

The Cattle Realm - A new phase in the livestock colonization of Brazilian Amazonia

Original Title in Portuguese: O Reino do Gado - Uma nova fase na pecuarização da Amazônia Brasileira

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The full report in Portuguese is available on the web at <http://www.amazonia.org.br/arquivos/259381.pdf>

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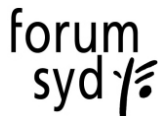
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The Cattle Realm

highlights

Sugarcane expansion, resurgence of soybean prices and the corn explosion were among the most controversial themes last year in Brazil, reflecting domestic and external trends. The advance of the agricultural frontier into forests, particularly in the Amazon, stimulated international discussion, especially in the light of climate change negotiations. But in reality, whatever other factors may be involved in the transformation and displacement of agricultural activities, land use change in the Amazon is first and foremost a product of ranching. It is on the hooves of cattle, out on the forest fringe, where the repercussions of investments and alterations in food or energy consumption are felt. The principal indirect impacts around large infrastructure investments are also generally associated with cattle expansion. Ranching in the Amazon spread at an unprecedented rate over the past five years, and now requires additional and undivided attention on the part of government authorities, the market chain, financial institutions, scientists and civil society organizations. Today, Brazil still underestimates or is simply unaware of the dimension and dynamics of this phenomenon.

✂ 1.1 In 2007, for the first time, the Legal Amazon^[1] passed the historical threshold of 10 million head of cattle slaughtered, with an increase of 46% over the figure in 2004. Slaughterhouses in the Amazon accounted for 41% of all head of cattle processed in Brazil in 2007, compared with 34% in 2004. In 2006, the offtake (% of the total herd slaughtered each year) grew to the point that it exceeded the natural growth of the herd, a rate of growth itself considered relatively high due to the good productivity of areas used for ranching in the Amazon. This occurred due to an expressive growth in slaughter of females. Growth in production in the Amazon was decisive for Brazil to become, since 2004, the second largest global producer of beef, even when the European Union is treated as a single country.

✂ 1.2 The cattle herd in the Legal Amazon reached approximately 74 million head, or 3.3 head per inhabitant, triple the national average. In Mato Grosso, this ratio attained 9.3 head per inhabitant; in Rondônia, 7.7. For every four additional head of cattle in Brazil in the last five years, three were added in the Amazon.

✂ 1.3 Between December 2003 and the same month in 2006 (most recent data regarding the herd size), there was hardly any growth outside of the Legal Amazon; 96% of all growth registered in this period in the country (equivalent to approximately 10 million head) is from the Amazon.

✂ 1.4 The growth in beef production in the Amazon (estimated in approximately 1.5 million tons carcass equivalent during the last five years) outpaced the increase in exports registered over the same period (approximately 1.4 million tons carcass equiv.). It was therefore the increase in Amazon production that permitted Brazil to take the lead as of 2004 in beef

^[1] The Legal Amazon includes the states of Mato Grosso, Rondônia, Acre, Amazonas, Roraima, Amapá, Pará, Tocantins and Maranhão

exports, well out in front of its competitors. In 2007, Brazil exported more beef than the second and third place countries taken together.

☞1.5 One third of Brazilian fresh beef exports in 2007 came from direct exports from the Amazon, notably from the states of Mato Grosso, Pará, Rondônia and Tocantins. Since 2004, Pará increased its direct exports (by weight) by 7,800%, Rondônia by 1,350%, Tocantins by 150% and Mato Grosso by 360%. These data do not include exports of live cattle by Pará that exceeded 200,000 head in 2007. Mato Grosso mainly exported to Russia, Egypt, China (via Hong Kong), United Kingdom, Italy, Germany and the United States. Rondônia's principal importers included Russia, Egypt, China and the United Kingdom. Pará, whose exports boomed since mid-2007, has Israel, Egypt, China, Saudi Arabia, Ivory Coast, Lebanon and Angola as main importers.

