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## Land Kills: The Brazilian Experience

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### Abstract

Brazil is a country of continental proportions with a huge territory of over 8.5 million square kilometres (3.3 million square miles). The frequent violence in its countryside could be explained, in simple terms, as land conflicts among the poor, as well as between the wealthy and the poor. Landless worker movements in Brazil are well organized and assist peasants in invading what is considered to be “unproductive land”. Meanwhile, large landholders are also well organized and try to protect their “right to private land”, including armed self-defense. This natural resource – the land – is the main reason for killings in the countryside, which mostly impacts the poorest members of Brazilian society. Although in civil war literature natural resources are usually considered to be one of the determining factors of these conflicts, land itself tends not to be mentioned. This paper analyzes the effect of land concentration on casualties caused by land conflicts. Brazilian municipalities are examined during the redemocratization period, making use of regression analysis regarding subnational data.

### Keywords

Brazil, land disputes, agrarian deaths, social movements, land concentration, peasants, large landholders.

## INTRODUCTION

Until the 1960s, land occupation in Brazil generally tended to take place on riversides. Prior to the 1960s, land occupation was not regarded as a real “problem”, because only small communities occupied the land<sup>1</sup>. The relationship between the peasants and the piece of land that they held was one of occupation, not of legal property – such a mode of occupation passed down through generations without necessarily triggering land conflicts. In Brazil vast areas of land could be found with no owner other than the State itself.

The shortage of land began when the military regime started investing in the Amazon region (mainly in the State of Pará and the Amazon border, in northern Brazil). Three elements exacerbated the land issue causing violent confrontations between the rural rich and the poor (and among the poor as well): mining, cattle-breeding for beef, and logging, all of them interrelated.<sup>2</sup>

One of the main objectives of the military government after the 1964 coup was to develop the country’s agriculture. With this in mind, the Statute of the Land was created, which sought to reduce conflicts throughout Brazil and avoid the spread of ‘communism’ in the countryside by populating the borders, thus protecting the country from external threats, making the land more profitable and the Brazilian market more efficient. This was carried out in places where access was difficult, such as the strip of territory in the Amazon region that shares a border with other South American countries and which, according to the government, needed to be protected and defended in case of international conflicts. One measure taken in order to kickstart agricultural development was to distribute land to enterprises and the rich. Thus, the government began to facilitate loans at low interest rates to companies and individuals, which, as a result, attracted companies that had not previously dealt with land, such as banks, the automobile industry, etc.

Throughout the country, people began to realize that they could benefit from governmental land distribution. The State motto was “*land without people, to people without land*”. However, the middle class and the poor were excluded, as the government land distribution policy was geared to potential investors and developers in the Amazon region, which would supposedly bring about security and economic stability for the benefit of local inhabitants.

Another important change made by the government in order to attract investors was the creation of the duty free zone for industry – the “*Zona Franca*” – in Manaus, the Amazonas State capital, which on the one hand would develop the country technologically, while on the other protect the borders of what still is to the present day an inhospitable region.

Thousands of people started to arrive from all over the country to get hold of a piece of land for the first time in their lives and cultivate different types of crops. However, as stated previously, the land distribution policy was not geared to the ordinary man, who was considered by the State as not having the technical capacity needed to develop the region, in contrast to big companies and wealthy investors.

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<sup>1</sup> Different actors use different terms concerning land appropriation: while landless peasants make use of the term ‘occupation’ of unproductive land, big landowners use the term ‘invasion’. We shall use hereby the term occupation rather than invasion, due to the neutral meaning of this word which does not refer directly to property rights.

<sup>2</sup> This passage was based on field interviews in the south-southeastern region of the state of Pará, where the incidence of violence caused by land conflicts is extremely high. Extensive logging, mining and cattle-breeding may be regarded as the reason for violent conflicts.

In a second phase, after the distribution of land to big companies, the military regime distributed a relatively low number of acres to workers who were searching for land to start a modest land reform. But such land was located mainly in remote areas, with no roads, a multitude of diseases (such as malaria) and with difficult or no access to the middle-sized towns in the Amazon region. Conditions were not appropriate for settlers to survive in far-away small pieces of land with no infrastructure.

