Land Tenure Transitions in the Global South: Trends, Drivers, and Policy Implications

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Abstract

Clouded titles to land in remote rural areas of the Global South have recently prevented increases in agricultural productivity and payments for environmental services (PES), so making land tenure more secure has become a priority for policymakers. The historical dynamics surrounding land tenure transitions suggest a strategy for reform. Colonial regimes stripped indigenous peoples of most rights to land. Newly independent states restored these rights for some smallholders through land reforms. Later, neo-liberal regimes made secure titles more expensive, and, in so doing, made insecure land tenure more pervasive. Spots of secure land tenure did emerge when indigenous groups, with outside support, resisted efforts by powerful outsiders to expropriate indigenous homelands. Because insecure land tenure persists in most forested rural areas, a focus on afforestation in deforested areas, where earlier episodes of reform secured smallholder land tenure, offers a promising direction for future PES and REDD+ (Reducing Emissions from Deforestation and Degradation) efforts.

Keywords

land tenure, dualism, neo-patrimonial states, rural, PES, REDD+
INTRODUCTION: WHY STUDY RURAL LAND TENURE TRANSITIONS?

As the competing global demands for land have become clearer to policymakers during the first two decades of the twenty-first century, they have begun to argue for the management of remote rural landscapes only to find that the planned state interventions in these places cannot proceed when land tenure is insecure. States and other interested parties cannot pay people for the environmental services provided by a tract of land when it is not clear who owns the land (1–3). Banks will not lend money to farmers without titles to the land that they work because the farmers cannot use the land as collateral for a loan.

The urgency of these issues surrounding insecure land tenure stems from what scientists call a “tri-lemma,” three incompatible policy priorities about the use of land (4). The disruptive effects of climate change have given urgency to policy recommendations that humans grow more forests to increase the carbon sequestered from the atmosphere (5). Other policy briefs recommend that we reduce our dependence on fossil fuels by dedicating more land to the cultivation of crops that can be converted into biofuels. Finally, forecasters project increases in croplands to feed an expanding human population with a growing taste for animal protein.

The search for policy solutions to the tri-lemma has been further complicated by global trends in mineral exploitation. Mining companies (including oil companies) have, in the search for and exploitation of new deposits over the past 100 years, made many rural areas more accessible to cities and seaports through the construction of new roads to service pipelines, mines, and wells. In so doing, the companies have made it easier for urban investors to use their accumulated financial resources to buy up choice natural resources. In this way the companies have exacerbated economic and political inequalities in, until recently, inaccessible places. These growing inequalities add, in effect, a fourth dimension to the tri-lemma outlined above (6).
The search for solutions to the tri-lemma has led many project directors to remote rural places in the world’s poorest countries. Some project directors have focused on reducing the yield gaps (the gap between observed and attainable yields) that characterize small agricultural holdings in poor countries. Others, intent on increasing environmental services from these landscapes, most especially the carbon sequestration provided by the forests on these lands, have advocated for and implemented PES and REDD+ (Reducing Emissions from Deforestation and Degradation) programs (7, 8).

As noted above, insecure land tenure has crippled both of these programmatic efforts to address the tri-lemma (2, 3, 9). Although there is ample empirical evidence for the crippling effects of insecure land tenure, the incidence of insecure tenure, the obstacles that prevent smallholders from acquiring clear titles, and the circumstances in which landholders transition from insecure to secure tenure all remain unclear. In this review we try to clear up these ambiguities through a comparative historical analysis of the political and economic circumstances that have accompanied the spread of secure land tenure among poor rural peoples in the Global South.

Three potentially confusing terms, land tenure, land tenure transitions, and the Global South, recur in this review and beg for definitions. By land tenure, we mean legally recognized rights to access and use demarcated tracts of land (10). A land tenure transition occurs when a landholder’s rights of access to land changes in a fundamental way. The transitions vary in the extent of associated changes that come with them. One type occurs, under “business as usual” conditions when individuals and communities lodge claims to particular tracts of land that, after approval by government officials, makes the claimant’s right of access to the land more secure. Little else changes in this instance except the right to land. A second type of transition occurs under the aegis of special, low-cost land registration programs. The governments of Ethiopia and Thailand have created these types of programs that in turn have expedited the delivery of secure tenure to thousands of smallholders (11, 12). A third type of transition occurs during sometimes tumultuous times when the land tenure system undergoes basic changes as part of a larger agrarian reform. These reforms usually redistribute land to new claimants. As part of the reform, the new landowners receive documents that clarify their rights of access to particular tracts of land. In this manner agrarian reforms make the land tenure of program participants more secure (13). The countries of the Global South are the geographical focus for this review of land tenure transitions. The unifying characteristic of these countries is economic in nature. All of them are net recipients of investment from the world’s wealthiest countries. By this measure, countries in the Global South would include all of the poorer countries in South and Southeast Asia, Sub-Saharan Africa, and Latin America as well as some nations like China that belonged to the former Communist Bloc nations.

