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Killing Two Birds with One Stone: Implementing Land Reform and Combating Climate Change in Brazil's Amazon Under Law 11.952.09¹

Angeline Thomas

I. INTRODUCTION: THE LAND PROBLEM

Brazil is a land of contrasts. According to the United Nations, it is the fourth most economically unequal country in the world.² In the face of enormous productive capacity, a dazzling geographical landscape, awe-inspiring natural resources, and amazing cultural diversity, millions of Brazilians suffer from hunger, malnutrition, and lack of access to basic social services. Unequal distribution of land—harking back to the Portuguese colonization of Brazil hundreds of years ago—is a signature cause of the human inequalities.³ It has created enormous divisions in society between giant landowners—who grow crops like sugar, soy, and citrus for export—and the 4.6 million families with no access to land to grow food for their children.⁴ Landless and rural people face malnutrition; lack access to clean water, sanitation, and basic health or education services; and spend a lifetime in roadside shantytowns of black plastic tents. The focus of this article is whether a new law passed in 2009 entitled “Legal Land: Accelerated Quieting of Title to Land in the Legal Amazon” (“*Terra Legal: Regularização Fundiária Acelerada na Amazônia Legal*”)⁵ will benefit these landless farmers.

Brazil's land problem is not the lack of land, but rather that its abundance of land is in the hands of very few people who have been resistant to let it go. Though the Brazilian constitution authorizes the expropriation (or taking) of large unproductive estates that are not serving a “social function,” the Brazilian government has routinely avoided using this mechanism to

redistribute land to poor landless farmers. Consequently, land tenure in Brazil is amongst the most unequal in the world.⁶ For example, the Gini index is one standard economic measure used throughout the world to assess the degree to which the distribution of income, or some other resource, is unequal. For instance, a society that scores 0.0 on the Gini index has perfect equality in income distribution. Where a country that scores 1.0 indicates a total inequality where only one person corners all the income. Thus, each percentage point over 0 indicates higher amounts of inequality.⁷ In 2006, Brazil reached 0.872 on the Gini index measuring land distribution.⁸ This means that Brazil has almost total unequal land distribution.

Traditional expropriative land reform attempts have been met with an overwhelming number of obstacles in Brazil. Historically, powerful alliances of large landowners, politicians, and conservative actors have blocked any significant attempt to enforce the constitutional mechanisms in place to institute meaningful reform.⁹ Instead, they used their influence to push for increased development, subsidies for large export crops, and low taxes. To appease landless families, the Brazilian government substituted policies of colonization, resettlement, and market-assisted land reform in place of widespread redistribution of land through expropriation. The government often looked to the Amazon, a region of abundant land that was largely untitled (i.e., no legally recognized owners), as a potential panacea to provide land and economic opportunity to the landless as well as satisfy Brazil's development needs. However, though some of these policies enjoyed limited success in that landless families did acquire land and were able to make a living, none of these policies have been widespread enough to cure the land problem.

Furthermore, for those peasants who were beneficiaries of government-sponsored settlement projects in the Amazon—or part of increased voluntary migration—acquiring land came at a price of social unrest and violence, a substantial part of which stems from conflicts over land

ownership. Due to the fact that land was so abundant, that a peasant could acquire rights to use the land simply by showing up and cultivating it for a year and a day, and that the land titling procedure was too difficult and complicated for many peasants to understand, many never acquired ownership title to the land they occupied. As a result, many were vulnerable to evictions from someone claiming to be the owner of land even if their claims were false, fraudulent, or illegal. People who preyed on peasants are known in Brazil as “*grileiros*,” or “land-grabbers.”¹⁰ Instead of defending their legitimate claim, many peasants preferred to move on to another plot nearby and start over rather than deal with a *grileiro*’s hired guns, or government bureaucracy they could not understand.

Another unfortunate consequence of government policies like these was massive deforestation in the Amazon region. Large land owners were responsible for much of the deforestation that occurred in this region, because they could exempt their properties from being eligible for expropriation if they showed a “rational use.” In the Amazon Basin, a land owner could show rational use if he cleared a forested area or used the land to graze cattle, which also required clearing forested areas and planting savanna type grasses to feed the livestock.

However, subsistence farmers also contributed to deforestation. In order to prepare forested land for cultivation, it must be cleared first, and the easiest way to do this for a peasant farmer is with fire—also known as slash-and-burn agriculture. Rural farmers contributed to deforestation because they faced two obstacles. First, soil quality in the Amazon often declined after two years and rural farmers often did not have access to technical assistance, like fertilizer, to help extend the productivity of a particular plot. Therefore, they would leave the old infertile plot for cattle grazing or for waste as they moved on to another plot to start the process over again. Second, because rural farmers were vulnerable to eviction from land grabbers, they would have to find a new plot, again starting the process over.

Though Brazil currently has many environmental laws designed to protect the Amazon from deforestation, the sheer size of the Amazon—together with the fact that land ownership in this region is uncertain—makes enforcement of environmental laws extremely difficult.

Agrarian reform has been a crucial issue in Brazil during at least the last half century.¹¹ Social movements made up of rural farmers, like the Movement of Landless Workers (MST), have continued to demand that the government institute land redistribution, address poverty, and protect the environment. Both domestic and international environmental groups are simultaneously calling for reduced deforestation in the Amazon to help stop climate change. Also, a strong agricultural lobby remains a dominant political force interested in large-scale mechanized agricultural development.

In June of 2009, President Luis Inácio Lula da Silva introduced the Sustainable Amazon Plan—a six-branch policy aimed at land redistribution, poverty alleviation, and fighting deforestation.¹² The subject of this article, Law 11.952.09—one of the principal pieces of legislation intended to implement the plan—was passed by presidential decree in June 2009 and approved by Brazil's Congress shortly thereafter. The law is aimed at killing two birds with one stone. On one hand, the law is designed to give land rights to squatters occupying public land in the Amazon, thereby dealing with the problem of land redistribution and rural violence from land grabbers. On the other hand, cleaning up the land title database will also allow the government to monitor all registered land titles and better enforce laws prohibiting deforestation.¹³ The goal of Law 11.952.09 is to grant 300,000 pieces of land to private owners over the next three years.¹⁴

This article argues that land reform that gives secure title to small farmers is necessary because it is the best way to address the intertwined social justice issues relating to the socioeconomics of poor and oppressed people living in the Amazon and the environmental justice issues associated with deforestation and climate change. This article will explore whether Law

11.952.09 is a viable way to preserve the Amazon while granting complete title to small farmers.

In order to determine whether Law 11.952.09 is a viable option, Section II of this article will describe the historical and political background of land reform efforts in Brazil starting in the late nineteenth century through the present. Brazil's current land problem began and has remained essentially unchanged due to the dominance of the agricultural elite that held sway over the government and effectively resisted both legal and social calls for land reform. This section highlights particularly notable reforms, such as the Land Statute, and shows how these reforms were undermined, abandoned, or avoided by the ruling class. This section also emphasizes the consequences due to the lack of meaningful reform—namely, violent conflicts in the countryside, the role of social movements such as the MST, and substitute policies such as market assisted land reform—providing an evaluation of the successes and failures of such projects. Finally, this section draws some conclusions about the viability for new forms like Law 11.952.09 in light of the historical backdrop just described.

Section III discusses deforestation of the Amazon rainforest in the context of the historical backdrop described in Section II and in the context of the current fight against climate change. This section addresses why the Amazon rainforest plays an important role in fighting climate change and describes why the type of land reform Brazil ultimately chooses for this region will have important implications beyond climate change.

Section IV evaluates whether Law 11.952.09 can overcome the obstacles of past land reform efforts that left many rural farmers landless while at the same time combating climate change. This section argues that because traditional expropriative land reform has never enjoyed the political will necessary for it to be effectively implemented, this mechanism by itself cannot succeed in redistributing land to rural farmers. Similarly, although market assisted land reform was seen as the answer to the failure of traditional expropriative land reform, it too failed to bring about widespread

reform. Therefore, if Law 11.952.09 can combine the best of traditional expropriative land reform with the best of market assisted land reform, while at the same time incorporating positive environmental policies completely ignored by both, Law 11.952.09 might finally fix the land problem.

Section V presents seven recommendations for strengthening Law 11.952.09 to achieve its dual objectives. This section focuses on the need to make the provisions aimed at traditional expropriative land reform more robust.

Finally, Section VI offers some concluding thoughts.

II. CHRONOLOGY OF BRAZIL'S LAND REFORM LAWS

A. 1887–1934: Establishment of Large Land Estates for the Elite

The roots of Brazil's land problem can be traced back to the Portuguese colonial practice of granting large tracts of land to individuals or families as political rewards and to encourage plantation agriculture.¹⁵ From 1887 to 1934, Brazil strongly encouraged immigration from Europe and Asia to further the lucrative coffee and sugar industries that were major international commodities.¹⁶ This policy favored aristocratic groups and systematically denied similar access to large land grants to the nonelite members of the white poor population.¹⁷ The elite were largely successful due to African slave labor, but after slavery ended in Brazil in 1888, additional measures were enacted to keep former slaves from securing land; thus, maintaining a large permanent pool of cheap rural labor to serve agrarian oligarchs.¹⁸ As a result, the main feature of Brazil's agrarian history is the formation and permanence of underutilized large estates throughout rural Brazil, usually termed "unproductive *latifundia*" in local legislation and general literature.¹⁹

The question of land reform first surfaced after the revolution of 1930, which overthrew the coffee and sugar-based ruling class and precipitated

accelerated industrialization and urbanization in Brazil,²⁰ but land reform was largely recognized as an obstacle to development. Consequently, though the National Congress considered dozens of agrarian reform bills during this time, none were passed into law.²¹

B. 1945–1964: Industrialization, Democratization, and Capitalist Development

Despite the 1930 revolution, the elite completely dominated access to private property until 1945 when Brazil experienced a cycle of democratization.²² By 1950, the first historical movement for land access took center stage.²³ The demand for land reform was inspired by both the Cuban Revolution and proposals from a then-influential UN Economic Commission for Latin America. The latter group envisioned a process of capitalist development.²⁴ However, the Cuban example encouraged a focus on the disparities between different classes. During this time, rural trade unions were forming and political action gained momentum with the formation of the Peasant Leagues and the semi-legal Communist party²⁵ in support of land reform. Land reform was seen as a fundamental policy that would liquidate the political domination of land elites, contribute to improved patterns of income distribution in rural areas, and in particular, strengthen industrialization in Brazil after the formation of an enlarged internal market.²⁶

However, two barriers prevented reform from taking place: the powerful conservatism of right-wing parties in control of Congress and the 1946 Constitution. First, large majorities of conservative politicians blocked any discussion of land reform, let alone proposals of changing the legal mechanisms of land reform and labor rights in rural areas.²⁷ Second, though the 1946 Constitution had provided for the expropriation of idle land that was not performing a “social function,” it stipulated that fair compensation must be paid to the owner,²⁸ in cash, at fair market value, before any

eviction could take place.²⁹ These requirements made land reform impossible and, therefore, illusory at best.

