

FN-ARL-579

75904

JANUARY 1992

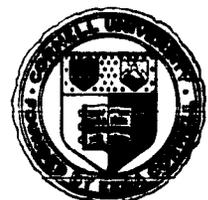
WORKING PAPER 19

# **The Enclosures Revisited:**

## **Privatization, Titling, and the Quest for Advantage in Africa**

**Rogier van den Brink and  
Daniel W. Bromley**

CORNELL FOOD AND NUTRITION POLICY PROGRAM



**THE ENCLOSURES REVISITED:  
PRIVATIZATION, TITLING, AND THE QUEST FOR ADVANTAGE IN AFRICA**

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The authors would like to thank David Pelletier for comments on an earlier draft.

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CFNPP is funded by several donors including the Agency for International Development, the World Bank, UNICEF, the Pew Memorial Trust, the Rockefeller and Ford Foundations, The Carnegie Corporation, The Thrasher Research Fund, and individual country governments.

Preparation of this document was financed by the U.S. Agency for International Development under USAID Cooperative Agreement AFR-000-A-0-8045-00.

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ISBN 1-56401-119-4

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This document was word processed by Diane Retson. The manuscript was edited by Elizabeth Mercado. The text was formatted by Gaudencio Dizon. The cover was produced by Jake Smith.

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## FOREWORD

Two key aspects of structural adjustment in Africa revolve around how to reform product and factor markets to increase efficiency and raise productivity, while protecting the welfare of the poor by ensuring that such reforms do not foster increased inequality. While policy reform in Africa has indeed focused on agriculture, it is mostly the institutional structures that are involved in marketing outputs and in supplying inputs that have received attention. To date, little discussion of land, and the institutional structures that determine access to land, has occurred in the context of adjustment programs. Instead, land reform has primarily been seen as a policy tool for intervention in an inequitable agrarian structure. The argument was basically made in terms of equity. Productivity issues have played a secondary role, as they have done in other regions of the world, notwithstanding the academic debates surrounding farm size and productivity, which emerged from the Indian subcontinent. However, it is arguable that efficiency has become the most important, if not the only, rationale for land reform in Africa.

In terms of the quest to raise investment in agriculture and promote the proper institutional structures to foster increased productivity, one school of thought holds that sub-Saharan Africa's failure to launch its own green revolution is blamed on the existence of property rights regimes that do not provide the farmer with the proper incentive structure. Invariably, the introduction of land titling is prescribed to the policymakers as the appropriate remedy.

Van den Brink and Bromley argue otherwise. They argue that it is not the institutional framework that is to blame for the slow adoption of technology. The property rights systems of a majority of regions of sub-Saharan Africa are often best described as common property under which a wide variety of property rights can coexist in one form or the other. Van den Brink and Bromley further contend that the empirical validity of the efficiency argument is weak, the economic theory is a tautology, and the policy recommendation underestimates the information and coordination problems involved in the execution of a land reform. Moreover, dangers exist for inequitable distribution of land caused by the introduction of the proposed titling schemes. Finally, they predict, the increases in yield-improving investments will not materialize, given the low returns on the currently available agricultural technology. Thus, instead of allocating public resources to the bureaucratic implementation of cadastral surveys and land titling schemes, resources should be directed more directly toward the development of agricultural technology. Such technology, however, should be adapted to Africa's particular agroclimates and economic conditions. In that particular context, research for improved technology should set out to raise the productivity per laborer rather than per acre.

Washington, DC  
January 1992

David E. Sahn  
Deputy Director, CFNPP

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The law locks up the man or woman  
Who steals the goose from off the common;  
But leaves the greater villain loose  
Who steals the common from the goose.

Edward Potts Cheyney  
*An Introduction to the Industrial  
and Social History of England*

## 1. INTRODUCTION

The eighteenth century enclosure movement in Europe, especially in England, was a period of mass depopulation of the countryside. It was, moreover, a vivid example of the triumph of "official ideology" regarding modernism in agriculture. The serious distributional implications of these forced evictions have been documented elsewhere (Allen 1982). Today modernism has a familiar ring throughout Africa as "privatization" and land titling are offered up as the salvation to all that is wrong with African agriculture. This new interest seems to have grown out of the familiar concern for what is mistakenly called "efficient" private property rights systems in developing countries in general and in sub-Saharan Africa in particular (Binswanger and McIntire 1987; Feder 1988; Feder and Feeny 1991).<sup>1</sup>

This interest in land reform is not driven by a perceived inequity of indigenous African property rights systems, as was the case in an earlier period of interest in Latin America. Rather, this current interest is fueled by two beliefs: (1) the rate of adoption of new agricultural technology is too slow; and (2) the absence of credit markets is the cause of this low investment in new technology. These "inefficiencies" are presumably caused by inappropriate institutional arrangements in general, and quaint property rights in land in particular. It is usually argued that the existing property rights regimes with respect to land give rise to "tenure insecurity," which is offered as an explanation for the low rate of adoption of land-improving technology, and the imperfections of credit markets (Binswanger et al. 1989; Feder and Noronha 1987). According to this logic, increased investment in more efficient techniques of

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<sup>1</sup> It is mistaken simply because there is an efficient allocation of resources for any particular structure of rights - this is one of the two fundamental theorems of welfare economics. Authors would be more correct to talk of the *productivity* effects of different property rights arrangements rather than their *efficiency*.

agricultural production is crucially dependent on settling issues of land tenure insecurity. Given the disincentives associated with tenure insecurity, the argument goes, farmers are unwilling to invest in improved farming techniques, which in turn results in low levels of production.

Thus, we are made to believe that farmers in much of Africa fail to understand that if they want to adopt new technologies, they also need to adopt a new property regime which will allow them to make optimal use of these technologies (Feder and Feeny 1991). Lest there be any doubt, the economically correct property regime is that found in the West: private, exclusive, and alienable property rights. A practical policy prescription is readily deduced from the economic analysis. Promoting tenure security through individual property rights becomes an overriding objective of public policy. This means, then, that more public resources should be devoted to taking cadastral surveys so as to facilitate land titling programs.

This paper will argue that the above reasoning is theoretically incorrect and lacking empirical evidence in the case of sub-Saharan Africa. We will posit that this causal model is flawed on conceptual as well as empirical grounds. More fundamentally, we suggest that land titling is an example of the rent-seeking behavior so often denounced by many who seem most enthusiastic about privatization of land.