☞1.6 The removal of restrictions against the Amazon region for control of hoof-and-mouth disease not only placed it in the same phytosanitary category as other regions of the country, but made it a zone of preference for some importers. The new phenomenon is that the south and southeast regions were once again threatened by this disease, owing to their greater contact and integration with infected areas. The substitution of ranching by other, more profitable uses of land (grain, sugarcane, urbanization, etc.) in the south and southeast regions, and the facility of land access in the Amazon, may have contributed to a progressive transference of the herd to the North. Ranchers who transferred their herds to the Amazon now participate, with lesser restrictions, in the growing export market. In this sense, recent commercial restrictions imposed by the European Union and other countries may actually be contributing to the pace of ranch expansion in the Amazon.

☞1.7 The growth in industrial capacity, with the proliferation of new slaughterhouses and the arrival in the region of the five largest exporters contributed, at least in some poles, to the expansion of ranching during the last few years. The majority of the nearly 200 slaughterhouses in operation in the region should be considered illegal, including the industrial segment. Those that held a Federal Inspection Service (SIF) registry grew from 27 in 2004 to 87 by the end of 2007. Even these, however, are supplied by largely illegal ranchers from the point of view of land tenure, labor and environmental legislation. For example, as of January 2007, 62% of enterprises that are on the “dirty list” of slave labor by the Labor Ministry were Amazon ranches. Slaughterhouses responsible for more than 73% of Brazilian exports acquired their products from ranches that operated with slave labor between 2006 and 2007.

☞1.8 There coexist today in the Amazon a range of productivity patterns, in accordance with the profile of ranchers and different regions. The stocking rate varies from 0.4 head to 3.8 head per hectare, varying with soil fertility, previous land use and pasture management, as well as genetic material and management of the herd itself. The average regional rate is 1.4 head per hectare. Pastures recently converted from forests possess greatest fertility, a factor that stimulates expansion of the ranching frontier.

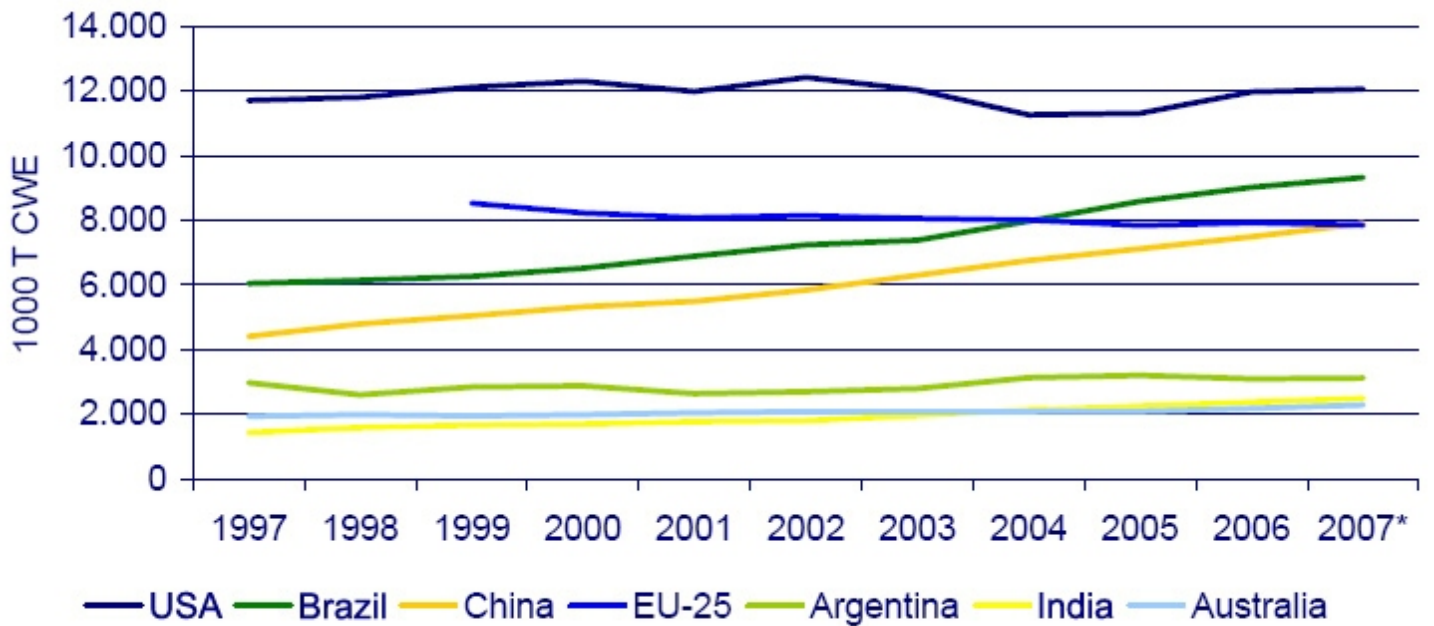
☞1.9 The explosion of ranching in the Amazon over the last decade was responsible for a volume of emissions of greenhouse gases of between 9 and 12 billion tons of CO₂-equivalent (including land use change and enteric fermentation of the herd, but without taking processing and transport into account), that is,

