

LAND TITLES, TENURE SECURITY AND AGRICULTURAL CREDIT:
A REVIEW OF PRINCIPLES, EVIDENCE AND HYPOTHESES

by

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Land Titles, Tenure Security and Agricultural Credit: A Review

It is common to view security of tenure and, more specifically, the existence of alienable land titles as preconditions for agricultural credit and efficient levels of investment in agricultural production. In this paper, we review the principles and hypotheses, and evidence on these themes and suggest a perspective for organizing future research.

In what might be called the "moral economy" or neo-Marxian perspective, modern capitalistic institutions such as legally enforceable land titles are thought to undermine the harmony of the indigenous social order, replace "shared poverty" with mechanisms for exploitation, and create class conflict (see Scott, 1976; Geertz, 1963; and the assessments of Popkin, 1978 and Roumasset and Smith, 1981). At the other extreme, what might be called the "new orthodoxy," is the view that economic development requires the creation of an institutional infrastructure to facilitate efficient resource allocation by competitive markets.

In what follows, we also explore the view that the mix of traditional, market and government institutions evolves in response to relative factor endowments and technology. While it is therefore possible that creation of legally enforceable land rights may lower the supply price of credit, it is also possible that replacement of indigenous institutions by artificial ones may be premature and not have the desired effect. While land titles may facilitate the enforcement of lending contracts, they are not the only enforcement device.

In section 2, we review descriptions and explanations of the evolution of private property and economic organization. The descriptions span the tenure forms existing in Asia, Africa and Latin America. Section 3 synthesizes the

various arguments pertaining to the roles of tenure security and land titles in generating investment. In section 4, we explore the various perspectives of the role of land titles in agricultural credit. Section 5 presents concluding remarks about alternative institutions for enhancing the efficient allocation of agricultural credit.

2. The Evolution of Economic Organization

Demsetz (1964), North and Thomas (1970), Davis and North (1971) and others have suggested that new institutions come into existence when their benefits exceed their costs. The English enclosures are accordingly viewed as a response to land scarcity under population pressure.

Organization of agricultural production with communal land is thought to be efficient when land is abundant relative to labor. Communal organization facilitates economies-of-scale from the specialization of labor (Fenoaltea, 1976). It also facilitates rotation from field crops to grazing land with open access (Dahlman, 1978). When land becomes scarce, the returns to investment in maintenance and enhancement of land productivity increase and private ownership provides the incentive to make those investments.

A similar phenomenon is currently reshaping agricultural organization in Africa. Despite laws based on customary tenure, freehold systems have been gradually evolving (Ofori; Feldman; Ega). Sales of land and leasehold transactions, which are not accepted in "communal" or "corporate" form of traditional tenure, are increasingly observed in African agriculture.

If it is true that private property in general and formal land titles in particular evolve when the benefits of these institutions exceed their costs, then it is plausible that the artificial introduction of modern institutions can be counterproductive. On the other hand, it is possible that the natural

evolution of property rights will only be achieved after passing through a period of conflict. Moreover, the basic rules-of-the-games and constitution of a society have a public good character. Thus government intervention may be appropriate to facilitate an orderly transition from one set of rules to another.

2.1 Ownership Patterns in Developing Countries: An Overview

This section presents a summary of the customary land tenure arrangements of Africa, Latin America and Asia, with particular emphasis on Thailand. Ownership patterns as well as the legal environment on tenure are the focus of the discussion below.

Africa; The customary land-tenure practices of Africa have been analyzed by economists, sociologists and anthropologists. Sovereign ownership is vested in a social group or tribe. An individual's access to cultivated land is by virtue of his tribal membership (Dorner, 1977; Baron, 1978; Ofori, 1978). He is allocated a plot by a village headman and his use right over the plot extends until fallowing becomes more productive than farming. His individualized "use" right encompasses land use decisions, inheritability and the right to mortgage the property for a loan. But since ownership is vested in the whole group, the "usufruct" owner does not possess the liberty to sell the land. Individuals normally held fragmented plots and land was rotated to facilitate fertility restoration by fallowing. There also was communal ownership of grazing land.

In most parts of Africa, e.g. Nigeria (Ega, 1979), Tasmania (Feldman, 1974) and Lesotho (Eckert, 1980), customary laws are validated by legislation. In Nigeria, the minister holds the responsibility for land allocation (Ega,

1979). Legislation also provides for assignment of occupancy rights to nonindigenes unlike the pure customary law. The owners of the rights possess full autonomy over land use decisions except disposal of land by sale or mortgage without the Minister's consent (Ega). They also retain their ownership even if he leaves the village.

This ownership pattern characterizes the customary tenure of Kenya (Barber, 1970), Tasmania (Feldman), Ghana (Ofori, 1973) and other parts of Africa (Baron, 1978). Social scientists conflict in characterizing the structure as "communal" or "individual." It is communal because of sale limitation but "individual" in all other aspects. Ofori (1973) compared the system to the corporate structure where each farmer is akin to a partner (part owner) who has ownership rights but whose sale rights are limited by his partners.

