landlord's interest to limit the worker's horizon.

The landlord's mechanism to keep the laborers trapped in the relationship in Schaffner (1995) is that servile laborers are given a wage premium to accept the bad working conditions as opposed to ordinary permanent labor. Hence, if the laborers' preferences do not depend on reference group behavior and the market for servile services was eliminated, then the servile laborers will lose their wage premium and be at least as good off as before. On the other hand, incorporating the feature that the laborers are not aware of the effects of the reference group perceptions can give the opposite result. If the laborers are unaware of the reference group effects, then they might find that the wage premium was too low compared to the available non-servile contracts. Banning servile labor contracts would then improve the wellbeing of the servile laborers.

The implication of the model is quite interesting: Servile laborers would reject being parted from the landlord to take the outside option, but after having started to work at the outside option as non-servile laborer in a community without servility, they would realize that they are better off and would never return to the servility. Hence, the servile laborers in this model are defined as bonded laborers according to our definition when assessing the relationship from outside the relationship. Our proposed test would succeed in identifying these laborers as bonded laborers if the question of whether they would never enter such a relationship is asked those that are not in the servile relationship. However, the test fails to identify them as bonded laborers if applied to the laborers that are in the servile working relationship with the landlord since these workers believe that the outside option is not better than what they already have got. Clearly, this has important policy implications which we will return to in section 5 below.

We now turn to the credit market since lending seems important to the bonded labor anecdotes presented above. It is evident that there is substantial risk involved in lending informally when the contracts are not enforceable and there is asymmetric information on the borrowers' willingness and ability to repay a loan. To reduce this risk, a lender can demand collateral, and/or only lend to people whom she knows well, can monitor or punish. These strategies help explain the monopolistic structure of lending, and hence why many laborers have their landlord as their sole provider of credit. However, as Basu (1997) points out in his overview of the literature on monopolistic rural credit markets, there are two approaches to modeling this exchange that has important implications for the outcome to the debtor. The first approach is to let the money lender use a "price strategy" where the terms of the loan is determined by a monopoly pricing strategy, while the second is to use a "reservation utility" strategy where it is the debtor's willingness to pay that determines the terms of the offer. In the former, the debtor can get a surplus from the exchange, while in the latter the debtor can be made indifferent between accepting and rejecting the loan on the proposed terms. Hence, neither approach is capable of enlighten a bonded labor institution as defined in this article where the debtor (laborer) is worse off in the relationship.

Even if standard credit models do not give any insight into bonding mechanisms, credit contracts can give insight into *one* mechanism that can explain bonded labor. Bhaduri (1977) gives important insight into the situations where giving loans can be a veil for the landlord's intent of acquiring the collateral. In his model, a farmer pledges a loan from the landlord and uses his land, which is adjacent to the landlord's property, as collateral. Hence, the landlord values the farmer's land more in monetary terms than the farmer, and there can thus be situations where the value to the landlord of this collateral is higher than the value of the loan given to the laborer. If this is the case, then the landlord has incentives to make the laborer default and could for example increase the interest rates in order to acquire the land. This mechanism can also be used to explain bonded labor relations if the laborer pledges his labor as collateral, and we explore this opportunity in section 4 below.

3.2 Interlinking labor and credit contracts

As noted above, the laborers' demand for credit plays a central role in the broad literature describing and analyzing the tight relationship between many landlords and laborers that has frequently been called "bonded labor". The literature that explains the observed exchanges where credit and the labor contract is simultaneously agreed upon can also shed light on the importance of separating bonded labor contracts from ordinary interlinkage contracts.

A subtle model where the landlord uses interlinked contracts between credit and labor to bond the workers is proposed by Genicot (2002). In her model, the existence of bonded labor causes formal institutions to deny loans to the laborers since credit from the landlord can make it profitable for the laborer to renege on a loan from the formal credit institution. This, in turn, enables the landlord to keep the laborers in a relationship where they would have been better off if the bonded labor institution had been banned. Since this model undoubtedly cast light on the exploitation that some laborers are subjected to, and how the informality of rural economy works to the disadvantage of the laborers, we go somewhat deeper into this mechanism.