an order of magnitude comparable in volume to two years of emissions by the United States, the highest emitting country in the world.

⌘1.10 Lack of organization and profound asymmetries in the beef supply chain offer the opportunity for actions to improve control, security, transparency and organization in a business undergoing rapid transformation and which is growing at an unprecedented and unpredictable rate. Lack of investment in the recuperation of degraded pastures and the lack of a focus on small production impede the dissemination of sustainable practices.

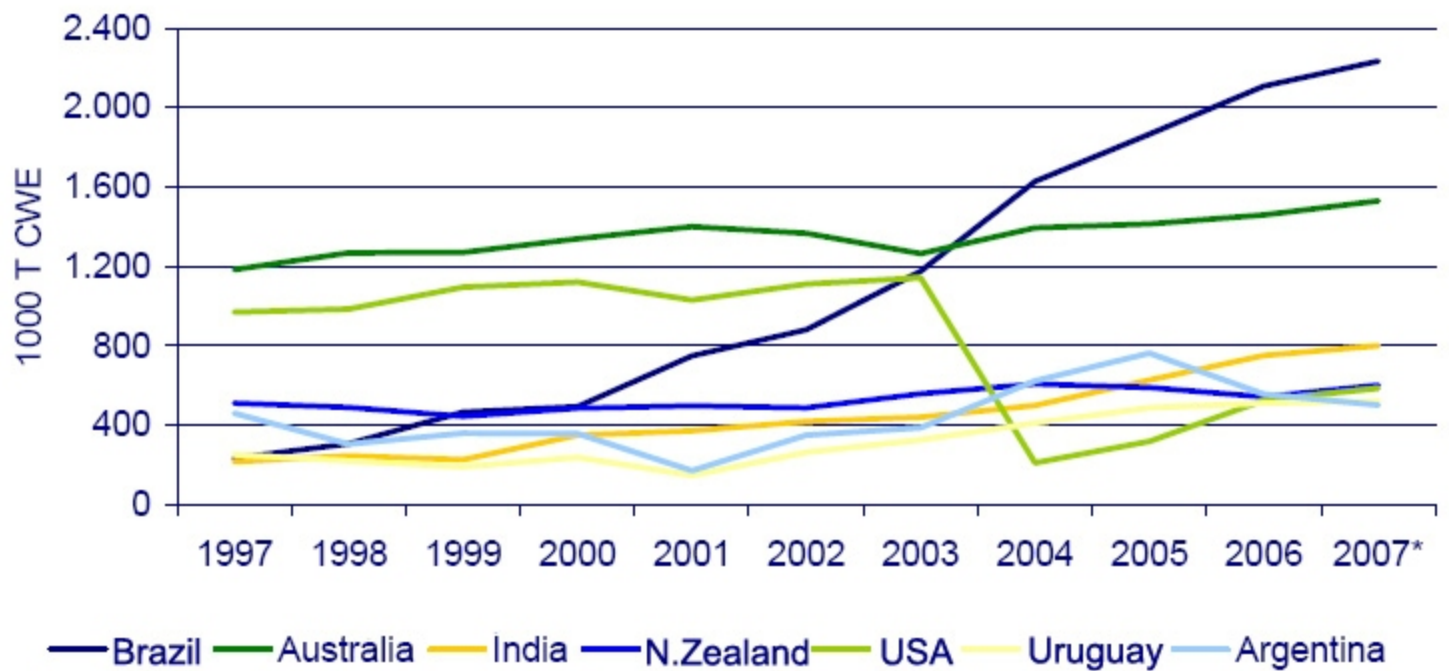
⌘1.11 The establishment of criteria and standards, whether specific to the productive unit or of wider coverage and related to regional land use, can contribute to the transparency and structuring of the chain, but its implementation tends to depend on the effective establishment of a reference system for verification and certification over the entire agricultural and livestock sector.