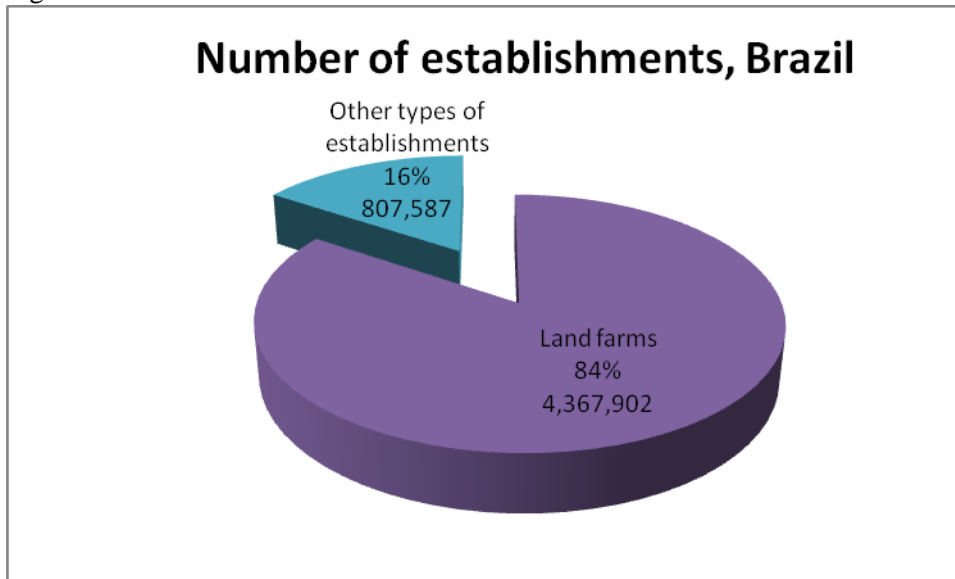
The euphoria triggered by the military government caused the mobilization of thousands of people from different regions of Brazil who were in the search of land. These land seekers would arrive at an area in the countryside that seemed uninhabited and start working the land. The conflict arose when thousands of acres, which the authoritarian regime had distributed among companies and wealthy entrepreneurs in the hope of developing distant regions, were already occupied by settlers. However, most of the new landowners did not live in that territory, but in towns far away from their land possessions. The workers, in search of *free* land, occupied large extensions of already owned land. Future conflict over this issue was inevitable and just a matter of time.

Since the redemocratization period in Brazil (from 1985 onwards), land disputes have, in many cases, turned violent and caused a large number of casualties by different actors, and they have had to be dealt with.

### **CONCENTRATION OF LAND, RURAL POVERTY AND THE BRAZILIAN DEMOCRATIC GOVERNMENTS**

Brazil is known worldwide for its broad social inequality in comparison to other countries<sup>3</sup>, regardless of the fact that it has the 8<sup>th</sup> largest GDP worldwide. Moreover, inequality does not

Figure 1: Number of rural establishments in Brazil.



Source: Data based on the official Brazilian agricultural census, 2006.

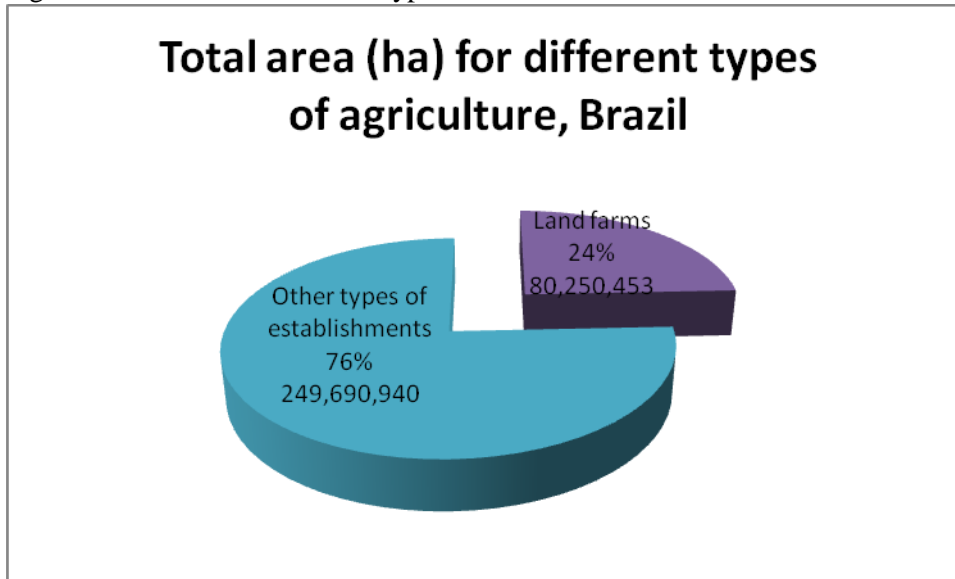
concern family income alone, but also the concentration of the property of land in a country of continental dimensions. Figures 1 and 2 show the disparity in the amount of land belonging to a

<sup>3</sup> According to the CIA Factbook 2011, Brazil ranked as the 12<sup>th</sup> worst nation regarding family income distribution – GINI INDEX 53.9, measured in 2009.

rather small number of large landholders in proportion to farmland in general.

While 84% of rural establishments can be considered family farms in Brazil, they only use less than ¼ of the total area for agricultural purposes as compared to large landowners (next chart). These numbers point to land concentration, as the agricultural census carried out 10 years before the last one (1996) showed that 31% of the total agricultural area belonged to 12% of large landowners. In 10 years, family farmland was reduced by 7% of the total amount, favoring large landholdings by the same percentage.

Figure 2: Total area of different types of rural establishments in Brazil.



Source: Data extracted from the official Brazilian agricultural census, 2006.

Past measurements of land ownership regarding both family farms and large land holdings, show a gradual accumulation of land that has been taking place for decades until the present day in Brazil. Family farms could reduce poverty in the countryside if enough land, technical agricultural knowledge and credit were transferred to peasants. According to research carried out, less concentrated forms of property, such as family farms, can improve peasants' lives, allowing more people to rise above the poverty line (Zimmerman, 2010).

Broadly speaking, poverty is known to affect rural populations more than urban ones. There are proportionally more poverty stricken people in the countryside than in urban areas. The difference is incredibly high, as we can observe in Table 1.

