# Eco-political Construction of Identities as a Means to "Sustainable" Agrarian Reform in Brazil: the Case of the Ciriaco Coconut-Breaker Women

#### Olympio Barbanti

Consultor Independente e Professor Colaborador no Programa de Pós-Graduação em Desenvolvimento e Relações Internacionais, PUC -Minas olympio.barbanti@gmail.com

#### Ramon Garcia Fernandez

Professor Titular do Bacharelado em Ciências Econômicas e Professor do Programa de Mestrado em Ciências Humanas e Sociais da UFABCI ramon.garcia.fernandez@gmail.com

#### Resumo:

O extrativismo sustentável pode ser considerado uma estratégia elegante para integrar as políticas sociais e de meio-ambiente na Amazônia. Ele parte da crença de que as comunidades locais podem atingir um nível de vida decente extraindo, processando e comercializando produtos florestais que não sejam madeira, se desempenhando ao mesmo tempo como guardiães da Amazônia. O governo brasileiro adotou a política pública de apoiar a criação de vastas reservas territoriais para essas comunidades, apesar das críticas que dizem que as reservas extrativas apenas constituem uma política de bem-estar alternativa, sem funcionarem como estratégias para um desenvolvimento sustentável baseado nas comunidades. Nesse sentido, tal política pode ser vista como uma reforma agrária disfarçada, de modo a reduzir a oposição política a ela. Este artigo estuda uma aplicação concreta dessa política, o caso da Reserva Extrativista de Ciriaco (MA), que visa a preservar a comunidade de quebradeiras de coco babaçu dessa localidade.

#### Abstract

Sustainable extractivism became a fashionable strategy to integrate environmental and social policy in the Amazon. It departs from the belief that local communities can have a decent livelihood by extracting, processing and trading non-timber forest products, while at the same time acting as guardians of the Amazon. Brazilian government has adopted a public policy that supports the creation of large territorial reserves for such communities, despite criticisms that understand extractive reserves as a welfare policy alternative, and not a strategy for community-based sustainable development. The official policy seems to indicate a disguised strategy of agrarian reform presented in a way to diminish political opposition to it. This paper focuses a concrete application of this policy, the case of the Extractivist Reserve of Ciriaco (MA), aimed at protecting the community of babassu coconut-breaker women living there.

Trabalho submetido para avaliação para o XVIII Encontro da SEP Área Especial 2: Economia Agrária e Meio-Ambiente

# Eco-political Construction of Identities as a Means to "Sustainable" Agrarian Reform in Brazil: The Case of the Ciriaco Coconut-Breaker Women in Brazil

#### 1. Introduction

Since the beginning of the 1990s, the Brazilian government has adopted a new strategy that aims at reconciling environmental conservation and the protection of social groups that maintain their livelihoods by extracting natural resources. Called extractivists, these people gained political visibility after the death of Chico Mendes, a rubber-taper leader in the Amazon region. To provide conditions for "sustainable extractivism", Brazilian authorities have created extractive reserves that today sum an area of 123,385 sq km, similar to the size of Pennsylvania, or three times the size of the Netherlands.

This paper firstly examines the way in which extractivists appeared as a social group, and how they gained political momentum when economic activities started to reach areas of the Amazon that had remained secluded. It is subsequently analyzed the impact of contemporary huge capital-intensive investments in the identity of extractivists, in particular the case of coconut breakers, an extractive activity performed by women. Under current economic trends in the Amazon forest, a virtuous link between extractive economic activities and an extractivist identity seems problematic, and may call into question this model of environmental conservation with social protection. The paper concludes with a reflection on the possibilities of this "sustainable agrarian reform".

## 2. Amazonian boom-bust economic cycles and the formation of "traditional" communities

Brazilian control over the Amazon region has been a geopolitical priority since the colonial period (1530-1822) when the Portuguese Crown promoted widespread territorial expansion. The idea behind this territorial occupation by the Portuguese military was to guarantee political hegemony over this area, and to maintain control over the spice trade (Carvalho *et al.* 1979). This period constitutes the first entry of commercial capital into the Amazon, and it is known as the *drogas do sertão* cycle<sup>1</sup> (17<sup>th</sup> and 18<sup>th</sup> centuries). Until 1776, labor was mainly provided by

<sup>&</sup>lt;sup>1</sup>Drogas do sertão were natural products extracted from the forest and used mostly as medicines, amongst other applications. Some of these products were indigo plant, cinnamon, clove, and sarsaparilla.

enslaved male Amerindians<sup>2</sup>. A series of ten major epidemics, desertions and rebellions, however, drastically reduced the Amerindian population clustered in local settlements (Hemming 1978). Shortage of labor power fostered racial miscegenation, as the percentage of Amerindians in Amazonian settlements was reduced from 92% in 1775 to 63% in 1840. During this period, the white population (former traders of Amerindian slaves, representatives of the Crown, and soldiers) married female Amerindians and settled in the region. The mixed blood offspring of this marriage is the Brazilian *caboclo*.

A more far-reaching economic period succeeded the *drogas do sertão* cycle. Known as the Amazonian rubber boom (1870-1912), this period marks the political and demographic consolidation of Brazilian hegemony over the territory. Diplomatic negotiations over the fixing of frontiers with Great Britain (the Essequibo area), France (the Orinoco area), and a military confrontation in the Acre region with Bolivia, defined most of Brazilian Amazonia's current territory. Demographic occupation was made possible by the migration of half a million peasants from the Brazilian Northeast between 1877 and 1880 (Cardoso and Müller 1977). Such a huge migration was a result of two concomitant factors: at the same time that a severe drought affected the Brazilian Northeast for three years, the market for rubber was in steady expansion after Charles Goodyear's invention of the vulcanisation process in 1839. This invention was particularly beneficial for the Amazon from an economic perspective, because the region had a virtual monopoly of rubber (*Hevea brasiliensis*), for which demand soared.

Amazonia then experienced a period of steady growth, in which a local merchant élite, known as "rubber barons", emerged (Mahar 1989; Becker and Egler 1992), mostly in western Amazonia. The rubber boom was a response to international demand, which came to an end by the early 1900s, when British colonies in Asia started to produce rubber at only one-fourth the cost incurred by Brazilian producers (Resor 1977). Since then, Amazonia's share in this market has remained at insignificant levels (Mahar 1989), and the region entered in an era of economic stagnation (Mahar 1979, 1989, Hall 1989, Messias-Franco 1995).

One account of the economic activities maintained during the collapse of the rubber trade is provided by Velho (1972), for whom the complete infrastructure of rubber production was transferred to the extraction of Brazil nuts. In addition, other extractive products also started to be exploited by newcomer migrants, such as the babassu coconut (*Orbignya speciosa*), in the eastern part of Amazonia.