## 2. CONCEPTS, PREDICTIONS, AND POLICY PRESCRIPTIONS

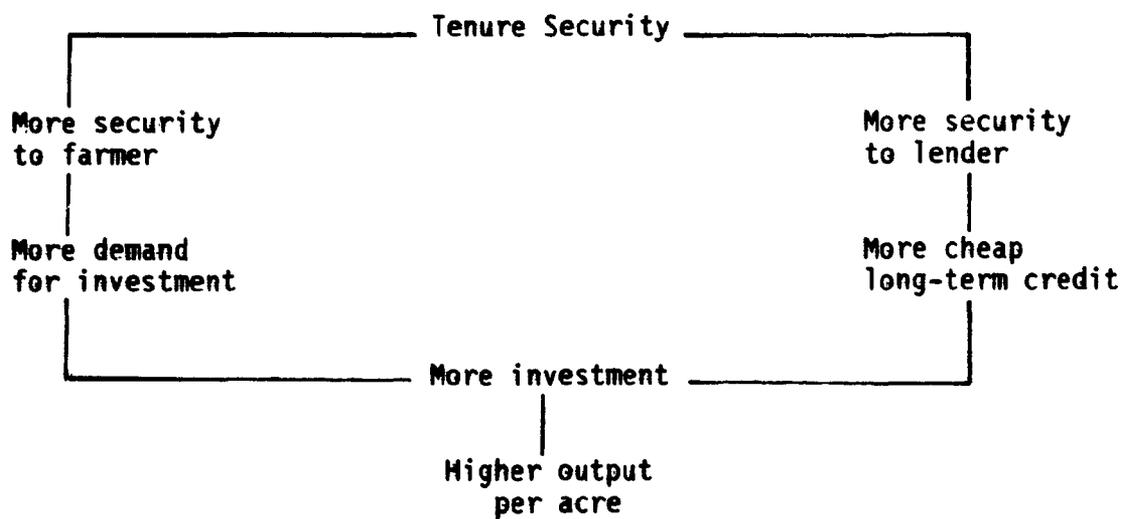
### THE THEORY

The economic theory on which the "tenure security" argument is based stems from a long line of economic arguments that start as early as Jeremy Bentham. The reasoning is presented in Figure 1. "Tenure security" is defined as *the individual's subjective evaluation of the security of the individual's rights to income streams derived from the exploitation of land*. With respect to the demand for investment, the following hypothesis is maintained: the higher the individual's tenure security, the higher the incentive to intensify production and the higher the induced demand for investment. On the supply side, the feedback runs through credit and land markets. A secure title to land can function as collateral in credit markets. Collateralized credit transactions lower the risks of lending, which will lower interest rates and increase the supply of credit. Moreover, factor mobility is increased by the subsequent emergence of a land market. All markets, even land markets, increase the efficiency of factor allocation.

The plausibility of the above hypothesis has convinced many policymakers to contemplate the implementation of policies to enhance tenure security. Since exclusive (and titled) private property in land is generally assumed to provide maximum tenure security, it seems to follow that such tenure is a necessary condition for "efficient" production. The above model leads, tautologically, to the conclusion that economic "efficiency" can therefore be achieved by the introduction of private property regimes (Demsetz 1967; Hardin 1968). By definition, for the above argument is indeed a tautology, private ownership of land is therefore "efficient." Such reasoning logically ensues since the counterfactual for the evaluation of the benefits of private ownership is assumed to be fraught with insecurity. In the counterfactual case, other individuals will grab your land - or your crop - in the dreaded Hobbesian anarchy. That such anarchy is absent in Africa tends not to matter to the proponents of privatization, though it well should.

The theoretical arguments underlying the presumed "efficiency" of private ownership, as developed, for instance, by Ault and Rutman (1979) and Johnson (1972), have been challenged elsewhere (Bromley 1989a,b). In an important article, Saraydar (1983) comments on the confusion in the economics literature between *productivity* and *efficiency*. From confused theory comes incorrect predictions and so inappropriate policy prescriptions. Let us pay some attention to concepts and theorems.

Figure 1 - The Tenure Security Theory



Source: Feder and Noronha (1987).

## CONCEPTS, THEOREMS, AND PREDICTION

Being an axiomatic science, economics starts with first principles, arrived at most often by introspection: individuals wish to maximize both as consumers and as owners of firms; individuals are more interested in themselves than in others; and individuals rationally choose only after carefully consulting their own preferences. These first principles yield certain axioms: a utility function can be written to reflect an individual's preferences over goods and income; firms will allocate productive inputs so as to maximize profits; the relative prices of inputs will determine their relative share in the production process; and the relative price of outputs will determine their relative share in the product mix of a firm. We have here both assumptions and postulates that can be said to comprise the conceptual model of economics. The assumptions are the first principles, while the postulates are the derived (or deduced) implications.

*Auxiliary assumptions* – or what some prefer to call *applicability theorems* – must augment this conceptual model before it can be applied directly to a given situation. These applicability theorems bring contextual reality to the conceptual model, which tends to be limited in scope to the universal propositions (postulates). An auxiliary assumption might be "in a perfectly competitive industry, in which no firm can influence either product or factor prices, then the conceptual model will hold." An auxiliary assumption becomes an applicability theorem when the economist declares, "the particular industry of interest to me is, in fact, a perfectly competitive one and therefore the postulates of my conceptual model should hold in this case."

The combination of a conceptual model and the applicability theorems transforms a particular set of economic propositions into a *theory*. This theory is really a constellation of "if...then" propositions that are, in essence, predictions. For instance, "if this industry is perfectly competitive (and the applicability theorem asserted that it was), then we should expect to find inputs used in direct proportion to their relative costs." Notice that this proposition can also be thought of as a hypothesis to be tested. In the issue at hand, the logic runs as follows: (1) titles bestow security; (2) rational farmers will not invest without security in land; (3) there is no security of land in much of Africa; (4) therefore, titling is necessary to induce improved agriculture.

A chain of logic containing two postulates from another cultural context, coupled with one empirical proposition (3), whose truth is open to debate, leads to a conclusion (4) that is only one verb away from a prediction: titling *will improve* agricultural yields.

We offer this detail in order to illuminate the logical chain of reasoning by those advocating privatization and land titling in Africa. Starting with a few assumptions about individuals wishing to maximize, even accepting the assumption that individuals care more for their own interest than they do of others in their community (village), it is easy to postulate that individuals will not invest in yield-increasing technical change in the absence of secure ownership of land. After all, an abundant body of literature "proves" just this

point. But of course the weak link here is the auxiliary assumptions (the applicability theorems).

A conceptual model is transformed into a meaningful economic theory by a careful incorporation of empirical - contextual - reality. To allege that security over a *particular* plot of land is the same as security over an income stream from *any number of possible* plots of land is to confuse a fundamental behavioral component of African farmers. Let us turn to that empirical context.