Because of the lack of attempts to change the constitution or to expropriate land under the impracticalities of the legal stipulations,³⁰ by the late 1950s, violent conflict between landowners and tenants or squatters became increasingly common.³¹ As a result, the landowning elite called for a hard-line stance against the violence and lent their support to the military factions that promised to put an end to the social unrest.³²

C. 1964–1985: The Military Dictatorship, the Land Statute, and Colonization of the Amazon

As promised, the new Brazilian military government embarked on a comprehensive program of land reform in order to quell social unrest. Soon after taking power, the military formed a working group to draft an agrarian reform bill. The “Land Statute” was the first government-drafted comprehensive agrarian reform proposal in Brazilian history.³³ The Land Statute’s stated purpose was to promote “social justice” through more equal distribution of land. The statute governed rural development, implemented a land tax, regulated colonization, provided for technical assistance for farmers, and created the Brazilian Institute of Agrarian Reform to oversee its implementation.³⁴

The most important reform in the Land Statute was that land in Brazil was required to fulfill a “social function,” meaning that land must either be cultivated for production (and worked in compliance with labor and environmental regulations) or held for environmental preservation.³⁵ Otherwise, the land would be considered “illegal” and subject to expropriation (or government takeover and redistribution) provided the owners were compensated. Thus, the statute effectively outlawed holding large tracts of land for speculation purposes.³⁶

However, land owners remained politically powerful and resisted widespread land redistribution; therefore, the government’s commitment to

egalitarian land reform was limited.³⁷ For instance, instead of distributing unproductive property owned by the elite, the military regime encouraged owners of large land holdings to modernize unproductive land by providing farming subsidies and pushing for soybean cultivation to generate large surpluses for export.³⁸ The ample access to government-provided credit, together with the fact that soybean cultivation required large amounts of land, resulted in the absorption of small rural landholdings by medium and large-sized properties.³⁹ Thus, land concentration increased during this period because the more land a proprietor had, the more credit he received and the more land he could purchase.⁴⁰ Consequently, land reform in the form of redistribution remained untouched.

Owners of large land holdings who did not choose to cultivate their land were able to avoid expropriation through two major loopholes in the Land Statute: the disproportionate tax structure and litigation. These two loopholes disincentivized large land owners from selling their properties (to landless families that might qualify for the rural credit discussed above) and allowed large land owners to drag out the expropriation process for years.

The disproportionate tax structure overwhelmingly favored landowners. For instance, *minifundia*, or small rural landholdings, were taxed at a rate of 68.7 percent of the assessment of their total value, while taxes on *latifundia*, or large rural landholdings, often amounted to only 18 percent of what these large holdings should have had to contribute.⁴¹ This means that it was often in a small holder's best interest to simply squat on the land they were occupying to avoid high taxes. Conversely, because tax laws were not enforced and/or were easily avoided, large land holders had little incentive to break up their large parcels by the constitutional mechanisms in place. In fact, most large land owners simply did not pay any taxes or chose to pay insignificant amounts.

Another major loophole was the option that landowners had to dispute expropriation through court litigation. Though the military regime did adopt legislation to simplify procedures and accelerate the process of land

acquisition, this legislation also gave landowners the option of delaying the process for years through court litigation.⁴² For example, a local judge with geographical jurisdiction over land that the government decided to expropriate could allege various reasons to block or deny the government evaluators' access to land, thereby slowing down the process. Given the common alliances among the local elites (including local judges), judicial decisions were often unfair and resulted in controversial readings of the law.⁴³

Additionally, if a large land owner could delay the expropriation by blocking the government's access to their land, there was a chance that either underused land would be rapidly transformed into "productive economic activity"⁴⁴ or that the owner would take advantage of a better market price as a result of the delay. In the first instance, often occurring in cattle ranching land, neighboring farmers rush part of their cattle to the soon-to-be expropriated farm before any evaluator checked the actual use of land.⁴⁵ In the second instance, land owners were able to use legal recourses *ad infinitum* through their ability to pay for expensive lawyers—essentially delaying expropriation by outspending the government in legal fees. In these cases, the process of expropriation may be delayed for years—because the government's lawyer had to counter each of the large land owner's legal acts until a final decision was made by a higher court, the costs of defending the government's position spiraled out of control.⁴⁶ While lawsuits were pending, the market price of the land would often go up; therefore, the landowner would often make more money by delaying a government takeover.⁴⁷

Another unfortunate consequence of the Land Statute was the expansion of exemptions to expropriation, which led to massive deforestation in the Amazon Basin. Medium-sized properties were exempt from expropriation, as were all but the very largest properties that were currently being put to economical or "rational use."⁴⁸ However, the definition of what was considered "rational use" varied from region to region.⁴⁹ In the South,

cultivation was often required, but in the North Amazon Basin, clearing forested areas or use of land as a cattle pasture was considered productive use.⁵⁰ Thus, large land owners clearing land or taking up cattle ranching to show proof of “rational use” were responsible for two-thirds of the deforestation of this area.⁵¹

As for poor landless families, the government favored a policy of colonization on the new frontiers of the Brazilian center-west region, as well as portions of the Amazon, in place of reform. In the 1970s, the government took two actions. First, it launched a new federal agency, the National Institute for Colonization and Agrarian Reform (“INCRA”), for the purpose of resettling peasant farmers.⁵² Second, the government gave INCRA jurisdiction over 30 percent of land in Brazil and 50 percent of public land in the Amazon. Poor families, specially recruited in the south of the country or in the poverty-stricken northeast region, were offered plots of wilderness land in areas still largely unoccupied if they agreed to relocate.⁵³ Many peasants agreed to relocate because land in the northeast was mostly titled and held by large land owners who allowed peasant farmers to use small plots in exchange for free labor.⁵⁴ These small plots were often poor quality land, and the farmers suffered because of frequent droughts.⁵⁵ In the west, however, there was more rain, as well as large expanses of fertile land considered to be public, and by law, people could gain a right to use that land—rather than own the land—by simply occupying it for a year and a day.⁵⁶ Many farmers saw this as preferable to the situation they were in as tenants and thus agreed to relocate to the Amazon. In order to obtain a title to land in the Amazon, however, they had to pay fees and surmount bureaucratic procedures that were largely incomprehensible to the average peasant farmer.⁵⁷ Consequently, as long as land was abundant, the farmers saw no need for titles. If a rural family was evicted by someone claiming to be the owner of the land, they would simply move to available land elsewhere.⁵⁸

Some deforestation was also caused by the subsistence activities of poor farmers who used slash-and-burn agricultural techniques to cultivate forested lands. In order to plant land with crops like bananas, palms, manioc, maize, or rice, the land must first be cleared, and the quickest way to do so is with fire. For example, a typical process used by poor farmers might look something like this: understory shrubbery is cleared first, then forest trees are cut down, then after an area is left to dry for a few months, it is burned, and then planted with crops.⁵⁹ Deforestation occurs with this initial clearing, but it is also exacerbated because after a year or two the productivity of the soil declines on the original plot, and the transient farmers must clear new forest for more short-term agricultural land.⁶⁰ The old, now infertile fields are used for small-scale cattle grazing or are left for waste.⁶¹

Ultimately, the colonization program was doomed to fail because it was poorly administered and did not involve explicit measures to provide infrastructure, adequate technical assistance, or local markets for small farmers. Nor did it have any provision for protecting land belonging to rural farmers against invasion by speculators claiming to own the land when in fact they did not.⁶² Additionally, in the mid 1970s, government priorities began to shift from peasant farmers to wealthy developers who wanted to develop large projects in mining, forestry, and cattle raising.⁶³

D. Export Agriculture Favored Over Large Family Farms

In 1973, during its second stage of colonization, INCRA began to abandon its focus on rural farmers and instead focused on large producers. For example, it began to sell plots of 2,000 to 3,000 hectares (about 5,000 to 8,000 acres) to larger land owners with an explicit goal of forming a rural middle class.⁶⁴ Later that same year, INCRA sold plots as large as 50,000 hectares (about 135,000 acres), justifying this as a means of attracting more capital.⁶⁵

One of the justifications for these large-scale sales of land was that they would create more jobs; however, not only did the jobs not materialize but these ventures also led to massive deforestation. These large plots were used primarily for mining and cattle ranching. Both ranching and mining initially appear to provide employment in the clearing of the forest and in the construction of mines and refineries. But once these businesses are in operation, they are not labor intensive and therefore provide little long-term employment for the average resident or migrant worker.⁶⁶ Furthermore, these activities allow a relatively small percentage of large land owners to clear vast sections of the rain forest. Cattle ranching became the leading cause of deforestation in the Amazon during this era as government figures attributed 38 percent of all deforestation from 1966–1975 to large scale cattle ranching.⁶⁷

In sum, during the first fifteen years in which the Land Statute was in force (1964–1979), despite strong constitutional language outlawing speculative landholdings, the section related to agrarian reform was virtually abandoned.⁶⁸ In total, only 9,327 families benefited from agrarian reform projects, and 39,948 from colonization projects.⁶⁹ In fact, the Gini index of land redistribution increased from 0.731 in 1960 to 0.858 in 1970.⁷⁰ This shows that the small changes in the concentration of Brazil's landownership over the past fifty years did not benefit landless farmers. These results led opponents of traditional land reform to argue that it had failed.

E. 1985 to the Present: A Time of Conflict

1. Social Movements—The Role of the MST

The absence of effective land reform measures precipitated the formation of grassroots social movements putting pressure on the government to effectuate reform and, in some cases, taking reform into their own hands. The most powerful and active groups include the Federation of Rural

Workers (Confederação Nacional dos Trabalhadores na Agricultura or CONTAG), the Pastoral Land Commission (CPT)—a group associated with the Catholic Church—a and the MST.⁷¹ This section will focus primarily on the MST because of its overwhelming success.

Although agrarian reform in and of itself is not necessarily radical, the MST has emerged as the most radical and combative group in Brazil.⁷² The MST's mission can best be summarized as "Occupy, Resist, and Produce."⁷³ In short, the MST fulfills this mission by finding unproductive land and then gathering enough people to take control of it.⁷⁴ The MST has enjoyed widespread support based on their success, organizing 1.5 million landless members in twenty-three out of twenty-six Brazilian states.⁷⁵

The MST's work does not end with the occupation and acquisition of land titles; instead, the movement's success can be attributed to the MST's ability to educate its members and maintain self-reliance. The movement, which is decentralized and highly coordinated, also provides its members with basic social services that the Brazilian government is unable or unwilling to supply.⁷⁶ The MST boasts sixteen hundred government-recognized settlements spread across twenty-three Brazilian states along with medical clinics for members and even training centers for health care workers. The movement's educational programs are especially impressive.⁷⁷ Twelve hundred public schools employ an estimated thirty-eight hundred teachers serving about one hundred fifty thousand children at any one time. Adult literacy classes are offered to twenty-five thousand people through a UNESCO grant, and the MST also sponsors technical classes and teacher training.⁷⁸ The landless workers have even established their own college in the southern town of Veranópolis. The MST also gives some students scholarships to attend other universities.⁷⁹

The MST claims their right to land occupations is rooted in the most recent Constitution of Brazil, which enunciates that land should serve a "larger social function."⁸⁰ Article 184 of the Constitution requires the government to "expropriate for the purpose of agrarian reform, rural

property that is not performing its social function.”⁸¹ The Constitution’s plain language does not give the MST the right to expropriate land by forceful entry; rather, it gives the government the right to redistribute unused land for social purposes.⁸² However, both the Higher Court of Justice (Superior Tribunal of Justiça) and lower state courts have declared that actions of the MST and other landless organizations might be appropriate under the Constitution.⁸³ In one notable case, the Higher Court of Justice determined that “a popular movement attempting to institute land reform cannot be characterized as a crime. This is a collective right, an expression of citizenship, and it aims at implementing a program based on the Constitution. Popular pressure is an acceptable means in a Democratic State.”⁸⁴ Similarly, in 1999, for the first and only time,⁸⁵ the State Court of Rio Grande do Sul overruled a trial court’s decision granting a landowner’s petition to evict the MST off his or her property.⁸⁶ The court reasoned:

Before applying a law, the judge must consider the social aspects of the case: the law’s repercussions, its legitimacy, and the clash of interests in tension. The [MST] are landless workers [who] want to plant a product that feeds and enriches Brazil in this world so globalized and hungry. But Brazil turns its back. The executive deflects money to the banks. The Legislature . . . wants to make laws to forgive the debts of the large farmers. The press accuses the MST of violence. The landless, in spite of all this, have hope . . . that they can plant and harvest with their hands. For this they pray and sing. The Federal Constitution and Article 5 . . . offers interpretive space in favor of the MST. The pressure of the MST is legitimate. [I]n the terms of paragraph 23 of Article 5 of the Federal Constitution [that land shall attend its social function], I suspended [the eviction].⁸⁷

This ruling is unique because courts will usually take one of two courses of action regarding the evictions of landless families. Sometimes a court will require the families to leave. Other times, a court will refuse the landowners’ request and allow the families to stay and engage in subsistence farming until the federal agency responsible for agrarian reform,

INCRA, is able to determine if the occupied property is indeed unproductive. This state court ruling is particularly promising for grassroots democracy because it takes neither of these two paths. Instead the court recognized the MST's occupation of unproductive land as legitimate.