Recent years have witnessed some evolution in the ownership structure of African agriculture specifically in response to increased commercialization (Baron, 1978). In Ismani, Tanzania population growth and technological change induced the sale and rental of land, transactions that are prohibited by a legal system based on tribal law (Feldman). The same phenomenon has been noted in the Zaria villages of Nigeria (Ega). The cocoa trade of Ghana led to higher land values and a desire for more permanent settlements inducing a demand for long term ownership rights (Ofori). A market for land and, consequently, individual and alienable rights have resulted. Finally, increased migration among the Masais of Kenya has resulted in the enclosing of the best grazing land to form individual ranches (Coldham). Uganda experienced the same phenomenon in both grazing and crop land (Muwonge, 1978). Just as the retention of customary laws (held legal) are contravened upon by natural economic forces, so are premature market-oriented registration laws (Dorner,

1977) . Coldham (1979) questions the success of the land adjudication act of Kenya where forced land registration is imposed. The forces that make the customary laws effective are still prevalent.

The tendency toward individualization prompted new tenure related problems (Baron). Foremost is the increased uncertainty over the changing property laws. One source of this problem is the incomplete land records kept and the poorly defined land boundaries of traditional holdings. To facilitate conveyancing, well defined property boundaries are needed. One other source of uncertainty is the sluggish response of the law to safeguard the legal status of land transfers consummated through commercial transactions (Baron). Just as the tribal leader provided the guarantee and sanction for customary tenure, impersonal land markets necessitate the legal status from government laws. This is the problem pointed out by Feldman for Tasmania and by Ega for Nigeria. Baron and others also attribute fragmentation of landholdings and the emergence of a landless class to the movement towards private property.

Land survey and registration laws are continually urged in Africa. The most advanced country in this respect is Kenya, which has promoted these schemes as early as 1954 under the British government (see Baron and Barber). The motivation for Kenya's new land laws was the presumed relationship between tenure security and investment (Barber, Coldham).

Latin America: The agricultural organization in Latin America originated with the Spanish colonial system and reinforced after independence (Dorner, .1977) . The system is dominated by large estates called Latifundia and small holdings called minifundia. The latter are usually subsistence farms which have little surplus for sale to the market (Thome, 1971) .

The main problem preoccupying policy-makers in Latin America is the lack of tenure security among the small landholdings. According to Thome

"The number of Latin American rural land holdings operated without a secure title of ownership runs into the hundreds of thousands, most of them in the small to medium size category...in 1967 approximately 150,000 small farms in Chile were operated without benefit of legal title. In Colombia,...8.6% of all agricultural land are occupied without any title....In the Dominican Republic, approximately 50% of land has yet to be registered under the Torrens system of title registration instituted there in 1920 ____" (p. 229).

Tenure insecurity apparently resulted from traditional titles originating from the Spanish era and by the use of informal ownership procedures instead of the tedious legal registration of land ownership. The traditional systems of tenure were considered secure, and the sudden introduction of formal legal titles could be the source of current tenure insecurity (ibid.).

Land reform has been instituted in most Latin American countries (Barraclough, 1970). The reform led to the subdivision of large farms into small private farm holdings except for some cases like the Mexican ejido, which is a communal tenure reform. For the former, the distribution of land titles lagged behind land use rights (ibid.). The tedious process of registration in Costa Rica, Bolivia and the Dominican Republic discourages farmers from registering. Informal claims in the meantime have evolved in Colombia in lieu of the time consuming land titles.

Latin America has long had dual tenurial sources of security. Legal mechanisms and registration systems exist through which landowners can seek protection for their property rights. Informal land tenure has existed simultaneously. Land occupants without formal legal sanction still do not find it profitable to avail of the existing legal mechanisms.

Asia (with emphasis on Thailand): Agricultural organization is dominated by small farm units. "A small operating unit is usually two hectares or less,

which actually accounts for 70 to 80 percent of all farms in such countries as Indonesia and Bangladesh (Dorner, 1977, p. 29). The freehold system is normally practiced among owner-operated farms while tenancy and lease systems predominate the nonowner farmed lands. Various forms of tenancy and lease arrangements are also observed (Hayami and Kikuchi, 1981; Roumasset, 1976).

Formal forms of tenure security vary among these farms. Many owner operators do not possess land titles even if customary ownership has prevailed for generations, i.e., inheritability, right of alienation and occupancy characterize the landowners' rights. Among tenants, "written lease contracts are most common; most agreements are oral. And while some tenants or sharecroppers may operate the same land for years, there is generally a "great deal of shifting about of tenants" (Dorner, *ibid.*). This pattern has been observed in the Philippines (Mangahas, 1976), Thailand (Ingram, 1971), India (Khusro, 1973) and Indonesia (Hayami and Kikuchi, 1981).