### 3. APPLICABILITY THEOREMS, EMPIRICS, AND THEORY BUILDING

#### NOTICING CONTEXT

Within the context of sub-Saharan Africa, the empirical evidence to support arguments linking private ownership of land to increases in productivity of land is either scant or missing (Carter et al. 1989). This may explain why most empirical evidence that supports the introduction of private ownership is drawn from other contexts than Africa. Even in Feder and Noronha's (1987) work on Africa, the evidence presented for the presumed "efficiency" of secure private property rights comes from India, Thailand, Costa Rica, Jamaica, and Brazil. Anywhere but Africa.

One of the few studies undertaken, and one which figures prominently in the tenure debate, is Feder and Onchan's study (1987) of the relation between farm investment and ownership titles in Thailand. Roth et al. (1989) have challenged this particular study on the grounds of confusing cause and effect. Feder and Onchan presented evidence that does not allow clear answers to the questions of whether the establishment of secure individual ownership led to increased access to credit, thereby inducing investment, or whether an already-biased access to formal credit led to the establishment of private ownership. Causality is hard to ascertain. Thus, the Thai case is inappropriate for policy recommendations since it cannot prove that there was legal title first and improved access to credit later. In fact, where informal credit (which did not stipulate titled land as collateral) was present, no difference in productivity between titled and untitled land was observed.

The rare economic studies undertaken in Africa also suffer from ambiguity of causality, and from the problem of omitted variables. These studies do not attempt to test the causal chain, and consequently continue to beg the question of causality (Richards et al. 1973; Cheater 1984; Ike 1977). Again, by assumption, the absence of legal title is equated with tenure insecurity. With respect to the extrapolation of Feder and Onchan's results from Thailand (and other countries) to Africa, particular care should be given to the initial empirical conditions with respect to tenure security. The Thailand case compared titled owners to squatters. Squatting is a form of "weak," "contested," or even *absent* ownership. It is doubtful whether such weakness or absence of property rights is characteristic of much of sub-Saharan Africa (Migot-Adholla et al. 1988).

Many regions of sub-Saharan Africa can be broadly described as regions of relative land abundance. This partly explains the extensive methods that characterize its agricultural technology. For instance, shifting cultivation may be a relatively efficient way to exploit an ample natural resource or one that

is highly variable from one year to another. However, land abundance alone is not a sufficient reason why extensive technologies have been adopted. A comparison with European conditions may illustrate this point. Technological innovation in Europe did not respond to land scarcity alone. The deep and fertile soils, low temperatures (resulting in high water retention and slow breakdown of organic material), and stable rainfall patterns produced a situation favoring investments in technologies that increased yields per acre. We know this as agricultural intensification.

In contrast, many of the soils in the semiarid tropics are relatively shallow and of low fertility. Rainfall is erratic, high temperatures rapidly decompose organic material, while torrential rainfalls produce excessive leaching. Many soils of the semiarid tropics are easily depleted even by extensive forms of cultivation and prone to quickly drop to a low-level equilibrium (e.g., Broekhuysen 1983). Thus, several "Eurasian" technologies are significantly constrained by the African agroclimate. For instance, the structure of sandy soils may be unsuitable for shallow ploughing (10-20 centimeters) or allows shallow ploughing only at the expense of creating excessive erosion. Additions of organic nutrients may be rapidly decomposed and quickly leached away, chemical and organic fertilizers may burn a crop during dry spells within a season, and high-yielding crop varieties imported from other agroclimates may only show higher yield variances rather than higher yields.

In the semiarid tropics of West Africa, the typical combination of soils, climate, and relative land abundance have led to the development of agricultural production technology that allows for several strategies of risk reduction. For instance, plot scattering is widely practiced. Scattering is an example of a strategy that attempts to minimize risk ex ante through an optimal portfolio mix of crops and soil types. The covariance between the yield of millet planted on typical millet soils (clayish sand, higher slopes) and the yield of sorghum planted on typical sorghum soils (sandy clay, lower slopes) is generally low. Alternatively, heavily manured plots produce high yields in "good" years (defined more in terms of an even spread of rainfall during the season than in terms of annual averages), but perform poorly in "bad" years. Consequently, a diversified mix of plots and crops reduces the expected variance of total yield compared to a specialized portfolio.

However, not all risk-reducing strategies are based on ex ante minimization of risk. A second type of risk-reducing strategy is of an ex post character and generally equally important to farmers but less well-understood by casual observers. Such strategies can be compared to the way in which the nomadic pastoralists of the region adjust to geographical uncertainty - by a strategy of flexible response based on mobility. Such risk-reducing strategies are associated with maximizing the value of flexibility; they are sequentially adaptive responses to changing environmental conditions (Bromley and Chavas 1989; Chavas et al. 1989).

Farming systems of the semiarid tropics critically depend upon such flexibility-preserving strategies to permit sequential adjustments of the farm plan as the season progresses (Kristjanson 1987). Staggered planting or

replanting is an example of such a flexible strategy. For instance, since sorghum requires a longer growing season than millet, farmers usually plant sorghum earlier than millet. However, depending on the exact pattern of rainfall in the beginning of the season, the farmer may replant some sorghum plots with millet. Such sequential adaptation can also imply abandoning one type of plot in favor of another. This strategy can be regarded as a type of "mobility" of the farm, or intraseasonal "shifting cultivation."

Certain investment strategies in the fertility of the soils also adopt a "flexible" character. Under an interannual shifting cultivation system, investment in soil fertility may not only be based on natural regeneration during fallow periods. For instance, maize requires additional organic fertilizer, which can be most easily obtained in the close proximity of the compound. In order to obtain a wider geographical spread of the benefits of manure, maize plots may rotate around the compound. For similar reasons, livestock "parks" may be moved in a similar fashion. Other examples of such "mobile" investment in soil fertility include the annual movement of the female-controlled legume plots (peanuts and *pois de terre*), which are often immediately followed by the cultivation of millet. Through such systems of flexible investment in soil fertility, the benefits of nitrogen-fixation or organic manure are geographically distributed over a potential cultivation zone, which is always larger than the zone actually cultivated in a particular year.

Several risk-reducing strategies, then, transform ex ante risk into ex post risk. The effectiveness of such strategies cannot be determined a priori. In Burkina Faso, mean average rainfall decreases while the variability of rainfall increases as one moves from south to north. Ex ante environmental risk in the north is more severe than in the south. However, in a given year, yields in the north may actually be higher, or less variable, than in the south. A wise choice of technology (an efficient mix of ex ante and ex post risk minimization) in the highly variable northern climate may actually – ex post – leave northern farmers with less risk than their southern colleagues. In other words, it is not obvious how ex ante risk is related to ex post risk. Economic institutions and agricultural technology mediate between the two situations.