Land conflicts are not always resolved in court; rather, violence has been used as a tool by the government authorities, landowners, and sometimes the MST itself. A notorious example of government-perpetrated violence was the 1996 Eldorado dos Carajás massacre where paramilitary police gunned down nineteen MST for blocking a national route.⁸⁸ The people were part of a demonstration calling for the federal appropriation of an unproductive ranch where the MST had mounted a camp called "Macaxeira" with almost three thousand families. Over one hundred state military police surrounded the MST on the highway and fired tear gas, live ammunition, and machine guns into the crowd.⁸⁹ In addition to the nineteen MST killed during the massacre, three more died later from injuries, and sixty-nine people were wounded.⁹⁰ It was reported that many of the nineteen dead were shot at close range and some were even hacked to death by the protesters' own farm tools.⁹¹ Via Campesina, an international peasant organization that advocates for land reform, claimed that state authorities, the police, the army, and powerful local landowners were involved in planning and executing of the massacre.⁹²

The brutality of the massacre got international attention and ultimately helped to positively influence both national and international public opinion of the MST's mission of implementing agrarian reform in Brazil. For instance, the massacre triggered protests abroad (mostly in Europe) against the violence and impunity in the countryside, and helped to legitimize the struggle for agrarian reform in Brazil.⁹³ As a consequence, the MST together with trade unions and federations linked to the CONTAG organized a nationwide movement to intensify land occupations in particular states like São Paulo.⁹⁴ These increased land occupations also

increased social tensions and paramilitary violence by the large landowners.⁹⁵

The MST, along with other groups, put tremendous pressure on the Brazilian government to institute traditional expropriative land reform under the land statute. The 1990s in particular saw increasing pressure on the Brazilian government to address landlessness because traditional, government-administered mechanisms, like expropriation, were not meeting the challenge of widespread, efficient, cost-effective, and sustainable redistribution of land. Around the same time, the World Bank was proposing Market-Assisted Land Reform (MALR) as a solution for politically unstable developing countries, such as South Africa and Columbia,⁹⁶ as more cost-effective, less conflictive, and complementary alternative to traditional land reform.⁹⁷ The World Bank began to focus on Brazil as well when it began to observe the intensification of massive occupations and the radicalization of conflict as a danger to the current regime.⁹⁸ As a result of the pressure from land reform advocates and the World Bank, the government of Fernando Henrique Cardoso (1995–2003) launched a new agrarian policy known as the “New Rural World” instituting market-assisted land reform, or voluntary land redistribution, in cooperation with the World Bank.⁹⁹

2. Ending the Violence: Market-Assisted Land Reform

MALR is based on the willing-seller/willing-buyer concept, much like real estate markets in the developed world, thus avoiding the lengthy Brazilian expropriation land reform process.¹⁰⁰ Under a MALR program, rural community associations are supposed to select a plot of land and then negotiate the price with the current owner. Then, once the purchase price is agreed upon, the association can obtain a loan from the government (financed in part by the World Bank) at a set interest rate to purchase the property with cash and then redistribute it to individual families within the association.¹⁰¹ This method was designed to increase the bargaining power

of and reduce the cost of land for individual families.¹⁰² Additional grants were available for community level infrastructure projects¹⁰³ such as the purchase of seeds, farming equipment, and fertilizer.¹⁰⁴

Proponents of MALR argued that the “traditional model” of land reform had deteriorated and led to bankruptcy due to paternalism, authoritarianism, bureaucracy, centralized structure, disagreements, economic inefficiency and sluggishness, inadequate approach to the agrarian component, and incapacity to respond to the land market signals.¹⁰⁵ In contrast, the New Rural World policy sought to address the failures of traditional land reform. First, it settled landless families under a policy of social compensation¹⁰⁶ by bringing together willing buyers and sellers and, thus, avoiding rural conflicts and violence. Second, the policy decentralized land settlement projects, transferring responsibility from the federal government to state and municipal governments,¹⁰⁷ mainly because local control was seen as more flexible than federal bureaucracy (who was responsible for delay). Third, the policy substituted the constitutional instrument of land expropriation with market-based land reform based on the negotiated purchase and sale of land.¹⁰⁸ Facilitating land sales would allow the reform process to more effectively respond to the market and thereby be cheaper and faster than traditional expropriation procedures. Finally, the government was bound to take part in the new program as part of IMF-mandated structural adjustment programs as a result of debt.¹⁰⁹

The MST, along with other land advocacy groups, strongly opposed the substitution of a market-based system for traditional expropriative land reform, arguing that it would not complement but displace traditional land reform altogether. First, they argued that the World Bank’s justifications for MALR were not sound because they disregarded the power relations responsible for the historical deterioration of governmental institutions and legislation related to agrarian reform.¹¹⁰ In other words, if land reform had deteriorated and led to bankruptcy due the government’s failures, the reason was not traditional land reform *per se*, but the government’s unwillingness

to give it a fair try. Second, they also argued that the real aim of the government was to take ideology and politics out of land reform and thereby undermine grassroots support for rural organizations and people's movements fighting for land. They argued that availability of money to buy land—coupled with talk of peaceful land reform, no more takeovers, etc.—helped demobilize anyone wanting a piece of land to work.¹¹¹ Third, the World Bank refused financial support to any measure related to the enhancement of the so-called traditional model of agrarian reform.¹¹² Finally, they argued that land is not merely a negotiable commodity; rather, land is also political, economic, and cultural.¹¹³ In rejecting the move towards a MALR model, the MST and other land advocacy organizations saw the new model as nothing more than a change in the state's position regarding social problems and a policy incapable of promoting the democratization of the agrarian structure at the national level.¹¹⁴

3. Evaluation of the First MALR Project: *Cédula da Terra*

The first attempt to implement the model proposed by the World Bank as part of the “New Rural World” was the “Pilot Project at Agrarian Reform and Poverty Alleviation,” based in the state of Ceará, known as “*Reforma Agrária Solidária*” (Agrarian Reform and Solidarity).¹¹⁵ The program became popularly known as “*Cédula da Terra*,” literally “the land bill” (as in dollar bill),¹¹⁶ because of the money associated with the program. For example, between 1997 and 2000, US\$150 million was made available to stimulate land purchases and rural development (US\$90 million of which was borrowed from the World Bank).¹¹⁷

The project basically involved creating a credit line for landless workers to buy land.¹¹⁸ Beneficiaries would organize in legally constituted associations responsible for directly bargaining the purchase of land from owners. Associations would then choose the farms to be purchased with bank funds, which—given state approval of the project—would go directly to the owner.¹¹⁹ The goal was to settle 150,000 families in three years (later

extended to four years) at a total cost estimated around US\$150 million, with US\$45 million coming from the federal government to purchase land.¹²⁰ The World Bank's US\$90 million loan was to be used to fund complementary community investments. The remaining amount was committed by state governments (US\$6 million) and a community counterpart (US\$9 million), mainly in the form of labor.¹²¹

The primary goal of the *Cédula da Terra* project was poverty alleviation, not land reform. The *Cédula's* target beneficiaries were made up of landless wage earners, renters, and sharecroppers, as well as poor farmers without enough land for subsistence (*minifundistas*).¹²² Based on its goal of poverty elimination, the *Cédula's* settlement program was considered a global success because it raised a considerable number of families above the poverty line through its promotion of land access.¹²³ The program also showed that it is possible to settle one hundred thousand families per year, even with a series of financial limitations related to expropriations.¹²⁴ The World Bank reported that the loan repayment rate by project beneficiaries was outstanding, and the government and civil society stakeholders—particularly the CONTAG¹²⁵—showed a strong commitment to the continuation of the program.¹²⁶

However, despite some success, MALR in Brazil has been highly criticized. The primary criticisms fall into four basic categories: (1) little to no influence in the negotiations, (2) ignorance of the conditions of the program, (3) lack of technical advice and poor quality land, and (4) lack of infrastructure.¹²⁷

First, a survey done by the Land Action Group confirmed that families had little or no influence over the choice of farms or the negotiation process that sets the price of the land.¹²⁸ Instead, most of the negotiating was done by government officials who ultimately set the course of any deal, based on their knowledge of the funding limits and, at times, their personal relationship with the seller.¹²⁹ Additionally, associations of beneficiaries created to administer the purchase of the land were often manipulated by

large landowners. In these cases, the workers often did not realize that negotiations did not favor them.¹³⁰ On top of increasing the chance of corruption, these facts also revealed a tremendous lack of transparency in the negotiation process.

Second, families were often discouraged from participating in negotiations because of their own lack of information. Interviewees revealed that they had no information on the project's basic elements, especially regarding loan payment conditions.¹³¹ For example, except for the grace period and final payment term, none of the individuals interviewed knew their interest rates or even the amount to be paid in the first installment (which was about to come due at the time they were interviewed), much less the alternatives available if they were unable to pay.¹³²

Similarly, another Land Research Action Network study, done in 2005 in coordination with several grassroots networks such as the MST and CPT,¹³³ confirmed that many families never fully understood the terms of their loan.¹³⁴ Only 53 percent of those interviewed affirmed that they had received a copy of the loan contract for the purchase of their land. Only 36 percent had actually read the contract. In spite of having received the contract, 15 percent had not read it, which correlates to a high rate of illiteracy among workers.¹³⁵ Of the families surveyed, 42 percent did not know the penalties listed in the contract in the case that they were unable to pay their loan. Among the families in collective contracts, this number increases to 48 percent. More than one-third of those interviewed (36 percent) did not know the number of loan payment installments to which they had agreed upon signing the contract—26 percent admitted they did not know the number, 7 percent did not remember the number, and 3 percent gave wrong numbers as a response.¹³⁶ In short, all these difficulties could be traced to the fact that many of the beneficiaries were illiterate.¹³⁷ This lack of information demonstrates a large power imbalance between the

naïve farmers and the landowners negotiating on their behalf, but contrary to their best interests.