In the years of economic stagnation, the jobless population of migrants that had lost their work in rubber production settled down in the extreme west Amazonia. Immediately after the rubber

<sup>&</sup>lt;sup>2</sup>Due to Catholic missionaries' pressure, aboriginal enslavement was formally abolished as early as 1570. In practical terms, Amerindian slavery only came to an end in 1750 (see Hemming 1978).

boom, "more than 70% of the Amazonian population was made up of immigrants (about 1 million out of 1.4 million), while, in 1940, almost 90% already had their roots in the region" (Cardoso and Müller 1977: 38). Ribeiro (1995) asserts that, during this period, rubber producers migrated to small and quite secluded settlement on the margins of big, navigable rivers. In order to survive to social and economic isolation, they incorporated local forms of livelihood; in other words, they adopted a subsistence way of living that embodied many of the aboriginal Amerindians traditions and practices of natural resource uses.

In some areas, subsistence conditions were enhanced by a local market that grew up around cattle ranching, small-scale mining, and Brazil nut extraction (Cardoso and Müller 1977). The latter was, however, concentrated in the forest areas of Eastern Amazonia, together with babassu coconut fields that spread along the Tocantins and Mearim rivers. Cattle ranching provided meat for the local population, while mining was performed as wildcat.

World War II provided spasmodic market recuperation for the Amazonian rubber economy. By the beginning of the 1940s, the Brazilian president Getúlio Vargas had strengthened diplomatic links with the United States, making way for the signature of the Washington Agreements of 1942. This settlement established that Brazil would supply the Allied forces with strategic raw materials, such as rubber (Mahar 1979, Hall 1989). The effort that followed in order to increase the production was labeled the "Battle for Rubber" (*Batalha da Borracha*). It involved the establishment of international and national credit arrangements, as well as the foundation of the Rubber Credit Bank (*Banco de Crédito da Borracha*), which would be later transformed into the present regional development bank.

#### 3. Economic integration of the Amazon, and the encroachment of local communities

After World War II, the Brazilian government started a process of increased political and economic control over its vast and under-populated territories of the Amazon. A major geopolitical strategy was to move the capital from Rio de Janeiro to the hinterlands, making government closer to the western part of the country. It was decided that the future capital, which later was named Brasııı, would be a greenfield development in the center-west region.

According to that development strategy, many roads were needed to provide access to all parts of the Amazon. That was a pharaonic endeavor. Amazonia comprises an area of just over 5.2 million square kilometers, which is made up of different ecosystems and is intersected by rivers of all sizes including of course the Amazonas, the largest river (by volume) in the world. About 1.9 million sq. km consist of dense forests (38% of the region); 1.8 million sq. km of open forests (36% of the region), and 0.7 million sq. km of open vegetation such as *cerrados* (savannahs), or

natural grassland. The remaining 0.6 million sq. km are made up by human settlements, secondary vegetation, and agricultural, industrial and livestock areas (Hagemann 1994). Until today, a large number of villages can only be reached by river or by plane.

The first road to be planed was the Belém-Brasília road, linking the center-west to the eastern Amazon, crossing fields of pasture and babassu forests, the latter in Maranhão and Tocantins States. This road was finished in 1960, officially inaugurated in 1965, and paved by 1973. In 1960, the year of the opening of Brasília, the government decided to build the BR-364, a road linking the developed countryside of São Paulo State, to the hinterlands of Acre State, in the extreme west of the Amazon, were the presence of the rubber-tappers is stronger.

With this move to integrate economically the Amazonia with the rest of Brazil, land conflicts became widespread, being more intense where roads modified local economic structures, largely based on urban petty production and trade, and rural family-based agricultural subsistence farming. A key dimension of these conflicts is the lack of clearly defined property-rights in the Amazon region. All along Brazilian history, and not only in the Amazonia, the pattern of expansion of the agricultural frontier was done through invasions of public lands. Typically the initial occupation was made by poor landless people, although in many cases big farmers led those invasions; in any case, as titles were not defined, the rich could claim the land for themselves with a reasonable expectation that in some years the government would recognize, "for the last time", this *de facto* occupation (Silva, 1996). It became a common that public land were invaded by migrant farmers; in other cases, the same plot of land was sold a number of times through spurious processes made possible due to the absence or weak presence of governmental institutions in the Amazonian territory.

Besides promoting road building, the Brazilian government also fostered agricultural colonization schemes, and gave fiscal incentives to attract to Amazonia new industrial and agricultural enterprises (Mahar 1989). To implement these plans, a regional development agency, the Superintendency for the Development of Amazonia (SUDAM), was created in 1966<sup>3</sup>, and promoted agriculture and livestock with huge fiscal incentives schemes that provided 50% exemption from income tax liabilities until 1982. The number of livestock projects approved by SUDAM jumped from only four, in 1966, to 162 by 1969. By 1974, tax exemptions had increased to 100%, both for new and existing projects (Cardoso and Müller 1977, Hall 1989).

\_

<sup>&</sup>lt;sup>3</sup> Actually, this agency replaced the former *Superintendência do Plano de Valorização Econômica da Amazônia* (SPVEA), created by President Getulio Vargas in <u>1953</u>. The emphasis of the agency followed the path of another important agency, the SUDENE, created by President Juscelino Kubitscheck in 1959 to develop the Northeastern and poorer region of Brazil. Celso Furtado, the leading Brazilian economist, and one of the most important figures of the so-called "Latin American School of Structuralist Economics" was the first president of SUDENE. Although the perspectives of Furtado and of the military authorities were different in many aspects, both shared the idea that the State could promote the regional development coordinating different efforts by means of a powerful agency.

#### 4. Deforestation and (Ecological) Agrarian Reform

In Brazil, since the 1950s, the agrarian question has been treated by Brazilian governments as a social problem, while landless movements frame it as a social, political and cultural right. The First National Congress of Small-Farmers and Rural Workers took place in 1961, and was attended by the Brazilian president João Goulart (1961-1964), who also supported agrarian movements for the creation of the National Confederation of Workers in Agriculture (CONTAG), in 1963. Not surprisingly, Goulart was ousted by a military coup in 1964.

The right-wing military agenda for the rural sector gave strong support for the modernization of these activities, and for the implementation of the green revolution: large-scale, capital-intensive agriculture based on machinery and agrochemicals – the agribusiness model which encroached local communities in rural Brazil. To bypass the claims of peasants and small-farmers and to control the way in which a meager agrarian reform would be done, the dictatorship passed in its first year the 'Land Statute <sup>4</sup> (*Estatuto da Terra*).