To understand the mechanism that bonds the laborers in Genicot's (2002) model, assume that the asset-less laborer can take a loan, *L*, from a credit institution, that is to be repaid next period. In case of default, no formal credit institution will give new loans to the laborer. The laborer is able to repay if his wage next period, *w*, is larger than the loan plus interests, *r*, and is willing to repay if his utility of repaying is higher than his utility of reneging. Now, the opportunity for the laborer to take future loans plays an important role in the model, and assume that the discounted value of this opportunity is *g*. Then the laborer will repay if the *repayment constraint* $V(w-(1+r)L+g) > V(w)$ holds. Assume that this constraint is satisfied so that the laborer would be granted a loan and that this would be repaid.

Assume now that a landlord enters the stage. The landlord is able to commit himself to offering a bonded labor contract where the laborer must work for him, and gets, in addition to the ordinary wage, a loan *L* at a slightly higher interest rate as compared to the formal lending institution.[5] The landlord's loan is given irrespectively of the laborer's past credit history with formal institutions, and the landlord can deduct the installments on the loan from the wage before paying it to the laborer. Hence, the landlord has some security for repayment of the loan. If the discounted value for the worker of future loans of this type is $y>0$, which includes the disadvantage of bonding himself to the landlord and an interest rate higher than *r*, then this implies that the laborer has a better payoff from reneging as compared to a situation where bonded labor does not exists. This is evident from the repayment constraint since the laborer can take a formal loan and then renege in order to enter a bonded labor contract and hence achieve $V(w+y)$.

The formal credit institutions observes that the repayment constraint is now considerably altered, and note that if the landlord is able to lend on the same terms as the credit institution and give the laborer future loans that is valued to *g*, then the landlord is able to make an offer to the laborer so that the laborer always will default on the formal loan $V(w-(1+r)L+g) < V(w+g)$. This implies that the formal lending institution will decline to lend since it knows that the laborers will renege, and also that there is a range of interest rates larger than *r* that the landlord can set on his loans and still not violate (2). Hence, it is profitable for the landlord to offer a bonded labor contract. In equilibrium, there will thus be no formal lending, and all laborers will be bonded. Abolishing bonded labor will make the laborers better off since this implies that there will be

[5] For a discussion of the consequences of relaxing this assumption, see Genicot (2002), p 123-125. It is evident that once the laborer has defaulted on the loan from the formal credit institution, it is in the landlord's interest to offer a bonded labor contract that gives the laborer the same utility as working as a casual worker without credit opportunities. Then the laborer will never renege on the formal credit. The important issue here, however, is that the landlord is able to solve the commitment problem, for example by proposing a bribe. However, this makes our simplified disposition more complicated than necessary.

lending from the formal institution at more favorable terms as compared to the higher interest rates in the bonded labor contract.

The interesting result from the model is that the bonded labor contracts drives out the formal credit institutions since no laborers will be eligible to a loan as long as it is in the landlord's interest to make an offer so that the laborer will renege on the formal loan. Hence, the laborers end up in bonded labor contracts where they pay a higher interest rate to the landlord as compared to what they would have paid to the credit institutions. This implies that banning bonded labor would induce the development of formal credit institutions that would render the laborers better off.

Our definition classifies the working relationship in Genicot's model as an involuntary bonded labor relationship if assessed by a laborer in an identical community, with the only difference that there existed an independent money lender. However, one could discuss whether or not the landlord is using *force* in this situation since he is merely using his economic power to propose a contract that destroys the competitiveness of the credit market. Nevertheless, since this laborer in the other community where there exists a money lender has better terms on his loan, he would never enter a labor relationship of the kind offered by the landlord in Genicot's model since this would leave him worse off. On the other hand, if assessed by a laborer that for some reason or another is stranded in that village, it is his best opportunity to work for the landlord. Then the relationship is deemed voluntary by our definition.