Third, the lack of technical assistance and poor quality of land contributed to families' inability to pay back their loans. Though situations differ in the different settlements—particularly in regard to soil quality and availability of natural resources such as water—the lack of technical assistance or funds for investment were the most frequent complaints.¹³⁸ For instance, drought is a constant problem in the northeast; therefore, without investment in irrigation projects, land will only produce a relatively small amount for local markets, and the bulk of the harvest is reserved for self-consumption.¹³⁹ Consequently, low production on individual lots does not generate enough money to pay back loans, and its even less for the capitalization of new investments in production.

Fourth, contrary to the World Bank's findings, the Land Action survey revealed that there was a general lack of infrastructure on the land purchased by small farmers, making it difficult for them to maintain their families. For instance, 20 percent did not have electricity, 27 percent did not have potable water, 48 percent had no access to schools, 74 percent had no irrigation or access to water for production, 76 percent did not have a health clinic, 29 percent had no health practitioner, 72 percent had no ambulance service, and 22 percent had no public school transportation.¹⁴⁰

F. Historical Conclusions: Implications for Law 11.952.09

The reality is that neither traditional expropriative land reform nor MALR have successfully redistributed land to needy rural farmers by themselves. While traditional expropriative land reform has the appropriate legal mechanisms through the Land Statute and the Brazilian Constitution to institute widespread, meaningful change, the implementation of such reform is highly unlikely given the historical lack of political will. Similarly, despite its difficulties and shortcomings, MALR has had some success in redistributing land in an efficient, cost-effective, and less

conflictive manner. Taking this into account, Law 11.952.09 recognizes that traditional expropriative land reform and MALR can be complementary alternatives. Before turning to the law however, it is important to understand the domestic and international environmental concerns on the subject of deforestation and, more recently, climate change.

III. INTERNATIONAL CONCERN OVER DEFORESTATION

Starting in the 1980s, the international community began to express concern over the Amazon's rapid deforestation as it appeared that the government's land reform and settlement policies were accelerating a clearing of the rainforest.¹⁴¹ Between May 2000 and August 2005, Brazil lost more than 132,000 square kilometers of forest—an area larger than Greece—and since 1970, over 600,000 square kilometers (232,000 square miles) of Amazon rainforest have been destroyed.¹⁴² In many tropical countries, the majority of deforestation results from the actions of poor subsistence cultivators; however, in Brazil only one-third of recent deforestation can be linked to “shift cultivation” (a type of farming in which the land under cultivation is periodically shifted so that previously cropped fields are left fallow and subject to the encroaching forest).¹⁴³ Instead, a large portion of deforestation in Brazil can be attributed to clearing for pastureland by commercial and speculative interests, misguided government policies, inappropriate World Bank projects, and the commercial exploitation of forest resources.¹⁴⁴

When faced with the pragmatic problem of how to deal with a huge landless population, and when untitled land is available in the Amazon Basin, it is not hard to see why government-directed environmental policies have taken a back seat to policies encouraging settlement.¹⁴⁵ Deforestation occurs because it is in the rational, economic, and legal interests of actors in rainforest nations to cut the forest down rather than to preserve it.¹⁴⁶ Deforestation allows rural populations to practice subsistence agriculture, allows landless people to acquire a patch of their own, allows the private

sector to produce commodities and sell them on national and international markets, and allows local and national governments to generate tax income and foreign exchange.¹⁴⁷ Additionally, nations are able to strengthen legal claim to widely uncolonized, unexplored territory and minimize border disputes with neighboring countries. In this way, developing countries like Brazil are only following the example of today's richest countries, which actively pursued deforestation and land use conversion to agriculture in the early phases of development for exactly the same reasons.¹⁴⁸

Despite Brazil's legitimate desire to continue to develop, Brazilian land conversion plays a particularly important role in combating climate change, because the Amazon comprises about one-third of the world's remaining rainforests.¹⁴⁹ Not only does the rainforest control the planet's climate—creating much of the rainfall pattern on which global agriculture depends—but the rainforests are also home to some of the poorest people on earth whose livelihoods are linked to the land.¹⁵⁰ Consequently, the type of land reform Brazil chooses is critical because it has direct effects on climate change, which poses both a global and local threat.

A. The Rainforest and Climate Change

Climate change is the result of the accumulation of greenhouse gases in the atmosphere, largely due to human interference, that has been going on since the industrial revolution.¹⁵¹ The general consensus is that countries have different historical responsibilities for the phenomenon depending on the volume of their emissions—known as “common but differentiated” responsibilities under the UN Framework Convention on Climate Change (UNFCCC).¹⁵² Under this framework, the parties to the convention agreed that the largest share of historical and current global emissions of greenhouse gases originated in developed countries, while per capita emissions in developing countries are still relatively low.¹⁵³ Therefore, though all countries share in a common responsibility to address climate

change, developed and developing countries should have different roles in addressing the problem.

Because Brazil is a developing country, it does not have quantified obligations to reduce emissions under the UNFCCC; however, Brazil has acknowledged a responsibility to help mitigate the effects of climate change.¹⁵⁴ One of the most effective ways to do so is to reduce the amount of deforestation occurring in the Amazon rainforest, because worldwide tropical deforestation is one of the largest causes of global greenhouse gas emissions.¹⁵⁵

B. How the Amazon Rainforest is Important in Reducing Climate Change

Tropical rainforests, like the Amazon, are important in reducing climate change in a number of ways. First, forest ecosystems decrease atmospheric carbon dioxide through photosynthesis and store it in biomass and other carbon stocks.¹⁵⁶ This is commonly known as a “carbon sink”—a reservoir that absorbs or takes up released carbon from another part of the carbon cycle.¹⁵⁷ Mature rainforests can carry up to eight hundred tons of carbon dioxide per hectare.¹⁵⁸ In fact, one study estimated that old-growth tropical forest can absorb 4.8 billion tons of carbon dioxide each year through this sink effect.¹⁵⁹ This means that there is more carbon stored in the rainforest than there is in the atmosphere.¹⁶⁰ Consequently, when the forest is cut down or burned, not only is carbon not being captured and stored, but accumulated carbon is released into the atmosphere. The Intergovernmental Panel on Climate Change (IPCC), the United Nations body tasked with reviewing and assessing the most recent scientific, technical, and socioeconomic information produced worldwide relevant to the understanding of climate change, estimates that the global forest sector accounts for 17 percent of anthropogenic carbon emissions.¹⁶¹ This percentage is greater than the entire global transport sector and larger than the annual emissions in the United States or China.¹⁶² Put another way, just

one day of tropical forest emissions from deforestation is equal to 12.5 million people flying from New York to London.¹⁶³

Second, the rainforest provides an insulating belt around the planet, reflecting sunlight and evaporating moisture, which helps to cool the planet. The IPCC concluded that in order to avoid the worst climate change effects to occur as a result of warming two degrees Celsius, global atmospheric greenhouse gases must stabilize between 445 and 490 parts per million (ppm).¹⁶⁴ The present atmospheric concentration of carbon dioxide is 433 ppm and is increasing at 3–5 ppm per year.¹⁶⁵ If nothing were done to reduce global emissions, global greenhouse gases will exceed 490 ppm in as little as twenty-five years. Though these numbers are dire, researchers identified reducing deforestation as one of the largest opportunities for carbon abatement.¹⁶⁶

Third, in addition to the opportunity to reduce climate change, the rainforest provides a host of other benefits such as regulating rainfall, controlling global temperature and disease, and providing for forest dependent plants, animals, and peoples. Also, the rainforest is a massive freshwater regulator. For instance, the Amazon rainforest collectively releases twenty billion tons of moisture into the atmosphere each day—this is eight to ten times more water vapor than an equivalent area of ocean evaporates.¹⁶⁷ Some models suggest that deforestation could result in reduced global rainfall. For example, the water vapor from the Amazon feeds agriculture in South Brazil and may be carried as far south as the agricultural heartland in of the La Plata basin in Argentina.¹⁶⁸ This is critically important because global food and energy security (in the form of hydroelectric dams) in this region is supported in large part by rainfall.

The rainforest also controls the earth's surface temperature by acting like a global air conditioning unit.¹⁶⁹ Deforestation means the earth's surface temperature will rise, which in turn, leads to more extreme weather conditions such as violent storms, soil erosion, and flooding.¹⁷⁰ For example, Reuters News Service reported that extreme weather, linked to the

warmest year on record, caused the devastating floods in Pakistan and China last year (as well as the heavy rains in Australia late last year and in early 2011) which disrupted coal mines and damaged transport infrastructure.¹⁷¹ Damaged forests can also result in an increased frequency of disease; for example, the 2005 drought in the Amazon caused disruptions to high-quality drinking water supplies and natural medicines.¹⁷²

Additionally, diverse animal and plant life is threatened by deforestation and climate change. Brazil is overwhelmingly the most biodiverse country on earth, with more than 56,000 described species of plants, 1,700 species of birds, 695 amphibians, 578 mammals, and 651 reptiles.¹⁷³ When compared with the United Kingdom (where there are just twenty-nine native tree species), every single hectare of rainforest contains dozens or even hundreds of species of just trees.¹⁷⁴ As a result, that rainforest has been the source of compounds vital to the discovery and potency of many modern medicines and has provided the genetic stock for many new crops and plants.¹⁷⁵ However, most species in the rainforest are still inadequately researched, and therefore, their potential value to humanity and the maintenance of environmental stability is yet unknown.¹⁷⁶

Finally, an estimated 1.6 billion of the world's poorest people worldwide (those living on less than US\$2 per day) rely to some extent on forests for their welfare and livelihood.¹⁷⁷ These people include subsistence farmers, economic migrants, and "extractivists" such as rubber tappers, small-scale loggers, gold miners, hunters, and harvesters of nuts, berries, fruits, and medicinal plants.¹⁷⁸ In Brazil, officially demarcated indigenous territories comprise 140 separate peoples and cover 20 percent of the Amazon region.¹⁷⁹

Ultimately, climate change threatens not only especially vulnerable populations, but also indigenous communities, local markets, access to raw material for medicines, and biodiversity essential for the planet's continued survival. Therefore, the way Law 11.952.09 is implemented could have very far-reaching implications.

The next section will explore how Law 11.952.09 revives the innovative legal mechanisms of the Land Statute, while at the same time it encourages land markets to become healthy and robust through MALR mechanisms. Additionally, Law 11.952.09 incorporates important environmental protections that were not addressed by either traditional expropriative land reform or MALR.

IV. CAN LAW 11.952.09 OVERCOME THE OBSTACLES OF THE PAST?

A. Present Day: Killing Two Birds with One Stone

Realizing the need to address land reform, continued social unrest, deforestation, and climate change, President Lula de Silva enacted Provisional Measure¹⁸⁰ 458/2009, which later became Law 11.952.09. Notwithstanding other federal programs implementing land reform-oriented settlement projects, environmental conservation, and the identification of indigenous lands, the Brazilian government still holds approximately sixty-seven million unallocated hectares in the legal Amazon (approximately 13.42 percent of the total area in the region).¹⁸¹ The goal of Law 11.952.09 is to address the unresolved title question for more than three hundred thousand families living in the Amazon, who live on the more than sixty-seven million hectares of land.¹⁸² The law establishes procedures—especially aiming at rural conflict—to quiet title and settle questions of ownership for land claimed illegally or under questionable title. The law is also supposed to reduce deforestation by giving squatters legal title to the land they are occupying and making it possible for land owners to be held responsible for environmental damage.

