

# Livestock



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# Livestock policy in the Brazilian Amazonia colonization

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## INTRODUCTION

Half a century after the colonization of the Brazilian Amazonia launched in the 1960s by the military government, the frontier – as it has often been called – seems more than ever to have reached a decisive stage. The pioneer phase is just about finished. All the elements of the puzzle are there, have been brought in or built, and have been organized, gradually or intermittently, with more or less reluctance, in a logic of construction not always very well coordinated. Many authors have mentioned the central role of livestock in the colonization of Amazonia (Santiago, 1972; Ianni, 1978; Moran, 1993; Veiga et al., 2004; Sayago et al., 2004; Walker et al., 2009), in particular as one of the main drivers of deforestation (Schmink and Wood, 1992; Droulers, 1995; Faminow, 1998; Treccani, 2001; Caldas et al., 2002; Porro et al. 2002; Tourrand et al., 2004; Pacheco, 2009a). Also, the ‘colonization by the cattle leg’ (*a colonização pela pata do boi*) and the size of the herds, as a means of differentiating between the large inevitably dominant and the small necessarily oppressed, have contributed to making cattle breeding as the ‘bad guy’ (*vilão*) of Amazonia, an expression that means the entity responsible for many evils of the regional rural society. This ubiquity of livestock farming in Amazonia’s recent history makes it an excellent observation post of the dynamics under way since the beginning of colonization, including the successive policies implemented in the region. Thus, the objective of this chapter is to present, based on a diachronic analysis, the main steps of livestock farming in the Brazilian Amazonia and the policies that have been associated with it.

First of all, Amazonia means different things, even diversity is a major biome constant (Figure 1/1). As shown on the map in Figure 1, there is the Brazilian Amazonia (Figures 1/2 and 1/4), which alone covers nearly two-thirds of the Amazon basin, the Amazonia of Guyana in the northeast and the Amazonia of the Andean countries

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in the east (Figures 1/2 and 1/3). There is the Orinoco basin or Llanos biome (Figure 1/1) which may or may not be included in Amazonia. Within Brazil, we can distinguish Legal Amazonia (1/4), which includes in a vast administrative space Amazonian ecosystems strictly speaking (Amazon Rainforest, Figure 1/5) and some pre-Amazonian ecosystems with characteristics closer to those of neighboring biomes, such as the Cerrado of the western part of the state of Maranhão (MA), the center of the states of Tocantins (TO) and Mato Grosso (MT), or the savannas of the state of Roraima (RR) to the north.



Figure 1: Some of the diverse names of the Brazilian Amazonia

Moreover, colonization has not been uniform because it has been forced to take into account the constraints and specificities of each ecosystem. This has led to different dynamics in the major regions of Amazonia. Moreover, following Droulers (1995), the scientific community distinguished the 'Amazonia of the Rivers' (*Amazônia dos Rios*) from the colonial phase of the late 19th century and the first half of the 20th century. The Amazonia of the Rivers is populated by Amerindian and Caboclo communities (resulting from successive crossbreeding between Amerindian populations, slaves and settlers). These populations are settled around rivers, the main transport routes. On the other hand, the 'Amazonia of the Roads' (*Amazônia das Estradas*) is populated by migrants from the colonization set up in the second half of the 20th century. These migrants are settled along the roads and tracks built for colonization and going as far as the heart of the forest massifs. Our scope of observation was limited to the colonization along the roads of Brazilian

Eastern Amazonia, and more specifically to that of the state of Pará with three sub-regions: Redenção and the south of Pará State around Redenção at the border with Tocantins and Mato Grosso states; Altamira and the Trans-Amazonian Highway in the center of Pará State; and Paragominas in the northeast of Pará State at the border with Maranhão State.

This chapter presents a chronicle of the successive public policies in general, and livestock policies in particular, implemented in Brazilian Eastern Amazonia since the beginning of colonization. Presented phase by phase, the observations are based on livestock issues for the reasons previously indicated; the chronicle also focuses on the different activities concerning rural environment.