These transitions in land tenure occurred in historical waves. Elites watched one another and created policies that resembled what elites in other, comparable communities and nations did. In this sense, organizational isomorphism has characterized shifts in rural land tenure in the Global South (14, 15). The first wave of land tenure transitions began in the nineteenth century with the expansion of the European colonial empires. A second wave occurred with the decolonization that occurred in the quarter century beginning with World War II. A third wave occurred during the 1980s and 1990s when the Soviet Union collapsed; the Chinese regime instituted the household responsibility system; and western donors, in the Washington consensus, decided to promote neoliberal policies in the agrarian sectors of the Global South (16). Policymakers now hope that a fourth wave of land tenure transitions will secure tenure for billions of smallholders, and in so doing, make it possible to curb climate change in part through payments to these landowners for environmental services (PES) such as carbon sequestration.

Although it is tempting to think of these waves of institutional change as replacing one another from period to period, it is probably more accurate to say that the changes get layered onto
one another. An institutional and organization dualism comes into being during the colonial period in which the colonial occupiers' legally recognized rules of land tenure pertain close to cities and wholly different, customary forms of land tenure organize the use of land in rural “regions of refuge” populated by indigenous peoples (17). These disparities in land tenure practices never completely disappear in subsequent historical periods when political and economic pressures reconfigure land tenure practices.

We advance this argument in stages, beginning with a brief description of a microeconomic theory of land tenure and the types of land tenure transitions that the theory seems able and unable to explain. The evidence for these shifts in land tenure is largely historical and case oriented. We describe the changing patterns of land tenure during successive historical periods in the agrarian south. We begin with a brief description of colonial practices in land tenure during the nineteenth century. We then describe the dynamics of change in land tenure after World War II when newly independent states introduced land reforms. Then we address the changing patterns of land tenure in neo-patrimonial states that has characterized the post-1980 era. These historical trends suggest a general pattern in which smallholders with more secure tenure live in largely deforested areas while rural residents with less secure tenure inhabit more remote, forested regions. Three case studies of conflicts between indigenous peoples and outside investors highlight a recent pattern of land tenure change that is inconsistent with this general pattern and with economic theory. It has delivered secure land tenure to poor rural peoples. The concluding section of the review considers the implications of these patterns for policies such as REDD+ that would counter climate change by paying landowners with secure tenure for environmental services such as carbon sequestration.

THEORIZING SECURE AND INSECURE LAND TENURE: AN URBAN–RURAL DIVIDE

Microeconomic theories of land tenure change, first articulated in the 1960s (18) gained credence during the 1980s and 1990s. These theories argue for a reciprocal relationship between land tenure security and economic development with a particular focus on the availability of credit (19). One prominent line of theorizing came from Hernando de Soto who argued that sustained economic development only occurs when people have secure property rights (18, 20, 21). These rights enable access to credit because, with secure land tenure, borrowers can put their land up as collateral when they apply for a loan. In effect access to credit depends on having secure land tenure. Without access to credit, smallholders do not have the means to purchase many agricultural inputs such as chemical fertilizers, so agricultural productivity on their farms remains low and rural poverty persists. What remains unclear in this line of reasoning is the source of the secure tenure that produces so many benefits.

Alston et al. (22) extended this line of thinking and answered, theoretically, the question about the sources for secure land tenure. In a world where states no longer subsidized the acquisition of secure land tenure, the cost of acquiring title to land relative to the market value of the land becomes important. Paying to have the boundaries of a tract of land measured and the documents processed that attest to the ownership of the land only makes sense if the proceeds from the sale of the land far exceed the cost of acquiring title to the land. By this logic, only people holding valuable pieces of land would seek secure titles to land. They would do so because a secure title would insure against the sudden loss of valuable land through political machinations. A straightforward application of this argument generates a map of secure and insecure land tenure. People holding parcels of urban land would seek secure tenure because these landholdings are very valuable and have become more so with the growth of cities. People with less valuable parcels of land in rural areas would accept the risks that come with insecure titles because the acquisition of secure titles
costs too much relative to the return that they might get from selling their land. Only the more highly capitalized and powerful groups, oftentimes clustered in cities and around cities, would have valuable land and secure titles to it.

Although this economic theory outlines the broad contours of secure and insecure land tenure in the Global South, it fails to explain two important types of land tenure transitions. First, it cannot account for agrarian reforms, sweeping changes often made in the immediate aftermath of a political convulsion that alter the land tenure system and, once implemented, provide beneficiaries with relatively secure titles to land. Second, it cannot account for recent, tenure-focused episodes of resistance by rural peoples to large-scale commercial interests. In some instances (recounted below in three case studies of indigenous mobilization), these struggles have led to the acquisition of secure titles to land by relatively poor peoples. In the first of the following sections we offer a historical account of land tenure transitions during the twentieth century that tries to explain the agrarian reforms by contextualizing them historically. In a subsequent section we examine three historical instances of the hard-to-explain indigenous-led land tenure transitions.

LAND TENURE TRANSITIONS: HISTORICAL PATTERNS

The Colonial Pattern of Land Tenure

To secure economic advantages from their new colonial possessions, the agents of European colonial expansion superimposed an imported, European-derived social order on an indigenous social order (23). Dualism came to characterize the new social order (24, 25). Colonial agents reserved the richest natural resources for themselves and paid little attention to people and natural resources outside of these selected places. In northern India, British officials commandeered the richest forests for the state in order to ensure that they had a ready supply of wood for railroad ties (26). In Java the Dutch colonial regime took control of the commercially valuable teak forests (27). In Vietnam the French colonial officials established a network of forest reserves whose products became a source of revenue for colonial officials (28). In colonial Brazil the Portuguese king asserted direct control over the settlements that grew up around the gold mines (29). In Kenya and elsewhere white settlers, with the assistance of the state, expropriated the most valuable agricultural lands for themselves (30).