Figure 1
World Beef Production



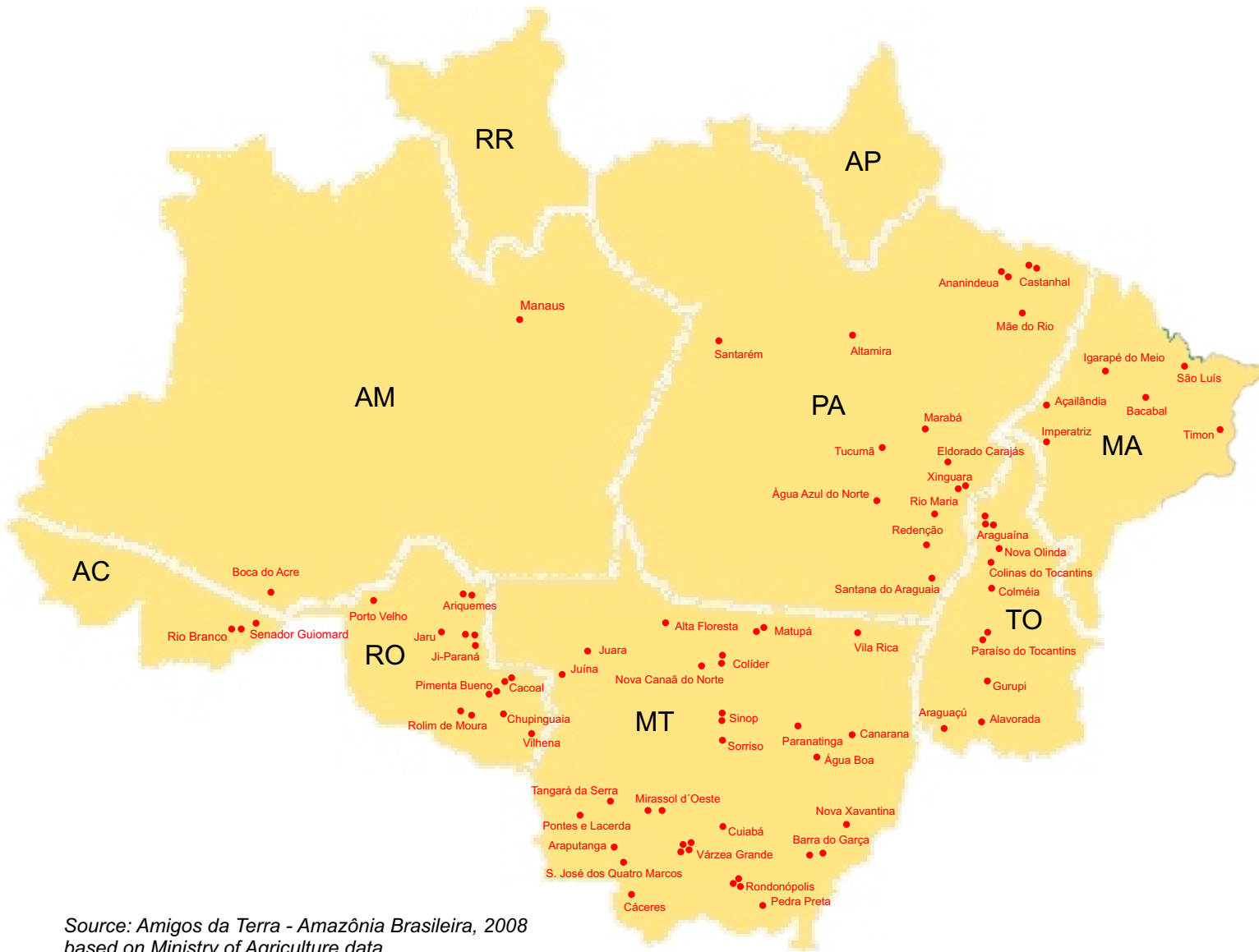
Source: ABIEC with data from USDA.
* Projection