## **PROPERTY RIGHTS REGIMES**

The economic strategies and associated agricultural technologies adopted by African farmers have led to particular types of property rights. In general, these property rights attempt to give secure title to the income streams generated by these technologies. Given the strategies employed, property regimes have emerged that are qualitatively different from the property regimes associated with processes of agricultural intensification in a land-scarce – and climatically more stable – Eurasian context.

In the context of sub-Saharan Africa, the linkage between property rights with respect to land use and the wider structure of the economy is provided by labor – the crucial scarce factor of production. It follows that exclusive

property rights in land have played a rather different role in the economic history of sub-Saharan Africa than in the typical Eurasian historical context. There, population pressure and the resulting land scarcity have induced technologies and economic institutions that were primarily centered around control over the productivity of land. In such settings, it is through the control over land that access to labor is obtained. By contrast, economic development and the accumulation of capital in the context of many parts of land-abundant Africa is crucially determined by the control over labor and its productivity. Here, control over labor determines access to land. Notice the different direction of causality. Access to land is a function of the access to labor rather than land being important to control labor.

Moreover, whereas agriculture in the semiarid tropics may not exhibit economies of scale with respect to land (Binswanger et al. 1989), such economies do exist with respect to the pooling of labor. For instance, health risks are so considerable that Meillassoux (1977) claims that they explain much of the preference for the extended family and the consequent pooling of labor in general. Additionally, natural changes in the ratio between consumers and producers will produce variability in labor supply and demand for consumption over the domestic life cycle. If labor rather than land is the abiding scarce factor of production, and temporal uncertainty with respect to its supply exists, one would expect institutional arrangements over the scarce factor - property rights to streams of labor services rather than to land - to emerge as the dominant theme. Thus, in many regions of sub-Saharan Africa, the Eurasian risk-reducing strategies with respect to the "variability of yields" have their corollary in risk-reducing strategies with respect to the "variability of labor services." Accordingly, optimal economic strategies crucially depend on implicit contracting with respect to future supplies of labor (Berry 1984; Robertson 1987). Such contracting often takes place between generations, and use rights of land play an important role in such contracts. Thus, in the African variant of what has been called a gerontocracy, a younger generation supplies labor to the older generation on communal plots in exchange for the right to cultivate individual plots and to ultimately gain permanent access to the land.

Because of this mix of communal (tribe, clan, lineage, extended family) and individual rights, it is often difficult to define exactly the nature of the property rights regime with respect to land use. This ambiguity tends to lead western observers to fret about the "unclear" property rights in land. Such rights are only unclear to those who fail to understand the economy under scrutiny. In this economy, several types of property rights may coexist if we understand that the seasonal scope of the primary decisionmaking unit distinguishes property regimes from each other (Ciriacy-Wantrup and Bishop 1975; Netting 1976; Bromley 1989a). Moreover, if we define *common property* as a management group in which the individual members of the management group (the co-owners) have both rights and duties with respect to use rates and maintenance of the object owned (Bromley 1989a), it should come as no surprise that "the object" in the context of the labor-scarce sub-Sahara is usually labor, not land.

Indigenous property rights regimes are thus often better understood if viewed as essentially common property regimes with respect to labor.<sup>2</sup>

The historic importance of land abundance and labor scarcity finds its way, inevitably, into contemporary institutional arrangements. In the savannah of West Africa the new immigrant holds a fundamental and traditional right: the right of access to the means to feed his family. If land is available, the residents have a strong moral obligation to allocate cultivation rights to the immigrant. The acknowledgment of the claim of first occupancy – which implies the acceptance of the jurisdiction of the first occupants with respect to land use – normally suffices to become a member of the community in situations of land abundance (e.g., Izard 1985). Consequently, as a member, one has a right to farm.<sup>3</sup> Over time such rights may acquire a degree of permanence. Even under conditions of relative land scarcity the right of access persists, though here the granting of usufruct rights may become less permanent. The grants may be turned into loans, but the principle of equitable access itself is rarely challenged (Verdier 1964, 265).

From a legal perspective, land markets that transact absolute private ownership titles "in land" are virtually absent in the semi-arid tropics of West Africa, because such markets imply a form of absolute ownership of land that does not exist. It is the absence of this market that most economists find curious at best, and pernicious at worst. A *chef de terre* has the mandate to distribute use rights to land, but not to sell it since he does not personally own the land. He is the caretaker, not the owner. One could say that sales of absolute ownership titles are unconstitutional – they were expressly precluded from the covenant that formed the basis of the social contract creating the community. Those who regard property rights as mere instruments of economic processes make the critical mistake of assuming that societies are embedded in the economy rather than vice versa.

Given the interaction of technology and climate in many areas of sub-Saharan Africa, income streams in agriculture tend to be highly variable for a particular location. Important is the profile of income flows to the individual, which are obtained through the implementation of ex ante and ex post risk-reducing strategies. Income security, then, depends on the property rights that allow the implementation of such strategies. Such property rights typically emphasize economic relations rather than the grid on the map. In other words, the uncertainty of the yield to the individual cultivator can be reduced by continual recontracting, which focuses on the relational aspect of property rights. In such a situation, while the yield to the *thing* (the yield per acre) may be low and variable, it is the yield to the person that matters. Western economic analysis tends to focus on land as capital and to worry about increasing the

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<sup>2</sup> Some cynics may observe that women in their capacity to labor *and* to produce more laborers are sometimes treated as though they were valuable capital "to be owned and sold."

<sup>3</sup> But not to a *specific* farm (Bohannon 1963, 106).

returns to land so as to enhance its market value. This, too, explains the fetish for titles so that land can be alienated easily. One rarely needs a title to *hold* land; titles only become important when it is time to *alienate* land.

African economics focuses on the return to the individual, with the return to land of scant interest. African land tenure ensures yield to the individual farmer, not to the land, by allowing the farmer to move in response to agroclimatic variability. As put by Walter Neale:

I continue to follow Bohannon, who says that Africans do not have "land tenure" but "farm tenure"...What Africans have in their system of shifting cultivation is not the right to a piece of land, but a right to have *some* piece of land in the area around the site of temporary residence of the clan. As African households move across the surface of the earth, each household carries with it a right to a farm, or perhaps one should say a right to farm. It is this right to farm some land that is held by the Africans and that may be called *tenure* (Neale 1969, 5).

While it may be formally correct to say that "land has no value" in a situation of land abundance (Binswanger et al. 1989, 122), such assertions tend to obscure the real issue. Rather, certain types of *property rights over land* have no value. Land always has value; the issue is whether institutional arrangements exist to allow an "owner" to control that value for all time. Only in a situation of *absolute* land abundance, in which property rights in land would indeed have no scarcity value, would property rights over income streams derived from land use be costlessly defined and upheld. In fact, there would be no necessity to define *any* property right in land. Property rights would only be defined over the productivity of labor and capital.