A discriminatory political order secured these titles to land. Tight legal controls over land tenure prevailed only in rural places with valuable natural resources and in urban areas where the comprador bourgeoisie clustered and did business with merchants from overseas. Outside of these sectors the colonial regimes granted concessions for the exploitation of natural resources such as timber (27, 28). In still other villages or provinces customary rights to land set by traditional authorities determined who could use land. Finally, areas existed outside of the effective control of any authorities where people only had insecure rights to land. The colonial land tenure regime exhibited a dualism between a protected sector of economically valuable, colonial enterprises with secure land tenure and less organized, rural sectors containing economically disadvantaged indigenous peoples whose rights to land were almost always insecure.

Decolonization, Agrarian Reform, and the Spread of Secure Land Tenure,
1945–1980

Political transformations following World War II spurred changes in rural land tenure in large parts of the Global South. The war weakened European states and encouraged independence movements throughout Africa and in much of South and Southeast Asia. The leaders of the
independence movements promised to undo the highly stratified colonial regimes by means of agrarian reforms that would redistribute land to the tiller. Programs of land redistribution had political appeal to the predominantly rural populations of the newly independent states. The aftermath of World War II had created numerous, often ethnically based, separatist movements. Every nation in Southeast Asia faced at least one of these rural insurrections. Agrarian reforms and new land settlement schemes that created communities of loyal residents in forested and frequently contested zones had a special appeal to leaders whose governments often had only a small physical presence in the peripheral zones of their countries (31).

The agrarian reforms occurred in different ways, but all of them produced relatively clear, state-secured land tenure. To reap political benefits from land reform and the associated new land settlement schemes, political leaders had to provide the reform’s beneficiaries with secure titles to land. The authority of the state lay behind the new titles and made them relatively secure compared to customary institutional arrangements or informal understandings among adjacent landholders about who owned what tracts of land (32). Revolutionary leaders in Mexico, the Soviet Union, China, Vietnam, Cuba, and Tanzania created agricultural collectives of various sorts in which poor communities of people gained access to large tracts of land indirectly as members of collectives that cultivated these lands (11). Alternatively, land reforms in post-WWII South Korea, Japan, and Taiwan divided up large estates into smallholdings managed by households (33, 34). The success of the Cuban Revolution in 1959 sparked similar, but less wide-ranging land reforms that carved small farms out of a few, sometimes church-held, estates in Latin American countries (35, 36).

New land settlement schemes often accompanied the land reforms and sought the same end of pacifying potentially restive rural populations through land redistribution. Backed by USAID (United States Agency for International Development) officials worried about rural insurrections, political leaders subsidized the creation of new settlements in remote settings by building roads into the sites of the new settlements, constructing schools, demarcating the boundaries of the farms, and providing titles to the owners of the new farms. As with many of the land reforms, the settlement schemes created smallholdings, but in this instance they did so using state lands rather than, as in a land reform, expropriating and then subdividing privately owned lands. Indonesia and Brazil established the best known of the new land settlement schemes. The Brazilian junta saw the Amazon as “a land without people for the people without land” (37, p. 108) and sought to create through settlement schemes in the 1970s a frontier of small-scale cultivators in the southern and southeastern regions of the Amazon Basin. The Indonesian transmigration program subsidized the settlement of more than five million Javanese peasants in the outer islands of Indonesia during the 1960s, 1970s, and 1980s (38, 39).

The activities of extractive industries often accelerated the pace of agricultural expansion and government settlement schemes in remote districts. When Texaco built a network of roads to service oil wells in the Ecuadorian Amazon in the early 1970s, settlers quickly occupied lands along the new roads and applied for titles to these lands through Ecuador’s land reform agency (40). The development of the Carajás iron ore mining complex during the 1970s and the Serra Pelada gold mining district in the 1980s in the eastern Amazon accelerated the migration of Brazilian peasants into these zones and increased the pressures on claimants to secure titles to their lands (37). These efforts increased in number during the 1960s and the 1970s as mining and oil companies extended their search for exploitable deposits of oil, natural gas, and other minerals to the “ends of the earth.”

The agencies administering the agrarian reform and new land settlement schemes subsidized the delivery of titles to program participants by employing, at least in Ecuador, government paid teams of surveyors to demarcate land. Even then smallholders approached the title processing...
procedures with some trepidation, knowing that they would somehow have to feed and lodge a team of surveyors for several days (41). Unwilling or unable to afford these expenses, many smallholders did not follow through with all of the steps to acquire secure titles to their lands. As a result, only small clusters of people in these settlement schemes ended up receiving fully secured titles to land. In Indonesia five or six times as many spontaneous migrants moved to the colonization zones in the outer islands as did migrants sponsored by the government, and very few of the spontaneous migrants to the resettlement zones received any assistance in the acquisition of titles to land (38, 39).