Communal types of tenure are uncommon in Asia. One of the available evidence was documented by L. Caplan (1972) in East Nepal. The Kipat system of ownership practiced by the Limbu tribe attributes land ownership to the tribe and inhibits the transfer of land through sale or gift by the use right holder. The rights are inheritable, however.

Thailand's agricultural organization has evolved a little differently than its Asian neighbors. It has not experienced foreign or colonial encroachment and it had developed indigenously unlike Indonesia (see Geertz, 1963), the Philippines and India (Kemp, 1981; Johnson, 1981). As Ingram noted "...Thailand has traditionally been a nation of smallholding owner-farmers ... ample land was available for the expansion of cultivation as populations grew and new families were formed. Unclaimed land was the property of the state but custom and laws permitted individuals to occupy, clear and cultivate

such land....tenancy has not been a serious problem" (pp. 265-66) . While tenancy is not as dominant as in other Asian countries, it is still an important form of organization in Thailand (Phipatserithan, 1979).

Recent surveys, however, note the rising trend of tenancies in various areas of Thailand. While the Census data documented a decline of share tenancy of 25.6 percent of total farms in 1937 to 10.7 percent in the Central plain area, recurrent surveys showed the opposite results. A survey of 26 Changwats in the Central plain in 1967 (Thailand Department of Land Development, 1969) showed a decline in share tenancy from 1937 till 1963 and a subsequent resurgence in 1967.

Laws concerning land registration and land surveys (Williamson) have also been enacted in Thailand. Like Latin American and other Asian countries, land registration does not come naturally to Thai farmers. In 1968, Toru Yano reported that only about 12 percent of total farm landholdings had full title deeds, with the majority concentrated in the Central region. Two thirds of the total farm area was cultivated by occupants with no legal claim to the land.

Two factors influenced the current legal pattern of Thailand's land tenure (Yano, 1968) . One was the customary law concept (latti-thamniant on land tenure where occupancy essentially determines ownership. The second one was the modernization of the land law launched in the beginning of the twentieth century.

"Theoretically, all land was supposed to belong to the king, the farmers being allowed to acquire land on the condition that they exercised de facto occupancy and cultivation....Such a custom had long been in practice, but in 1901 King Rama V introduced the modern idea of land ownership, and he created a system in which no protection is given to occupancy but only to ownership....In 1936, a more flexible land law was legislated" (ibid. p. 853).

The 1936 land law, enacted because of the confusion generated by the 1901 law, became the basis for the 1954 and current land law. The latter recognizes the

three stages of land acquisition—occupancy, utilization and legal possession.

Thailand issues five types of land certificates, depending on the stage one is in towards land acquisition. One starts out with a certificate of temporary occupancy and ultimately ends up with the legal title. Ironically, soo khoo 1, the certificate of occupancy for tax purposes and which is totally irrelevant to land acquisition, is the most common. In fact, in Yano's survey area, 89.2 percent of the farmers had soo khoo 1 while the remaining 10.8 percent were unregistered. For the whole of Thailand, in 1970, 18 percent of the land known to be in use had had full documentation of ownership (Kemp, p. 8). Ownership by de facto occupancy still is the dominant land acquisition practice in Thailand.

The Thai land law incorporates the right of acquiring land through squatting. The practice, known as cap coong, necessitates legal procedures prior to the issuance of the title. Unfortunately most squatters bypass the legal requirements and proceed to cultivate the ownerless land (usually owned by the state) to establish some form of customary ownership (Yano, p. 856-57).

The above discussion focuses on the lowland tenures of Thailand. The tenure farms of upland Thailand have generated some attention due to the sudden concern about forest conservation. Tribes are generally excluded from the legal protection of the land code (Kemp, p. 17). Land use rights are still recognized on the basis of permanent occupation though, and are terminated upon ceasing of cultivation. The law further declares swidden agriculture and shifting cultivation illegal and limits use of forest land (Ratanakhon, 1978). To the upland farmers, however, customary tenure and land-use rights and shifting cultivation with communal rights are still common (Kunstadter, et. al., 1978). Hence, by law, starting occupancy by an uplander, constitutes an immediate crime unless he seeks prior permission from the state, an act

contrary to his customary ways. Ratanakhon recognizes the conflict between upland tenure and a land law based on lowland individualistic agriculture.

Summary: Two basic forms of agricultural organizations dominate Asia, Latin America and Africa. Land is held under either "communal"¹¹ tenure or "private" ownership. The privately held plots are operated by owners, share tenants and lessees.

A common concern of all countries explored is the establishment of tenure security through the legal definition of property rights. *De jure* rights are encouraged rather than mere *de facto* occupancy of the land. For nonowners, written leases are encouraged. Hence government related efforts are geared toward land titling (oftentimes in conjunction with land reform) and contractual enforcement. Ignorance or perhaps the continued feasibility of customary law generate general indifference to the enacted legal procedures.