During the military rule in Brazil (1964 - 1985), a total of 77.465 families were benefited by agrarian reform projects. To compare, only in the year 2010 the federal government provided land for 39.500 families, a number well below the best mark: 136.400 families, in the year 2006, during President Lula da Silva administration (Ministry of Agrarian Development 2011).

The military strategy created the necessary conditions for the capitalization of large farms with property rights following the pattern of land ownership established since the colonial period (Graziano da Silva 1996). In 1985, the first non-military government created the National Plan of Agrarian Reform, which faced huge political opposition from landowners. The results of the National Plan of Agrarian Reform were however disappointing, as it managed to settle only 6.5% of the families firstly targeted by it (Graziano da Silva 1996).

Some economic and environmental problems associated with the strategy of the Brazilian government for Amazonian development – agribusiness and colonization programs – became evident during the 1980s, and continue to grow until today. Between 1970 and 1985, land incorporated into agriculture and cattle ranching totaled 82.1 million hectares, while land under crops, for the same period, grew by 18.4 million hectares (Mueller 1992).

Mahar analyzed the impacts of such environmental change: "the environmental damage associated with cattle ranching (including operations not benefiting from fiscal incentives) may account for as much as two-thirds of the deforestation in the region." (1989: 19). By 1970 deforestation had affected only 2.4% of Amazon (Hall 1997); in the period between 1978-88 it

-

<sup>&</sup>lt;sup>4</sup> Law nº 4.504/1964.

jumped to an annual average of 21,130 sq. kilometers. At that time, the two States where deforestation reached dramatic levels were Tocantins, with 40%, and Maranhão, with 66%; exactly those two regions were the most deforested States in Legal Amazon (Fearnside 1993).

The large-scale deforestation in Maranhão State played a key role in national politics, environmental matters, and the extractive question. In 1966, a politician called José Sarney took power as the state governor, and remained in office until 1971<sup>5</sup>.

While governor of Maranhão, Sarney issued a law that became known as "Sarney Law for the Land" (State Law nº 2979, from 17.07.1969). This new bill endorsed privatization of public lands, and encouraged the expansion of agricultural and agro-industrial projects, excluding peasants' access to croplands, and to babassu coconut fields (*babassuais*) (Barbosa 2008) As a consequence, the Amazonian forest in Maranhão was rapidly cleared to free space for both small and large-scale cattle ranchers.

By the end of the 1980s, forest burning became widespread, attracting international attention, and the struggle of peasants working in the extractivism of rubber and nuts gained political momentum. "An alliance between the members of this movement and scientists involved in studies of the rubber tapers calls for the creation of so-called extractive reserves", wrote Mary Allegretti, an anthropologist who lately became a politician. According to her, "the involvement of scientists from Brazil and abroad is transforming the concept of extractive reserves into a widely recognized development alternative, and an increasing source of pressure on regional policy makers" (Allegretti 1990: 12).

What happened at that time was a reconciliation of interests between rubber tapers, sociologists and anthropologists working in NGOs concerned with Amazonian issues. Amongst these NGOs were the Institute of Amazonian Studies (IEA), directed by Mary Allegretti, the North-American NGO Environmental Defense Fund (EDF), and the Ford Foundation.

Parallel to the land conflicts in Maranhão, a major confrontation was escalating in Acre State. During the 1970s, rubber-tapers started to lose access to forest areas they had been exploring as a common pool resource since the rubber-barons abandoned the area with the collapse of the rubber trade, after the World War II. Tappers confronted newcomer farmers, who moved into the region after being expelled from the poor Northeast or from the rich South/Southeast, where agriculture was going through a process of rapid technification. Within this struggle, a rubber-tapper leader called Chico Mendes gained local, national and international prominence. He fought against the conversion of land to pasture, and the inadequate analysis of social impacts

<sup>&</sup>lt;sup>5</sup> Sarney has remained in national politics since then, and is one of the most influential ring-wing politicians in Brazilian history. He was elected vice-president, but took office in 1985 following the death of elected president Tancredo Neves. Sarney has also been nominated president of the Brazilian Senate in four periods: from 1995 to 1997; 2003 to 2005; 2009 to 2011; and 2011 to the present.

caused by the opening of route BR-364. He managed to delay this road paving, causing enormous revolt among farmers. This resulted in Chico Mendes assassination, in December 1988. To protect their rights and lives, tapers from Acre state had firstly created a trade union, and, in 1985, formed the National Rubber-Tappers Council (CNS). In 1989, a few months after the death of Chico Mendes, the Brazilian Congress adopted a law allowing the creation of extractive reserves.

By the end of his presidential mandate (1985-1989), Sarney was in search of good news. Brazilian foreign debt had soared, the rate of inflation in 1989 had reached 1764.86%, (the highest in the country's history), and social unrest was mushrooming in the countries' major urban centers. The president decided to offer Brazil to be the host country of the United Nations World Summit on the Environment and Development, which lately became known as Rio-92. He also made an administrative reform by merging existing public bodies to create the Brazilian Institute of the Environment (IBAMA), in February 1989 (Federal Law n° 7.735/89).

Just before transmitting power to president elect Fernando Collor the Mello, in 1990, Sarney signed the Federal Decree n° 99.144, setting the creation of the first four extractive reserves in the Legal Amazon: two reserves in the state of Acre – Chico Mendes (970,570 hectares, population 12,017), and Alto Juruá (506,186 hectares, population 5,821) – besides the reserves Rio Cajari, in the state of Amapá (481,650 hectares, population 3,639) and Rio Ouro Preto (204,583 hectares, population 775), in the state of Rondônia (World Bank 1994).

These changes encouraged extractivists from other regions and activities to pursue the creation of reserves for themselves. In Maranhão, the Coconut-Breakers Women Movement organized itself, and made it first national encounter in 1991. In the following year, the Presidential Decree n° 534 created the Ciriaco Extractive Reserve, for the protection of women coconut-breakers.

All these movements may be considered as the beginning of an "ecological agrarian reform". In fact, the rubber-tapers and their supporters had already claimed that the protection of *seringais*<sup>6</sup> should be interpreted as such, despite the fact that their rural production was based on extractivism more than on family-based agriculture. The argument presented was that rubbers-tappers made a living out of extractivism and needed land for that purpose. Given that (sustainable) extractivism requires large amounts of land for ecological management of the natural resource, extractive reserves are normally huge territories much larger than the land set aside for agrarian reform.

#### **5.** Extractive Reserves

8

 $<sup>^{\</sup>rm 6}$  Areas used by rubber-tappers for their extractive activities.