In sum, both newly independent states and some older states in the aftermath of World Wars I and II undertook ambitious efforts, typical of modernist states (42), to reconfigure landholdings in rural areas through reforms in the way people accessed land. In countries with collectivist political agendas such as the Soviet Union and China, the reforms affected the lives of almost all rural peoples with connections to the land, providing legally defensible, but indirect links to the land through the collectives to which they belonged. These collective tenure arrangements contrasted with the agrarian reforms undertaken by capitalist regimes that also redistributed land. With the exception of the immediate post–World War II reforms in the Far East, the capitalist reforms, mostly in Latin America, affected much smaller fractions of landholders and left large majorities of the landholders in these countries without secure titles to land. Even though a wave of agrarian reforms swept through the Global South and in some instances transformed rural land tenure, the dualistic colonial system of secure tenure in urban centers and insecure tenure in most peripheral areas persisted in large parts of South and Southeast Asia, Sub-Saharan Africa, and Latin America during the post–World War II era (11).

Decollectivization, Neo-Patrimonial States, and the Persistence of Insecure Land Tenure, 1980–2010

A new wave of institutional and organizational changes swept over the land tenure granting agencies of governments beginning in the 1980s, and these changes have together shaped most of the recent land tenure transitions in rural areas of the Global South. The most salient of these changes involved the decollectivization of the agricultural sectors in the Communist Bloc nations. A failure to sustain over time high levels of agricultural production on collective farms spurred the search for alternative, household models of production in agricultural and forest settings (11). The governments of the southernmost countries, led by China but including Vietnam and Tanzania as well, reorganized rural peoples so that households became, once again, the primary units of landholding and agricultural production. A kind of “repeasantization” occurred (43). Driven by the central state, the decollectivization created a class of smallholders that, with allowances for variations between villages and regions, has relatively secure tenure in land (44, 45).

A second wave of changes occurred in capitalist countries where changes in land titling policies after 1980 cemented insecure land tenure among the rural poor. Numerous governments, mired in international debt crises during the 1980s, reformed their land tenure policies to accord with the Washington consensus, a conviction that unfettered market competition, combined with minimal state expenditures, represented the optimal path to rapid economic development (16). Following this neoliberal prescription, policymakers cut the subsidies associated with land titling programs. In Ecuador the owners of farms now had to pay fees and per diems to laborers on the government’s surveying teams in addition to providing them with food and lodging. To avoid the now considerable expense of acquiring an individual title to their lands, most settlers in one Ecuadorian village opted for “pretitles.” For local residents these scripts provided proof of ownership, so they enabled transfers of ownership when land sales occurred, but owners often wondered whether
pretitles would provide sufficient proof of ownership in the event of a legal dispute following a land invasion by a neighbor (41).

Changes in the extent of armed conflict also played a role in the declining concern about the security of rural land tenure. The rural-based insurgencies that sprang up at the end of World War II in Southeast Asia and after the Cuban Revolution in Latin America abated in intensity and declined in number from the 1970s to the 1980s (46, 47). In this changed context, new land settlement schemes and agrarian reforms no longer seemed so necessary for the internal security of a country, and the high costs of these programs per beneficiary seemed less justifiable, so officials scaled these programs back or eliminated them entirely. With these cutbacks, state commitments to secure land tenure for smallholders virtually disappeared.

Central states also saved money by devolving authority over forests to local leaders, and in some settings these changes made land tenure more insecure. With local authorities now responsible for the management of the forests, central governments in countries such as Senegal could cut back on the number of foresters that they hired (48, 49). Under these circumstances tenure insecurities increased in some Sub-Saharan African settings because smallholders came to fear the new village authorities more than they had feared the prereform state foresters. The local authorities, like the national authorities, constructed neo-patrimonial political structures that benefited families linked to the office holders and threatened the access to land of families without links to the office holders (50–52).

This political dynamic seemed most evident in Sub-Saharan Africa. In the more densely populated, long-settled, rural areas of South Asia a different dynamic emerged. International donor organizations, along with some state officials, pushed for decentralization. When it occurred, smallholders with more secure land tenure participated actively in local decisions about the use of land, sometimes to their detriment and sometimes to their advantage; as such, it did not follow that decentralization led to more insecure rights in land. Rather, decentralization heightened local participation in land use decisions and led to a more frequent reassertion of rights to land by smallholders (53).

While neo-liberalized states retreated from rural areas after 1980, investor groups and mining companies showed an increased willingness during this period to go in the opposite direction, to remote locations, to gain access to natural resources (54). After the 2008 food crises, investors began to purchase large tracts of arable land, mostly in Southeast Asia and Sub-Saharan Africa with the intent of dedicating these lands to producing food for distant consumers who would pay high prices for it (55, 56). The loss of lands for local production stirred concerns among neighboring, invariably poor, rural residents that they could no longer rely on locally produced foods to feed themselves.

The outside investors frequently encountered and negotiated with representatives of a neo-patrimonial state in which power had been concentrated along patron-client lines among a fairly small number of officials who often had family ties with one another. These neo-patrimonial political orders (51) gradually became more prevalent during the 1970s and 1980s as the waves of nationalist sentiment that accompanied independence dissipated. The concentrated political power of leaders in neo-patrimonial states coupled easily with the concentrated economic power of the extractive industries. These alliances allowed the miners to act with impunity and ignore pre-existing land tenure arrangements involving mestizos and indigenous landholders in regions containing the oil, gas, or mineral deposits. The aggressive posture of the investor groups, coupled with permissive political orders, has jeopardized the land tenure of nearby rural peoples much more frequently during the past three decades as the search for valuable natural resources has intensified (6).