3. Tenure Security, Land Title and Farm Investment

This section presents the theory and empirical work behind the alleged relationship between land tenure security and farm investment. We also explore the different perceptions about the sources of tenure security and their implications for policy.

Lack of tenure security is often cited as one of the main reasons for low agricultural productivity (e.g. Mosher, 1966). The lack of security poses time horizon constraints and leads to nonoptimal land use and investment. Baup (1967) elaborates on this relationship:

"How can tenure security contribute to capital formation? By making the use of a productive asset the preclusive right of an individual or a group. This security of expectation is crucial for.... undertakings involving numerous incremental additions made successively over many production cycles. A system of tenure that makes the use and reward specific to the user is a necessary... condition for capital formation." (p. 273).

Characterizing the nature of the tenure form and legal sanction which enhance security to the farm operator is subject to opposing viewpoints. One model emphasizes the inefficiency of nonmarket arrangements, e.g., tenancy and communal tenure. In a general sense, its main premise is that the creation of markets and its associated institutions is a prerequisite for agricultural development. The other model (Dahlman, 1980, Ruttan, 1981} challenges this view of "inherent inefficiency" and emphasizes the endogeneity of institutions. According to the latter, efficient institutions, whether market or of the nonmarket forms, will evolve in response to the economic environment.

For the former school of thought, tenure insecurity supposedly characterizes the tenurial arrangements of developing nations. In Africa, the separation of ownership from actual farm operation causes tenure insecurity (Baron; Allan, 1969; Barber, 1970) . In Asia and Latin America, share tenancy that divides the output between the landlord and the tenant does not adequately internalize rewards and costs (Warriner, 1964). Furthermore, the absence of land titles and written lease agreements increases tenure insecurity for farmers.

Land title distribution, according to this viewpoint, can then put an end to insecurity of tenure (Fleming, 1975; Dorner, 1977) . Written leases and tenancy contracts can also establish security (Iftikhar and Timmons, 1971). One needs to be more explicit however about the incentives that secure tenancy contracts can create. Security of tenure to a "share-wage" farmer, i.e., one who has a low output share and is compensated mainly for labor services, will not encourage any more investment. Tenure security can increase investment incentives to a share-lease holder, who partakes of the residual in farm production. Raup clarifies this:

"These optimum conditions for capital formation in agriculture have been presented in terms of the owner-operator farm firm, but this is not the only tenure arrangement that can create them. It is possible to devise leasing arrangements that will create security of expectations, specific to the operator, and for long enough period to encourage long-term investment...the model for this form of leasehold tenure is typically the cash lease with a period long enough to encompass at least one cycle of crop rotation." (p. 277)

In general, it is security to the farm equity that matters for investment. A tenant with a long-term contract to farm for a fixed lease payment stands to receive the returns to land improvements.

The inadequate internalization in communal tenures and share tenancy is alleged to inhibit optimal levels of input and farm investment (e.g. Warriner, Allan). This belief is based on the premise that these forms of organization do not promote wealth maximization. The alleged best institutional form is the owner-operator structure. On the contrary, Demsetz (1972), Johnson (1972), Ruttan (1981) and Ault and Rutman (1979) recognize the efficiency of communal tenures which had freely responded to economic forces. The motivation behind the open fields system given by Dahlman (1980), McCloskey (1975) and Penoaltea all imply the efficiency of the communal system for that specific period in Europe. Cheung (1969), Newbery (1975) and Roumasset (1979) show that competition for tenants induces tenancy contracts which approximate the competitive market solution. Reid's (1974) management sharing hypothesis and Bell and Zusman's (1975) documentation of the presence of significant tenants' equity in Indian farms discredit the traditional belief that only landlords invest while the tenants have the incentive to provide only the labor.

In the case of African land tenure, several authors recognize the security of tenure which the communal organization gives its farmers. According to Feldman, reports against the customary tenure form "...failed to note that the principles such as individuals rights to produce of the land, and inheritance

by an individuals heirs have in numerous cases allowed agricultural innovation and investment to take place within the traditional framework of land tenure" (p. 306-7) . Ega further asserts that lack of alienable rights enhance security since "...restraining alienation of land, individual security is strengthened as he is not supposed to forsake the long term advantage of farming the land for short-term gain by disposing of it" (p. 296).

Recognizing the endogeneity of existing tenure arrangements provides a novel picture of the relationships among tenure forms, tenure security and investment. It also implies a completely distinct set of policy prescriptions than those set by the inefficiency school. Finally, it is no longer puzzling that many attempts to displace customary law with market institutions do not necessarily work or that efforts to retain customary laws where markets are emerging are foiled (Coldham, 1979).

Does land tenure security mean possession of a land title? This is a more fundamental question neglected in the tenure security and land use literature. Advocating land registration and written contracts as the sole means of security in tenure is another implication of the inefficiency viewpoint towards indigenous and customary institutions. Since well-defined property rights are conventionally associated with individual rights exercised in a market setting, then it is thought that the only efficient collective sanction would be that imposed by an impersonal agent, the government.