3.3 Interlinking labor and product markets

The interlinkage between labor and product markets has received far less attention than labor and credit interlinkage. However, in poor rural areas where there are monopolistic product markets, one can get variants of bonded labor relationships that are similar in subtleness as the coercion implicit in upwards manipulation of the laborers debt. Basu's (1986) path-breaking model shows that a landlord can be able to induce a merchant to deny a laborer access to the village shop unless the laborer accepts a wage below market-wage. The mechanism used to illustrate the landlord's influence over the merchant, and hence the coercion mechanism vis-à-vis the laborer, is that the landlord is a bigger customer in the village shop and will reject to buy anything from the merchant unless the merchant agrees to punish the laborer if the laborer rejects the landlord's wage offer.[6]

Now, is the laborer in this model classified as a bonded labor if subjected to our test? That depends on the ex-ante situation of the laborer and whether he is worse off after being subjected to the landlord's threat by way of a third agent. Hence, if working for a landlord that does not use such threats is an option in the economy, and hence get the market-wage for the same job, then the laborer is clearly worse off when entering the labor relationship with the exploitative landlord. In this case, the laborer is classified as bonded. However, if all landlords use the same threats, we need a more careful classification. On the one hand side, we can not define the relationship as bonded labor since the laborer is not worse off in the relationship with a landlord as compared to his feasible alternatives. On the other hand, as compared to a village where there are alternative shops, or where such threats are not used, we argue that a laborer would never have entered the relationship as described in the triadic model. Hence, in this case the laborer subjected to the triadic threat would be defined as a bonded laborer.

Interestingly for the perspective of trying to disentangle the forces behind bonded labor, however, is the fact that Basu's model gives important insight into these relationships since the landlord's influence over the product market can be substituted with other channels of influence useful for bonding labor. Villanger (1999) provides a discussion of such possibilities, where the basic finding is that the landlord locks the laborer in a bonded relationship by threats of denying the laborer other basic rights. In such a framework, which resembles the triadic model of Basu (1986), an illegal aspect of bonded labor is also surfacing frequently when the landlord's sources of power are scrutinized.

[6] See Hatlebakk (2002) for an elaboration on the robustness of this approach.

Taken together with the empirical observations, there seems to be a gap in the literature explaining the mechanisms that traps workers into bonded labor: The landlord's strategic lending with the purpose of acquiring the laborer's future services should be scrutinized as one such mechanism. This is the purpose of the next section.

4. An informal model of bonded labor

Based on the ideas of Bhaduri (1977) we can develop a new explanation for bonded labor. Assume that the laborer is in need of a loan and that there are two sources of credit. In an emergency, the laborer can borrow an amount from friends and relatives, but assume that this entails poor people selling their dearest possessions, and is thus an option of last resort. Call this the *emergency-loan*. The other source of credit is taking a loan from the landlord that the laborer is working for. Hence, the landlord and the laborer agree on an annual interest rate, which is to be constant until the loan is repaid.

Further, it is agreed that the laborer renders his life-time labor and servility as collateral. In case of default, the laborer must not only work for a minimum support for the rest of his life, but also subordinate himself to the landlord in every way. This minimum support is usually basic food and shelter requirements. The subordination can imply that the laborer must be at service whenever the landlord finds it suitable, that he must support the landlord in political strides and elections, and that he is confined to never leaving the landlord's property. Let a laborer that has entered such a loan contract with the landlord and subsequently lost this collateral, and hence is subjected to the landlord on the described terms, be called a *tied laborer*. A laborer that has not lost his collateral can be called an *attached worker* since his working conditions are in line with the freedom usually assumed in two-tier labor markets (i.e. freedom to change employer, freedom to travel outside the landlord's farm, and the freedom of not having to be servile). Note that the literature uses attached and tied labor interchangeably. However, it is clear that the type of labor relationship before and after the laborer has lost his collateral is very different and hence warrants dissimilar terms.