## PREFACE OR COLONIZATION GESTATION MORE THAN HALF A CENTURY AGO

Livestock farming has reportedly been present in Brazilian Eastern Amazonia since the first Portuguese settled in Belém Region (Velho, 1972; Vaz, 2013). Arrived with the settlers' boats, livestock has been from the beginning an essential component of the farms located on the outskirts of Belém, along the Atlantic Coast, then of the railway crossing Bragantine, a region located in the east of Belém City. This is evidenced by the two bust statues at the entrance of the former railway station of Belém built during the rubber era at the end of the 19th century. The transport of cattle by river on the Guamá, Tocantins and Pará rivers for slaughter to supply Belém's market is also mentioned. The island of Marajó, located on the other side of the southern mouth of the Amazon River, was also a breeding area very early on, because of the presence of vast savannas suitable for this activity. Finally, according to Vaz (2013), the arrival of livestock in southern Pará is more recent, by the end of the 19th, then by the beginning of the 20th century. These various introductions could explain why the first pioneers of the mid-20th century found a local workforce accustomed to handling livestock.

## 1960S: BIRTH OF COLONIZATION

As early as the 1950s, alongside traders searching in the Amazonia for various 'drugs of the bush' (*drogas do Sertão*) (gum, rubber, aromatic and medicinal plants, and wild animal skins) to sell them in other parts of Brazil, the forerunners traveled through the Amazonia, some in search of gold mines, others to delineate their future lands and obtain titles that could be traded later on (Vaz, 2013). Their presence in the region was justified in large part by the imminent arrival of colonization. Indeed, several of them had experienced or witnessed similar land speculation a few years earlier during the colonization of the Cerrado (Savanna of Central Brazil) and Mata Atlantica (Atlantic Forest along the coast) biomes. They had been able

to appraise the great opportunities of the land and thus positioned themselves in Amazonia very early on. As soon as colonization was officially launched in the mid-1960s, land was available for sale to migrants who had decided to settle.

The proposal for Amazonia aimed to develop and integrate the region into the national and international market through i) the construction of transport infrastructure (roads, ports and airports allowing the arrival of migrants, equipment and inputs, as well as the flow of production), ii) the allocation of land to any individual or company undertaking to develop it with or without the support of loans at very attractive rates granted by the two public banks set up for this purpose, BASA (*Banco da Amazônia SA*) and SUDAM (*Superintendência do Desenvolvimento da Amazônia*), and iii) numerous tax advantages granted to big companies, and national and international economic groups for any establishment.

In part to secure the national territory against the possible extension of the Araguaia guerrilla, the military government preferred to allocate land to companies from the Sudeste states, with priority given to São Paulo and Minas Gerais, via attractive financial incentives based on tax exemption for all investments in Amazonia (Veiga et al., 2004). The land unit allocated was approximately 4500 hectares. A few big companies committed themselves to several units, even several dozen units, as shown by the land allocation map drawn up by Paragassu in 1973 based on 1968 cadastral data. These land allocations concerned only part of the land, most of which remained under the control of the state of Pará or the federal government. In addition, in various regions made accessible by the opening of tracks, private investors, with or without the support of public authorities, have also embarked on settlement projects to receive small migrants in search of land, particularly in Paragominas Region.

It should be recalled that all the authors agreed that there are three main factors at the root of colonization: the need to secure the national territory against the views of neighboring countries and guerrillas (*integrar para não entregar*: integrate so as not to be forced to give); the exploitation of soil resources but also and above all of the subsoil; and the economy of agrarian reforms by giving land to those excluded from the modernization of agriculture in the rest of Brazil (*dar terra sem homem aos homens sem terra*: give land without men to landless people). BASA and SUDAM were created in 1966 to finance colonization, both in the public and private sectors.

In its various successive versions, the National Development Plan of Amazonia aimed above all at occupying areas considered empty, along with their physical, economic and social integration, in particular through building four major roads, and their networks of secondary roads providing access to the deepest parts of the forest massifs: three north-south roads, i.e. Belém - Brasília or BR210, Cuiabá - Santarém or BR163, Cuiabá - Porto Velho - Rio Branco or BR364, and one transverse road, opened in 1972, the Trans-Amazonian Highway or BR-230. Subsequently and as expected, roads became the entry routes for thousands of settlers (Nascimento, 2007). They played an essential role in the life and economy of the border while directly influencing agrarian settlement programs.

## 1970S: BEGINNING OF COLONIZATION

Colonization was carried out in a differentiated way according to the regions, which is well illustrated by the three study areas of Southern Pará, Trans-Amazonian Highway and Paragominas. In Southern Pará, faced with the complexity of settling in Amazonia, especially long and difficult access by land and to the allocated land, often inhabited by Amerindian or Caboclo communities, many companies reconsidered their intention to settle there. They took the land, then abandoned or transferred its rights to anyone, sometimes to persons who had already received funding from BASA or SUDAM. Early small-scale migrants took advantage of this opportunity to recover temporary land titles at low cost. Some did not hesitate to settle in public lands and appropriate large areas. It had been a 'shooting match for land control' to use the expression of Uztarroz and Sevilla (1990). The authorities let it happen as the occupation of the Amazonian area was the main objective of colonization. In addition, everyone could benefit from BASA and/or SUDAM funds when they justified the exploitation of their land through deforestation, between a quarter, a third and a half of the land, depending on the case. Forced to clear forests and develop their land to obtain bank support, many settlers opted for cattle ranching, especially since the supply chains for plant products were still inefficient because of the isolation of the region.