According to the data above, in 1999 there were 23% more poor people in rural areas than poor inhabitants in urban centers throughout Brazil. In 1998, the *per capita* family income in the countryside was R\$102.90, which was equivalent to only 35% of the average family income in urban centers, or R\$292.40 (Schneider and Fialho, 2000, p.120). Brazilian governments have never paid much attention to the population that is scattered in rural Brazil, as their vote does not weigh much in state or national elections and can be easily manipulated.

Both Brazilian and international literature regard the issue of peasant rebellion and insurrection as caused by exacerbated poverty, when conditions for survival are practically nonexistent. Peasants do not rebel when they have the minimum necessary for their families to survive. Such uprisings only

Table 1 – Urban and rural proportion of poor people<sup>4</sup> - Brazil and regions, 1999.

Regions	Urban area	Rural area	Total	Difference favoring urban areas
<b>South</b>	15.7%	28.4%	18.3%	12.7%
<b>South-East</b>	14.9%	34.3%	17.0%	19.4%
<b>North-East</b>	42.9%	59.7%	48.8%	16.8%
<b>Central-West</b>	20.0%	34.0%	22.3%	14.0%
<b>North</b>	35.4%	38.1% <sup>1</sup>	36.2%	2.7%
<b>Brazil</b>	23.1%	46.1%	27.8%	23.0%

Source: *Instituto Cidadania* [Citizenship Institute] (2001).

take place in times of great difficulty, when there is no assistance given to them by the surrounding community, their employers or the State. When their economic situation does not amount to the minimum needed, landless peasants will possibly rebel against the status quo<sup>6</sup> (Scott, 1976), and violence may become a real threat. Organized agrarian violence increased when democracy was reinstated, as many social and political movements, previously declared illegal by the military dictatorship, became legal.

Russett (1964) and Huntington (1968) found evidence that extreme inequality, particularly in land ownership in Third World countries has exerted a significant influence on the incidence of civil conflicts. Human beings (peasants in this case) are utility maximizers and, if compensated by selective incentives such as land, will risk their own lives and engage in conflict (Lichbach, 1994, p.384; Olson, 1965, p.51). Although the aforementioned literature concerns internal conflicts and civil wars, rural Brazil has undergone social turmoil, and social groups with opposite interests have engaged in conflict, which has been and still is the cause for the considerably high number of land dispute casualties.

Brazil has 2.5 million landless laborers (Veiga, 2003), and approximately 4 million small-property owners<sup>7</sup> in rural areas (Graziano, 1999, p.23), who need to find additional means for making a living, which at times are unavailable. Despite this situation, a little over one million families (Leite *et al.*, 2004, p.11) have been settled by the government to date. Rural credit is insufficient and, in fact, such credit lines only benefit few rural settlers. Under such conditions, farmers have no possibilities of exercising their normal activities.<sup>8</sup>

Agrarian violence is the consequence of conflicts between laborers in search of minimum conditions necessary to survive in the countryside and large property owners, as long as there are mechanisms in place to organize the interests of the former, such as unions and social movements. After the end of the military dictatorship, getting organized became an easier task, since the advent of the democratic regime also meant greater political freedom and less government control. As we saw in the introduction, the setting for violence was laid as ordinary men occupied pieces of land, which although unproductive and uninhabited, had already become private property (in some cases through forged property documents, a form of underhanded land-grabbing known as “*grilagem*”).

<sup>4</sup> Poverty line established by the *Projeto Fome Zero* [Zero Hunger Project].

<sup>5</sup> Data only concerning the State of Tocantins.

<sup>6</sup> See moral economy (Scott, 1976).

<sup>7</sup> This group is not well represented by organizations, differently from landless laborers (Graziano, 1999), who are well organized.

<sup>8</sup> An option is to migrate to cities usually located in more prosperous regions of Brazil, such as the South and the Southeast. However, this would deprive them of their traditional way of life and occupation.

The political freedom brought about by redemocratization enabled the articulation of demands among social movements and pro-rural workers organizations, such as the *Movimento dos Trabalhadores Sem Terra* (MST) [Landless Workers' Movement], the *Confederação Nacional dos Trabalhadores na Agricultura* (CONTAG) [National Confederation of Agricultural Workers], the *Comissão Pastoral da Terra* (CPT) [Pastoral Land Commission], and other NGOs.

Table 2: Agrarian reform under democratic governments.

<b>Democratic governments</b>	<b>Number of settled families</b>	<b>Average number of families settled per year</b>	<b>Millions of hectares for land reform</b>
<b>Sarney</b> (1985-90)	82,689	16,538	-
<b>Collor/Franco</b> (1991-4)	35,600	8,900	-
<b>Cardoso</b> (1995-2002)	584,655	73,082	21,1
<b>Lula</b> (2003-2010)	614,093	76,762	48,3
<b>Total</b> (1985-2010)	<b>1,317,037</b>	<b>10,955</b>	-

Source: Brazilian Ministries.

Governments usually bear some responsibility for the consequences of violence in land conflicts, as they may prevent violence by taking proper measures. A democratic government may either prevent conflicts between peasants and large landowners by creating adequate public policies or by adopting a stance in favor of one of the parties, or else by not interfering. The outbreak of violence partly depends on the government's action and, in some cases, its inaction.<sup>9</sup>

After the military had ruled for more than two decades, the Sarney government (1985-1990) established a policy on agrarian reform and the Statute of the Land<sup>10</sup> restored expropriation as an instrument of governmental action. The government believed that this would be the solution to rural violence and thus committed to provide settlement to 1.4 million families, a target much higher than the settlements actually accomplished during Sarney's term (as few as 82,689 families were settled, according to official data).