Assume for simplicity that only four components of life matter to the laborer, (1) the discounted net value to the worker of his labor during the remaining life span, (2) the value of the credit contract, (3) the discounted value of avoiding the loss of status and the humiliation of being subordinated to the landlord and (4) the eventual benefits of having the life-time support as an tied laborer. Now, let the laborer value a free life as an attached worker more as compared to defaulting on the loan from the landlord and becoming a tied laborer.

However, the laborer knows that the landlord can be of two types, either the type that prefers to have him as a tied laborer or the type that prefers to have him as an attached worker. The exact type is revealed to the laborer after the contract is agreed upon. Hence, the laborer knows that the landlord could be more interested in having him as a tied laborer as compared to an attached worker, and that that there may be unforeseen events that make repayment impossible. Hence, the laborer is not willing to take a loan that is larger than the emergency-loan so that the last-resort lending from friends and relatives can be used to pay off the loan from the landlord in case the laborer is not able to service the loan.

The landlords, on the other hand, values (1) the laborer's life-time work, (2) the subordination and servility of a tied laborer, (3) the discounted cost of providing a life-time minimum support to a tied laborer and (4) the value of the credit contract. A landlord will prefer to get the loan repaid only if the net value of the joint credit and labor contract of the attached working relationship is larger than the net value of having the worker as a tied laborer, where the latter includes the costs of providing the minimum support. Now, the interesting scenario emerges if the laborer is interacting with a landlord of the type that values the servility-services of the tied laborer more than he values the attached labor relationship with the associated credit contract. This implies that it is in the landlord's interest that the laborer default on the loan. Note first that if the contracts were perfectly enforceable and not open to manipulation, then the laborer would remain in an attached working relationship with the landlord since the laborer by definition is better off by reject the offers of being a servile worker. So even if the laborer should have difficulties in servicing the loan, he could always terminate the loan by using the emergency credit.

However, contracts in poor rural areas are usually not enforceable, especially when the strong part is deviating from the agreement. Assume therefore that the landlord increases the loan size above the contracted level and to a level so that the laborer is not able to pay the installments. Hence, if the laborer is not able to repay the loan by using the emergency loan, as indicated by the empirical anecdotes above, then the loan will go to default if the installments are sufficiently high. In this case, the laborer becomes a bonded laborer where his situation is worse than the option of being an attached worker. Being locked-in by the debt, however, the landlord has made sure that the laborer is trapped in the relationship. This scenario does not only explain how laborers can be forced into a non-voluntary working relationship, and hence becomes bonded according to our definition. The explanation also gives an additional reason for why we observe high interest rates in poor rural areas. The rates are high because the landlords try to make the borrowers default to force them into bonded labor relationships.

A similar strategy that the landlord may apply is to increase the amount of the loan to a level where the laborer is not able to service the debt. This scenario gives another explanation for this strategy rather than the often suggested motive that the landlord wants to have a larger pay-off from the lending scheme. The reason for using all possible means to increase the debt is to make the laborer default so that the attractive bonded labor services become available to the landlord. The empirical evidence given in the section above indicates that there are frequent observations of the landlord manipulating the laborer's debt upwards, and this supports such an explanation for bonded labor.

It is clear that poverty and highly fluctuating income and needs without insurance arrangements can drive a laborer into preferring the tied labor contract. Hence, if the tied labor contracts provide the laborer with food security in situations of highly fluctuating food prices, or medicines when needed, it is easy to see that the assumption that the laborer prefers the attached labor contract may not hold. In this situation, the laborer enters the subordinate position voluntarily, and becomes a tied laborer if the loan for some reason or another goes to default. Hence, our model distinguishes between two types of servile labor relationships, even if the *observable* states and terms of work at a single point in time for these two laborers are identical. The difference is whether the landlord used his position to manipulate the contract in order to make the laborer subordinated, and whether this resulted in a lower level of wellbeing for the laborer as compared to not becoming a bonded laborer.