Along the Trans-Amazonian Highway, an integrated settlement plan provided opportunities for the establishment of small settlers on areas of about 100 hectares, farms of 500 hectares, and ranches of 3000 hectares or more. Waves of migrants arrived in the early 1970s motivated by propaganda coordinated by the authorities, but above all without a future for them and their families in the South, Southeast and Northeast (Walker and Homma, 1996; Le Borgne - David, 1998; Caldas et al., 2002; Porro and Wood, 2002; Veiga et al., 2004; Pacheco, 2009a; Carvalho, 2010). Faced with settlement difficulties, many migrants returned to their home regions before the end of the first year. The others cut down and burned small plots of forest to plant food crops (rice, maize, bean, cassava) for self-subsistence and sale, then perennial crops (cocoa, but also pepper and coffee). The agronomic results were relatively good. On the other hand, the marketing of crops was a real constraint, particularly because of the very bad road infrastructure.

Paragominas Region, also located on one of the main roads (Belém - Brasília), benefited from the proximity of Belém City, regional capital and consumption center, on one hand, and the neighboring state of Maranhão, on the other. Isolation was less pronounced than in Southern Pará or the Trans-Amazonian zone. Access to services was simplified, as well as shorter, more competitive and therefore making a priori the area more profitable for producers. Paragominas Region is characterized by the diversity of the forms of colonization encountered, especially since it is crossed by rivers near which long-standing communities resided and were directly linked to Belém by river. The soils are less rich than those of the Trans-Amazonian region. Moreover, pasture establishment usually followed slash-and-burn farming

and the region quickly became a major livestock center, especially since it served as a relay for livestock from the south of the State to be slaughtered and consumed in Belém.

## 1980S: FIRST STEPS, FIRST SUCCESSES, FIRST MISTAKES

The frontier was organized around food/perennial crops, small dairy and/or beef farms, family farming along the Trans-Amazonian Highway, cattle ranching from the very small to the very large, in Southern Pará and Paragominas, with subsistence farming in the interstices of ranches and in marginal areas. In addition, these last two regions had been experiencing major logging, marking the advances of deforestation, itself linked to the establishment of new pastures and land strategies. In these regions, any parcel that was no longer in the forest was changed into grazing land, productive or degraded, or was invaded by forest regrowth. Even on the Trans-Amazonian, more than 80% of the cultivated area was grazed and partly degraded.

New waves of migrants fleeing hardship in Southern regions arrived attracted by the perennial crops on the Trans-Amazonian, mainly cocoa, coffee and pepper, and logging jobs in Southern Pará and Paragominas. A violent drought episode in the Northeast encouraged the departure of new migrants to Amazonia. Public institutions remained in place even if, for the same number of staff, they had difficulty meeting the growing demand from newcomers, who were often poor and inexperienced.

A slaughterhouse was built in Paragominas, in the very heart of one of the main cattle production basins, with the aim of transporting meat by road to Belém and exporting it directly to the urban centers of the Brazilian Northeast. It gradually changed the situation in the livestock sector as it paved the way for the relocation of agroindustries to production areas, relocation made possible by the improvement of the road infrastructure.

The preponderance of grazing in the deforested area of most of the colonized regions, which have become largely degraded, was one of the factors behind the various social and environmental movements against deforestation, the destruction of Amerindian societies, and poor development at local and regional levels. Public authorities responded with a policy of non-intervention. Even if they had wanted to, they did not have the financial, human and political means to control better the current dynamics, a bit as if the colonial machine was racing with the main impact of deforestation, whose rate was constantly rising. However, looking back it is the time when today's elites have begun to emerge, in the midst of debates and conflicts over deforestation and unbalanced development. Some timid political measures have been taken, such as BASA and SUDAM public funds, which are now, in theory, reserved for the recovery of degraded pastures, modestly called degraded areas, and no longer for increasing deforested areas.