Recent changes in land tenure in Ghana are consistent with this overall dynamic. Rapid population growth has occurred in urban areas during the past 50 years. The interior municipality of
Nkoranza, the site of the case study reported here, grew from 22,923 to 100,929 persons between 1960 and 2010. The rapid urban growth has led to fragmented land holdings. At the same time approximately 80% of the land in Ghana, almost all of it in rural areas, continues to be held in some form of customary, custodial tenure. In this context, the government’s land administration projects have over a 25-year period processed nationally approximately 300,000 urban land titles and only 80 titles to communities or other collectives in rural areas (57). This pattern is consistent with the economic theory of land tenure, and it suggests that secure land tenure will be found overwhelmingly in urban areas. Only a segment of the urban population would have funds necessary to acquire titles. Even if rural residents had the funds to acquire titles to land, the low value of the rural land might not justify the expenditures necessary to acquire a secure title to it (22). Under these circumstances most rural land holders would have insecure titles to land.

Notable exceptions exist to this gross generalization of secure titles for prime urban properties and insecure titles for rural tracts of land. In particular the economics of land titling in rural areas would differ for highly capitalized enterprises such as mining companies and consortia of land investors. The size of their investments, in mining technologies and in agricultural inputs, would justify expenditures on titles to land because they would safeguard very large investments. As one observer put it, “when these outsiders arrive in a place, a process of formalizing land tenure begins” (R. Defries, personal communication). Secure land tenure provides these groups with one more legal weapon to use against adversaries in defending their new investments. These land acquisitions can be large. For example, since 2005 groups of investors, many of them from outside of Ghana, have acquired more than two million hectares of land in Ghana (58). The spatial pattern of secure and insecure land tenure produced by these calculating landowners accords roughly with the economic theories of secure land tenure outlined above (22). It also resembles the colonial-era, urban-rural dualism in land tenure.

In sum, an uneven pattern of land tenure transitions has characterized the Global South since 1980. Decollectivization in former Socialist or Communist regimes left smallholders with relatively secure land tenure, at least in long-settled, densely populated, and formerly collectivized locales. Decentralization of authority over land use produced mixed results in terms of land tenure security, different in South Asia than in Sub-Saharan Africa. In other postcolonial settings in Latin America, Sub-Saharan Africa, and Southeast Asia, states have adopted neo-liberal policies and have done less over time to secure the land tenure of smallholders, so the insecurities surrounding rural land tenure have persisted.

LAND TENURE TRANSITIONS IN THE GLOBAL SOUTH: A GENERAL PATTERN

The assembled case studies and national-level policy reviews about land tenure suggest a pattern of secure and insecure land tenure that runs through rural areas of the Global South (see Figure 1). Smallholders in long-settled, largely deforested, and recently reformed rural areas tend to have more secure land tenure than do people living in sparsely settled, oftentimes forested regions. Micro- and macrosociological logics explain this pattern. When settlers deforest land, they intensify their use of the land, and with this intensification comes a desire for some sort of guarantee that they can hang on to the parcel of land in which they have just invested their labor. A title to the land provides the smallholder with the sought-after security (41). For this reason land clearing tends to occur in the same places as individual and collective efforts to obtain secure titles to land.

A macrosociological dynamic supplements the microsociological argument for an association between deforested places and more secure land tenure. Over sometimes centuries of existence in densely settled, largely deforested places, local peoples have, with intermittent interruptions by
Rural land tenure security

China
Vietnam

Mexico
India
Malaysia

Brazil
Vietnam

Tanzania

Figure 1

Land tenure insecurity and rural population densities in the Global South. Cambodia was difficult to code for the presence or absence of reforms. Reforms did occur, but political instability in the 1970s contributed to tenure instability in rural areas. Abbreviations: CAR, Central African Republic; DRC, Democratic Republic of the Congo.

all manner of regimes, colonial and otherwise, cobbled together local governance structures (26, 59, 60). The large numbers of people residing in these places have made them and their economic sectors difficult to ignore politically; as such, tenure reform efforts have periodically occurred. These moments of reform have provided occasions for clarifying “who owns what.” When central governments, as in China, devolved governance responsibilities to local communities in the 1980s and 1990s, the local political authorities in these places were able to assign households and villages to particular tracts of land and assure them some security of land tenure (44, 45). For these reasons long-settled peoples that have undergone an agrarian reform or decollectivization in the recent past are likely to have relatively secure land tenure. In contrast, people who reside in the forested areas of many central African and Latin American states face land tenure systems crafted during the colonial era and reaffirmed during neoliberal moments by elites of neo-patrimonial states who have little investment in the peoples of these places. As a result, these smallholders do not have secure titles to the land that they work (1, 31).

As with all large generalizations, individual cases deviate from this general pattern in sometimes significant ways. In India the history of the forest sector would seem to fit the pattern outlined here (26, 61), but its application to the broader agricultural sector would certainly be open to question because the land tenure institutions for agricultural lands have varied significantly from state to state in India with the histories of agrarian reform in each state (62). This mixed picture for

1 Economists would point out that the transaction costs of acquiring a secure title in a sparsely settled region would exceed the likely gains from having secure tenure because land invaders would never find their way to these places (22). Dissenters from this point of view might argue that it is now difficult to find remote places where invasions are unlikely given the fully globalized extent of the search for unexploited land and mineral resources.
India is reflected in the scatterplot of Figure 1, where it is assigned a lower score for overall land tenure security than either Vietnam or China, which have long established, densely populated, rural jurisdictions with recently reformed land tenure systems (63).