5. Policy discussion

Some of the latest intervention aiming at emancipating what is termed "bonded labor" illustrates the dichotomy in the usage of the "bonded labor" term. The liberation in Nepal where the UN International Labor Organization was a major contributor[7], for example, provided the emancipated "bonded laborers" with a piece of land where they could both cultivate their own crops and build a house. Hence, many laborers got a better outside option as compared to before. Despite this, it was observed that some emancipated "bonded laborers" returned to the same landlords that they were emancipated from (anti-slavery.org). As noted above, the phenomena that some emancipated "bonded laborers" choose to return to the landlords they were emancipated from has also been observed in other countries.

[7] The ILO program "Sustainable elimination of bonded labour in Nepal" was implemented from 2001 to 2005. See www.ilo.org for more information about the project.

There are at least two plausible explanations for such a return of laborers to their landlords. First, if the relationship with the landlord is voluntary, then the laborer will return if the welfare as an "emancipated" laborer is lower compared to before "emancipation". One plausible explanation under this line of argument is that the attached relationship with the landlord may give the laborer a minimum support that acts as an insurance against times of hardship, while the situation after "emancipation" entails high fluctuations in consumption and lower welfare as compared to what he achieved with the landlord. This is the standard insurance argument for attached labor.

The second explanation, which is derived from our model, applies if the landlord has the means to coerce the laborer. In this case, the landlord may use the same power as he used when bonding the laborer in order to make the laborer return as a bonded laborer. Interpreting our model literally, however, would imply that improving access to alternative credit arrangements from independent sources would remove the landlord's opportunity to bond the laborer. Now, it is important not to underestimate the traditional power relations between these individuals in the rural economy, and another example of manipulative approaches is that the laborers are given the right to build a house on the landlord's ground. Eviction threats may in turn be used against the laborers in order to accept servility (Villanger 1999). Even if new credit opportunities and a contract-dispute resolution institution would remove one kind of power from the landlord, and hence be an important contribution towards eliminating this institution, the literature suggests that landlords may have different kinds of power for bonding laborers. This may play an important role in explaining why some laborers return to their landlord after being emancipated from the relationship. Below, we thus discuss two different sources of the landlords' power from the abovementioned literature –limiting the laborers' horizon and undermining their credit opportunities, and we suggest some additional policy interventions.

Note first, however, that our model indicates that banning bonded labor can be an effective tool in improving the wellbeing of some of the most disadvantaged people. Moreover, improving the opportunities for the laborers by using formal written contracts could be important for abolishing bonded labor. Both NGO's and more formalized public training facilities could play an important role in educating the laborers on these matters, as for example BASE did in Nepal (Hatlebakk 2006). Moreover, in case of disagreement on the contract terms, there should be a contract-dispute resolution instance that for example could be integrated in the court system.

One implication of theories of bonded labor is that the outside option may determine whether the worker is defined as a bonded laborer, and that the counterfactual quateion becomes crucial. The usefulness for policy interventions of distinguishing bonded labor from other types of labor contracts can be limited when it is difficult to assess what their outside option actually is, and what their situation would be with out the bonded labor system. The first example arises in situations as described by Schaffner's (1995) model. In this framework, servile laborers would reject being emancipated from the landlord due to their limited horizon, and would claim that the outside option is as bad as their current situation. Hence, if policymakers do not have the insight into the mechanisms, they may have a hard time implementing a ban against the will of those that the ban is supposed to help.

It is evident from Schaffner's model, however, that after having started to work as non-servile laborer in a community without servility, they would realize that they are better off and would never return to the subordination under the landlord. In this scenario, the landlord can exploit workers that are not conscious of reference group effects by limiting their horizon – i.e. by actively shaping the workers' social interactions to strengthen the forces that contribute to reference group perceptions. This has two implications. The first is that even though a proposed ban would be opposed by the bonded laborers as well as the landlords, it would improve the wellbeing of the laborers once implemented. The challenge is to reveal that the bonded labor relationship is in fact worse than their alternatives, and this entails using information from people who are well informed about both alternatives. The second implication is that policies that improves the *mobility* of the laborers (improved public transport, new roads, access to telecommunications and so on) would reduce the effect and make it more difficult for the landlord to exploit the laborers limited horizon.