The creation of extractive reserves (each one named shortly "Resex" in Portuguese) for traditional communities – rubber-tappers and coconut breakers among others – had a perfect timing in political terms, and opened the opportunity for the creation of other reserves. The number of extractive reserves in the country has in fact increased continuously. Today, there are 59 of such areas, totalizing 12.338.476 hectares, or 123,385 sq km. The Instituto Chico Mendes (ICMBio) is the Brazilian Federal agency responsible for protected areas, including extractive reserves. Unfortunately, ICMBio does not have the total number of extractivists living in those reserves, but it is certainly a small one, because that is in itself the logic of sustainable community-based extractivism.

The main argument for creating this new category of protected area was that it was inhabited by social groups composed by the progeny of migrants who, to a large scale, mixed with Amerindians, and who were making a sustainable use of the forest by extracting from it, in a sustainable way, natural resources (rubber, coconuts etc) from which they could make a living. That economic activity was also valuable for maintaining social bounds of groups that became known as "traditional" communities.

Extractive reserves (Resex) are broadly understood as a type of protected area created with a view of reconciling conservation of natural resources with development and human welfare objectives. A federal law regulating this type of protected area was introduced by the Brazilian government years after the first Resex were created (Law n° 9.985/2000).

In legal terms, according to Benatti, a Resex is:

An area used by traditional extractivist populations, whose subsistence is based on extractivism, and, as a complement, in subsistence agriculture and the creation of small-animals; it has as objectives to protect the livelihoods and the culture of these populations, and to ensure the sustainable use of the protected area's natural resources. The land of an extractive reserve has a public domain, being the right of its use granted for traditional extractivists<sup>7</sup>. Creation, and land titling regularization are a responsibility of the public environmental authorities, at federal or state-level. (Benatti 2011)

"In extractive reserves", writes the World Bank, "the government grants use rights to an organized association of extractivists by means of a long-term concession contract, conditioned on their fulfilling environmental protection obligations" (World Bank 1994). Additionally, extractive reserves are also meant to recognize and protect the values, identity and lifestyle of a

<sup>&</sup>lt;sup>7</sup> Law n° 9.985/2000, 18 July.

social group living in harmony with the natural environment, being it a forest or any other kind of significantly valued natural resource. For Brown and Rosendo, the "empowerment of local communities is seen as both a means of achieving this integration and as an end in itself." (Brown and Rosendo 2002). The background of this proposal is that the alleged sustainable lifestyles of extractivists make them guardians of the forest: they would preserve the forest (or any other resource they depended upon them) because it would be paramount for their economic, social and cultural reproduction; unnecessary deforestation can therefore be averted.

Some assumptions underpin the idea of an extractive reserve. It departs from the belief that those who are presented as extractivists have in fact their major source of livelihood in that activity. Secondly, it is taken for granted that subsistence agriculture and the creation of smallanimals, are complementary to extractivism. Thirdly, it is assumed that both activities will produce income in quantity and stability enough to sustain extractivists' livelihoods. A fourth remark regards the cultural dimension: it assumes that extractivism is part of the culture of a social group and therefore its cultural reproduction depends on the continuous availability of the resource, therefore creating a resource-livelihood-culture linkage that, it is argued, leads to sustainable lifestyles. These criteria raise at least one important problem, because the concept of "small animals" is imprecise, and created a great deal of debate in reference to cattle: is this a medium-size animal, or a big one, and therefore incompatible with the spirit of exctractivism? Behind the prohibition of "large" animals within Resex was the fact that the opening of Amazonian hinterlands by roads led to the introduction of cattle-ranching in areas in which this activity was not economically viable so far due to transport costs. Most of the encroachment traditional communities faced was caused by cattle farming. For example, in Acre State where the concept of extractive reserves was created, Chico Mendes, rubber-tappers and anthropologists were fighting the road building - cattle ranching nexus, both condemned for their negative impacts on deforestation, on traditional forms of social organization and on the cultural values of rubber-tappers and other vulnerable groups in Amazonia - mainly in the rural areas. Cattle, in particular, has been regarded as a non-sustainable activity because it requires conversion of large amounts of forest into pasture, is not labor-intensive, promotes rural-urban migration, concentration in income and land ownership, and deprives local communities of their cultural roots and lifestyles attached to extractivism.

#### 6. Sustainable Extractivism

Given that the repression of military and authoritarian governments up to the mid-1980s was particularly strong in relation to rural movements and the supporters of agrarian reform, the

lessening of the right-wing political grip on the second half of the 1980s opened the way to 'democratic decentralization' policies, which, at the local level, translated as 'empowerment' of the rural poor (Johnson 2001). Under the new development paradigm, they should be able to make themselves heard, have their vulnerability reduced, and gain autonomy in economic, political and social terms.

An example of such a view emerged in 1985, when the Food and Agriculture Organization (FAO) of the United Nations released the Tropical Forestry Action Plan (FAO, 1985), aimed at assisting developing countries make more rational use of forested areas, and taking care about the social impacts of deforestation on the livelihoods of local people. This issue was also captured by other international organizations. The International Labor Office's Program for Industrial Activities produced the report "Working, Living and Social Conditions in Forestry" (ILO, 1985). A few years later the World Bank issued a more comprehensive document, with stronger references to sustainability: "People and Trees: the role of social forestry in sustainable development" (World Bank 1989). These documents, nevertheless, were primarily concerned with methods and technologies for reconciling peoples' needs and capacity for co-operation with mixed use of forest areas for crop and livestock production. Once again, the discourse of environmental management played its role, as noted by Barraclough and Ghimire (1995): social forestry, agroforestry, farm forestry, and community forestry are all new names for very old and partially interchangeable concepts practiced since Neolithic times. The authors, however, do not play down the role of social forestry, or agroforestry, in meeting the needs of reproduction of small-scale producers in tropical areas.

The efforts to combine environmental protection and poverty alleviation then became a central issue. Michael Redclift (1992) stated that, in developing countries, circumstances are such that the fulfillment of basic needs for immediate survival may be the actual backdrop of apparent indiscriminate environmental degradation. For Redclift, in cases like the deforestation of the Brazilian Amazon, one should "specify greater equity, or the reduction of poverty, as the primary objective of sustainable development, before the question of environmental quality can be fully addressed" (Redclift 1992: 29).

This focus on the human aspects of sustainable development was shared by Robert Chambers (1988), for whom the sustainability of the resource base makes little sense if it is separated from the human agents who manage the environment. Therefore, Chambers pointed out, the concept of sustainability at the local level is intrinsically associated with the livelihood conditions of those whose reproduction depends on the use of the environment. Within this dimension, sustainability is shaped by the extent to which conditions of livelihoods are themselves sustainable. A new formulation of social dimensions of local sustainable development was proposed by Hall.