In a situation of *relative* land abundance, however, property rights with respect to land do have economic value. The typical property rights regime that has evolved in the West African semiarid tropics is one in which the land of the community is managed as *common property*, while held in usufruct by *each of its members*. To say that there are no property rights in such situations is clearly wrong. For instance, as long as the individual uses the land for cultivation, he or she has a secure claim to the produce. Given the Lockean origins of much of Western economics, one would think that this was quite sufficient. If the land is left fallow for longer periods, it reverts back to the communal pool. The lineage head of the first occupants will ideally reallocate these rights to ~~the different lineages, who distribute use rights to the extended families, who~~ may in turn allocate them to their individual members.

Property rights in land, then, reflect group and individual strategies that attempt to deal with the uncertainty of the environment of the semiarid tropics and the continually changing demographic conditions of its population. The village territory becomes "...*comme un champ d'action aux frontières mouvantes...*" (Imbs 1987, 183). "The law of the land," then, develops to a considerable extent from the active strategies of the economic actors. It is the

direct analogue of common law in the West. Given the importance and legitimacy of the common law tradition in western societies, one must wonder at the selective rejection of common law traditions in Africa. Why African common law is "dysfunctional" must, therefore, arise solely from its difference from European common law (Okoth-Ogendo 1991). Or rather, it differs from European common law as it was modified through the enclosures to facilitate depopulation and the rise of a landowning class of "improving farmers."<sup>4</sup>

### LAND SCARCITY AND INSTITUTIONAL CHANGE

As a single explanatory factor for the emergence of private property and a land market, either in the form of sale or rental markets, land scarcity does not seem to be particularly powerful. It cannot be assumed that private property rights evolve in response to the scarcity value of land. No economic law states that everything with a scarcity value ultimately becomes private property. Indeed, the history of property regimes in Europe reveals that increasing population pressure in the early Middle Ages led individual tenures to be consolidated into common property regimes (Hoffman 1975). This transition from "dominant individualism" to communal agriculture would certainly contradict the conventional wisdom that "primitive agriculture" was always communal, whereas "modernism" implies individualism and private property. Much more is at work here than romanticism about the cooperative tendencies among traditional agriculturalists, and the ineluctable "rationality of modernism."<sup>5</sup>

Land scarcity does, however, often reduce the flexibility of economic strategies and the associated property rights regimes that enable adaptive behavior. Such a general process does not necessarily lead to the emergence of cash rental contracts or land markets. Consequently, we argue that the relation between land scarcity and changes in property rights can only be properly understood with reference to the particular social and technological context in which such interaction takes place.

At this point, we would like to draw attention to one important technical factor that has greatly influenced the transformation of property rights regimes in sub-Saharan Africa. This factor is the time horizon of the yield of a particular production or investment technique and its fixity in the land. The location on land of a long-term investment tends to reduce the scope of the common property rights. In this sense, irreversible (and intertemporal)

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<sup>4</sup> An interesting but little noted fact about English agriculture is that it currently has one of the highest rates of tenant farming in the Western world. This phenomenon in the nation that evicted millions of families so as to create a "landowning class of farmers" ought to interest those who see land titles in Africa as some automatic means to create owner-operated farms.

<sup>5</sup> North and Thomas (1977) argue that modern agriculture only developed after the natives discovered the wonders of private property. Runge and Bromley (1979) have challenged this argument on both theoretical as well as empirical grounds.

technical change is not necessarily *institutionally neutral*. The introduction of such intertemporal technical change entails a correlated and necessary *institutional transaction* since such changes shift economic opportunities among members of the community (Bromley 1989a, 49). Moreover, if an asset itself – the land – cannot be owned and freely traded, yet individuals or groups do carry out activities that can be seen as investments in the asset (what we call *intertemporal technical change*), a problem of *asset specificity* is created. The recognition of this problem with respect to the transformation of property rights regimes is essential to the analysis of institutional change in sub-Saharan Africa.

A good example of the articulation of techniques and property rights is provided in the context of trees (Berry 1987). As with land, notions of absolute ownership of self-seeded trees are generally absent in the semiarid tropics. Trees as such are generally not "owned," but individuals can have usufruct rights to them. However, if trees are not self-seeded but planted and maintained by the individual, permanent usufruct rights are established. Just as the farmer has the right to exclude others from his farm during the cultivation season, so does the holder of a usufruct right to trees have certain exclusionary rights. The crucial difference lies in the time horizon of the yield secured by the property right. For instance, a farmer who owns the usufruct rights to a number of mango trees may wish all village children and livestock to be barred from his mango garden. Since he can reasonably claim that other activities in the same area (around and under the trees) endanger the harvesting of what is his (the fruits of the trees), he is in fact claiming exclusive and relatively permanent rights to the area itself. Such exclusive proprietary claims induced by tree planting are very common in sub-Saharan Africa.<sup>6</sup> Bruce et al. (1985, xi) refer to this active transformation of common property to exclusive private property through the planting of trees as one of "trees creating tenure." However, the word "tenure" mistakenly suggests that the pre-existing common property regimes did not define – or imply – tenure.

The adoption of intertemporal technology (creating asset specificity) in the context of an agroclimate under which flexibility carries a very high survival value will amplify the social cost of the technology. The community may see such use of the land as a particularly untoward interpretation of common property rules, or as an extension of a private property right deemed unacceptable to the community or to certain segments of that community.<sup>7</sup>

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<sup>6</sup> See also Abrahams (1976); Baker (1934); Berry (1975); Brokensha and Glazier (1973); Köhhen (1963); and Vansina (1963).

<sup>7</sup> The following citation from an East Africa context illustrates this problem: "Among Tonga new agricultural methods and crops have lengthened the period which a man retains his claim on a farm; with cash-cropping the value of land is becoming apparent and concepts of 'property' are emerging. Tiv have great difficulty in this matter, for they believe that to attach people to a piece of land is tantamount to disavowing his rights in social groups. Hence any notion (continued...)"

In general, however, the application of the usufruct principle to the income stream of intertemporal techniques provides for considerable tenure security. In West Africa, major endogenous transformations of property regimes have in fact been associated with such a process (Berry 1975; Hill 1963a,b). Rapid changes in the nature of property rights in land accompanied the voluntary expansion of commercial production of cocoa and coffee in the southern savannah and forest zones – and peanut and cotton production in the semiarid regions. Several authors have argued that the customary usufruct property rights regimes, through their initial flexibility with respect to land use, did not present an obstacle to this rapid economic growth (Hopkins 1973; Kumekpor and Banini 1971).