The second example of a difficulty of using the outside option mechanically as a yard-stick for determining whether the laborer is bonded arises from situations where the bonded labor system reduces the welfare of *all* the laborers in the economy, as for example in Genicot's (2002) model. It is difficult to draw welfare and policy implications in practice when the bonded labor system has undermined alternative credit opportunities since the bonded laborers in this scenario have the same wellbeing as those on the outside because neither of them have alternative credit opportunities. However, using our test slightly different reveals that this model operates with a similar bonded labor definition as in our model. Assessing the counterfactual (i.e. what would the laborers wellbeing have been without the opportunity for the landlord to prevent entry of credit institutions) gives the result that the bonded laborers would in some situations have been better off without the bonded labor institution. However, the aggregated economic power in the hands of the landlord and the absence of other money lenders should act as a warning sign that this type of bonded labor institution is in play.

It may seem odd to ban the contracts described by Genicot (2002) where the landlord is doing nothing else than competing in the labor-credit market, trying to come up with an offer so valuable to the laborer that he would choose to both work and take a loan from the landlord. In more developed markets, we can observe employers that give loans to their employees as long as they stay in that particular work relationship. Supposedly, the employer-lending is meant to make the employee stay in the relationship from a profit motive, which is identical to the landlord's intention in this model. Hence, the argument in favor of banning bonded labor in Genicot's model should be focused on removing barriers to entry of alternative credit providers. This argument is similar to the anti-thrust regulation in richer countries: The aim is not to punish monopolists for wrong behavior, but to ensure that new competitors have the opportunity to enter the market in order to improve efficiency.

6. Conclusion

This paper presents a review of the literature that focuses on bonded labor and related phenomena and proposes a new framework to combat forced work. Previously, bonded labor has been used as a broad concept covering both voluntary relationships, similar to what is described in models of permanent labor, and more coercive working relationships where the landlord uses manipulation, coercion, market power or other strategic methods to bond the workers. However, since the policy implications of emancipating bonded labor can be very different if the relationships are voluntary, and since there are several models that explain these types of permanent working relationships, we have concentrated on non-voluntary working relationships. We have used evidence of the latter to define bonded labor as a labor relationship where the worker is trapped with the landlord due to the latter part's use of power. The important feature of the model is that a bonded laborer is a laborer that would never had entered the relationship if he was given the choice. Hence, the bonded laborer's outside option is in fact the preferred choice.

Our simple model highlights the profitability for the landlord of bonding laborers. This model can explain the co-existence of two types of relationships both claimed to be bonded, highlights their important differences, and brings out some clear policy recommendations for each of them. First, the voluntary labor relationships, i.e., attached labor, need to be combated in the same manner as ordinary anti-poverty programs of generating higher incomes. Second, the non-voluntary bonded labor institution needs to be addressed along two routes. Since the outside option is the preferred choice, it is important that the government make sure that the laborer is able to freely choose that option. This involves legal measures in the rural areas, including judicial help to illiterate people in developing and sustain contracts for labor and credit relationships, and information about the worker's rights. The next route, however, is to focus on keeping the emancipated laborers to stay away from the landlord and not let themselves capture again. Hence, both the provision of alternative credit and the stability of the outside options' income opportunities must be enhanced.

Literature

Akerlof, G. (1976): "The economics of caste and of the rat race and other woeful tales", *Quarterly Journal of Economics*, vol. 90, pp. 599-617.

Anti-Slavery International, ICFTU (2001): Forced labour in the 21st century. Brussels, ICFTU/London, Anti-Slavery International.

Anti-Slavery International (2003): "Contemporary forms of slavery related to and generated by discrimination: Forced and bonded labour in India, Nepal and Pakistan", submission to United Nations Commission on Human Rights.

Bardhan, P.K. (1979): "Wages and Unemployment in a Poor Agrarian Economy: A Theoretical and Empirical Analysis, *Journal of Political Economy*, pp. 479-500.