[Sustainable is the] "development which allows the productive use of natural resources for economic growth and livelihood strengthening, while simultaneously conserving the biodiversity and sociodiversity which form an integral and indispensable part of this process." Hall (1995: 4)

This definition was proposed by the time that extractive reserves were already a reality in the Brazilian Amazonia, and seemed to be tailor-made for such protected areas. The definition brings together economic, biological and social dimensions at a level of livelihood analysis, and manifests concern with the local cultural setting ("sociodiversity"). Vivian (1992) adds that what is fundamental in the concept of sustainable development is the perception that non-egalitarian forms of development are not sustainable either in economic, biological or social terms.

While these approaches have provided support for the promotion of extractive reserves, the idea of extractivism itself has faced some sharp critics based on the economic feasibility of the extractive activity. Homma, for example, considers that "extraction as an economic activity becomes unfeasible through the domestication of forest products, and through the development of synthetic substitutes for the products" (1992: 29). Browder has added that extraction has only proved to be "feasible" under government subsidies or when there are "high world market prices for specific rainforest commodities" (1992: 35). A number of authors have considered that, if conditions of exploitation deteriorate, extractors can themselves become agents of forest destruction (Anderson 1992, Padoch 1992, Browder 1992). This fate is also possible because of the fragile economic conditions upon which the activity is based.

Therefore, the logic of extractive reserves was in the early 1990s seen by some as having more to do with welfare (and cultural) maintenance than as a feasible system of forest use. Nepstad, for example, points out that "until society begins to reward landholders for maintaining their tropical forests, the fate of these ecosystems will depend on their value in the market place" (1992: 143). The author concludes that "in its current form, non-market values of non timber forest products extraction in Amazonia appear more important than market values" (1992:144). In addition, as noted by Anderson, the focus on the extraction of non timber forest products appears to hide the fact that "few rural populations in Amazonia depend exclusively on forest extraction for their survival; most rely to a varying degree on the combination of agriculture and extraction" (1992: 75).

Despite these critics, extractivism in Brazil remained in the public agenda, and a many reserves were created, under the argument that extractivists can maintain their subsistence, protect the environment, and their cultural roots.

#### 7. Traditional communities and their sustainable development

Given that one of the key objectives of extractive reserves is to protect communities' cultural traits linked to their livelihoods, it is therefore relevant to discuss the "traditional" character assigned to them, and the way in which social groups constitute identities such as "extractivists", "tappers", and "landless", among many others. According to the National Policy for Sustainable Development of Traditional Peoples and Communities (TPC Policy), key definitions of the theme are:

"I - Traditional Peoples and Communities: are culturally diverse groups and who recognize themselves as such, have their own forms of social organization, occupy and use territories and natural resources as a condition for their cultural, social, religious, ancestral and economic reproduction, for what they make use of their knowledge, innovations and practices generated and transmitted by tradition;

"II - Traditional Territories: the space needed to cultural, social and economic reproduction of traditional peoples and communities, be them used on a permanent or temporary basis, observed article 231 of the Constitution and article 68 of the Temporary Constitutional Provisions Act, and other regulations, and;

"III - Sustainable Development: the balanced use of natural resources, dedicated to improving the quality of life of the present generation, while ensuring the same opportunities for future generations."

(Brazilian Government, Federal Decree nº 6040/2007)

Another, more simple definition comes from the World Bank, for whom these traditional communities are, therefore, a population that "has practiced for generations a mixed livelihood system including slash-and-bum agriculture, hunting and fishing, gardening, animal husbandry, and the collection of non-timber forest products. Production is largely subsistence-oriented." (World Bank 1994).

The definition of "Traditional Peoples and Communities", therefore, comprises many other social groups behind rubber-tappers or coconut breakers. They include, according to official data, indigenous peoples (734.127 habitants in 110 million hectares); slave descendants or *quilombolas* (2 million hab. in 30 million ha.); rubber-tappers *seringueiros* (36.850 hab. in 3 million ha.); seringueiros and Brazil-nut collectors (815.000 hab. in 17 million ha.); coconut breakers (2 million

hab. in 18 million ha.), and other people, such as *povos de terreiro*, *ciganos*, *faxinais*, *pescadores*, *ribeirinhos*, *caiçaras*, *praieiros*, *sertanejos*, *jangadeiros*, *açorianos*, *campeiros*, *varjeiros*, *pantaneiros*, *geraizeiros*, *veredeiros*, *caatingueiros*, and barranqueiros, for all of which there is a lack of appropriate official data (for a preliminary classification of the different types, see Grzebieluka, 2012).

All together, according to the TPC Policy, comprise about ¼ of the Brazilian territory, and some 5 million families, or 25 million people. Therefore the problem of extractivism of natural resources by communities, be it carried out inside reserves or not, constitute a significant social and environmental issue for Brazilian social, economic, and environmental policies, even if official data are not accurate – what seems to be the reality, as will be argued in relation to those whose identity is presented as coconut breakers.

#### 8. The formation and transformation of identities

Agrarian reform has, to a great extent, been linked to identity dimensions: those who claim their right to the land present themselves, for example, as "peasants", "landless", or "rural poor". For any human being, identity is a result of creating a sense of self. However, identities are also collective, and the concept can be extended to countries and to communities, ethnic or otherwise, such as extractivists. Identities can be understood as a primordial and stable phenomenon, such as parental ethnicity and religion or place of birth. However, identity is also socially constructed, reflecting people's choice to differentiate themselves from others. Therefore, ethnic status is to some extend ascribed, but it is also achieved, as ethnic traits are also modified or acquired in life (Kriesberg 2012).

This author notes that "many identities, then, are not based on ascribed traits but on shared values, beliefs, or concerns, which are varyingly open to acquisition by choice. This includes shared religious adherence (...) [and] is also true for political ideologies, attachment to particular pieces of land, or practicing a particular way of life." (Kriesberg 2012). In this sense, the author identifies three shapers of identity: (1) internal factors within each group, (2) relations with adversary groups, and (3) the social context of the groups' interaction. From the internal features of these shapers, a number of factors that most affect rural communities in the Amazon can be stressed.

<u>Internal Factors and Processes</u> - Attainment of basic human needs such as recognition, security, income, education and other factors are constituent parts of a group's identity. However, as needs are also socially and culturally constructed, variability in the way needs are understood and certainly in the ways in which they are satisfied modify a group's identity.

<u>Past Experience</u> - Past experiences such as common struggle against encroachment, and enmities derived from historical processes are normally kept alive in oral traditions, schooling, and religious institutions, and are often used as shapers of identity.

<u>Adversarial Attitudes</u> - Cultural patterns, specific ideologies and ways of thinking shape a group's behavior in relation to other people and groups. This includes, for example, predilection not to trust members of other groups, to denigrate them, or to act with hostility toward them.