The contrary viewpoint to this is best expressed by Ega,

"....contrary to general opinion, security of tenure is not affected by the customary principle of tenure. In fact, even without registration of land and possession of a certificate of occupancy, a farmer who holds land under the legally acknowledged principle of tenure does have de facto security....ensured under the very principle under which land is primarily acquired. There is a provision for...the right to remain in undisturbed occupation of such land" (p. 296) .

Thome further articulates:

"Providing tenure security does not necessarily demand distribution of individual land titles. In many instances, some kind of cooperative and communal organization makes more sense...It is important to devise new types of tenure rights which will provide necessary security and incentives for operating farmers" (p. 239) .

Hence just as efficient tenure forms need not be market oriented institutions, methods of promoting security need not be associated with impersonal legal sanctions.

3.1 Land Tenure Security and Productivity: Tests of Hypothesis

The crucial empirical question is whether a move towards more tenure security increases productivity. The empirical tests conducted to date yielded mixed results. Some empirical studies suggest a positive correlation between - increasing levels of farm security and farm production. Regression analyses, using field data from Costa Rica, showed that tenure security, particularly a full title to land accounts for the most important influence in increased agricultural performance (Salas et. al., 1970, cited in Dorner and Saliba). The tests used nine categories of tenure security, with illegal squatters classified as the least secure and the farms with legal titles as the most secure. However, increased security is confounded with the simultaneous rise of agricultural infrastructure during the sample period.

Other empirical studies show neutral results. Berry and Cline (1979) conclude that higher productivity characterizing small farms applies as much to tenants as to owner operators. The same insignificant relationship was documented in Thailand (Ramasay, 1982). Mangahas (1976) surveyed farms in Nueva Ecija, Philippines. Data on yields and productivity frequency polygons across tenures do not show differences in the productivity of owners. He concludes that "...this finding remains consistent with the findings of earlier

studies and with the hypothesis that the effect of tenure choice in agricultural productivity is neutral." (p. 22) Finally, at the other extreme, some studies like that of Shah (1972) on India, indicated higher farm investment and productivity among tenant farmers compared to tenants who turned owners and owner-operators.

The above empirical tests of the tenure security-productivity relationship cannot reliably isolate the effect of tenure security from environmental variables such as land quality in cross-sectional tests and, e.g., growth of complementary infrastructure in agriculture in time-series tests. Spurious correlation and simultaneous equations bias characterize most econometric tests of these relationships (see Bromley, 1981; Koo, 1982).

3.2 Effects of Land Registration on Income Distribution and Tenure Security.

The natural movement towards private property may accommodate a worsening income distribution by endowing the more powerful with claims to the rents of increasingly scarce land. Moreover, contriving formal security through land registration schemes may encourage power groups to dominate at the expense of the small farmer.

Income distributional consequences of the natural enclosures in Europe have been intensively studied by Allen (1979). He specifically noted how the distribution of output among wages, rent and return to capital was affected by the enclosure movement, concluding that it had indeed worked against labor. Furthermore, the distribution of land became more concentrated as large farm units evolved. However, worsening income distribution need not be viewed as a consequence of exogenous changes in institutions. Rather, the enclosure movement appears to have been induced, at least in part, by land scarcity. In the evolutionary view, it is the falling real wage caused by population growth

that worsens income distribution, not the modern institutions of capitalism (Roumasset, 1980).

Whether or not the same trend in distribution prevails in the modern day enclosures and individualization in Africa is an empirical question. Ega asserts that in the Zaria villages of Nigeria, "...uncontrolled change in the direction of private tenure can result in insecurity for small farmers" (p. 289). Since more of "those who will acquire land are those who already have an advantage in land distribution or substantial income from the non-farm sector, the perpetuation of the present trend would mean that land and income distribution would become even more skewed...By implication, increasing individualized tenure...would mean loss of at least the minimal subsistence living provided him under the customary tenure and the formation of a landless class of workers" (p. 294). The same view is expressed by Baron and Barber in reference to Kenya's development. "The ease of the transfer through sale afforded by freehold, the unequal distribution of income and the weakened power of the village head provide the opportunity for some farmers to expand their property and for the other farmers to reduce or totally lose their land holdings (ibid.; Dorner, p. 94; Ega, p. 295).

Where the customary tenure provided for inalienable rights, the advent of increased transfer through commercial sale creates insecurity for the purchasers of the land (Ega; Coldham; Baron). Since the transactions are still considered illegal in these societies, tenure is actually tenuous and subject to challenge (Feldman). In Ega's sample of Nigerian farms, 14 of the 15 farms that had disputes were commercially transacted (p. 293).