However, in a context of land scarcity, the usufruct-giving party has an obvious interest in limiting the time horizon of the usufruct. For instance, in land-scarce regions of Burkina Faso, whereas usufruct rights are given out in loan to farmers, the planting of trees by the tenant will be explicitly forbidden (Swanson 1979; Lahuec 1980). The experience of development projects aimed at reforestation in Burkina Faso illustrates the impact of land scarcity on the adoption of irreversible techniques: reforestation projects are more successful where land pressure is not excessive (Winterbottom 1980).

Land scarcity in the semiarid tropics is determined by population pressure *and* environmental uncertainty. The higher the value of spatiotemporal adaptive strategies in farming, the more the impact of an increase in population pressure on land scarcity is amplified. Thus, even in conditions of seeming relative land abundance, the community might view the establishment of irreversible investments as a relative increase of population pressure on the remaining common property lands and therefore oppose the investment. Thus, land scarcity may induce a reassertion of the common property principles. In the Congo, for instance, the availability of land was restricted, but the fallow system was still a feasible and relatively productive technological option. However, inequality between the lineages with respect to the areas they claimed as part of their total shifting cultivation area led to the adoption of a system of rotating land pools along the lines of rotating labor or credit associations. Each lineage had to open up his territory on a rotational basis (Desjeux 1982, 128).

In many areas of West Africa, sales of land to migrants were only characteristic of periods of relative land abundance, and became rarer as land scarcity increased. Once conditions of generalized land scarcity arise, sales of land come under considerable criticism from the community and might even retroactively be declared illegal (Robertson 1987, 60). Other "sales" may be transformed into "perpetual" rents. Common property regimes, then, may in fact be reasserted and strengthened as a reaction to population pressure in an effort to bar strangers – nonmembers – from acquiring permanent usufruct rights to land. Only if land scarcity arises within the context of a centralized feudalistic

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<sup>7</sup>(...continued)

of landed property is resisted. Not incorrectly, Tiv view 'property' in land as the ultimate disavowal of their social values" (Bohannon 1963, 109-110).

political system may generalized insecurity of tenure become a dominant aspect of the agrarian structure (Biebuyck 1963, 87).

The above phenomena illustrate that there is no simple causal mechanism between an increase in population density on the one hand, and the appearance of private property in its Western, absolute form, on the other hand. However, we have identified a crucial factor with respect to changes in African property rights regimes: the nature of usufruct rights induced by intertemporal techniques that establish fixed investments in the land.

We have seen that the introduction of intertemporal techniques, such as tree planting, gives rise to income streams over an extended period that are fixed in the land. This reduces the spatiotemporal flexibility achieved by the common property system under which short-term usufruct rights are continuously allocated and reallocated. This phenomenon is used by proponents to argue for fee simple title. That is, the current property regimes are said to discourage both tree planting and other yield-enhancing investments in a plot of land. But many yield-increasing techniques - HYVs, the application of fertilizers and pesticides - operate only over a crop cycle and hence should not be discouraged by the claim of "insecure" tenure. More critically, as long as a farmer is committed to a plot of land, that plot of land - except in the rarest of circumstances - is committed to him. That is the social contract in the common property regimes under study here.

Given the economic conditions outlined above, the implementation of intertemporal production technologies by the individual may produce negative externalities to other individuals in the form of lost flexibility. The community may try to prevent the implementation of such technologies, or it may demand compensation from the individual for the "cost" of the externality. This should not surprise us, since the exercise of a usufruct right by the individual is essentially a *private* property right. As with all types of private property rights,

Individuals have right to undertake socially acceptable uses, and have duty to refrain from socially unacceptable uses. Others (called "non-owners") have duty to refrain from preventing socially acceptable uses, and have a right to expect only socially acceptable uses will occur (Bromley 1989a, 872).

#### **SECURING THAT WHICH MATTERS**

We have commented on the land fetish common among western-trained economists. Land, to an economist, is one of the four "factors of production" - the other three being labor, capital, and management. In such a model, land is regarded as the fixed factor, and returns to land are imputed after wages have been paid to labor, interest has been paid to capital, and profits have been paid to management. Land earns rent as a residual claimant. This is the Ricardian legacy in economics. Because capital, labor, and management are mobile, it is

land that remains a store of wealth – fixed in location, secure in ownership, and available to the state to tax. Economic analysis is concerned with maximizing the return to the fixed factor – that is the asset to be managed, that is where durable wealth resides. Small wonder that many of the economically comfortable will insist, with barely a smile, that the fundamental role of the state is to protect private property rights.

But Tawney said it best:

Property is the instrument, security is the object, and when some alternative way is forthcoming of providing the latter, it does not appear in practice that any loss of confidence, or freedom or independence is caused by the absence of the former (Tawney 1948, 73-74).

We commented earlier about flexibility for the farmer, and about securing that which matters: income. What remains is to establish the clear link between a full-blown market economy, and the property rights regime that underpins that market. Any producer is, by definition, also a consumer. One either consumes what one has oneself produced – called "subsistence agriculture" – or one produces to sell in the market using the earned income to purchase what one wishes to consume. If one decides to specialize in producing but one thing, then it is clear that one relies upon the market rather totally – particularly if one chooses to produce what cannot be eaten, say cotton.

It is fine to produce only one thing – even inedible things – as long as one has access to other commodities through highly articulated markets. The economic concept of comparative advantage indeed admonishes farmers to produce that item for which they have a comparative advantage and to purchase the remainder of the desired consumption bundle. Economic welfare is thereby maximized. But the tyranny of comparative advantage is evident when it becomes a fetish. The extension of this tyranny, as we have seen, focuses on land and private property rights in *a particular piece of land*. As long as markets are well-developed, reasonably competitive, and offer the necessary consumption flexibility, then specialized production plans are feasible.

Here, by *specialized production plans* we mean specialized in terms of enterprise and in terms of location. One privately owned plot devoted to one commodity is the essence of a specialized production plan. One takes one's chances with that commodity – and with that particular parcel of Cartesian space – knowing that the higher returns will allow diversification in consumption through the market. Notice that *transactional flexibility is here a substitute for production flexibility*.

But if transactional flexibility is not available in the economic context under study, then production flexibility takes on overriding importance. Production flexibility is acquired through several strategies. Crop diversification is understood among economists and agronomists. Scattering of plots is understood by some observers, but most economists denounce such practices as "inefficient" – as if that word had any meaning apart from the

objective function and the constraints pertinent to the farming community.<sup>8</sup> But common property regimes in sedentary agriculture, where individuals have use rights to particular plots for specified periods of time, cannot – evidently – be comprehended. Yet such rights regimes offer the very kind of security that no other property regime can offer – security to an income stream from *some* plot of land.<sup>9</sup>

Security to an income is enhanced by a flexible approach to which plot will be cultivated, with which crop, during which period of time. By this institutional arrangement, African farmers accomplish through the institutional arrangements governing production what they cannot hope to accomplish through the institutional arrangements governing consumption. If this were better understood, it would seem that the advocacy for private land and titles would become less shrill.