<u>Leadership</u> - Political and religious leaders play important roles in shaping identities. Leaders, in particular, tend to privilege their own identity, and to gain power by arousing emotions against other groups and peoples, who receive negative characterizations.

<u>Ways of Thinking</u> – In every period of history there are prevailing ways of thinking. The same takes place among social groups, who at some point in history may frame their relationship with others as enemies, and become objectors in other times.

<u>Modeling</u> - The social context provides a collection of potential identities to assume. Identities that others have built and used to take forward their interests serve as models, and similar identities then become attractive.

<u>External Influences</u> - External actors (that is, people outside the identity group) actively promote particular interpretations of history, economic relations, or beliefs. They spread their views and impact social relations, influencing other people's sense of identity. Academics, political leaders, government representatives and other people with recognized authority and legitimacy influence others' identities.

#### 9. The Ciriaco Extractive Reserve: a changing reality

Extractive reserves in the Amazon have been geographically isolated from urban centers and mostly unaffected by development processes, as most of the region experienced a stagnated economy. This reality is rapidly changing due to the incorporation of the Amazonian resources into market-related productive processes of a larger scale, the implementation of extensive cattle-ranching, and the building of large infrastructure, such as roads and dams. Formerly secluded areas are now witnessing the growth of urban centers and job opportunities. The case of the Ciriaco extractive reserve helps us to understand a pattern of economic, social, political and environmental processes that are taking place currently, and will call into question the feasibility of this model.

The Ciriaco extractive reserve has an important social and political connotation. It was created in 1992, just before the opening of the United Nations Conference on the Environment and Development, the Rio-92. The main beneficiaries are a group of very poor women, which, at that time, used to have in the babassu coconut their major source of income. These women organized a social movement called Interstate Movement of Babassu Coconut Breakers (MIQCB 2009), which enabled them to obtain space in national and local public policy debates. This social movement held its first meeting in 1991, attended by about 250 women.

It is estimated that currently about 400,000 persons in that region of Brazil obtain income directly from the exploitation of babassu coconut (Almeida 2005). This palm (better, the babassu forests, in which this palm is the most characteristic tree) occupies an area of 100,000 km² in the state of Maranhão, 32.000 km² in the state of Piauí, 14,000 km² in the state of Tocantins and 4,000 km² in the state of Pará in the region of transition between drier areas in the Northeast and the Amazon forest. The area covered with babassu in the Maranhão state, as in other states, is rapidly reducing, due to the expansion of the economic frontier.

Fieldwork data carried by one of the authors reveals that the Ciriaco Resex had, in June 2010, a total of 694 inhabitants: 149 adult women and 131 adult men. Given that the reserve has 8.084 hectares, population density is low (although higher than in the *seringais*): almost 12 people per hectare. However, inhabitants prefer to live in villages within the reserve. The remaining 414 residents are children or other persons living in the households on a non-permanent basis. Image 1 shows a babassu field within Ciriaco, and the coconut, compared to a pen.



Over decades, extractivism of babassu has been performed by women (Image 2), while men are engaged in other family-based rural activities. Breaking the coconut is a manual and dangerous

activity carried out with an axe to extract almonds from inside. These are used to produce oil which is used for cooking, and for industrial purposes. Ideally, such oil would serve as input for producing soap, glycerin, and margarine. Also ideally, other parts of the babassu – pith, epicarp, and endocarp – could be transformed in various sub-products, including ethanol, acetate, tar, activated charcoal, coke, and bran. The coconut has 80% of fixed carbon. Therefore, babassu could represent an impressive source of income for extractivist communities. However, the coconut is so dense and difficult to break without splintering it, that only manual processes have prevailed, preventing its industrial use. The oil obtained by those women by a domestic process has lost value in the Brazilian market due to its small and shifting offer, and due to alternative inputs for the same purpose.

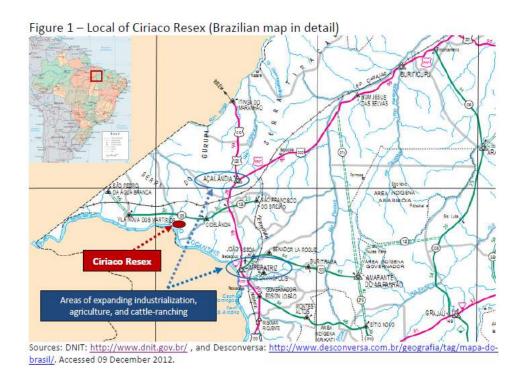
Image 2 – Woman breaking babaçu, and the coconut opened, showing its almonds (detail)



Sources: http://www.miqcb.org.br (main), and http://www.arara.fr (detail). Accessed 14 december 2012

One exception is the transformation of the whole coconut into coal, without breaking it. Today, the majority of extractivists use coconut for that purpose, what has increased their income moderately, because the bulk of the revenue stays with middlemen that provide transport in huge trucks to deliver it to large Brazilian and multinational companies producing pig iron in Açailândia, a town about 80 km north of Ciriaco Resex (see Figure 1). Pig iron is the first stage of processing the ore into iron products. The use of babassu as coal has become financially attractive, partially due to the rising prices of iron ore in the international market, but also because babassu coal has a higher calorific value than the eucalyptus coal, given that it has more carbon in its composition, increases the rigidity of the pig iron, and acts as a regulator of the heat of melting furnaces. In this sense, a highly manual extractive activity, performed by poor women, ends up being directly linked to international markets, and experiments the fluctuation of demand and prices.

Ciriaco Resex is located middle way from Açailândia (north, aprox. 100.000 inhabitants), and Imperatriz (south, aprox. 250.000 people) – two areas that have experienced expanding industrialization, agriculture, and cattle-ranching in the last decade.



The West of Maranhão state has been one of the poorest areas of Brazil, with a stagnated economy. However, after a political agreement between president Lula and Sarney, in 2005, this region started to receive huge public expenditure, and attracted some important private investments. The federal government has supported the construction of railway infrastructure, roads, waterways and hydroelectric plants, which will constitute an articulated logistic system.

The price of land in Açailândia, adjacent to Ciriaco, has already reached levels of the developed southeast party of the country, like Minas Gerais state: from \$8.000 to \$12.000 Brazilian Reais. This level of prices reflects the conversion of under- or unused land to agricultural production, mostly staples, such as rice and corn. In Imperatriz, the other municipality in which investments are pouring, the Suzano Paper and Cellulose Company is building a modern paper plant with total investment value of US\$ 2.9 billion, including US\$ 2.3 billion for the industrial part and US\$ 575 million for the forest base<sup>8</sup>.