<sup>9</sup> To be exact, violence does not occur only between the landless and big landholders, but also among the landless and small landowners. For the sake of this paper, we will focus primarily on collective agrarian violence between different social classes.

<sup>10</sup> The Statute of the Land was created by virtue of Law 4,504 of 11/30/1964 during the military regime, which had just held power in Brazil. Its creation was the strategy used by the dictatorial government to appease peasants and large property owners. Its purpose was basically twofold: (1) the accomplishment of the agrarian reform and (2) the development of agriculture. Over four decades after its creation, the Statute of the Land only managed to meet its second goal, as a comprehensive agrarian reform to redistribute land among those who are most in need of it has not taken place.

The government initiative faced opposition by big landowners who, in turn, founded the *União Democrática Ruralista* (UDR) [Ruralist Democratic Union] in 1985, with the sole purpose of opposing the agrarian reform. It was no coincidence that this entity was founded only a few days after the *Plano Nacional de Reforma Agrária* (PNRA) [National Plan of Agrarian Reform] was approved. The UDR was headed by Ronaldo Caiado and was created to represent the big landowners, even by means of a strong lobby in the Brazilian Congress. The new, large, property-owners agenda consisted of two hallmarks: (1) defense of property as an absolute right; and (2) the use of violence to ensure that right (Bruno, 2003, p. 285).

In 1987, the UDR president admitted that this organization had purchased 4,000 guns and that they already had about 70,000 firearms at their disposal (Human Rights Watch, 1991, p.30). On one side, peasants wanted to take possession of land that did not belong to them. On the other, owners of large stretches of land purchased arms and hired gunmen to defend their property. Acting in between the parties in conflict, the police and the army used unnecessary force on the peasants on many occasions.

As if that were not enough, "... there is legal justification both for the property invaders and the owners of these large stretches of land: whereas the constitution informally legitimizes invasions, the Brazilian Civil Code justifies the resistance of large landlords in the attempt to evacuate the occupants. On one hand, the *Instituto Nacional de Colonização e Reforma Agrária* (INCRA) [National Institute of Colonization and Agrarian Reform] advocates in favor of the peasants and, on the other hand, the courts of justice have recourse to laws which allow recovery of the possession of land. As no institution determines which type of claim must prevail over the other, rural conflicts continue" (Alston *et al.*, 1999, p.137). Legal procedures are onerous and time consuming. Thus, even if violence does not break out before one of the sides decides to go to court, tension surrounding court hearings and the legal system's complexities might engender it. In fact, both sides could be tempted that way: while large landowners try to evacuate squatters from their land, squatters may use violence to force institutional intervention, which would grant them land expropriation afterwards. In order to achieve their goals both sides are bound to use violent methods. This is a violence prone model. Adequate agrarian laws and transparent public policies are urgently needed to put an end to such a conflict.

Land occupation is the main strategy of the peasants' movement in their fight for access to land. "Therefore, the landless peasants [as well as some small owners who do not own enough land to provide for their subsistence] put pressure on the federal government to promptly come up with solutions to the conflicts over land and implement rural settlement projects" (Feliciano 2003, p.73), regardless of legal impediments related to the expropriation of occupied pieces of land.

The Fernando Collor / Itamar Franco (Franco was Collor de Mello's successor after his impeachment) administration settled as few as 35,600 families (1990-1994). The demand for land was much higher than the insufficient number managed by the Brazilian federal government. During Cardoso's administration alone, there was a steep increase in the number of settlements. Records indicate that in his two terms of office<sup>11</sup> (1995-2002) settlement was provided for 584,655 families. During Lula's administration (2003-2010) settlement was provided for 614,093 families, according

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<sup>11</sup> These are the official figures. However, they include settlers aided by states and municipalities, areas deprived of any kind of infrastructure, "settlers" who are not occupying any land yet, in addition to people who have dwelled in the same pieces of land for decades.

to the *Ministério do Desenvolvimento Agrário* [Ministry of Agrarian Development] and the INCRA.<sup>12</sup>

Literature available in Brazil on the subject, tends to explain agrarian violence as the result of inequality in land ownership (Almeida 2000; Guanziroli *et al.*, 2001; INCRA, 2001; Kay 2001; Romero 1998; Texeira 2006): peasants occupy and take possession of land as a form of protest and demonstration, jeopardizing the right to private property; large property owners hire gunmen and armed gangs to defend the integrity of their properties; in some cases, the police and the army interfere obeying writs issued by competent courts. The result is violent confrontation of the opposite sides.

Available literature focuses on discussing agrarian reform rather than studying violence itself (Feliciano, 2003; Felício, 2006; Guanziroli *et al.*, 2001). Agrarian violence is usually mentioned as a consequence of the slow and unsuccessful agrarian reform, but it is rarely found at the core of the analysis.

The slow pace at which the agrarian reform has developed in Brazil – in part because of nonexistent revolutionary peasant uprisings at regional or national levels – contributes to the lack of hope for peasants, which would benefit from it. Such sluggishness may pave the way for further radicalism and incite peasants to organize and invade/occupy land, which in turn may trigger a reaction by landowners and the police.