1. Land Regularization Plan

Law 11.952.09 provides an opportunity for settlers to acquire title to the land they are occupying without sale or auction based upon proof of occupation or utilization.¹⁸³ The titling plan is broken up into five different

routes based on the size of the parcel: land up to 100 hectares, land between 100 and 1,500 hectares, land over 1,500 hectares, land given to states, and indigenous land.¹⁸⁴ First, plots up to 100 hectares will be given to around 290,000 occupiers for free, with ten-year titles of possession.¹⁸⁵ This provision incorporates a feature of traditional expropriative land reform by implementing widespread land redistribution without a fee. However, this entails giving away public land, not redistributing land concentrated in the hands of one owner. Second, the government will confirm title of medium to large plots between 100 and 1,500 hectares at discounted rates, and recipients will have twenty years to pay for the land.¹⁸⁶ This provision incorporates aspects of MALR, because beneficiaries who are able to pay for these medium-sized plots will help to grow the land market. Third, land over 1,500 hectares will be broken up into smaller plots, and the owners will be given government bonds, which will be paid over ten years after a three-year grace period. This provision also incorporates some of the Land Statute and the 1988 Constitution's robust reforms, designating the government as the primary funder of land reform and appeasing social movements' demands for land redistribution. Fourth, lands in 432 municipalities located in federal areas will also be regularized for the benefit of the states. This provision will help to clean up the land titling database. Finally, Article 4 of the law specifically excludes land used for the military, public utilities, public forest, indigenous lands, federally improved land, and traditional Maroon (indigenous) communities' land from regularization.¹⁸⁷

For a title to be legitimate, the squatter must meet five requirements. First, the beneficiary must show actual cultivation and occupancy as well as peaceful, uncontested development of the property prior to December 1, 2004. In this way, the right to acquire title to occupied areas is retroactive. This provision reflects an intention to support long-term occupants and settlers in the region who have cultivated the land for years without the benefit of secure title. This also prevents recent speculators from taking

advantage of the law. Second, the beneficiary must be a Brazilian citizen—native or naturalized. Third, the beneficiary cannot own other rural property in Brazil. Fourth, the beneficiary cannot have been the beneficiary of a land reform or land title legitimacy program at an earlier date. Fifth, the beneficiary's main income must come from the economic use of his or her property.¹⁸⁸ Finally, the beneficiary cannot be a government official.¹⁸⁹

Law 11.952.09 also imposes certain restrictions on titles granted under the program for title legitimacy, including restraints on alienation and duties to comply with environmental codes. For instance, title documents will contain conditions that apply for ten years, which if violated, require the beneficiary to return the land to the government. There are seven such conditions: (1) the owner cannot sell their parcel; (2) the owner must rationally and appropriately use the area; (3) the owner must properly use natural resources and conserve the environment; (4) the owner must register legal reserves; (5) the owner must identify permanent conservation units and recover degraded areas; (6) the owner must observe labor provisions; and (7) the owner must comply with the terms and method of payment of any loans, if applicable, within twenty years.¹⁹⁰

Another highlight of Law 11.952.09 is that rural properties owned by legal entities (i.e., corporations) are exempted from benefitting from the law. Instead, the sale of properties owned by the federal government to legal entities remains subject to bidding procedures under the Bidding Law. In this way, the law gives priority to low-income rural workers who develop the land for their own sustenance when bidding on land title from small- and medium-sized properties.¹⁹¹

Ultimately, the immediate effect of Law 11.952.09 is that settlers who have been squatting on lands in the Amazon for at least five years can now gain legal property rights. As the size of the claim increases to the maximum of 1,500 hectares (approximately 3,706 acres), the burden of the cost and procedures placed on the claimant also increases.¹⁹² In contrast, the registration process for a free grant (for claims under 400 hectares) is

substantially less burdensome. This shows that the law prefers small-scale settlers of humble means already living in the Amazon; the law is not intended to enable large-scale, speculative land grabbing.¹⁹³ The question is whether the Ministry of Agricultural Development, the administration responsible for the program, can carry out its implementation in a way that benefits small-scale settlers and not large-scale speculators?

2. Who Benefits: Land Grabbers or Rural Farmers?

Law 11.952.09 became law during a time of considerable controversy and public debate in Brazil regarding the wisdom of continuing a government policy of retrospective legalization of claims on public land.¹⁹⁴ Proponents of the law refer to it as a lifeline, finally granting title to resilient settlers and communities who have long forged their livelihood in the Amazon region.¹⁹⁵ For example, a senator from the Amazonian state of Rondônia explained:

[T]his provisional measure brings encouragement . . . to the people of the Amazon, who have been there for the past twenty, thirty years . . . Lacking any federal agency support, they settled themselves, occupying the lands of the Amazon, and for twenty or thirty years, they have waited for a solution such as this—for a titling process, documentation of the lands—in order that they can call themselves the legitimate, true owners of land they have occupied.¹⁹⁶

Proponents also argue that assigning legal ownership of occupied land will serve to combat land grabbing by the infamous *grileiros* and the associated violent disputes over control of valuable land.¹⁹⁷ One senator listed the “reduction of serious and innumerable conflicts brought about by the absence of a legal framework [for land] in the Amazon” to be a key objective of the new law.¹⁹⁸ Its proponents also assert that legalization of claims will help distinguish valid settlers from public land speculators involved in land grabbing (*grilagem*).¹⁹⁹ INCRA, the agency responsible for implementing the titling process, has calculated that more than 80 percent

of the properties covered under the “Legal Land” program are no larger than 400 hectares, implying that the benefits primarily go to small landholders.²⁰⁰ The law itself applies only to claimants who assert peaceful occupation or utilization of the land, exercised continuously and without opposition.²⁰¹

Law 11.952.09 also corrects the legitimacy and representation problems associated with MALR. One of these problems is that lands were purchased by associations of workers organized by the large land owners or local politicians. The Sustainable Amazon Program remedies this by coming to the municipalities and interacting with the beneficiaries themselves. The Green Arc Action Group, the agency responsible for implementing the program, is in the process of visiting forty-three municipalities to register land, provide credit, and offer a variety of other public services.²⁰² Because it comes directly to the people, there is less likelihood of corruption involving municipal administrators, politicians, and unions, who were favored in land purchase transactions under the World Bank program. Furthermore, politicians are not allowed to purchase land under Article 5 of Law 11.952.09.²⁰³

Neither are landless farmers vulnerable to losing their land through lack of payment of high interest rate loans. Another problem with MALR was that the poor quality of the land prevented farmers from turning a profit, which in turn prevented them from making their loan payments. This resulted in the widespread indebtedness of rural workers. Between 1997 and 2005, a World Bank rural credit program (*Cédula*) enabled land purchases through negotiation with large land owners. However, small farmers often did not participate in the negotiations and did not receive a copy of the loan contract for the purchase of their land.²⁰⁴ Even if they did receive a copy of the contract, many farmers did not understand the contract’s terms because of the high rates of poor education among the farmers.²⁰⁵ Here, under Law 11.952.09, farmers occupying small parcels simply have to show that they meet the requirements and they are given title for free—no negotiation is

needed. This also avoids the chances of rural farmers getting into debt through loans that they cannot afford and did not fully understand.

While the opponents of Law 11.952.09 point to many criticisms, most fall into two basic categories. One is that the laws presumably developed to support poor squatters who in good faith have settled upon and made productive use of public land may instead, or in addition, provide a means for powerful landowners and speculators to claim more Amazonian land. This, in turn, will not effectively address land concentration. The second main category of criticism, more generally, is that the continuation of post-hoc policies legalizing claims on the public lands is counterproductive to Brazil's ultimate goals for agrarian reform and environmental protection.²⁰⁶

First, some groups have criticized the wide variety of beneficiaries allowed because it opens up the possibility for fraud. For instance, nothing in the law expressly prohibits a single person or company from regularizing as many properties as can be kept occupied by representatives.²⁰⁷ In fact, Felício Pontes, Federal Prosecutor in the State of Pará said, “[Law 11.952.09] will legitimize land grabbing (*grilagem*) in the Amazon and undermine fifteen years of intense efforts by the Federal Prosecutor's Office (*Ministério Público Federal*) in Pará to confront illegal appropriation of public lands.”²⁰⁸ Though one of the requirements for obtaining title under the program is that the beneficiary derives his or her main source of income from the land, it is unclear how this will be enforced when dealing with representatives.

Second, critics argue that the regularization provisions promote land concentration. For instance, the average land occupation in rural settlement lots in the Amazon does not exceed fifty hectares, mainly due to the precise inability of a single family to operate on extensions larger than fifty hectares.²⁰⁹ However, the measure expands the number of hectares one can obtain up to fifteen hundred. This shows that the delivering of land assets to enterprise is the economic priority.

Third, under Law 11.952.09, the government cannot maintain its responsibility to implement massive agrarian reform for small parcels while maintaining a market-based approach for larger farms. Law 11.952.09 abandons agrarian reform by designating areas over 1,500 hectares that should have been expropriated by the state and then turned over to INCRA for redistribution. Instead, the law puts these parcels up for auction.²¹⁰ Consequently, the law favors the elite because large parcels are only required to be broken up into 1,500 hectare lots, instead of smaller ones that are more appropriate for family farms.

Fourth, other than holding landowners responsible for environmental damage due to new titles, the law does little to combat deforestation. While the law improves on traditional expropriative land reform that actually encouraged deforestation, it does little to stop illegal deforestation. Paulo Barreto, a researcher with Imazon (a nonprofit organization dedicated to protecting the Amazon) believes that the Legal Land program, together with infrastructure promised by the government, will lead to illegal occupation and deforestation. He observed:

Regularization is essential to improve control over deforesting; however it cannot be so generous as to encourage new land occupation—especially when combined with promises of waving away fines. There is always the belief that land allowed to be occupied today can become legal property tomorrow. And this intensified occupation will, sooner or later, lead to more deforesting.²¹¹

Similarly, Marcelo Furtado, the executive director of Greenpeace in Brazil, voiced concern that despite the government's best efforts, the Amazon is too large to effectively monitor and enforce environmental violations. He said the following regarding the attitude of lawbreakers:

[T]he . . . attitude is that because there is so little governance here, because the government is so absent the truth is that we can just keep cutting down the forest and nothing will happen to us. . . .

This bill will be a major signal indicating to the people who enjoy impunity that it is worth committing a crime in the Amazon.²¹²

Instead, more research is needed to determine whether the other five aspects of the Sustainable Amazon Plan better address deforestation by strengthening the monitoring and enforcement mechanisms and providing tax incentives for sustainable development.

In sum, most of the advantages of Law 11.952.09 show that it has effectively dealt with the failures of MALR described above, such as lack of technical assistance and the inability of farmers to pay back loans. However, the criticisms of Law 11.952.09 show that it does little to address the failures of traditional expropriative land reform—namely lack of government will and the power disparities between rural peasants and large land owners. Therefore, if Law 11.952.09 is to effectively combine the best of MALR with the best of traditional expropriative land reform, it must strengthen aspects of the law that allow for expropriation. As for combating climate change, it is still unclear what effect the law will have on deforestation, but it is likely an important step in correcting the flawed environmental policy of the past.