Oftentimes, the implementation of the process of providing security through land registration itself gives rise to tenure insecurity. The detrimental effects of lagging land title distribution are cited in most tenure

studies of Asia (Kemp), Africa (Baron, p. 26) and Latin America (Thome). Since an elite group of fanners or even non-cultivators normally have access to the distribution mechanism, they are given the opportunity to claim land already occupied by fanners with only traditional claims to the land (Thome). Kemp feared that Thailand's land registration schemes provide the opportunity for a privileged few to exploit farmers. The literature on land "expropriation" relates to this phenomenon. Bureaucratic corruption also characterizes the process and boosts the transaction costs of registration. Furthermore, since most of the countries have defective land survey techniques as well as incomplete historical documentation of land ownership, disputes are inevitable (Baron, p. 27; Williamson). In cases where the disputes are taken to court, judges usually have to make arbitrary decisions on the basis of oral evidence, oftentimes in favor of the stronger party (Baron, *ibid.*, pp. 27-28; Coldham, p. 619)

The transition period between customary communal or private tenures to impersonal land markets can create insecurity and a possible inequitable redistribution of land. Discord and uncertainty over property laws arise out of a sluggish adjustment of the legal bodies of law to the natural evolution of property rights (Allan, Johnson, Ault and Rutman, Baron). The laws cannot be immediately enacted, and actual implementation promises very high transaction costs. The insecurity stems from the uncertainty over one's ownership status and the inequity results from the group of privileged people who has access to wealth and information.

The income distributional consequences of "natural" evolution toward individual tenure may worsen or improve income distribution. Most of the studies conducted of the evolution of African tenure, where such phenomenon is going on assert a worsening of income distribution in favor of rich landowners.

A more intensive statistical study is still needed, however. The implementation of land titling schemes also seems to promote inefficiency and a redistribution of land toward those with access to the government bureaucracy. These two income distributional effects are possible negative consequences of "individual tenure" and should be weighed against possible positive investment effects in evaluating whether and in what ways the government should intervene.

3.3 Implications for Policy

The question of increasing agricultural efficiency by providing tenure security may have its payoffs. Once we recognize, however, that tenure forms can and do respond rationally to economic forces, the threat of impinging on their natural evolution and instituting counterproductive policies becomes a possibility. On the other hand, the system may not be efficiently evolving and consequently, institutional reform may hasten agricultural development. A careful analysis of the tenure system and attendant economic and social circumstances is a prerequisite to any possible course of action.

Different authors have different interpretations about the income distributional consequences of the individualization of tenure. Income distribution may or may not worsen. A similar dilemma characterizes the move toward legal land titles. Without land titles, some authors claim that informal power groups dominate small farmers. With land titles, the system may encourage an elite group who accumulates large landholdings and the formation of a landless class. Once again, only a thorough understanding of the circumstances of a particular setting can enable one to recommend a productive and equitable policy.

The land title law, the presumed instrument of tenure security, may be actually inimical to its own goals. Particularly if the resources to implement

a new law are insufficient and the social system can only respond sluggishly to the change, land title distribution may actually incur huge transaction costs. This may result in a land distribution in favor of some power groups with the knowledge and resources to take advantage of the change. For the snail fanner, once the legal environment ceases to recognize ownership on the basis of occupancy and land use, their de facto security is actually threatened. The policy of land titling, in some cases, may ironically foster tenure insecurity (Ega).

The criteria for land-use policy should include both investment incentives and income distribution effects. At present our knowledge is apparently so primitive that we are unable to predict even the direction of investment and distribution effects with confidence, let alone the size of those effects.

4. Land Title and Credit Availability

The urgency of land title distribution is partially justified by the need for credit availability in agriculture. Possession of a land title is often mandatory for agricultural bank loans (e.g. U Tun Wai, 1957). Some authors believe that providing small fanners with this prerequisite will ease the current lack of access to credit and capital in developing countries.

The lack of credit availability inhibits agricultural development in two ways. It can constrain investment in fertilizers, chemicals and other capital and cash intensive inputs (see e.g. David and Meyer, 1980). It may also lead to misuse of land. In Costa Rica, Dorner and Saliba (1981) report that credit by cattle mortgage is easier than credit by land mortgage if the farmer does not possess the land title.¹ Such asymmetry leads some farmers without land

¹This example also illustrates, however, that land title is not a prerequisite to borrowing. Furthermore, since enforcement of loan contracts is costly, it does not follow that cattle mortgaging is inefficient.

titles to shift out of crop production to cattle raising even if his land is better suited to rice and beans.

Agricultural credit in developing nations is dominated by informal credit sources. In the 1950s, Taiwan's agricultural loans from village moneylenders were 40 percent of total loans. Including credit originating from relatives, informal credit in India was 89 percent of total farm credit in India (Mellor, 1966, p. 317). There was little change in these debt structures in the 1960s. In the Philippines, landlords, relatives and traders accounted for 49.7 percent of the farm loans (Koo, 1982). Thailand seems to be different since the main credit sources are relatives, not landlords or moneylenders. "Outside the Central Region, about two thirds of the loans are obtained from relatives and friends" (Ingram, p. 269). For Thailand as a whole, 55.6 percent of the total number of loans and 47 percent of the total value of the loans came from relatives and friends (Pantum, et. al., 1965, p. 37).