“Successful agrarian reforms [throughout the world] were rather fast, inexpensive and benefitted millions of families. Japan’s land reform, for instance, actually confiscated the land of large property owners and transferred one third of the country’s agricultural land to 4 million families in only 21 months. In present day Brazil, only landowners who voluntarily agree to it may have their large unproductive estates expropriated, as they can sit and wait for judicial decisions which will surely assign an outrageous high amount as compensation” (Veiga,1996).

There is a visible lack of government action concerning property over the land throughout the country, which obviously benefits big landowners, as agrarian reform is not adequately implemented.

## **DEMOCRATIC AGRARIAN VIOLENCE AND ITS FIGURES**

When it comes to violent confrontations, victims usually fall on both sides. Unfortunately, we do not have any data about casualties on sides other than the peasants’. Thus, the data provided in this paper will only regard the peasants and their allies, among whom the death rate is significantly high.

It is possible to identify the most affected groups and sub-groups by breaking them down into 14 different categories of agrarian victims as shown in the next table.<sup>13</sup>

The conflict between the police and/or landowners’ security guards and those who took possession of a piece of land without having the legal right to it generates violence and casualties. The most victimized group as a consequence of conflicts over the land (over ¼ of the total number of

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<sup>12</sup> Nevertheless, movements such as the MST disagree with the disclosed numbers and investment amounts – approximately R\$ 4 billion for purchasing land (Barbieri 2007, interview).

<sup>13</sup> See Annex I for further details.

<sup>14</sup> The *Comissão Pastoral da Terra* only considers the deaths of those belonging to the peasants’ group or their sympathizers.



casualties) are the so-called *posseiros* (squatters). Rural workers and landless peasants follow them, in decreasing order. Land occupation is the cause of numerous fatalities. Small property owners are also victims as a consequence of their attempts to expand their small properties given the fact that the land they own is insufficient to provide for their families' livelihood. Altogether, these four groups account for 64% of all “agrarian killings” in Brazil over the past two decades.

Table 3: Number of casualties<sup>14</sup> in land conflicts (1985 – 2010) by category/profession.

<b>Category/Profession</b>	<b>Absolute numbers</b>	<b>Percentages</b>
Lawyers, public servants	21	1.5
Settlers	76	5.3
Gold-washers	45	3.1
Indians	85	5.9
Leaders	104	7.2
Other	71	4.9
Small land holders	19	1.3
Small owners	148	10.2
Politicians	7	0.5
Squatters	347	24.0
Members of religious organizations	10	0.7
Rural trade unionists	86	6.0
Rural workers	230	15.9
Landless peasants	195	13.5
<b>Total number of casualties</b>	<b>1,444</b>	<b>100</b>

Source: *Comissão Pastoral da Terra* [Pastoral Land Commission] (1985-2010).

Although actions by and violence against landless laborers are overstated by the media, several other groups suffer due to conflicts over the land, such as the indigenous minorities and the so-called *quilombolas* (descendants of fled African slaves), goldwashers, leaders of social movements, settlers, small landholders, rural unionists and members of religious organizations. Very few politicians – who are usually landowners themselves – have been killed. Politicians, in general, do not take a stance in favor of the less privileged strata of rural society, except maybe during election campaigns when they usually approach poor rural voters with empty promises.

A stunning group of victims is that of the settlers, who have already conquered their piece of land and could in theory afford not to participate in the existing conflicts, as they have already benefited from the agrarian reform. However, the pieces of land that were given to them still prove insufficient to provide for their subsistence. Or, alternatively, although they have been granted the long desired-for land, they sympathize with the plight of those who have not benefited from the agrarian reform yet, and may be active in helping them to obtain a piece of land in order to grow crops and rear animals. In some cases the political movements that have assisted them to attain their piece of land put ‘moral’ pressure on them to continue struggling against big landowners and the State on land right issues.

Brazil is a country with highly accentuated regional differences. We usually say that there are many “Brazils”, due to the extreme social inequality and poverty found in some regions, as compared to other regions that enjoy better conditions.