In the more sparsely populated and forested places in the lower right-hand quadrant of Figure 1, two variants of this general pattern prevail. In one variant, illustrated in the outer islands of Indonesia, lapsed concessions and overlapping concessions from the state and customary systems have created confusion and conflict on the ground in many places outside of the transmigration settlements (64). Brazil presents a somewhat less disordered version of this pattern, but again one marked by competing claims to land and associated conflict (65, 66), quite often in the older colonization zones in the Amazon Basin. A second variant of this pattern prevails in sparsely populated districts of central African states such as Cameroon and the Democratic Republic of the Congo (DRC), where all lands are public, but the state has little effective presence in these places; as such, the only effective land tenure is local and customary (67). These situations represent vestiges of the organizational and institutional dualism of the earlier, colonial-era land tenure regimes.

Exceptions to this general pattern have recently emerged in several places where newly mobilized indigenous peoples have defended their continued access to land in the face of invasions by outside groups. To understand the dynamics that have shaped this conflictual road to secure land tenure by poor, rural peoples, we review three examples of it and assess its potential for large-scale transformations of rural land tenure systems.

SITES OF RURAL RESISTANCE AND RECENT TRANSITIONS TO SECURE TENURE

The Shuar, Mestizo Immigrants, and Secure Land Tenure in the Ecuadorian Amazon

In the early decades of the twentieth century the Shuar, a lowland population of Amerindians, lived in isolated households in the upper reaches of the Amazon Basin in Ecuador and Peru. Ties of kinship connected the households with one another, but they did not have regular enough contact with each other to constitute communities. Catholic priests (Salesians) had begun missionary work among the Shuar during the first two decades of the twentieth century, and small numbers of mestizo migrants from the Andean highlands had begun to settle around the Salesian missions. The pace of mestizo emigration out of the highlands quickened in the 1950s. In the 1960s, the Inter-American Development Bank extended loans to finance road building into the region with the hope that the roads would stimulate the region’s cattle economy. Throughout this period, in valley after valley, the more numerous mestizo immigrants from the Andean highlands encroached upon and eventually displaced individual Shuar households. Those Shuar, who continued to live in close proximity to the mestizos, often went to work as farm hands on mestizo landholdings, tending cattle in pastures that had replaced the forests in which the older Shuar had hunted during earlier times (68).

To prevent the disintegration of the Shuar as a distinct racial and ethnic group in the face of the invasion, the Salesian priests urged a change in settlement patterns. They advocated for communities (centros) of 60 to 70 Shuar families who would live in clusters of houses around a central square with a school and would cultivate and hunt in the ~4,000–5,000 hectares that surrounded the centros. The Shuar followed this model in resettling their ancestral lands during the middle decades of the twentieth century, and, to safeguard their access to these lands, their leaders began during the 1960s to press for collective titles to these lands. The central government approved these titles spasmodically, depending on the political persuasion of the government in power. Left oriented regimes were much more willing to approve Shuar claims to land than were
rightist regimes. By the mid-1970s, despite competition from rival mestizo claimants and a small number of investor-supported cattle ranchers, the Shuar had become adept at creating centros and then filing communal claims to the lands surrounding the new communities. By the late 1980s when the mestizo immigrants and the Shuar had laid claim to almost all of the arable land in the region, the Shuar had acquired title to 42% of it (41). Secure title provided Shuar households with an economic base, but it did not necessarily lead to prosperity, in part, because, as de Soto might have predicted, the communal titles to land, with prohibitions on the sale of land to non-Shuar, could not be used as collateral for bank loans, which in turn made it difficult for the Shuar to improve their agricultural operations enough to generate more than a minimal income from their lands (69). Still the Shuar did acquire secure titles to their land.

The Heart of Borneo: Dayaks, Oil Palm Interests, and Political Conflict

In 2005, Indonesian officials and Chinese investors made public their desire to establish the world’s largest oil palm plantation, 1.8 million hectares in extent, in the interior uplands of the island of Borneo along the Malaysian border. At the time the upland rainforests to be converted under this plan represented the largest unbroken expanse of rain forest in Southeast Asia. Much of this area contained precipitous slopes of forested land that were not suitable for any kind of sustained commercial agriculture. This forested area also contained villages of indigenous peoples, mostly Dayaks, who lived in longhouses and engaged in shifting cultivation. An extensive boom in oil palm had already begun during the 1990s on contiguous, lower-elevation lands in Kalimantan (70). These earlier ventures by oil palm producers had generated disputes with lowland indigenous groups, and in some instances they involved the creation of oil palm plantations on indigenous lands and forest reserves (63).

The biofuel mandates by the European Union in 2004 and the US government in 2005 convinced Indonesian officials and Chinese investors that demand for biofuels, and therefore for oil palm, would push oil palm prices even higher in future years (71). These projected price increases encouraged the project’s Indonesian and Chinese planners. The planners did not reach out to the impacted populations of people. No one contacted the leaders of the affected Dayak populations before the plan was announced, even though the Dayaks lived on the lands designated for conversion into oil palm plantations.