## 1990–1995: TEENAGE CRISIS

At the turn of the 1980s and in the first half of the 1990s, the collapse of food and perennial crop prices worldwide had a strong impact on family agriculture in the Amazonian regions where it had been the basis for its development, particularly along the Trans-Amazonian Highway. Many operators were ruined. Many migrated to cities in search of employment, often in expanding logging, or further along the border. They sold their land to those who had been more successful, thus creating real small land estates. At that time, thousands of hectares of cocoa, coffee and pepper were uprooted and replanted in pasture because livestock farming appeared to many – large and small producers, technicians and experts – as a lesser evil, at least in the short term, because of a regional market for meat and milk that was both profitable and expanding. However, this required another skill that was not always available, as well as larger areas cultivated by families, and therefore to the detriment of the forest, which was therefore cut down and burnt. At the time, it was estimated that about ten hectares of cocoa produced an income equivalent to 200 hectares of pasture.

To meet the demand for livestock and pasture and in response to the crisis in crop markets, the government agreed that the Financiamento do Norte (FNO), a special fund for family agriculture initially intended for the development of perennial and fruit crops, should gradually become a livestock financing mechanism. It has thus significantly contributed to the expansion of deforestation in family agriculture and to the development of livestock farming among this population.

At national level, the power of the new democracy was marked by political and financial scandals that led the Collor government (1990–1992) to resign. Inflation was at its highest, around 1000% per year. The social divide widened, both in urban and rural areas, as the richest became richer while the middle class and the poor became poorer. Trust was gone. The D system or *jeitinho* became the rule. Tired of successive economic failures, few believed in 1994 that the Real Plan led by Fernando Henrique Cardoso government (1995–2002) would succeed; similarly, only a few more believed that the Seleção (Brazilian football team) would reach again the firmament.

## 1995–2005: THE CARELESSNESS OF AMAZONIA YOUTH MAKES DEFORESTATION A GOOD BUSINESS

The 1990s have been a tragic decade for deforestation because rates reached record highs and above all many actors lived from it, directly or indirectly. Alongside family farming, which drew its meager livelihood from the natural resources of its land, ranches were taking advantage of the growing regional demand for meat, as well as exports to the urban centers of the Northeast, to increase their surface areas, herds and therefore production. The sector organized its supply, production, marketing,



slaughter and distribution networks. Gradually, these networks structured the frontier, by increasing deforestation and transforming the area into pasture. Pocard-Chapuis (2005) referred to this period as “the networks of conquest”.

The scientific community and non-governmental organizations (NGOs) were also mobilized against deforestation through their own networks operating locally, nationally and globally. Deforestation was in the news. It kept coming back in national and international media, to the great displeasure of local actors. Even those who were a priori against deforestation benefited from the media and financial spin-offs it generated. Their actions focused on the limits and flaws of development resulting from colonization, proposing alternatives that unfortunately were not always successful when applied. This was the case with the responsibility placed on international forest groups, which immediately disengaged from their wood supply, leaving it to unscrupulous smallholders who had no restraint in entering indigenous reserves and other lands hitherto relatively protected from deforestation.

As for the control of deforestation in the hands of public authorities relayed by a few NGOs, they did not resist corruption in the face of the colossal sums at stake. Besides, many who refused the deal paid with their lives. In addition, even if the State wanted to control deforestation, it would run the risk of causing a drift, Colombian-style, with armed militias sprouting up, with political and financial ramifications, and the local population support, as it mainly lived off deforestation. The atmosphere was becoming mafia-like.

However, Brazil in the new millennium, an emerging country entering the big league, had been accepting this Amazonian gangrene more and more badly. It was a little as if the infernal machine of colonization had been going too far and shattered other regions and sectors of activity, especially with regard environmental issues. The situation is all the more complex because the country's growth has been based largely on the exploitation of the Amazonian subsoil resources and its hydro-energy.

## 2005–2015: ADJUSTMENT BY THE STATE... WHICH DECIDES TO WHISTLE AT THE END OF THE PARTY

Brazil's emergence on the international scene following a decade of growth and the arrival of Lula's government (2003–2010) with teams with progressive visions changed the situation in Amazonia by opening new perspectives in which civil society and public institutions were engaged. Satellite images made it possible to monitor deforestation in near-real time and, above all, to make this known, and thus better target responsibilities. Control has been strengthened with substantial human and financial resources implemented by public authorities. Corruption became more difficult because people, methods and the context as a whole, were changing.