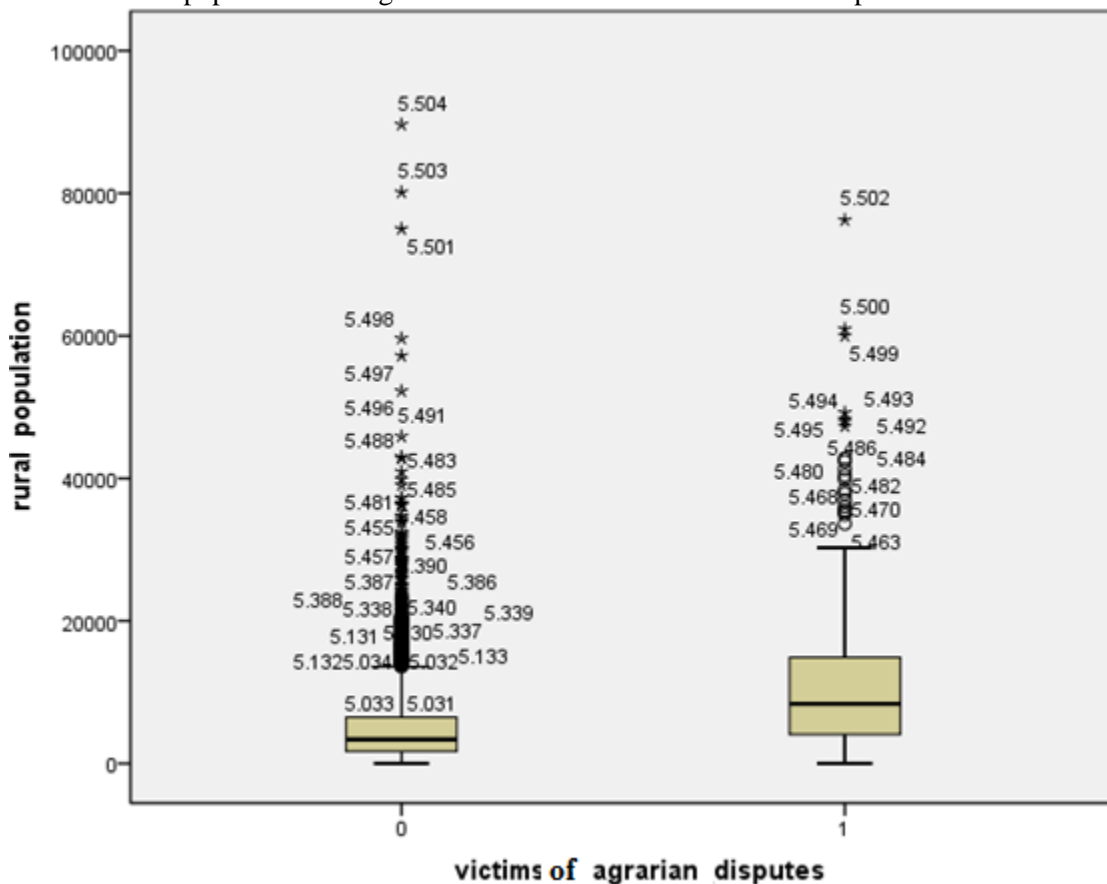
It is important to ascertain how many killings have been committed in each state in absolute numbers, proportionally to the number of municipalities and the number of inhabitants. In this

regard, Pará is the most violent state where 456 agrarian killings were perpetrated between 1985 and 2010, followed by Maranhão with 124 agrarian casualties and Mato Grosso with 121. In other states, victims do not exceed 100 for the 26-year period. The Northern Region is the most violent of all, followed by the Northeastern and the Central-Western regions, compared to the much less violent and developed Southeast and South.

All in all, between 1985 and 2010, agrarian murders in Brazil totaled 1,444, or 0.26 casualties per municipality or 0.38 municipalities per casualty (547 municipalities suffered at least one casualty due to land disputes).

One would reasonably expect that regions with a larger and more concentrated rural population (see Chart 1 below), higher inequality, poverty and illiteracy rate, as well as lower HDI, would be more violent than others due to, among other factors, land disputes for family subsistence.

Chart 1: Rural population and agrarian violence within Brazilian municipalities.



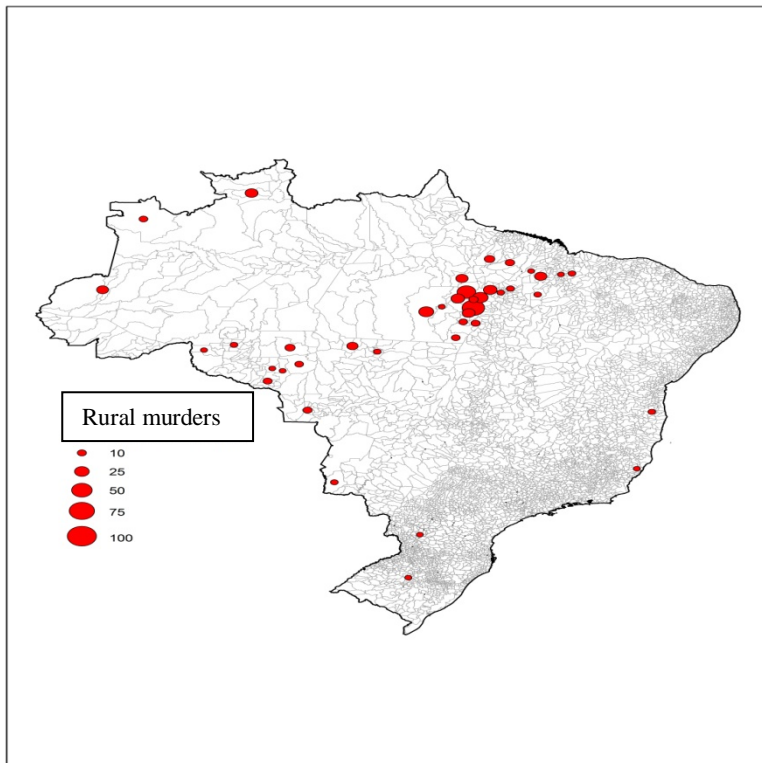
Source: *Instituto Brasileiro de Geografia e Estatística* (IBGE) [Brazilian Institute of Geography and Statistics] census and CPT information about land conflicts (1985-2010).

When in a certain townships rural population is higher, we expect a higher number of casualties as a consequence of violence resulting from land disputes between big landowners and peasants on one hand, and among different types of peasants on the other. Population density might also be a factor, particularly for people living in rural areas who work in agriculture and breed livestock, who therefore need extensive areas. In Chart 1 we have identified higher numbers of agrarian casualties where rural population is larger.