Bardhan, P:K: (1983): "Labor-tying in a poor agrarian economy: A theoretical and empirical analysis", *Quarterly Journal of Economics*, 98(3), 501-514.

Bardhan, P.K. (1991): A note on interlinked rural economic arrangements in P. Bardhan (ed.) The economic theory of agrarian institutions, Clarendon, Oxford.

Basu, Kaushik (1986): "One kind of power", *Oxford Economic Papers 38*: pp. 259-282.

Basu, Kaushik (1990): Agrarian structure and economic underdevelopment. Chur, Switzerland: Harwood Academic.

Basu, Kaushik (1997): Analytical Development Economics. The less developed economy revisited. The MIT-Press, Cambridge, MA.

Basu, Arnab, and Zafiris Tzannatos (2003): "The Global Child Labor Problem: What Do We Know and What Can We Do?", *World Bank Economic Review*, 17, no. 2, 147-73.

Bhaduri, A. (1977): "On the formation of usurious interest rates in backward agriculture", Cambridge Journal of Economics, 1, 341-352.

Breman, J. (1974): *Patronage and Exploitation*. Berkeley: University of California Press.

Busse, Matthias, and Sebastian Braun (2003): "Trade and Investment Effects of Forced Labour: An Empirical Assessment." *International Labour Review*, 142, no. 1, 49-71.

Chambers, R.G. and Quiggin, J. (2000). *Uncertainty, Production, Choice and Agency*. Cambridge University Press.

Eswaran M, and Kotwal A. (1985): "A theory of 2-tier labor-markets in agrarian economies", *American Economic Review*, 75 (1), 162-177.

Genicot, G. (2002): "Bonded Labor and Serfdom: A Paradox of Voluntary Choice." *Journal of Development Economics* 67, no. 1, 101-127.

Hatlebakk, M. (2002): "A new and robust subgame perfect equilibrium in a model of triadic power relations", *Journal of Development Economics 68*, no. 1: 225-232.

Hatlebakk, M. (2006): *The effects on agrarian contracts of a governmental intervention into bonded labor in the western terai of Nepal*, CMI Working Paper WP 2006:6.

ILO (1998): KILO Declaration of Fundamental Principles and Rights at Work and its Follow-up. Geneva.

Kapadia, K. (1995): "The Profitability of Bonded Labour: The Germ Cutting Industry in Rural South India." *The Journal of Peasant Studies* 22, no. 3: 446-83.

Kloosterboer, W. (1960): in Brill, E. J. (ed.): Involuntary labour since the abolition of slavery: A survey of Compulsory labor throughout the world. E.j. Brill, Leiden.

Mendelsohn, O. and M. Vicziany. *The Untouchables: Subordination, Poverty and the State in Modern India*. Vol. 4, *Contemporary South Asia*. Cambridge, New York and Melbourne: Cambridge University Press, 1998.

Mukherjee, A., and D. Ray (1995): “Labor Tying.” *Journal of Development Economics* 47, no. 2, 207-39.

Prasad, H. P. and Chandra, K. S. (1994): “Bonded labourers: A study of the rehabilitation and organizational dynamics. Har-Anad Publications, New-Dheli.

Ray, D. (1998): *Development Economics*. Princeton University Press, New Jersey.

Rudra, A. (1982): *Indian Agricultural Economics: Myths and Realities.* Allied Publishers, New Delhi.

Satz, D. (2003): "Child Labor: A Normative Perspective." *World Bank Economic Review* 17, no. 2, 297-309.

Schaffner, J.A. (1995) Attached farm labor, limited horizons and servility, Journal of Development Economics, vol. 47, pp. 241 270.

Sen, A.: (1987) “Food and Freedom”, Sir John Crawford Memorial Lecture, Washington D.C.

Shapiro, C., and J. Stiglitz (1984): “Equilibrium unemployment as a worker discipline device”, *American Economic Review*, vol. 74, pp. 433-444.