The new context created alternatives to deforestation, some of which were old, more prevalent, such as intensification from integrated agriculture-livestock systems and forest plantations on already deforested land. Research and teaching had

previously received substantial funds to imagine the paths to sustainable development, a notion that has become the leitmotif of political discourse and development programs. Attitudes were slowly changing, but the general impression was that what could have been done a few years back in terms of environmental impact could no longer be done, especially for deforestation.

In this new context, many were beginning to think of mechanisms based on unimaginable scenarios just a few years before. Thus, according to Barreto et al. (2008), launching appropriate incentives to increase livestock productivity and compliance with environmental legislation, based on subsidies and payments for conservation and reforestation, would be one of the necessary measures to make livestock farming more sustainable in Amazonia.

In this positive shift from a vicious circle based on deforestation to the beginning of a virtuous spiral based on sustainable development, the first public policy measures calling into question the land resulting from colonization had the effect of a bomb. Unimaginable a few years before, the settler had to justify his lands and what he had done with them. In the first instance, the public authorities reminded large-property landowners or their descendants that they were not the owners but just the managers of a public good for which they were held responsible for maintenance and use. Recreation was over; the new rules of the game were set by public authorities and their social and societal support; each family had to present its environmental balance sheet, face the consequences and propose an appropriate way out of the new regulations in force.

Some social groups quickly understood the new situation and the implacable need to comply with it, as in the case of Paragominas' governance which, with the Município Verde (Green Commune) initiative, allowed the municipal community a way out from the top – even became a model – when the municipality was stigmatized for its action in deforestation, at least at both regional and municipal levels. In addition, each family in the large landowner group benefited individually from the new dynamics at municipal level. Even if sanctions should not be reduced, a lower-cost outcome seemed possible as long as there was compliance with the new rules. In light of the highly publicized success of Município Verde in Paragominas, other municipalities, also pilloried for their environmental impacts, followed suit in order to get out of the black list of deforestation municipalities as soon as possible.

## DISCUSSION AND CONCLUSION

### Omnipresence of the State and public authorities

Nowadays, in Brazilian Amazonia, nobody mentions the absence of the State and public authorities. On the contrary, many prefer the previous period and would do better without the current government control over land and environmental issues.

However, less than a decade ago, such statements were made by various groups of actors in response to what they considered to be the weak or non-existent action of the State and its institutions in the region (Pacheco, 2009b). Thus, the most frequent statements were: "The State has abandoned us" or "We can only rely on ourselves."

The diachronic reading we propose here shows, on the contrary, the omnipresence of the State since the beginning of colonization, even if it is less visible at certain periods than at others. This confirms the results obtained by Tourrand et al. (2007) for the south of Pará State, which, based on 1999–2001 data and the life trajectories of different settlers, compare the colonization of the region to the game of Monopoly, where public authorities play the role of the bank.

In periods of low visibility of public authorities, the criticism was less about their absence, because institutions were always present, than about the non-application in Amazonia of the norms and rules in force at national level. Thus, economic actors demanded above all a road infrastructure to sell production (Walker and Homma, 1996). The local population also demanded social health and education services appropriate to their needs (Sayago et al., 2004). The demands of the scientific community and NGOs concerned the ineffectiveness of controls and therefore the absence of sanctions for offenders when all the instruments were already in place, particularly in the Forest Code, as shown by Treccani (2001) concerning illegal land allocation. The allowed deforestation norms of 20% or 50% are a good example of the cacophony at all levels of power and the low efficiency of its instruments, even if they do exist. It is clear that, less than two decades later, the situation is the opposite with a strong and visible presence of public authorities.

In addition, the efforts made by public authorities over the past decade to improve living conditions in rural areas are important, particularly those concerning family farming communities. Firstly, there are financial assistance measures such as retirement to which all operators have access from the age of 60 for men and 55 for women. Pensions have considerably changed the economic situation of rural families because, in addition to providing a fixed income for older people and thus better integrate them into the local economy, they have enabled them to withdraw from agricultural activities and to pass them on more easily to their children. Secondly, there are scholarships to help the poorest families, especially to send children to school, and thus to reduce in the long term the flow of young and newly excluded people. At the same time, the government has launched programs targeting basic services such as access to electricity and communication networks. A large-scale land regularization program targeting family farming has also been launched, especially since land title is often an essential document for accessing public aid and financing. Finally, technical assistance has also been reorganized, including the financing of private institutions to compensate for the shortcomings of the public assistance system.