The result of all these movements is the attraction of the Ciriaco extractivist population, especially young people, to urban areas. This attraction, which already occurs in the region, will have greater influence on many younger women, who prefer to live in an urban center rather than in a rural reserve; this will create an additional negative pressure on the activity of breaking babassu

<sup>&</sup>lt;sup>8</sup> Further north, in Bacabeira municipality, the Brazilian oil company, Petrobrás, is building its unique premium refinery that was expected to start operation in 2013: an investment estimated of US\$ 20 billion . This should be one of the largest in Latin America, being able to achieve production of 500 to 600 thousand barrels per day (Agência Brasil 2009). Recent revisions of the investment plans of the firm suggest that the plant will function only in 2017 or later.

coconut, historically held by women. In fact, an opinion pool made by one of the authors with young people from Ciriaco has revealed that no young women intends to have coconut breaking as its main activity.

Fieldwork participant observation indicates that Ciriaco extractivists are now clearly distanced from babassu extraction, at least compared to the way it was historically performed. The decrease in the purchase price of babassu almond in the local market – from R\$ 2.00 to around R\$ 1.20 Brazilian Reais a pound - associated with the low interest manifested by younger women to continue the traditional practice of breaking coconut with axes, are the key elements that have contributed to the abandonment of breaking babassu coconut. (Grupo de Coordenação MMA, MDA, MDS 2009).

Additionally, husbands and partners of coconut breakers engage in two activities that directly and indirectly contribute to the breakdown of babassu extraction. First, these small rural producers stepped up their activity, which departed from family-based production, to include livestock. This small-scale cattle-ranching has required more time of the members of the household, mainly because it became a more important source of income than the one coming from the sale of babassu nuts. The second activity is the production of charcoal from coconut, an activity which surpassed the traditional uses of the coconut.

In fact, rapid changes in the region's economic context are calling into question the extractive activity, and the model of extractivism as a policy for environmental conservation. While economic factors are highly important, it should also be noted that the identification of these people with extractive culture seems smaller today than in the recent past. There are several reports that these people avoid being identified as extractivists in the closest urban areas, given that they are stigmatized, nicknamed "babassu people" in a pejorative way (Droulers 2007). This perception of inferiority and, consequently, impotence, is common knowledge in Resex Ciriaco, and also occurs with several other extractive populations in several states of Brazil, as in the case of rubber tappers who are stigmatized for having impregnated by skin odor that exudes from the manufacturing process of rubber sheets.

### 10. Conclusion: preparing the field for "sustainable" agrarian reform

Coconut breakers, rubber tappers and other social groups whose livelihoods are linked to community-based extractivism have build their economic base, political activism, social cohesion and struggle strategies as a response to large-scale public and private investments that have been mainly conceived from outside the Amazon. The region, in fact, has remained at the periphery of Brazilian capitalism, centered in the south and southeast parts of the country and, to some extent, subsumed to international capital trends, and to the actual investments made by them. To a large extent, these social minorities remained invisible to central government and to large companies. Many communities have been bulldozerized, literally. Others faced harsh land disputes.

The formation of their identities is deeply informed by these past experiences, as they had to struggle against violent forms of encroachment. Cultural patterns, such as "we, the guardians of the forest" became an intrinsic part of their behavior, and served as the basis for shaping the sustainable extractivism theoretical proposition. The death of Chico Mendes opened room form the adoption of such a view by the public policies, allowing extractivists to emerge from their invisibility.

Extractive reserves were created and immediately contested by those who doubt their capacity to provide livelihood standards above the subsistence level. Nevertheless, these reserves were promoted by the Brazilian government, who initially considered them in its official statistics of agrarian reform.

In recent years, the identity of extractivists, such as women coconut breakers, started to lose their strength. Firstly, the struggle against capital-intensive activities in the region faces investments that have absorbed the discourse of sustainability, and do not act with the violence employed by those who grubbed the frontier a few years ago. Extractivists leaderships and ways of thinking place greater value in urban livelihoods. Children from extractivist leaders have no intention of keeping the activity.

The shifting social and economic contexts in many parts of the Amazon are calling into question the continuity of (most of the) small-scale community-based extractivism as a viable economic activity. As a consequence, the identity of coconut breaker is fading, a tendency that should be occurring in other parts of the Amazon. This creates important problems, given that extractive reserves, by legal definition, are a territory created to allow the cultural reproduction of those minorities. But what if their culture/identity does not maintain roots strong enough with extractivism? What if this activity is abandoned in favor of typical family-based agriculture or, even worst, by plain migration to urban areas?

This paper argues that this trend could have been anticipated by Brazilian authorities. Therefore, it is suggested, a possible explanation for the government to keep creating extractive reserves until

today, even when extractivist identity is vanishing, is an unspoken intention to foster an agrarian reform under the disguise of sustainability, something that raises less political resistance than to just give land to the landless. The advantage of this strategy would be to bypass conservative forces that along the Brazilian history have fought against land redistribution in the country. However, due to the legal statute of extractive reserves, the lost of the environment-identity link may open a new fight for the destination of these huge areas to other economic activities.

Finally, a question that remains open is what to do in case that market stimuli show to be too weak to preserve the livelihood of these people. Certainly, in this and other similar cases, the Brazilian government and society need to think whether they are interested in preserving these lifestyles, these environments or both. Different measures should be considered according with each situation, always trying to compensate the insufficiency of the forces of the market and the perceived lack of attractiveness of rural life.

### **Bibliography**

- Agencia Brasil. "Petrobras e governo do Maranhão vão construir Refinaria Premium 1". Agência Brasil. Available at: <a href="http://www.transportabrasil.com.br/2009/10/petrobras-e-governo-domaranhao-vao-construir-refinaria-premium-1/">http://www.transportabrasil.com.br/2009/10/petrobras-e-governo-domaranhao-vao-construir-refinaria-premium-1/</a>. Accessed 17 December 2012.
- Allegretti, M. (1990) "Extractive Reserves: An alternative for reconciling development and environmental conservation in Amazonia", in A.B. Anderson (ed.) <u>Alternatives to Deforestation</u>

  <u>- Steps Toward Sustainable Use of the Amazon Rain Forest</u>, pp. 252-64, Columbia University Press, New York.
- Almeida, A. W. B. (2005) "A Dimensão Política dos "conhecimentos tradicionais" na Amazônia." In: Cadernos CEAS Centro de Estudos e Ação Social. Salvador.
- Anderson, A.B. (1992) "Land-use Strategies for Successful Extractive Economies in Amazonia", Advances in Economic Botany, vol. 9, The New York Botanical Garden, New York, pp. 67-78.
- Barbosa, Viviane de Oliveira (2008) "Trabalho, Conflitos e Identidades Numa Terra de Babassu", <u>História Social</u>, nº 14/15, pp. 255-275.
- Barraclough, S.L. and Ghimire, K.B. (1995) "Forest and Livelihoods: the social dynamics of deforestation in developing countries", <u>UNRISD International Political Economy Series</u>, MacMillan Press, London.
- Becker, B. and Egler C. (1992) <u>Brazil: A new regional power in the world-economy</u>, Cambridge University Press, Cambridge.