The chart above clearly shows that in the period 1985-2010, municipalities with larger rural populations suffered at least one agrarian killing, as compared to municipalities with no casualties resulting from land disputes, where rural population is lower.

The map of Brazil below clearly shows that the 40 most violent municipalities as regards agrarian fatalities are located within a certain perimeter, forming an arch by the Amazon border. Deforestation and livestock breeding, to avoid having the land labeled as unproductive, may be two of the reasons, as Brazilian legislation states that unproductive land may be expropriated, provided it does not meet the “social function” it should. Soy bean and cocoa crops are expanding from Mato Grosso towards the Amazon border, which causes the price of land to rise, increasing violence as a result of land disputes.

Map 1: Agrarian casualties in the countryside in the 40 most violent municipalities in Brazil, 1985-2010.



Source: *Comissão Pastoral da Terra* (1985-2010).

## DATA ANALYSIS

In this section we present empirical evidence through descriptive analysis and then test the variables that we presume may explain the killings per municipality resulting from conflicts over the land. Such variables are: rural population, large landowners’ total area, total profit, total credit and low-income large landowners’ area.

Where rural population growth is higher, there is a higher number of municipalities which have suffered at least one rural killing during the period studied. This probably shows that a larger population inhabiting the same area of land results in insufficient land for family subsistence.

We have divided agriculture into two different types: family farms and large landowner agriculture (hereinafter called large land holdings). The second type consists of an extensive piece of land with hired workers, as opposed to the first type (family farms), in which a family occupies a small piece of land and works on it. The concentration of land is implicit in the second type of agriculture, in contrast to family farms. The table below shows the following: where large landowners obtain possession over larger pieces of land (in the last quartile) more municipalities suffer agrarian killings. We can infer that this is the case because less extensions of land are available for smaller farming units.

Where large landowners make higher profit from their estates, a larger number of municipalities show fatality rates as a result of land conflicts. As money is synonymous with power, large landowners can more easily exploit their workers when they have higher resources at their disposal.

Credit also translates into more capital and therefore more power, which results in a behavior similar to our previous assumption. Where more credit is available for large landowners, a higher number of municipalities suffer rural casualties.

Contrary to what is commonly understood, there are low-income large landowners as well. These are holders of large areas of land who do not have the resources to invest in their estates to make them highly productive, so they only invest in wire fences surrounding their property and armed guards to protect their land from squatters. This is another factor responsible for a higher number of municipalities suffering agrarian killings in those regions.

The table below, shows descriptive data regarding the variables that we assume contribute to the occurrence of land conflict casualties in Brazil.

Table 4: Descriptive inference for five independent variables concerning fatalities due to land disputes in Brazil during the redemocratization period (1985-2010).

Quartile	Rural population	Total large landowners' area	Large landowners' total profit	Large landowners' total credit	Low-income large landowners area
1	29	40	75	97	58
2	83	87	91	127	78
3	114	116	171	142	129
4	282	266	172	143	243
Total	508	509	509	509	508

Source: Based on INCRA 2000 data and CPT 1985-2010 data.

This aggregated table includes municipalities that suffered at least one agrarian casualty resulting from land disputes. The figures are shown in quartiles; we can see that with regard to each variable, the number of municipalities with agrarian victims grows, thus, the number of municipalities with casualties is higher in the last quartile than in the previous ones. We can infer then that higher rural population, larger estates, higher profit and higher credit available for large landowners, plus larger

estates for low-income large landowners are all plausible causes for land conflicts in Brazil during the redemocratization period.

The next step, however, is to attempt to explain the aforementioned through a causal analysis, by means of binary logistic regression with random effect multivariate analysis, regarding the same variables used before, as shown in the following table.

Table 5: Independent variables to be used in the regression analysis.

<b>Independent Variables</b>			
<b>Name</b>	<b>Description</b>	<b>Source</b>	<b>Values</b>
RURAL POPULATION	Number of rural population	IBGE (2000)	Transformed into quartiles
LARGE LANDOWNERS' TOTAL AREA	Large landowners total area	INCRA/FAO (2000)	Transformed into quartiles
LARGE LANDOWNERS' TOTAL CREDIT	Large landowners total credit	INCRA/FAO (2000)	Transformed into quartiles
LARGE LANDOWNERS' TOTAL PROFIT	Large landowners total profit	INCRA/FAO (2000)	Transformed into quartiles
AREA OF LOW-INCOME LARGE LANDOWNERS	Area of low-income large landowners (maximum amount R\$27,500/year)	INCRA/FAO (2000)	Transformed into quartiles

Source: Author's data

Table 6: Municipalities suffering agrarian casualties in Brazil.<sup>15</sup>

<b>Independent variables</b>	<b>Odds Ratio</b>
RURAL POPULATION	2.060*** (0.053)
LARGE LANDOWNERS' TOTAL AREA	1.481*** (0.073)
LARGE LANDOWNERS' TOTAL PROFIT	0.942 (0.061)
LARGE LANDOWNERS' TOTAL CREDIT	0.758*** (0.053)
AREA OF LOW-INCOME LARGE LANDOWNERS	1.545*** (0.080)
H&L GOODNESS OF FIT TEST	0.125

Source: Author's data

The empirical evidence in the regression analysis above shows that during the period 1985-2010 it is possible to explain casualties occurred in Brazilian municipalities in which at least one fatality took place, as a consequence of land disputes. Out of the five independent variables used in the model presented, only the variable LARGE LANDOWNERS' TOTAL PROFIT, was not significant. The other variables were significant at the level of 0.01.