Sriniavsan, T. N. (1980): “Bonded labour contracts and incentives to adopt yield raising innovations in “Semifeudal” agriculture”, *Indian Economic Review*, vol. 17, 165-69.

Srinivasan, T. N. (1989): “On the choice among creditors and bonded labor contracts”, in Bardhan (ed.): The economic theory of agrarian institutions. Oxford University Press, New York.

UNHCHR. (1999): Report of the working group on contemporary forms of slavery. UNHCHR, Geneva.

Venkateshwarlu, D., and L. Da Corta (2001): "Transformations in the Age and Gender of Unfree Workers on Hybrid Cotton Seed Farms in Andhra Pradesh." *Journal of Peasant Studies,* 28, no. 3, 1-36.

Villanger, E. (1999): “A theory of bonded labour in south Asia”, *masters thesis*, University of Bergen.

www.allafrica.com : “Firestone Mirred in Slave Labor Charges in Liberia”, published
November 21, 2005.

www.anti-slavery.org

Recent Working Papers

WP 2006: 6
HATLEBAKK, Magnus: The effects of agrarian contracts of a governmental intervention into bonded labor in the western terai of Nepal. Bergen, 2006, 40 pp.

WP 2006: 5
SØREIDE, Tina: Beaten by bribery: Why not blow the whistle? Bergen, 2006, 24 pp.

WP 2006: 4
SØREIDE, Tina: Business corruption, uncertainty and risk aversion. Bergen, 2006, 30 pp.

WP 2006: 3
JERVE, Alf Morten: Exploring the research-policy linkage: The case of reforms in financing primary education in Tanzania. Bergen, 2006, 21 pp.

WP 2006: 2
FJELDSTAD, Odd-Helge, Ivar Kolstad, Knut Nygaard: Bribes, taxes and regulations: Business constraints for micro enterprises in Tanzania. Bergen, 2006, 16 pp.

WP 2006: 1
SØREIDE, Tina: Is it wrong to rank? A critical assessment of corruption indices. Bergen, 2006, 13 pp.

WP 2005: 14
SUHRKE, Astri and Arve Ofstad: Filling "the gap": Lessons well learnt by the multilateral aid agencies. Bergen, 2005, 12 pp.

WP 2005:13
SUHRKE, Astri: Aid, growth and peace: A comparative analysis. Bergen, 2005, 25 pp.

WP 2005: 12
KNUDSEN, Are: Precarious peacebuilding: Post-war Lebanon, 1990-2005. Bergen, 2005, 24 pp.

WP 2005: 11
AMUNDSEN, Inge, Cesaltina Abreu, Laurinda Hoygaard: Accountability on the move. The Parliament of Angola. Bergen, 2005, 27 pp.

WP 2005: 10
FJELDSTAD, Odd-Helge: Corruption in tax administration. Lessons from institutional reforms in Uganda. Bergen, 2005.

WP 2005: 8
WIIG, Arne and Madalena Ramalho: Corporate social responsibility in the Angolan oil industry. Bergen, 2005, 25 pp.

CMI's publications, Annual Report and quarterly newsletters are available on CMI's homepage www.cmi.no

CMI
Chr. Michelsen Institute
Bergen, Norway
Tel: +47 55 57 40 00
Fax: +47 55 57 41 66
cmi@cmi.no
www.cmi.no

SUMMARY

UN estimate that 20 million are held in bonded labor. Several economic analyses assert that bonded laborers accept these contracts voluntarily, which could imply that a ban would make such laborers worse off. We question the voluntariness of bonded labor, and present a mechanism that keeps workers trapped. With different types of landlords not revealed to the laborer, we show how some landlords manipulate contract terms so that the laborer becomes bonded. Enforcement mechanisms and the monopolistic market for credit thus play a joint role. Providing alternative sources of credit, offer proper conflict resolution institutions over labor-contract disputes and banning could emancipate bonded labor, which would make them better off.

ISSN 0804-3639
ISBN 82-8062-146-6