## Livestock remains a pillar of local development that is increasingly integrated at national level

Although strongly criticized from the beginning of colonization for its social (Ianni, 1978; Schmink and Wood, 1992) and environmental (Hecht, 1989; Kaimowitz et al., 2004) impacts, livestock remained throughout the period one of the pillars of local development, from Santiago (1972) to Carvalho (2010). There are several reasons for this. A main one is the plurality of the herd functions, its multifunctionality, as it is adapted to the region and to the frontier context, a source of income that can take several forms (milk, cheese, meat, skin, breeding stock, calves), or represent security (as it is easily marketable), safe savings, a guarantee, an investment fund (Veiga et al., 2004). Livestock reduces the vulnerability of families in all its forms. Pocard-Chapuis (2005) highlights the efficiency of the cattle sectors and their roles in the construction of territories, particularly through the multifunctionality of livestock farming, but also through economic activities and job creation. Moreover, Veiga et al. (2004) show that even the expansion of grain cultivation in Eastern Amazonia at the beginning of the 21st century was initiated by herders and built to support the livestock sector by recovering degraded pastures. In addition, the latest work on the integration of crops, livestock and forestry continues to position livestock as one of the major components of tomorrow's rural Amazonia.

At the same time, livestock benefited from almost all the public policy measures implemented during colonization, starting with BASA and SUDAM funds for pasture establishment on ranches and their recovery, financing for family agriculture, as well as other mechanisms for the development of the dairy, meat and skin agroindustries (Veiga et al., 2004). Similarly, public investment in road and transport infrastructure promoted livestock farming throughout the period. Paragominas' location near Belém and along the Belém - Brasília road is a good example (Burlamaqui et al., 2013). Almir Gabriel's victory in 1996 in the governance of the Pará State was due to the votes of the south of Pará, where he had helped rebuild the roads.

In addition, livestock farming in Amazonia continues to be integrated at national and international levels through marketing networks in which its products have already been well established, but also through livestock support structures, in particular private and public academic and research institutions in the Southern regions that are increasingly investing in Amazonia. The national livestock governance, both programming and regulation, and the various think tanks are gradually departing from the dual vision of 'Amazonia and the rest of Brazil' of livestock farming by integrating the Amazonian dimension of livestock farming at national level, while seeking the most appropriate technical and financial mechanisms to increase its sustainability.

## Livestock policies are evolving toward more flexibility and participation

The diachronic analysis shows a change in the adequacy between livestock policies and the expectations of decision makers, and the needs of local populations. Thus, at the very beginning of colonization, the obligation to clear a quarter, a third or half of the land in order to obtain a loan worked in favor of livestock farming, but at the expense of natural resources. Moreover, this measure was not called into question for years. Then, in the face of the environmentalist movements of the late 1980s, the redirection of BASA and SUDAM loans from the establishment to the recovery of degraded pastures seemed more like a second best than a real public policy to reduce deforestation, especially since ranches were the first beneficiaries of these loans. The evaluation of loans for family farming is controversial, because of the interests of the agents in the beef sectors, supervision and health control.

Recent measures have led to a significant reduction in deforestation through the participation of downstream stakeholders in the beef sector. At the same time, they highlight the land situation of large farms by questioning the mismanagement that prevailed during the last three decades of the 20th century. In addition, they require the same large operations to take into account their environmental liabilities.

It is therefore clear that the political framework for livestock farming in Amazonia has changed considerably, especially since the economic context is also changing significantly, as shown by three fields of study. Indeed, the prospect of Belo Monte dam on the Trans-Amazonian Highway radically changes the regional situation with the unprecedented influx of a workforce estimated at several thousand households, creating a new demand for products and services that is also unprecedented. In Paragominas, the soybean boom, and more broadly the boom in grain exports, with a total area multiplied tenfold in a decade, is gradually putting cattle farming at the second place in the regional economy. A similar scenario exists in Southern Pará, but with a boom in milk production that benefits family agriculture, a boom that we knew was coming since the turn of the millennium.

In conclusion, the policies of the Amazonian frontier since the beginning of colonization have always been very close to or coincided with livestock policies, mainly because of the livestock major role in family, collective and territorial dynamics at local and regional levels over the past half-century. Initiated under the military government, they have gradually integrated the principles of democracy, in particular through self-monitoring by sector and participatory methods, to achieve convincing results, as shown by the measures to control foot-and-mouth disease, livestock movement and, in the process, deforestation, for which livestock farming was one of the first drivers. As the colonization phase moves away, it is logical to assume that the path already mapped out will continue toward greater accuracy, coherence and coordination of public action, including public policy measures, toward greater sustainability of territorial development.

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