The large scale of the project, the anticipated environmental destruction, and the absence of prior consultation alarmed observers in Indonesia and elsewhere in the world. The alarm generated organized opposition to the project from a coalition that included government officials, environmental groups, and nonprofit organizations representing indigenous peoples. The widespread and very public opposition to the project stopped it. In 2006 officials from the three countries that share the island of Kalimantan—Brunei, Malaysia, and Indonesia—signed a treaty obligating them to preserve the upland rainforests. The treaty effectively killed the plans for the plantation. Several years later an international environmental nongovernmental organization (NGO), the World Wildlife Fund, started the Heart of Borneo initiative to advance environmental protection efforts in the Borneo rainforests (72). These changes go far beyond the land tenure of the region’s native Dayaks and Punans, but clearly these initiatives have secured indigenous rights to use lands in the upland interior of Borneo for customary purposes such as shifting cultivation.

Afro-Colombians: Class, Racial Identity, and Collective Land Titles

For the past two centuries, Afro-Colombians have resided in rural areas along the Pacific coast of Colombia. Despite their long residence in the region, Afro-Colombians had no legally recognized
presence on these lands until very recently. In the 1950s they had participated in the national peasant movement and had pressed for rights to land as individuals. These efforts came to naught with the passage by the national assembly of Law #2 of 1959 (73). This law designated most of the Pacific territory to be national lands, “vacant” and owned solely by the Colombian state. The law had little immediate effect on the daily lives of Afro-Colombians. They continued to reside on and earn subsistence livelihoods from the Pacific territory lands during the next decade, despite the absence of legal protections.

These circumstances began to change during the 1970s and 1980s when timber companies started to harvest wood from the old growth rain forests in the Pacific region. Mining companies also appeared in the region and lodged claims to lands near newly discovered mineral deposits. In the 1990s, paramilitaries associated with oil palm and mining interests also threatened to displace the Afro-Colombians. These threats by outside interests triggered a new Afro-Colombian social movement, which used a somewhat different strategy, collective land titling, to secure access to the lands on which Afro-Colombians resided. The success of these efforts hinged on associated changes in other political arenas. Urban communities of color had become much more assertive during the 1980s in demanding public recognition of the value of multiculturalism in Colombian society. Levels of indigenous mobilization had increased throughout Latin America (74, 75). In this context anthropological interventions that described the cultural practices of black rural communities aided Afro-Colombian communities in obtaining cultural recognition. The similarities between the Afro-Colombian and Amerindian communities extended to land tenure. If Amerindians could have rights to collective land tenure, then Afro-Colombians could as well.

Affirmations of the value of multiculturalism by multilateral institutions during the 1990s provided Afro-Colombian activists with an additional source of support. Advocates for these arguments encouraged rural Afro-Colombians to transform their peasant identities into ethnic identities and press for constitutional recognition of their cultural uniqueness through the granting of collective land rights (75).

A confluence of these historical forces contributed to the designation of Afro-Colombianos as cultural minorities in the new Political Constitution of 1991. The growing threat to indigenous peoples posed by the resource extraction companies, an expanding international campaign for indigenous rights led by NGOs and multilateral institutions such as—surprisingly—the World Bank, and the desire of neo-liberal states to relinquish responsibility for the delivery of services to rural peoples all contributed to the official recognition of Afro-Colombians as a distinct racial and ethnic community with some local governance. With the passage of Law 70 in 1993, Afro-Colombian rural communities became recognized as ethnic minorities who could be granted collective titles over the land that they had traditionally occupied (75, 76).

The rural Afro-Colombians, who participated first in the process of cultural recognition and then in the process of collective titling, had been leaders of local peasant movements before the movement for ethnic recognition reached their towns. For most of them, the claims made as an ethnic minority remained the same as the claims made as peasants: to have titles that granted them secure access to the lands where they had lived and worked. Although the peasant struggles to obtain agrarian reforms gradually subsided after 1980 in the face of elite opposition and rural-to-urban migration, the ethnic movements grew stronger and received additional legitimation through the 1991 constitutional reforms that stressed multiculturalism (77).

The first collective title for an Afro-Colombian community was granted in 1996 to a community located in a remote area of the Chocó department close to the border with Panama. Official interest in this long-neglected area had quickened when planners decided to build the missing link between the northern and southern segments of the Pan-American Highway through this area. Out of a need to clarify titles to land along the projected route of the road, state officials and
Afro-Colombian community leaders agreed to work together to obtain a collective land title for the Afro-Colombians who lived in the corridor of the new road. Since then, the state has granted titles to almost 200 collective properties located largely in the Pacific region of the country. The new property rights did not bring the expected economic benefits for Afro-Colombians. Instead, they became targets for armed groups, oftentimes engaged in drug trafficking, who wanted to use Afro-Colombian lands to produce palm oil and sugarcane. Despite this turmoil, other Afro-Colombian communities have continued to try to obtain collective titles to the lands where they live and work.

**A Transnational Indigenous Movement to Secure Land Tenure?**

Successful episodes of resistance that secure the local inhabitants’ right to land remain more the exception than the rule in the sparsely populated, often forested tropical domains. Most of these places exhibit neo-patrimonial political orders coupled with a colonial-era dualism in land tenure. However, in Ecuador, in Borneo, and along the Pacific coast of Colombia defensive reactions to invasions by outsiders have led to conflicts and eventually to more secure land tenure in some instances.