<sup>15</sup> Significance: \*\*\*  $p \leq 0.01$  OR (*odds ratio*) in the first line of each variable; the standard-error follows in parentheses. N=5,505 observations (or municipalities) for the year 2000.

The non significant variable may be explained by the fact that when large landowners make a profit, they probably invest at least part of it in the productive improvement of the farm, including better conditions for hired rural workers, etc.

All the other variables make our model robust:

- a. With every person we add to the total RURAL POPULATION, the probability of finding a municipality with agrarian casualties increases by more than double (2.06);
- b. With every additional hectare added to the property of large landowners, we observe a one-and-a-half time (1.481) higher risk for a municipality to suffer at least one agrarian casualty;
- c. With every extra Brazilian Real (R\$) added to the large landowners' credit amount, the probability of finding a municipality with at least one fatality resulting from land disputes drops by 75% (0.758);
- d. With every hectare added to the property of low-income large landowners, the probability of finding a municipality with at least one fatality resulting from land disputes increases more than one-and-a-half time (1.545).

The Brazilian governments that took office since the redemocratization (1985) have carried out a rather limited and modest land reform. Governments seem to have preferred not to become involved with either side of the conflict and have shown no initiative in terms of implementing a "revolutionary" land reform. Public policies for land reform within democratic regimes should be implemented after consulting civil society. The heavy price paid for non-action has become dearer as time goes by. These days, even the judicial sector seems to be carrying out public policies, which should actually be a task of the executive sector, judging cases and issuing sentences concerning land conflicts.

## CONCLUSION

Politics exerts a direct influence on agrarian violence, but so does economics since subsistence based on the land is essential to maintain order in the countryside all around the globe. Brazil is not unique in this sense. Poverty, as we have seen, is very severe in rural areas. The sky-high levels of inflation that Brazilians suffered from until the beginning of the 1990s worsened the plight of the peasants. Where movements exist with the ability to organize peasants to struggle for their subsistence (and indirectly for land), confrontation will follow. In Brazil, this was particularly true during the redemocratization period, when unions, social and religious movements were legalized and able to act freely. However, the State did and continues to exert some level of repression on them.

Landowners will not give up their private property rights. They will fight to keep their large landholdings in their own hands. Confrontational strategies on both sides are in place and no side seems to reject violence as a means to an end. Both landowners and peasants are aware of the results; the former with regard to their "legal" rights (when no illegal land is under discussion), and the latter with regard to their "moral" right to "justice and equality".

Only the State can prevent confrontation between the deprived and the wealthy, by means of public policies and measures to promote both the reduction of inequality and peaceful solutions for such conflicts, which seem to be inevitable.

In order to address the situation, agrarian reform is mandatory. What level of reform should be carried out is still a matter under discussion. High concentration of the property of land in Brazil is a

fact, but many unproductive landowners would be happy to receive “fair” compensation for their large properties from the Brazilian government to implement the agrarian reform. Organizations should not, however, manipulate innocent people for their own benefit – this can only generate political instability and worsen the situation of the peasantry.

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## ANNEX I

Explanation of the categories listed in Table 3 (page n.48).

Agrarian casualties due to land conflicts between 1985 and 2010 per municipality:  
Profession/Category

1. Lawyer, manager, land surveyor, ecologist, public workers (including technicians, park rangers), NGO employees, the press;
2. Settler: an individual who has been assigned a piece of land by the government (usually after agrarian reform);
3. Goldwasher: precious metal/stone seeker;
4. Indian: member of indigenous minorities (including *quilombola* – Afro-Brazilian descendant of slaves who lives in a *quilombo*);
5. Movement or community/cooperative leader (including coordinators);
6. Others: all other occupations which do not fit into the definitions found in Table 3, or for which no information is available (includes children, fishermen, drivers, tractor drivers, metal workers, traders, photographers, aggregated workers, domestic workers, cowboys, police officers (who refuse to abide by police/legal orders);
7. Small landholder: an individual who cultivates a small piece of land in exchange for fixed or variable income, in cash or products (including colonist and joint-owner – farmer who shares land, activity and profits with landowner);
8. Small property owner: owner of a small piece of land (including small producer, ploughman, farmer, riparian settler, owner);
9. Politician (municipal, state or federal politicians);
10. Squatter: an individual who occupies vacant land (unoccupied, uninhabited land);
11. Religious person: an individual who belongs to a religious order or religious organization (including priests, clergymen, nuns and suchlike);
12. Unionist: an individual member of a union for the defense of rural workers such as the *Sindicato dos Trabalhadores Rurais* (STR) [Rural Workers' Union] or any other union of similar nature, including their presidents, managers, and employees;
13. Rural laborer: wage-earning rural employee (including farm employee – *peão*, horse, donkey and mule caretakers; *bóias-frias* – rural laborers who do not have a formal labor bond with any employer and bring their own meals from home to their workplace; cultivators and harvesters of sugar-cane, hearts of palm and *seringueiros* – workers who extract rubber from rubber trees);
14. Landless: rural laborers who do not own the land on which they live and work, including *sitiantes* (illegal landholders).