One might then encounter a serious discussion about *tenurial pluralism*. By this we mean a recognition that property regimes are instrumental variables, chosen for the ecological and social conditions under study. In some settings, individual (private) property regimes will do just fine. In other settings, state property regimes are appropriate. And in other settings, common property regimes as we now observe them in much of sub-Saharan Africa are appropriate. Tenurial pluralism will be difficult to sell to those who see ineluctable wisdom and "efficiency" in the atomized property rights of the West. But then, development advice often lags decades behind what is correct for the economy and society under discussion.

#### **INTELLECTUAL HONESTY: SPEAKING TRUTH TO POWER**

For several decades now, property rights with respect to land use have become an "efficiency club" to be used against primitive and irrational peasants. Economists seem to generally agree that Africa is plagued by lack of technological sophistication and that therefore governments "need to foster secure land rights and create a stable institutional environment for encouraging private investment and development of technology (Lele 1988, 189)." Such logic regards institutions as untoward constraints on economic progress, rather than as social arrangements that coevolve with technological opportunities. Moreover,

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<sup>8</sup> Dahlman (1980) offers an incisive criticism of those who would, with considerable ease, pronounce on the "efficiency" of certain practices undertaken by our predecessors.

<sup>9</sup> Interestingly, garden plots in urban America often operate exactly as those in parts of Africa – individual cultivators are assigned plots under various schemes and tend them with no little diligence throughout the growing season. We await definitive empirical evidence that such agricultural activities are noticeably less productive than gardening under the more familiar private property regime. The property regime here secures that which is of interest to the cultivator – a stream of benefits from the land and labor.

until technologies adapted to the particular agroclimate of Africa prove their effectiveness, we should probably view the existing technology in many areas of sub-Saharan Africa as a comparatively appropriate response to environmental uncertainty, fragile soils, relative land abundance, and relative labor scarcity. The theological cast of mind among development economists regarding the one and only correct property rights structure must be seen as but the latest episode in a long history of preaching to Africans about doing the "right thing."

Dahlman has commented on the problem of divining the "correct" property regime:

In the process of defining property rights, the economic system must make two interrelated decisions....The first is to decide on the distribution of wealth; who shall have the rights to ownership of the scarce economic resources even before, as it were, trading and contracting begin. The second refers to the allocative function of property rights; they confer incentives on the decision makers within the economic system, for the attenuated rights determine what can be done and cannot be done with any specific economic asset. It is clear, therefore, that we must deal with costs of making the "transactions" that constitute the defining of a social contract that sets the preconditions for the ensuing economic trading game. We can separate them into two parts: one set of decisions must be treated as endogenous for the system, and constitute the exogenous conditions for each trading agent in the resulting set of trades; the second set of decisions is made in the context of the making of these trades (Dahlman 1980, 85).

Usufruct property rights regimes have emerged in this context to assure security of income streams attributable to the scarce economic factor - labor. The Benthamite theory of the necessity of tenure security for induced investment in more productive technology is basically correct. However, the object of security has become confused. It is *income streams* that property rights must protect. In the context of the semiarid tropics, this imperative must be reinterpreted as giving security with respect to labor income. Usufruct property rights regimes offer precisely this security.

Attempts to modify these property rights have resulted in a marked reduction of the flexibility and equity of the system. Relative land scarcity on the Mossi plateau in Burkina Faso, for instance, led to extensive lending and borrowing of usufruct rights. However, the typical "loan" neither specified the duration of the loan nor involved the transfer of either cash or labor rents. In an attempt to settle certain land disputes between villages in the 1960s, the state's decision went in favor of the borrower. The impact was immediate - lenders reduced the frequency and the time horizon of loans (Imbs 1987; Verdier 1964).

The introduction of formal credit programs may also exacerbate inequitable institutional change. Formal credit is generally targeted to, or effectively

captured by, the more powerful members of a community. The adoption of intertemporal technologies will then likely be stratified by access to credit. Relative or absolute impoverishment of the strata without access to credit may result. Such negative impacts are frequently experienced within the context of development projects when certain "enlightened" chiefs empower themselves through their involvement in the project. Particularly disturbing in this context is that a development project may be used to transform traditional stewardship over land into individual, exclusive property rights. If such rural elites then also exploit their traditional office for the recruitment of cheap labor for "their" fields, one could easily speak of *neo-feudalism* triggered by a combination of irreversible technology and stratified access to credit.<sup>10</sup>

Another prominent source of tenure insecurity has been associated with the introduction of formal legislation – often merely declarations – which provided for the possibility of obtaining legal title. Given the fact that in many areas in Africa land scarcity has rapidly increased, the introduction of formal private property titles created substantial new opportunities for rent-seeking behavior. Indeed, titling has usually enhanced the practice of government officials claiming to have legally obtained rights to land in urban as well as in rural areas. Often, government officials are the only ones resourceful enough to obtain title to lands that are presumed vacant but are, in fact, grazing lands of pastoralists, or lands that are part of long-term fallow strategies of certain farming communities. The spread of private ranches in the Maasai district of Kenya, whose owners are relatives of high government officials, is an example of such practices. The argument for titles as a means to enhance tenure security looks rather different to the Maasai. They might be expected to ask whose tenure security is thereby enhanced?<sup>11</sup>

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<sup>10</sup> Such an increase in feudal powers as a result of the linkage of the traditional elite with an external power is not a new phenomenon. During the colonial period, certain chiefs mobilized their villagers under the guise of the traditional labor tribute for work on their personal cotton plantations. It seems that this type of exploitation would not have been possible without the active support of the colonial administration, which depended heavily on the chiefs for the mobilization of cheap labor for the creation of certain infrastructure. The chiefs have never quite lost the postindependence stigma of "collaborateurs" eagerly admonished by many young politicians competing for power with the chiefs in the newly independent state.

<sup>11</sup> Indeed, Feder and Feeny (1991) admit as much when they note that: "In 1896 the government responded by initiating a cadastral survey in an area in which important government officials were also landowners, and in 1901 created a formal system of land titling ... the current system of land rights in Thailand developed in response to the increased benefits of defining property rights in land induced by the commercialization of agriculture and appreciation in the agricultural terms of trade. Government officials, as landowners, shared in the gains from titling and were therefore willing to supply the institutional changes being demanded, especially in those areas in which they owned lands. Their  
(continued...)"

The question becomes one of whose "efficiency" is deemed more important in the new policy environment – the efficiency following from the security of usufruct rights of pastoralists, farmers, or fishermen, or the efficiency of security of the new claimants. In other words, efficiency for whom?