The emergence, along the lines predicted by the world society theorists (15), of a transnational social movement (78) dedicated to helping indigenous peoples secure titles to land and defend the natural environment has, through its very success, contributed to an uneven political order in rural regions of the tropics. At least in some Latin American countries such as Ecuador where indigenous populations like the Shuar have achieved a high degree of political mobilization, protected places with indigenous populations who have secure land tenure exist alongside other, much less protected lands inhabited by poor, less ethnically identifiable peoples who do not have secure rights to lands. Without secure tenure in land and assistance from the transnational movements, many of these local populations find it impossible to resist outside investors, especially if the magnitude of the proposed takeover of lands is not large enough to galvanize outside opposition to the takeover (6, 62, 79). Ethnic identifiers have enabled some opposition movements. As the Colombian case outlined above suggests, peasants with class but no ethnic identifiers may find it more difficult to mobilize external support for their cause because they seem less distinctive to potential supporters from outside the immediate locale of the conflict. The success of more racially and ethnically identified indigenous groups in securing titles to their lands does, however, underscore the possibility that a larger transnational movement to assert the rights of the rural poor to land could emerge.

**POLICY IMPLICATIONS FOR PES AND REDD+ PROGRAMS**

The general pattern between land tenure security, agrarian reforms, and rural population densities outlined above has implications for the contexts within which agencies and organizations might expect to carry out PES programs and, more particularly, REDD+ programs. Groups of scientists in the CGIAR (Consultative Group for International Agricultural Research) system and at CIFOR (Center for International Forestry Research) in particular have for the past five years tried to implement REDD+ programs in more than 20 countries (2). The intent of these programs has been to foster increases in carbon sequestration in landscapes by preventing deforestation and increasing reforestation. A survey of program managers from 23 REDD+ projects in six countries identified two primary obstacles to the success of these programs, one of which included the insecurity and confusion surrounding land tenure in rural areas. These uncertainties about landownership in rural areas have made it difficult to identify who owns particular tracts...
of land that are or are not sequestering carbon, and without this certainty it becomes impossible to identify who should receive payments for the ecological services rendered (in this case carbon sequestered). It becomes very difficult to carry out PES and REDD+ programs in this context.

The designers of REDD+ programs have understandably focused their attention on tropical countries with the most forests, reasoning no doubt that reducing emissions from deforestation in these places would produce the biggest reductions in emissions from deforestation. Only one of the twenty-three REDD+ initiatives studied by CIFOR scientists takes place in a country—Vietnam—with a densely populated, largely deforested rural sector. All six of the REDD+ projects studied in Indonesia occur in the more sparsely populated and more forested outer islands (2). The other countries in the comparative study of REDD+—Peru, Brazil, Cameroon, and Tanzania—all have, with the possible exception of Tanzania, large forests and well documented histories of insecure land tenure. As argued above, the low land values, low population densities, and short histories of local land governance in these places have contributed to more insecure land tenure, which in turn has made it difficult to establish PES and REDD+ programs in these places.

To make these places “REDD+ ready” would require programs to formalize land tenure (80). These programs would increase government services for rural populations, many of whom are poor and participate only marginally in national politics. The heads of the neo-liberally inclined, neo-patrimonial states that are so common across the global south might see little in the way of benefits for themselves in these programs; as such, they would seem unlikely to occur. Low-cost land titling programs for poor rural peoples have delivered secure land tenure to large numbers of smallholders, one in Ethiopia (11) and the other in Thailand (12), but both of these programs delivered titles to smallholders in relatively densely populated, long-settled regions without significant amounts of tree cover. Given these political conditions, the impetus for formalizing rural land tenure in many forest-rich regions and countries of the global south may have to come from outsiders, NGOs, and donor nations.

If systems of secure land tenure seem unlikely to spread rapidly across the Global South, then the “land tenure road block” for REDD+ would persist. This bleak prospect does, however, suggest another path through which PES and REDD+ programs might significantly reduce carbon emissions from landscape changes. As documented above, higher levels of land tenure security tend to be associated with those countries that have long-settled rural areas, recent agrarian reforms, and fewer forests. In this context, program managers would not have as much difficulty identifying the owners of land; as such, the insecure tenure obstacle to the successful implementation of a REDD+ program would diminish. Because the places with secure tenure have relatively few forests, the REDD+ programs would focus on the program’s “+” component in which payments are made for afforestation or reforestation of previously deforested places. With this change in policy emphasis, more REDD+ programs would take the form of China’s Grain for Green program (43, 44, 81) in which payments are made for forest growth in largely deforested places where, not coincidentally, landholders often have secure land tenure.

This reform of the REDD+ effort does not mean abandoning all forest-rich places as sites for REDD+ projects. The Shuar, Dayak, and Afro-Colombian cases demonstrate that there are some forest-rich places where the requisite secure land tenure for a REDD+ system of payments can be found; as such, these places could become sites for REDD+ projects that provide payments for carbon sequestration in old growth forests. Indeed, in Ecuador the Socio Bosque program, a prototypical REDD+ program, has had disproportionately high Amerindian community participation (82). All of the Amerindian communities participating in this program have acquired collective titles to forested land during the past 50 years. In sum, REDD+ projects require secure land tenure in a place, but the form that carbon sequestration takes could be quite variable. It could involve increments in old growth forests in forest-rich places with secure tenure such as those depicted...
in the case studies. It could entail afforestation or reforestation in largely deforested, long-settled agricultural districts.

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