V. SOLUTIONS FOR STRENGTHENING LAW 11.952.09

Ultimately, despite its criticisms, Law 11.952.09 is an important step in improving land reform and environmental conservation in Brazil. As demonstrated, land reform in Brazil is a social, economic, and environmental justice issue—not only for the people of Brazil but also for the rest of the world. In light of this fact, measures should be taken to strengthen Law 11.952.09. This article suggests seven ways to strengthen Law 11.952.09: (1) Traditional expropriative land reform must be complemented by, instead of abandoned for, market-assisted land reform; (2) Brazil should revise and enforce the existing land tax; (3) Brazil should amend the existing legal procedures that are taken advantage of for the purpose of prolonging the expropriation process;²¹³ (4) Brazil should

prioritize family farming as a matter of social and economic policy; (5) social movements should continue their work for improvement, despite changing demands and institutional uncertainty; (6) Brazil should realize that government welfare, while cheaper than land reform, will not only undermine democracy but fail to cure the historical roots of inequality and injustice; and (7) more resources need to be allocated to environmental enforcement.

First, traditional expropriative land reform must be complemented by, instead of abandoned for, market-assisted land reform (MALR). The international community and the Brazilian government should acknowledge that MALR, including mechanisms such as land banks and land funds, is inadequate in highly unequal societies and therefore cannot replace agrarian reform processes that expropriate large land owners' land for redistribution. Expropriations should be undertaken in strict accordance with the rule of law, and land should be given to those who lack it.²¹⁴ Law 11.952.09 is poised to implement a hybrid model designed to leverage complementary aspects of both traditional expropriative reform and MALR.

Second, Brazil can strengthen the benefits that Law 11.952.09 offers to small farmers by revising and enforcing the existing tax structure, specifically the rural tax. Because tax laws are not enforced and can be easily avoided, large land holders have little incentive to break up their large parcels under the constitutional mechanisms in place. In 1996, under the Cardoso presidency, the Brazilian National Congress approved legislation concerning the rural tax (*imposto territorial rural* or ITR).²¹⁵ This legislation looked promising because the law reduced the size of properties subject to the top tax rate from more than 15,000 hectares to more than 5,000 hectares.²¹⁶ In theory, this would have encouraged large land holders to break up their parcels by sale or face heavy tax burdens. Ultimately, large land owners lobbied Congress to reduce the tax rate on productive land. However, the government succeeded in raising taxes on unproductive land; the top rate for the largest estates rose from 4.5 percent

to 20 percent.²¹⁷ This compromise shows that ITR could be a powerful complement to Law 11.952.09, because large land holders will have to use the land they are on or be taxed so heavily that it would be preferable to downsize.

Unfortunately, ITR has yet to become a powerful complement because large land owners are notorious for avoiding ITR payments. For example, one 1999 study showed that 98.7 percent of owners of the two hundred largest properties were able to avoid paying the ITR. For the government to charge the top rate of 20 percent, it has to show that 30 percent or less of the rural property is being productively used.²¹⁸ But given Brazil's history of vague definitions of what constitutes "productive use," landowners have shown great ingenuity in demonstrating land use and cultivating favorable rulings from local administrators.²¹⁹ Current numbers show that, as of 2007, the ITR maintained a top tax rate of 20 percent, yet the lowest tax rate could be as little as 0.03 percent.²²⁰ This means that large land holders are likely avoiding ITR payments or paying very little. Conversely, because small holders lack the power and financial resources to similarly avoid ITR payments, they are likely shouldering the brunt of the tax burden, which hinders their ability to be successful.

Third, Brazil should amend the procedures that allow for lengthy and expensive court battles over land, which only prolong and complicate the expropriation process. Brazilian law allows wealthy land owners to use legal recourse to fight expropriation *ad infinitum* because of the numerous loopholes for legal challenges. This problem is exacerbated when the threatened farmer is rich and is able to hire the best lawyers, in which case, the government must compete. This can lead to exorbitant costs, including countering every legal act the farmer takes until a final decision is made by a higher court. To date, no study has been done to estimate the cost of such legal disputes.²²¹ However, a study would provide the government valuable information on what kind of legal reforms are necessary and indicate the best ways to implement those reforms.

Fourth, given Brazil's unique climate, its amount of land, and the social and economic benefits derived from small family farms, Brazil should prioritize the small family farm as a matter of public policy. Small- and medium-sized farms are actually more efficient than large farms. Smaller holdings generally produce more than larger ones because an owner with secure tenure is more likely to make long term capital and "sweat-equity" investments than a cultivator with insecure tenure, whether measured hectare for hectare or according to total factor productivity.²²² A study done by the Economic Research Foundation for the Ministry of Agrarian Development showed that family agriculture was responsible for 10.1 percent of the GNP in 2003, valued at about US\$55 billion.²²³ In addition, a spokesman for the Small Farmers Movement reported that 4.1 million families dedicated to small agriculture produce 80 percent of Brazil's food and make up 85 percent of the rural labor force.²²⁴ Furthermore, the family farm more efficiently uses their land, creating a production value of US\$677 per hectare, while farms not worked by families only yielded a value of US\$358 per hectare.²²⁵ In sum, agricultural economists agree that small-scale farmers generally use land, labor, and capital more efficiently than large-scale farmers who depend primarily on hired labor or mechanized farming. Large farms only prove to be more efficient when measured by the advantages associated with tax breaks and subsidies.²²⁶

Fifth, landless farmers and social movements can and should continue the struggle for land rights because they have been extremely successful to date. Social movements are in the best position to continue to advocate for institutional change in the face of uncertainty and difficulties. Zander Navarro suggests that one major challenge for the future of agrarian reform is the diminishing social demand for land in most Brazilian regions because the unstoppable process of urbanization has reduced the numbers of landless families demanding land.²²⁷ For example, in 1960, just over half (55 percent) of Brazil's population lived in rural areas; however, the 2007–2008 census revealed that only 15 percent of Brazil's population lived in

rural areas.²²⁸ Now, industrial and service sectors dominate the economy, and agriculture does not produce jobs in the same proportion as it once did. This is due to mechanization and an increasingly technological policy prevailing in agricultural activities.²²⁹ However, even given this reduced number, an estimated five million poor rural families are still potential beneficiaries of national agrarian reform.²³⁰ Social movements should continue identifying and organizing these potential beneficiaries in order to make their interests visible to the legislature.²³¹

Sixth, given the cost of implementing land reform and the diminishing number of landless families, some have argued that it would be cheaper to offer a monthly payment to the rural poor than to work on the costly process of land reform²³²—this would be a mistake. For instance, the government is in charge of a host of social benefits for the rural poor—the most effective being the *Bolsa Família*, a conditional cash transfer program in which poor families receive a monthly payment on the condition that their children attend school.²³³ Because most studies indicate that new settlers in most regions of Brazil are not capable of producing a monthly income larger than the minimum wage, the argument goes that it would be better use of financial and administrative resources to simply enroll poor families in social programs instead of maintaining a complex process of land reform.²³⁴ However, this would be a mistake because it only attacks the symptoms of poverty instead of digging up the root. Access to land creates a multifaceted impact in the lifecycles of landless families that would totally be undermined if land reform were abandoned and replaced with government welfare. The point here is not to recommend abandonment of social programs; to the contrary, social programs are a vital safety net that should not be abandoned, but to show that social programs in place of land reform is not a good idea.

Finally, more resources need to be allocated to environmental enforcement. Being able to identify and prosecute potential law breakers is an important step in reducing deforestation. Not only will secure title give

new property owners a robust set of legal rights, such as the right to exclude illegal logging from taking place on their property, secure title will also give new property owners the responsibility to comply with environmental laws. However, in order for the law to be effective, more law enforcement officers are needed to patrol areas prone to deforestation and prosecute violators of environmental laws.

VI. CONCLUSION

Land reform will continue to be a critical issue for Brazil as it continues to develop; therefore, Brazil must reconcile the tension between solving the problem of landlessness while at the same time protecting the Amazon from deforestation.

Ultimately, Law 11.952.09 presents an opportunity to overcome the obstacles of both traditional expropriative land reform and MALR. Unfortunately, it appears that Law 11.952.09 might fail to accomplish its two primary goals of granting land title to three hundred thousand individuals and combating deforestation because it fails to adequately deal with the obstacles of the past. Instead, while Law 11.952.09 addresses some of the practical problems of market-assisted land reform, in the end, it relieves the government of its responsibility to institute widespread expropriation and redistribution of land under traditional constitutional mechanisms. Consequently, one expects to see a little dent into the overwhelming concentration of land among the elite and increasing rates of deforestation over the next three years if the law is not strengthened with other complementary policies.

Undoubtedly, some families will benefit from Law 11.952.09. Instead of completely throwing the new law out, the government should enhance the constitutional and legal mechanisms already available. This would discourage wealthy landowners from holding onto unproductive land and would provide landless families access to important legal rights, thereby incorporating them into the global marketplace. Meanwhile, Law 11.952.09

integrates environmental protections that are essential to combating climate change.

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² See Deborah James, *Landless Peasants March in Brazil, Build a new Road by Walking*, COMMONDREAMS.ORG, May 20, 2005, <http://www.commondreams.org/views05/0520-20.htm> (last visited Mar. 29, 2011).

³ See *id.*

⁴ See *id.*

⁵ Lei No. 11.952, de 25 de junho de 2009, Col. Leis Rep. Fed. Brasil, dez. 2009 (Braz.), available at http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/111952.htm.

⁶ See Pauline Bartolone, *Land For Those Who Work It: Can committing a crime be the only way to uphold the constitution?*, CLAMOR MAGAZINE, Sept. 5, 2005, <http://www.landaction.org/category.php?section=19>.

⁷ See *Gini Index*, BUSINESSDICTIONARY.COM, <http://www.businessdictionary.com/definition/gini-index.html> (last visited Mar. 29, 2011).

⁸ See Pastoral Land Comm., *Concentration of Land in Brazil Grows*, JORNAL DO COMMERIO, Oct. 1, 2009.

⁹ See ZANDER NAVARRO, *Expropriating Land in Brazil*, in AGRICULTURAL LAND REDISTRIBUTION: TOWARD GREATER CONSENSUS 267, 271 (Hans P. Binswanger-Mkhize et al. eds., World Bank 2009).

¹⁰ “Grilagem” was a word invented for “the technique by which newly made false documents were placed in a closed box with crickets (*grilos*) whose chewing action and elimination” would make the documents look very old. ANGUS WRIGHT & WENDY WOLFORD, *TO INHERIT THE EARTH: THE LANDLESS MOVEMENT AND THE STRUGGLE FOR A NEW BRAZIL* 19–20 (2003). “The word *grilagem* came to mean any attempt to acquire land through the use of fraud.” *Id.* In 2001, the Brazilian government estimated that “at least ninety-two million hectares, an area fifty percent greater than the total land surface of Central America, had been claimed by fraudulent means.” *Id.*

¹¹ See Luiz C. Barbosa, *The Rise of Brazil as an Agricultural Superpower and the Dilemma over the Amazon Rain Forest: A Treadmill of Production View* 6 (San Francisco State Univ., Working Paper, 2009), available at <http://ssrn.com/abstract=1338937>.