Organized financial institutions play a small part in the agricultural credit of developing nations. Koo (p. 59), in comparing the sources of debt in India, the Philippines and Thailand, noted that the Philippine agriculture had greater access to "institutional" loans while Thailand had the least contact with it. In the mid-1960s, institutional credit accounted for 28.9 percent of Philippine agricultural loans while it accounted for only 7.9 percent in Thailand. Commercial banks in Thailand were the least important institutional source of funds (near zero percent of total loans).

As expected, the clientele of the informal credit market are generally farmers with small landholdings who are often without land titles (Nisbet, 1969). The other group of clients is composed of nonlandowners (ibid.).

The interest rates vary dramatically according to credit source. Informal moneylenders in Thailand, for instance, charge from 36 to 120 percent while the

legal rate is only about 15 percent (Ingrain) . Chile's informal credit market rate is approximately 85 percent as against the legal rate of 15 percent (Nisbet). Some authors judged the informal rates as usurious and monopolistic. Consequently, these indicated inefficiency in agricultural financing. The same model characterizes one dominant explanation of agricultural stagnation of the U.S. South. The monopolistic position of the country stores who were the main money lenders hindered credit availability in postbellum agriculture (Goldin, 1981). Bottomley (1963) explored the nature of the monopolistic position of informal money lenders and concluded that the "most important single source of monopoly profit to the village moneylender arises out of the fact of his personal knowledge of a borrower's circumstance...He does not necessarily require security" (p. 432) . This observation is amenable to another interpretation. Newbery and Stiglitz (1982) refer to returns to specialized information in nonmarket organizations. So-called monopoly profits may be returns to investment in information and bonding between the lender and borrower. Given freedom of entry, monopoly profits in the long run will be limited to the dividends from economies-of-scale in the lending business.

Bottomley attributed the higher interest rates of the informal sector to the low volume of loans as well as small loan sizes that do not allow scale economies in loan risk and administration. Consequently, only economic growth and factors conducive to bigger loans will lower these interest rates. U Tun Wai (1957) claimed that it is the inelastic demand for informal credit or the absence of alternative credit sources, combined with the limited supply of credit, which account for the relatively higher interest rates.

U Tun Wai's policy recommendation is to make the farmers "creditworthy" in the formal credit market. The main difference in the terms of credit of informal and formal sectors is the collateral demanded. The informal credit

sources can normally lend without collateral and if collateral is required, nonland property can be pledged or the creditor can have land use rights and other linkages while the debt remains unpaid (Bottomley, Caplan). The formal sector demands land mortgages, wherein a legal land title is required. Hence, the apparent course of action to achieve credit worthiness among farmers is to institute land titling procedures.

Improving credit worthiness by uplifting the farmers' legal status was meant to augment the supply of credit to the agricultural sector by gaining access to commercial banks. Since banks find it more attractive to lend to entities with legitimate legal ownership of the property pledged, it would presumably improve profitability of agricultural lending if this prerequisite is fulfilled. This of course abstracts from other aspects which enhance the credit standing of farms such as farm size and scale of operations and general farm productivity.

Attributing the lack of credit access to the state of the tenure is a largely superficial presumption. "Agricultural credit need not be dependent on the use of land as collateral for loans" (Ega, p. 295). If farms are hardly in touch with the formal credit institutions like banks, encouraging individualization and installing legal titles would not necessarily lead to greater credit availability. Ega favors alternative institutions like government subsidies which, if efficiently organized, can induce productive land investment.

An even more basic fallacy in the argument linking agricultural credit and land titles is the presumption that informal credit is necessarily inefficient because of its high interest rates relative to the legally imposed rates. The "monopolistic" model is used to substantiate this assumption. Furthermore, it generally assumes an inefficient path in the development of agricultural

financial institutions. Some authors, including Bottomley, have accounted for informal lending with more fundamental explanations. Kotwal (1981), for instance, concludes that landlord lending is not exploitative but constitutes a side payment to offset the uncertain "state-of-nature." It acts as an instrument to redistribute risk from a risk averse tenant to a risk neutral (or slightly risk averse) landlord. Hence, unless monopoly elements and other aspects of inefficiency are necessarily created by informal credit markets, economic theory does not find a viable rationale for preferring formal to informal credit markets.

Empirical work done to assess whether land titling policies has had its desired impact on the volume of credit is rare. It may be because of the difficulty of isolating the influence of land title from other credit-related variables. A study in Costa Rica by Seligson (1982) showed that before the title program, 18 percent of his sample farms had credit while post-title, 31.7 percent had availed of credit. Credit seems to have improved mainly for larger farms since the average farm size is 19 hectares for those who post-title got credit and 7.3 hectares for those who did not. One should be wary, however, in interpreting the time series result of the increasing percentage of farmers who got credit. The increased access to credit may be confounded by the growth of agricultural infrastructure and financial markets. This can easily lead to a spurious correlation between the installing of the land title and availing of formal credit.