Figure 2
World Beef Exports



Source: ABIEC with data from USDA.
* Projection

Figure 3
Slaughterhouses with
Federal Registry in the
Legal Amazon - December 2007



Source: Amigos da Terra - Amazônia Brasileira, 2008
 based on Ministry of Agriculture data

Table 1
Principal Importers of Brazilian Beef (Jan-Nov 2007)

Country	Weight in tons	Value in US\$ (000)
Russia	428,877	907,484
The Netherlands	59,846	331,826
Egypt	176,571	331,234
USA	62,353	306,054
Italy	59,414	275,391
United Kingdom	80,496	261,963
China incl. Hong Kong	86,846	171,964
Germany	22,472	135,387
Iran	56,841	132,733

*Source: Amigos da Terra - Amazônia Brasileira, 2008
based on Ministry of Development data*

Table 2
Cattle Herd Size in the Legal Amazon and in Brazil (1994-2006)

Brazil and States	1994	1995	1996	1997	1998	1999
Brazil	158,243,229	161,227,938	158,288,540	161,416,157	163,154,357	164,621,038
Rondônia	3,469,519	3,928,027	3,937,291	4,330,932	5,104,233	5,441,734
Acre	464,523	471,434	853,264	862,534	906,881	929,999
Amazonas	746,638	805,804	733,910	770,805	809,302	826,025
Roraima	285,596	282,049	400,334	377,546	424,700	480,500
Pará	7,539,452	8,058,029	6,751,480	7,539,154	8,337,181	8,862,649
Amapá	86,221	93,349	63,648	65,953	74,508	76,734
Tocantins	5,374,168	5,544,400	5,242,655	5,350,885	5,441,860	5,813,170
Maranhão	4,101,939	4,162,059	3,935,754	3,905,311	3,936,949	3,966,430
Mato Grosso	12,653,943	14,153,541	15,573,094	16,337,986	16,751,508	17,242,935
Amazônia Legal	34,721,999	37,498,692	37,491,430	39,541,106	41,787,122	43,640,176

Brazil and States	2001	2002	2003	2004	2005	2006
Brazil	176,388,726	185,348,838	195,551,576	204,512,737	207,156,696	205,886,244
Rondônia	6,605,034	8,039,890	9,392,354	10,671,440	11,349,000	11,484,162
Acre	1,672,598	1,817,467	1,874,804	2,062,690	2,313,185	2,452,915
Amazonas	863,736	894,856	1,121,009	1,156,723	1,197,171	1,243,358
Roraima	438,000	423,000	423,400	459,000	507,000	508,600
Pará	11,046,992	12,190,597	13,376,606	17,430,496	18,063,669	17,501,678
Amapá	87,197	83,901	81,674	82,243	96,599	109,081
Tocantins	6,570,653	6,979,102	7,659,743	7,924,546	7,961,926	7,760,590
Maranhão	4,483,209	4,776,278	5,514,167	5,928,131	6,448,948	6,613,270
Mato Grosso	19,921,615	22,183,695	24,613,718	25,918,998	26,651,500	26,064,332