¹² The Sustainable Amazon Plan is a host of guidelines developed by the Brazilian Federal Government outlining actions of several ministries in a shared development strategy for Amazon. It seeks interaction between federal and state levels of government aimed at integrating the following five thematic areas: (1) environmental management and land use planning; (2) innovation and competitiveness-based sustainable production;

(3) social inclusion and citizenship; (4) development-oriented infrastructure; and (5) new financing standards. See UNITED NATIONS ENVIRONMENTAL PROGRAMME, BRAZIL: INTEGRATED ASSESSMENT AND PLANNING IN THE CONTEXT OF THE SUSTAINABLE AMAZON PLAN: WITH FOCUS ON THE BR-163 HIGHWAY AREA OF INFLUENCE AND THE SOYBEAN SECTOR 6 (2006), available at <http://www.unep.ch/etb/areas/pdf/Brazil%20Report.pdf>.

¹³ See SECRETARIAT FOR SOCIAL COMMUNICATION OF THE OFFICE OF THE PRESIDENT OF BRAZIL, HIGHLIGHTS REVIEW 11 (July 15, 2009), available at <http://www.presidencia.gov.br> (click the “Caderno Destaques” button at the bottom of the page, under “Previous Issues” find “2009” and click on July/August). [hereinafter HIGHLIGHTS].

¹⁴ See *id.* at 13.

¹⁵ See *Brazil’s Indians: Land Wars*, THE ECONOMIST (US), Feb. 4, 2006, at 34, 36.

¹⁶ See Kristen Mitchell, *Market-Assisted Land Reform in Brazil: A New Approach to Address an Old Problem*, 22 N.Y.L. SCH. J. INT’L & COMP. L. 557, 563 (2003).

¹⁷ See NAVARRO, *supra* note 9, at 268.

¹⁸ *Id.*

¹⁹ *Id.* at 268–69.

²⁰ See *Agrarian Reform Brazil’s Commitment*, PRESIDÊNCIA DA REPÚBLICA FEDERATIVA DO BRASIL, http://www.planalto.gov.br/publi_04/COLECAO/AGRAIN3.HTM (last visited Mar. 30, 2011).

²¹ See *id.*

²² See NAVARRO, *supra* note 9, at 269.

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ Mitchell, *supra* note 16, at 564.

²⁹ See NAVARRO, *supra* note 9, at 270.

³⁰ *Id.* at 269.

³¹ *Id.*

³² See Mitchell, *supra* note 16, at 565.

³³ See *Agrarian Reform Brazil’s Commitment*, *supra* note 20.

³⁴ See Mitchell, *supra* note 16, at 565–66.

³⁵ Dawn Plummer, *Historical Roots of the MST*, WAR RESISTER’S INTERNATIONAL, (Jan. 1, 2001), <http://www.wri-irg.org/nonviolence/nvse17-en.htm>.

³⁶ See *id.*

³⁷ Mitchell, *supra* note 16, at 565.

³⁸ See *Agrarian Reform Brazil’s Commitment*, *supra* note 20.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ See generally NAVARRO, *supra* note 9, at 272–73.

⁴² *Id.*

⁴³ *Id.* at 277.

- ⁴⁴ *Id.*
- ⁴⁵ *See id.*
- ⁴⁶ *See id.*
- ⁴⁷ *See id.*
- ⁴⁸ Mitchell, *supra* note 16, at 566–67.
- ⁴⁹ *See* Estatuto da Terra, No. Law 4,504 (of Nov. 30, 1964), Title I, Ch. 1, §§ 355–56.
- ⁵⁰ *See* Mitchell, *supra* note 16, at 567.
- ⁵¹ *See id.*
- ⁵² *See* MADELEINE COUSINEAU ADRIANCE, PROMISED LAND: BASE CHRISTIAN COMMUNITIES AND THE STRUGGLE FOR THE AMAZON 17 (1995).
- ⁵³ *See* NAVARRO, *supra* note 9, 271–72.
- ⁵⁴ *See* COUSINEAU ADRIANCE, *supra* note 52, at 16.
- ⁵⁵ *See id.*
- ⁵⁶ *See id.* at 17.
- ⁵⁷ *See id.* at 17.
- ⁵⁸ *See id.* at 17.
- ⁵⁹ *See* Rhett A. Butler, *Brazil*, MONGABAY.COM, <http://rainforests.mongabay.com/20bra zil.htm> (last visited Mar. 31, 2011).
- ⁶⁰ *See id.*
- ⁶¹ *See id.*
- ⁶² *See* COUSINEAU ADRIANCE, *supra* note 52, at 18.
- ⁶³ *See id.* at 20.
- ⁶⁴ *See id.* at 19–20.
- ⁶⁵ *See id.* at 20.
- ⁶⁶ *See id.*
- ⁶⁷ Butler, *supra* note 59.
- ⁶⁸ *See* *Agrarian Reform Brazil's Commitment*, *supra* note 20.
- ⁶⁹ *See id.*
- ⁷⁰ *Id.*
- ⁷¹ Mitchell, *supra* note 16, at 571.
- ⁷² *See* Mônica Martins, *Backgrounder Part III—Learning to Participate, the MST Experience*. LAND RES. ACTION NETWORK. Nov. 6, 2003, <http://www.landaction.org/display.php?article=135>.
- ⁷³ Bradley Romig, *Agriculture in Brazil and Its Effect on Deforestation and the Landless Movement: A Government's Attempt to Balance Agricultural Success and Social Collateral Damage*, 11 DRAKE J. AGRIC. L. 81, 93 (2006).
- ⁷⁴ *See id.*
- ⁷⁵ *See* Jason Mark, *Brazil's MST: Taking Back the Land*, 22 MULTINATIONAL MONITOR (Feb. 2001), available at <http://www.globalpolicy.org/component/content/article/219/46651.html>.
- ⁷⁶ *See id.*
- ⁷⁷ *See id.*
- ⁷⁸ *See id.*
- ⁷⁹ *See id.*
- ⁸⁰ CONSTITUIÇÃO FEDERAL [C.F.] [CONSTITUTION] 1988 art. 5 (Braz.).

⁸¹ *Id.* at art. 184.

⁸² *See id.*

⁸³ *See Romig, supra* note 73, at 95.

⁸⁴ *Id.* quoting Kevin E. Colby, *Brazil and the MST: Land Reform and Human Rights*, 16 N.Y. INT'L L. REV. 1, 22 (2003).

⁸⁵ *See* Telephone Interview with Igor Borba, Attorney (Apr. 1, 2010).

⁸⁶ T.J.R.S.; T.A.R.S. Civ. No. 70000092288, Relator: Rui Portanova, 08.1999.

⁸⁷ *Id.*

⁸⁸ *See* Press Release, Amnesty International, Brazil: The Eldorado dos Carajás massacre 10 years on (Apr. 18, 2006), available at <http://www.amnestyusa.org/document.php?lang=e&id=ENGAMR190192006>.

⁸⁹ *See* LA VIA CAMPESINA, SAY 'NO!' TO CORPORATE CONTROL OF FOOD AND AGRICULTURE! 3 (2010), available at <http://www.viacampesina.org/downloads/pdf/kit/17april2010/KIT2010.pdf>.

⁹⁰ *See id.*

⁹¹ *See* Amnesty International, *supra* note 88.

⁹² *See* LA VIA CAMPESINA, *supra* note 89, at 3.

⁹³ *See* João Márcio Mendes Pereira, *The World Bank's 'Market-Assisted' Land Reform as a Political Issue: Evidence from Brazil (1997–2006)*, 82 EUR. REV. LATIN AMERICAN & CARIBBEAN STUD. 21, 24 (2007) available at http://www.cedla.uva.nl/50_publications/pdf/revista/82RevistaEuropea/82-Pereira-ISSN-0924-0608.pdf.

⁹⁴ *See id.*

⁹⁵ *See id.*

⁹⁶ *See* Martins, *supra* note 72.

⁹⁷ *See* PAMELA COX, ET AL., IMPLEMENTATION COMPLETION AND RESULTS REPORT ON A LOAN IN THE AMOUNT OF EUR 218.2 MILLION TO THE FEDERATIVE REPUBLIC OF BRAZIL FOR A LAND-BASED POVERTY ALLEVIATION PROJECT I WORLD BANK 11–12 (2009).

⁹⁸ *See* Martins, *supra* note 72.

⁹⁹ Sérgio Sauer, *Backgrounder Part II: The World Bank and Land Reform in Brazil*, LAND RES. ACTION NETWORK, Nov. 6, 2003, <http://www.landaction.org/display.php?article=134>.

¹⁰⁰ *See* Mendes Pereira, *supra* note 93, at 23.

¹⁰¹ *See* Mitchell *supra* note 16, at 575.

¹⁰² *See id.*

¹⁰³ *See id.*

¹⁰⁴ *See* COX, ET AL., *supra* note 97, at 11.

¹⁰⁵ *See* Mendes Pereira, *supra* note 93, at 28.

¹⁰⁶ *See* MARIA LUISA MENDONÇA, *To Their Credit? Assessing the World Bank's Programmes in Brazil*, in LAND STRUGGLES 29 (Rebeca Leonard et al. eds., 2007), http://www.landaction.org/spip/IMG/pdf/LandStruggles_f10_color.pdf.

¹⁰⁷ *See id.*

¹⁰⁸ *See id.*

¹⁰⁹ Sauer, *supra* note 99.

¹¹⁰ *See* Mendes Pereira, *supra* note 93, at 28.

¹¹¹ Sauer, *supra* note 99.

¹¹² Mendes Pereira, *supra* note 93, at 28.

¹¹³ *See id.* at 24.

¹¹⁴ *Id.* at 28.

¹¹⁵ Manuel Domingos, *Backgrounder Part I: Land Reform in Brazil*, LAND RES. ACTION NETWORK, Feb. 3, 2003, <http://www.landaction.org/display.php?article=63>.

¹¹⁶ *See id.*

¹¹⁷ *See id.*

¹¹⁸ *See* Sauer, *supra* note 99.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *See id.*; *see also*, COX, ET AL., *supra* note 97, at 13.

¹²³ *See* J.E. da Veiga, *Poverty Alleviation Through Access to Land: The Experience of the Brazilian Agrarian Process*, in LAND REFORM, LAND SETTLEMENT AND COOPERATIVES 67 (Jefe P. Groppo ed., 2003), available at <ftp://ftp.fao.org/docrep/fao/006/j0415T/j0415t01.pdf>.

¹²⁴ *See id.*

¹²⁵ CONTAG is the leading union of rural workers of today. It was founded on December 22, 1963, in Rio de Janeiro. At the time there were fourteen federations and 475 unions of rural workers. Today, there are twenty-seven federations that bring together about four thousand rural unions and twenty million workers and workers in the field. CONTAG follows a policy of sustainable rural development. Its axes are based on the struggle for agrarian reform, the strengthening of family farming, improved labor rights and living conditions for male and female employees, the construction of new attitudes and values relating to gender, the struggle for social policies, and the democratization of public spaces. *Quem Somos*, CONTAG, www.contag.org.br (Portuguese) (last visited April 4, 2010).

¹²⁶ *See* COX, ET AL., *supra* note 97, at 23.

¹²⁷ Food First Information and Action Network, *Global Campaign for Agrarian Reform: Commentary on Land and Rural Development Policies of the World Bank 8* (2002), available at http://viacampesina.net/downloads/PDF/Global_Campaign_WB_policies_fact_sheet.en.pdf.

¹²⁸ *See* Sauer, *supra* note 99.

¹²⁹ *See id.*

¹³⁰ *See* MENDONÇA, *supra* note 106, at 29.

¹³¹ Sauer, *supra* note 99.