It seems unlikely that a centrally managed land reform will be able to deal effectively with the efficiency and equity aspects involved. For instance, one would first need to make an inventory of all property rights and relations – individual, group, intergroup, taking into account past, present, and future property rights – which apply to a given piece of land. Secondly, the equity dimensions of a redistribution of property rights would have to be examined and the social costs determined. The determination, then, of the social costs of land reform, and the necessary compensation schemes, would demand a huge amount of relevant information. Arbitrarily settling land disputes through privatization is likely to confuse "users" with "owners," "imperium" with "dominium," administrative units with kinship or residential units, and representatives of communities with landlords, and to unnecessarily constrain migratory movements (Biebuyck 1963, 96; Köbben 1963, 255-256; Traoré 1986, 36).<sup>12</sup> Thus, it seems that bargaining over the payment of social costs associated with changes in property rights regimes is best conducted at the local level by the actors themselves. To the extent that the state is willing and capable of assisting in this transformation, it can play a positive role.

Some may argue that a devolution to the local level of decisionmaking power with respect to property rights systems will exacerbate local inequality, particularly since the development of equitable, democratic institutions is not a short-term process. Before such institutions have developed, local elites and civil servants may use their influence to acquire an undue share of the property rights. However, such fears need to be qualified. In many parts of Africa, the management of property rights regimes is already firmly in the hands of the local community, notwithstanding national legislation that asserts otherwise.

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<sup>11</sup>(...continued)

motives also reflected the desire to provide mechanisms to resolve and reduce the incidence of land disputes (Feder and Feeny 1991, 138-39)." Notice in this model of "induced institutional innovation" that government officials were present on both the "demand side" and the "supply side." Ordinarily, this would cause an econometrician some discomfort. If this behavior by governmental officials were undertaken in the name of something that the authors found distasteful (should we say "inefficient"?) – for instance, preferential export licenses for certain relatives of certain government officials – it would be labeled as pernicious "rent-seeking behavior."

<sup>12</sup> The experience with titling projects in urban areas may serve as a warning. Traditional elites may obtain formal title deeds and quickly sell them off to strangers so as to cash in on the transaction, knowing that the community would deem the whole operation illegal if it found out. Thus, a transaction that is traditionally illegal is made "legal" – or better, "laundered" – by the laws of the modern state.

Moreover, it should be stressed that Africa's relatively equitable current land distribution is not simply due to an initial situation of land abundance. Its equity is to a large extent the outcome of the relatively fair workings of local property rights institutions. Where local inequity in land distribution presently does exist, it is often either associated with pre-existing feudal arrangements or with the sort of state intervention against which this paper argues. Ultimately, greater democratization of society at all levels will be the best guarantee for a process of equitable economic growth. But current impediments to democratization in sub-Saharan Africa are hardly, if at all, situated at the community level.

In conclusion, the most important reason for rejecting "improved" agricultural technology is probably not a case of "missing institutions," but the simple fact that such technology usually does not improve on anything at all. If there is a question of where public resources are needed then it is clearly here, viz. in the area of the development of an agricultural technology for sub-Saharan Africa. What is needed is a technology to increase labor productivity without increasing the overall riskiness of production.

## CONCLUSIONS

The above debate can be situated within a more general framework of economic theories with respect to the formation of property rights regimes. In simple terms, the debate addresses the question of whether a particular property system emerges as a function of economic conditions, or whether economic conditions are a function of the existing property systems (Bromley 1989a,b). On the one hand, it is often argued that shifts in property systems with respect to a particular resource are primarily induced by changes in the economic value of the resource (Bromley 1989a,b; Netting 1976). For instance, an increase in the scarcity value of the resource may induce a tendency for the resource to become governed by more specific property rules, transaction costs permitting. Adherents of this view might argue that one should promote investment first and foremost, and that changes in property systems will follow suit. Others have argued that the definition of particular "efficient" property rights precedes economic development (North and Thomas 1977). It would follow, then, that policies should be oriented towards active intervention in property rights regimes.

We do not intend to stress either of the above "directions" of causality with respect to the interaction of property rights and economic conditions. In general, property systems and economic conditions are simultaneously defined, with causality being possible in either direction if there is recursivity in their relationship. All economic analysis requires a careful consideration of the exact economic problem requiring a resolution. It is the institutional environment - the existing property rights regime - that defines that problem in a narrow sense. However, as soon as we abandon this narrow framework, the institutional setting itself needs to be examined. In one particular empirical context, ex ante risk may trigger intricate sharing arrangements and the abolition of exclusive private property. In another context, risk may lead to widespread asset loss and attenuation of class differentials due to a

differential capacity to absorb risk. It is on the interplay of legal and economic institutions that our analysis has focused. Obviously, new laws will have an economic impact. New economic conditions – induced for instance by new technology – in turn may demand new legislation. Economic development can be most meaningfully defined as a process in which both evolve in relative harmony.

Thus, the presumptions of exclusive, transferable, alienable, and enforceable private property rights in land does not allow the economist to "omit institutions" from economic analysis, as Feder and Feeny (1991, 135) want us to believe. Any system of property rights is an economic institution. The analysis of economic institutions is not something which economic analysis has merely to take into account in developing countries – and to a lesser extent in Western economies. What is usually true, however, is that the Western economist is more familiar with the working of Western institutions and intuitively takes them into account when analyzing an economic problem and identifying certain policy prescriptions. Unfortunately, when we work on problems of developing countries we often lack an intuitive grasp of the institutional arrangements of these societies in a social and historical context. By not seeing these institutional arrangements, or by seeing them but failing to understand them, we are tempted to fall back on the assumptions of an institutional framework with which we are more familiar. However, when our well-intended policy prescriptions lead to failures, we should not be too quick to point to the institutional context as the culprit. Doing that encourages one to advise a change in the institutional context so that our policy prescriptions will again be embedded in a familiar institutional framework. Such a strategy presupposes that institutional arrangements are more readily amenable to public reform than the constitutional order or cultural reform.

Why do some argue that the institutional arrangements necessary to provide incentives and reduce uncertainty and asymmetric information in the rural areas are often not well-developed? Is it because of the overall inadequacy of public resources of the state, as Feder and Feeny suggest (1991, 142)? We submit that this is not the case. Wherever indigenous institutional arrangements seem inadequate to enforce the rules, it is generally because their legitimacy has been eroded by the intervention of the "alien legality" of the autocratic state. Rather than accept the demise of indigenous institutions as a *fait accompli* and increase the powers of the state, perhaps what is needed is a democratization of that state so that local communities will be able to choose their own institutional arrangements. Instead, one sees an increase in public resources for cadastral surveys that promote rent-seeking behavior by those with access to political power. To imagine that this will create economic development is to believe in miracles.

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