Source: Amigos da Terra - Amazônia Brasileira, 2008 based on Brazillian Institute of Geography and Statistics data

Table 3
Change in Cattle Slaughter in the
Legal Amazon (in units)

State	2004		2005	
	Nº Head Slaughtered	% of National Slaughter	Nº Head Slaughtered	% of National Slaughter
Acre	121,768	0.6	126,498	0.6
Amapá*	7,380	0.04	8,730	0.04
Amazonas	0		30,315	0.1
Maranhão	369,577	1.8	349,341	1.5
Mato Grosso	3,340,452	16.3	3,992,697	17.6
Pará	1,388,827	6.8	1,503,696	6.6
Rondônia	1,123,470	5.5	1,272,068	5.6
Roraima	21,799	0.1	41,473	0.2
Tocantins	659,557	3.2	815,392	3.6

Amazônia Legal	7,032,830	34	8,140,210	36
Brazil	20,508,448	100	22,623,602	100

State	2006		2007		
	Nº Head Slaughtered	% of National Slaughter	Nº Head Slaughtered (through Sept.)	** nº Head Slaughtered (projection 2007)	% of National Slaughter (projection 2007)
Acre	150,672	0.6	203,105	270,807	1.1
Amapá*	9,810	0.04	0	9,810	0.04
Amazonas	57,877	0.2	14,476	19,301	0.1
Maranhão	522,450	2.1	328,929	438,572	1.7
Mato Grosso	4,597,675	18.6	3,448,666	4,598,221	18.2
Pará	1,702,274	6.9	1,458,708	1,944,944	7.7
Rondônia	1,648,987	6.7	1,464,353	1,952,471	7.7
Roraima	45,676	0.2	29,353	39,137	0.2
Tocantins	1,061,732	4.3	831,814	1,109,085	4.4

Amazônia Legal	9,797,153	40	7,779,404	10,382,349	41
Brazil	24,669,907	100	18,938,869	25,251,825	100

* Estimate based on projection of 9% over the herd size, due to insufficient SIPA/DFA-AP data.

** Projection through December 2007 based on average of period Jan-Sept. 2007.

Source: Amigos da Terra - Amazônia Brasileira, 2008

Based on data from Ministry of Agriculture, Livestock Management and Supply; SIPA

(Inspection Service for Products of Animal Origin); DFA (Federal Agricultural Delegation)

Table 4
Exports of Fresh Beef from the Legal Amazon

State	2004		2005	
	Value US\$ FOB	Net Weight (tons)	Value US\$ FOB	Net Weight (tons)
Mato Grosso	132,599,558	92,068.396	249,135,250	146,093.456
Pará	248,837	189.055	963,295	565.133
Rondônia	12,362,022	8,172.085	36,793,979	20,707.376
Tocantins	10,210,584	6,893.626	12,697,170	8,272.277
TOTAL	155,421,001	107,323.162	299,589,694	175,638.242

State	2006		2007 (Jan-Oct)		2007 (Projection Jan-Dec)*	
	Value US\$ FOB	Net Weight (tons)	Value US\$ FOB	Net Weight (tons)	Value US\$ FOB	Net Weight (tons)
Mato Grosso	587,347,673	260,732.232	592,723,721	265,825.913	790,298,295	354,434.551
Pará	21,008,148	9,739.170	23,668,157	11,750.224	31,557,543	15,666.965
Rondônia	124,894,227	50,982.921	165,745,288	80,209.939	220,993,717	106,946.585
Tocantins	53,521,918	24,348.791	23,958,004	12,604.108	31,944,005	16,805.477
TOTAL	786,771,966	345,803.114	806,095,170	370,390.184	1,074,793,560	493,853.579

Source: Amigos da Terra- Amazônia Brasileira, 2008 based on Ministry of Development data

*projection until December, 2007 based on average of the period between January and October, 2007