While most studies have been concerned with the role of land titles in expanding credit, very few have questioned the rationale behind the terms of credit of formal credit institutions. Somehow past studies regarded the contractual terms as exogenous and proceeded to recommend that farmers change their credit standing as defined by these banks. There has been little

exploration of the possibility of alternative credit terms of banks or even alternative institutional arrangements so that non-title holders can avail of credit.

If profit maximizing banks deem it unprofitable to lend to farms without the benefit of a legal title as a guarantee against loan defaults, it would be interesting to question why differential rates for secured vs. unsecured loans are not more commonly practiced. The Indian Banking system practiced this system in certain areas. Indigenous bankers charged 6-18 percent on secured loans as against 18 to 37.5 percent on unsecured loans (Panandikar, 1956, p. 75). This practice may be feasible for banks which have locally developed, where some personal bonding is present. Interest rates due to increased default risk on unsecured loans would be higher if bonding had not been present. It is possible that an impersonal bank can find unsecured loans profitable only on the basis of extremely high interest rates.

Stiglitz and Weiss (1981) explained why interest rates should not be allowed to rise indiscriminately to equate supply and demand. Using a model with a profit maximizing lender faced with a debtor's probability distribution of default, the authors concluded that too high interest rates may encourage too many high risk cases. Under plausible assumptions, they show that profit maximization involves interest rate ceilings and credit rationing. This may partly explain why banks do not simply charge a high interest rate on unsecured loans. Furthermore, since the probability distribution of default depends on the interest rates, i.e., high rates lessen the chances of a farmer's ability to pay, then the practice seems even less feasible.

Some countries have been known to recognize and practice the possibility of loans without land mortgage. The United States grants credit to the farmers

squatting on government land in California and Nebraska.² Postwar Japan also recognized the need for unsecured loans. With urbanization, most landowners were turning entrepreneurs and credit, due to its fungibility, was being diverted to urban projects. "Such being the case, the necessity of providing unsecured credit to peasants who either had no land or only small holdings of their own and to their association was recognized by the government" (Kato, 1970, p. 334). The cooperative association of cultivators gained popularity as well as unsecured loans. The fraction of unsecured credit over total long term loans rose from 24.8 percent in 1911 to 32.5 percent in 1932. The percentage of agricultural loans accounted for by unsecured loans rose relative to secured loans (p. 349). A study of the terms of credit and the complementary institutions that accompanied unsecured credit in Japan would be enlightening.

The government's role in easing the transition in credit terms of formal institutions has been stressed in some studies (e.g. Dorner and Saliba). It can establish complementary institutions like government guarantees and loan insurance schemes. The deadweight loss of such schemes due to moral hazard and adverse selection, however, is likely to exceed the efficiency gains (Roumasset, 1978).

It is clear that land mortgage is only one enforcement device for loan guarantees. We have mentioned possibilities such as nonland collateral and also government loan insurance guarantees. One other potential enforcement device is the formation of cooperatives composed of farmers. If loans can be made through the cooperative, the bonding created by membership may serve as the informal loan guarantee. The relative costs and benefits of these alternative arrangements have yet to be explored.

²We have encountered a number of verbal descriptions of squatters in the U.S. who have no difficulty getting credit but are unaware of written documentation. In any case, mortgage arrangements are only one of many devices to enhance repayment.

Summary and Conclusions

In summary, there is no solid theory or evidence to support the widespread contention that alienable land titles are a precondition for agricultural credit, investment, and efficient rural development. There are many alternatives to mortgaging the land that enhance the enforceability of credit contracts.

The case in favor of subsidizing the transition to state enforced property rights is that the natural transition may be sluggish and fraught with disputes and uncertainty. Moreover, there may be a greater tendency for the unregulated transition to be biased in favor of a powerful elite, i.e. for traditional cultivation rights to be violated in favor of large grants of private property being made to a relatively small class of owners.

The case against state intervention in establishing land titles is that if alternative institutions are more efficient for some set of conditions, then tinkering with institutional reform can impede efficiency. In particular, if the interpersonal bonding characterizing traditional societies is still effective, replacing it with impersonal state control may be premature. In addition, government-sponsored land titling may also be controlled by the elite. We must avoid committing the Nirvana fallacy of assuming that governments have a comparative advantage in reducing injustice.

Other alternatives to state enforced property rights should also be considered. In particular, governments may encourage voluntary collective action (e.g. credit cooperatives) to relax the credit constraint. Direct government provision, credit guarantees, crop-credit insurance represent a more directly interventionist approach.

As intimated by Coase (1980), these contrasting institutions for organizing the allocation of credit are equivalent, aside from transaction cost

issues. Determining which system is appropriate in a particular situation requires a comparative institutions approach. In the case of Thailand (or elsewhere), further investigation is needed to gauge the relative pros and cons of these alternative strategies for mobilizing rural credit and promoting efficient levels of investment.

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