¹³² *See id.*

¹³³ The Land Action Network coordinated with the following groups to conduct the survey: Network of Grassroots Researchers, Via Campesina, the Pastoral Land Commission (CPT), the Landless Workers Movement (MST), the Rural Women's Movement (MMC), the Movement of Small Farmers (MPA), the Movement of People Affected by Dams (MAB), the Rural Youth Pastoral (PJR), and the Brazilian Federation of Agronomy Students (FEAB), as well as by the Social Network for Justice and Human Rights. *See* MENDONÇA, *supra* note 106, at 30.

¹³⁴ *See id.* at 28.

¹³⁵ *See id.* at 32.

¹³⁶ *See id.*

¹³⁷ *See* Borba, *supra* note 85.

¹³⁸ *See* Sauer, *supra* note 99.

¹³⁹ *See id.*

¹⁴⁰ *See* MENDONÇA, *supra* note 106, at 32.

¹⁴¹ Mitchell, *supra* note 16, at 572.

¹⁴² *Amazon Destruction: Why is the rainforest being destroyed in Brazil?*, MONGABAY.COM, http://rainforests.mongabay.com/amazon/amazon_destruction.html (last visited March 5, 2011).

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ Mitchell, *supra* note 16, at 572.

¹⁴⁶ *See id.*

¹⁴⁷ *See Brazil*, MONGABAY.COM, <http://rainforests.mongabay.com/20brazil.htm> (last visited March 18, 2011). [hereinafter *Brazil*].

¹⁴⁸ *Id.*

¹⁴⁹ *See id.*

¹⁵⁰ THE PRINCE'S RAINFORESTS PROJECT, AN EMERGENCY PACKAGE FOR TROPICAL RAINFOREST 2 (2009), available at http://princes.3cdn.net/f29d276ce664b2db67_y6m6vtxpe.pdf.

¹⁵¹ GOVERNMENT OF BRAZIL INTERMINISTERIAL COMM. ON CLIMATE CHANGE, EXECUTIVE SUMMARY: NATIONAL PLAN ON CLIMATE CHANGE BRAZIL 5 (2007), http://www.mma.gov.br/estruturas/imprensa/_arquivos/96_11122008040728.pdf [hereinafter COMM. ON CLIMATE CHANGE].

¹⁵² *Id.*

¹⁵³ *See id.*

¹⁵⁴ *See id.* at 5–6.

¹⁵⁵ *See generally* THE PRINCE'S RAINFORESTS PROJECT, *supra* note 150, at 10.

¹⁵⁶ *See id.*

¹⁵⁷ *Engery Efficiency*, US ENERGY INFO. ADMIN., http://www.eia.doe.gov/emeu/efficiency/carbon_emissions/glossary.html (last modified May 31, 2000).

¹⁵⁸ *See* THE PRINCE'S RAINFORESTS PROJECT, *supra* note 150, at 10.

¹⁵⁹ *See id.*

¹⁶⁰ *See id.*

¹⁶¹ *See id.*

¹⁶² *See id.*

¹⁶³ *See id.*

¹⁶⁴ *See id.* at 11.

¹⁶⁵ *See id.*

¹⁶⁶ *See id.*

¹⁶⁷ *See id.* at 10

¹⁶⁸ *See id.*

¹⁶⁹ *See id.*

¹⁷⁰ See *id.*

¹⁷¹ See Gerard Wynn, *Floods linked to manmade climate change: studies*, REUTERS, Feb. 16, 2011, <http://www.reuters.com/article/2011/02/16/us-climate-rainfallidUSTRE71F6BG20110216>.

¹⁷² See THE PRINCE'S RAINFORESTS PROJECT, *supra* note 150, at 11.

¹⁷³ See Mongabay, *supra* note 142.

¹⁷⁴ See THE PRINCE'S RAINFORESTS PROJECT, *supra* note 150, at 11.

¹⁷⁵ See *id.*

¹⁷⁶ See *id.*

¹⁷⁷ See *id.* at 12

¹⁷⁸ See *id.*

¹⁷⁹ See *id.*

¹⁸⁰ A provisional measure is a presidential decree, which is subject to less vigorous public process but still carries weight of law. See Brenda Brito & Paulo Barreto, *Os Riscos e os Princípios para a Regularização Fundiária na Amazônia*, AMAZON O ESTADO DA AMAZÔNIA (2009), available at http://www.imazon.org.br/novo2008/publicacoes_1er.php?idpub=3557.

¹⁸¹ See Luciano Garcia Rossi & Gustavo Santos Freitas, *Amazon Land Title Program—New Provisional Measure*, BRAZILIAN-AMERICAN CHAMBER OF COMMERCE, <http://www.bacc-ga.com/newsite/web/home/newseditorscolumn.php?menu=4&sub=27&idcol=21> (last visited Mar. 31, 2011).

¹⁸² Tom Phillips, *Brazil grants land rights to squatters living in the Amazon Rainforest*, THE GUARDIAN, June 26, 2009, <http://www.guardian.co.uk/environment/2009/jun/26/amazon-land-rights-brazil>.

¹⁸³ Lei No. 11.952, de 25 de junho de 2009, Col. Leis Rep. Fed. Brasil, dez. 2009 (Braz.), available at http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/11952.htm.

¹⁸⁴ MINISTÉRIO DO DESENVOLVIMENTO AGRÁRIO, TERRA LEGAL: REGULARIZAÇÃO FUNDIÁRIA ACELERADA NA AMAZÔNIA LEGAL 14 (2009), http://www.incra.gov.br/portal/arquivos/institucional/prop_regularizacao_fundiaria_terra_legal.pdf.

¹⁸⁵ See Highlights, *supra* note 13, at 13.

¹⁸⁶ See *id.*

¹⁸⁷ Lei No. 11.952, de 25 de junho de 2009, Col. Leis Rep. Fed. Brasil, dez. 2009 (Braz.), available at http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/lei/11952.htm.

¹⁸⁸ See *id.*

¹⁸⁹ See *id.*; Rossi & Freitas, *supra* note 181.

¹⁹⁰ See Rossi & Freitas, *supra* note 181.

¹⁹¹ See *id.*

¹⁹² See Jessica Intrator, *From Squatter to Settler: Applying the Lessons of 19th Century U.S. Public Land Policy to 21st Century Land Struggles in Brazil*, PUBLIC LAND & NATURAL RESOURCES 17–18 (2009), <http://www.boalt.org/elq/documents/JessicaIntratorLandUsePrize2010.pdf>.

¹⁹³ See *id.* at 18.

¹⁹⁴ See *id.*

¹⁹⁵ See *id.*

¹⁹⁶ See *id.*

¹⁹⁷ See *id.*

¹⁹⁸ See *id.*

¹⁹⁹ See *id.*

²⁰⁰ See *id.*

²⁰¹ See *id.*

²⁰² *Id.*

²⁰³ See Lei No. 11.952, de 25 de junho de 2009, Col. Leis Rep. Fed. Brasil, dez. 2009 (Braz.), available at http://www.planalto.gov.br/ccivil_03/_ato20072010/2009/lei/11952.htm.

²⁰⁴ See MENDONÇA, *supra* note 106, at 32.

²⁰⁵ See Intrator, *supra* note 192, at 22.

²⁰⁶ See *The Provisional Measure MP 458—The Revelry of the Land: Public Declaration of the Land Workers and Environmentalist Alliance in Defense of Land Reform and the Environment*, FÓRUM BRASILEIRO DE ONG E MOVIMENTOS SOCIAIS (Apr. 15, 2009), www.fboms.org.br.

²⁰⁷ See Marina Silva, *Open Letter to the President of Brazil*, AMAZONIA (June 4, 2009), http://www.amazonia.org.br/english/guia/detalhes.cfm?id=314924&tipo=6&cat_id=80&subcat_id=387.

²⁰⁸ See *Federal Prosecutor challenges Constitutionality of MP 458*, BRAZIL DE FATO, (June 25, 2009), <http://www.brasildefato.com.br/v01/agencia/nacional/procuradores-dompf-apontam-inconstitucionalidades-na-mp-458-1>.

²⁰⁹ See Silva, *supra* note 207.

²¹⁰ See Karina Miotto, *Illegal Land Occupation in Terra Legal*, O ECO AMAZONIA (Aug. 6, 2010) <http://www.oecoamazonia.com/en/news/brazil/54-grilagem-no-terra-legal->

²¹¹ See Gary Duffy, *Amazon bill controversy in Brazil*, BBC NEWS, June 23, 2009, <http://news.bbc.co.uk/1/hi/science/nature/8113952.stm>.

²¹² There is a strong movement in Brazil to completely change the civil procedure legislation, which is one of the main reasons why legal suits, including expropriation process, take such a long time. See Borba, *supra* note 85.

²¹³ See generally LA VIA CAMPESINA, *supra* note 89.

²¹⁴ These laws include: Law No. 9393 of December 19, 1996, art. 1; Decree No. 4382 of September 19, 2002, art. 1; Instruction Normativa No. 256 of December 11, 2002; Normativa Instruction No. 256 of December 11, 2002. See MINISTÉRIO DA FAZENDA SECRETARIA DA RECEITA FEDERAL DO BRASIL, IMPOSTO SOBRE A PROPRIEDADE TERRITORIAL (ITR) 25 (2009), www.receita.fazenda.gov.br/Publico/itr/2009/PerguntasITR2009.pdf (Portuguese).

²¹⁵ See Anthony Pereira, *Brazil's Agrarian Reform: Democratic Innovation or Oligarchic Exclusionary Redux?* 45 LATIN AMERICAN POL. & SOC'Y 41, 54 (2003).

²¹⁶ See *id.* at 57.

²¹⁷ See *id.* at 54.

²¹⁸ See *id.*

²¹⁹ See *Taxes*, RECEITA FEDERAL, <http://www.receita.fazenda.gov.br/principal/Ingles/SistemaTributarioBR/Taxes.htm> (last visited Mar. 31, 2011).

²²⁰ See NAVARRO, *supra* note 9, at 278.

²²¹ See Roy L. Prosterman & Tim Hanstad, *Land Reform in the Twenty-First Century: New Challenges, New Responses*, 4 SEATTLE J. FOR SOC. JUST. 763, 769 (2006).

²²² See Hannah Whitman, *Agrarian Reform Under Lula-Marching to a Historical Crossroads* (Feb. 26, 2005), <http://www.mstbrazil.org/?q=node/86>.

²²³ See Mario Osava, *Innovative Small Farmers Set to Redefine Development*, INTER PRESS NEWS AGENCY (June 8, 2009), <http://ipsnews.net/news.asp?idnews=33539>.

²²⁴ See Eduardo Sales Lima, *Colonial Heritage is "Fueled" by Agribusiness: New census data can contribute to government and society to mobilize*, AGENCIA BRASIL (Sept. 10, 2009) <http://www.agenciabrasil.gov.br/>.

²²⁵ See Mendes Pereira, *supra* note 93, at 62.

²²⁶ See NAVARRO, *supra* note 9, at 284.

²²⁷ See *id.* at 277.

²²⁸ See *id.* at 277–78.

²²⁹ See *id.* at 278.

²³⁰ To the extent that the MST and others use violence, they will be criticized for acting outside of the law which may undermine their credibility and subject them to stricter law enforcement. See Borba, *supra* note 85.

²³¹ See NAVARRO, *supra* note 9, at 278.

²³² See *id.*

²³³ See *id.*

²³⁴ See *id.*