- Benatti, J. H. (2011) "Propriedade Comum na Amazônia: Acesso e uso dos Recursos Naturais pelas Populações Tradicionais". In S. Sauer and W. Almeira (Org.) <u>Terras e Territórios na Amazônia:</u> <u>Demandas, desafios e perspectivas</u>. Editora da Universidade de Brasília, Brasília, pp. 93-113.
- Brazilian Government, Federal Decree nº 6040/2007. Available at:

  <a href="http://www.planalto.gov.br/ccivil\_03/\_ato2007-2010/2007/decreto/d6040.htm">http://www.planalto.gov.br/ccivil\_03/\_ato2007-2010/2007/decreto/d6040.htm</a>. Accessed 18

  December 2012.
- Browder, J. (1992) "Social and Economic Constrants on the Development of Market-Oriented Extractive Reserves in Amazon Rain Forests", <u>Advances in Economic Botany</u>, vol. 9, The New York Botanical Garden, New York, pp. 33-42.
- Brown, K. and Rosendo, S. (2002) Environmentalists, Rubber Tappers, and Empowerment: The politics and economics of extractive reserves." <u>Development and Change</u>, vol. 31, issue 1, pp. 201-227, January
- Cardoso, F.H. and Müller, G. (1977) <u>Amazônia: Expansão do Capitalismo</u>, São Paulo: Brasiliense e CEBRAP.
- Carvalho, J.A.M. *et al.* (1979) "Migrações Internas na Amazônia", <u>Amazônia: Desenvolvimento e Ocupação</u>, pp. 193-243, Rio de Janeiro: IPEA/INPES.
- Chambers, R. (1988) "Sustainable Rural Livelihoods: A key strategy for people, environment and development", in C. Conroy and M. Litvinoff (eds.) <u>The Greening of Aid: Sustainable livelihoods in practice</u>, Earthscan Publications and The International Institute for Environment and Development, London.
- Cleary, D. (1993) "After the Frontier: Problems with Political Economy in the Modern Brazilian Amazon", <u>Journal of Latin American Studies</u>, n° 25, pp. 331-349, Cambridge University Press, Cambridge.
- Droulers, M. *et. al.* (2007) "La réserve extractiviste de Ciriaco: babassu durable pour les petits producteurs?". <u>Mimeo</u>. Paris, Duramaz.
- FAO (1985) <u>Tropical Forestry Action Plan Committee on Forest Development in the Tropics</u>, Food and Agriculture Organisation of the United Nations, Rome.
- Fearnside, P. (1993) "Deforestation in Brazilian Amazonia: the effect of the population and land tenure", Ambio, 22 (8), December, pp. 537-45, quoted in A.L. Hall (1997) <u>Sustaining Amazonia Grassroots Action for Productive Conservation</u>, Manchester University Press, Manchester.

- Graziano da Silva, J. (1996). <u>A nova dinâmica da agricultura brasileira</u>. Campinas: University of Campinas (Unicamp).
- Grzebieluka, D. (2012). "Por uma tipologia das comunidades tradicionais brasileiras". <u>Geografar</u>, 7 (1): 116-137.
- Grupo de Coordenação MMA, MDA, MDS. <u>Promoção Nacional da Cadeia de Valor do Coco</u>
  <u>Babassu</u>. Brasília, julho de 2009.
- Hagemann, H. (1994). <u>Not out of the woods yet: the scope of the G-7 initiative for a pilot program</u> for the conservation of the Brazilian Rainforest. Saarbrüken: Forschungen zu Lateinamerika.
- Hall, A.L. (1989) <u>Developing Amazonia Deforestation and Social Conflict in Brazil's Carajás</u>
  Programme, Manchester University Press, Manchester and New York.
- Hall, A. L. (1995) "Towards New Actions in Social Policy for Sustainable Development", <u>mimeo</u>; paper presented at the UNDP meeting on "Sustainable Human Development: actions for new generation policies", Buenos Ayres, December.
- Hall, A.L. (1997) <u>Sustaining Amazonia Grassroots Action for Productive Conservation</u>,Manchester University Press, Manchester.
- Hardiman, M. and Midgley, J. (1982) <u>The Social Dimension of Development Social Policy and Planning in the Third World</u>, John Wiley and Sons Limited, New York.
- Hemming, J. (1978) Red Gold: The conquest of the Brazilian Indians, MacMillan, London.
- Homma, A.K.O. (1992) "The Dynamics of Extraction in Amazonia: A historical perspective", Advances in Economic Botany, vol. 9, The New York Botanical Garden, New York, pp. 23-31.
- ILO (1985) Working, Living and Social Conditions in Forestry, International Labour Office Program of Industrial Activities, Geneva.
- Johnson, C. (2001). Local democracy, democratic decentralisation and rural development: Theories, challenges and options for policy. *Development Policy Review*. 19(4), 521–532.
- Kriesberg, L. (2012). Identity Issues. Available at: <a href="http://www.beyondintractability.org/bi-essay/identity-issues">http://www.beyondintractability.org/bi-essay/identity-issues</a>. Accessed 02 December 2012.
- Mahar, D.J. (1979) <u>Frontier Development Policy in Brazil A Study of Amazonia</u>, Praeger Publishers, London.
- Mahar, D.J. (1989) <u>Government Policies and Deforestation in Brazil's Amazon Region</u>, World Bank and World Wide Fund for Nature, Washington, DC.

- Messias-Franco, R. (1995) "Development and the Management Plans for the Amazon Region:

  Lessons from the past, proposals for the future", quoted in M. Clüsener-Godt and I. Sachs (eds.)

  "Brazilian Perspectives on Sustainable Development of the Amazon Region", Man and the

  Biosphere Series, vol. 15, UNESCO, Paris.
- Ministry of Agrarian Development MDA (2011). Família assentada da reforma agrária. Available at: <a href="http://www.mds.gov.br/cgsgrupos\_populacionais/textos/assentada\_da\_reforma\_agraria.pdf">http://www.mds.gov.br/cgsgrupos\_populacionais/textos/assentada\_da\_reforma\_agraria.pdf</a>, accessed 18 December 2012.
- Movimento Interestadual das Quebradeiras de Coco Babassu (MIQCB). Available at: <a href="http://www.miqcb.org.br">http://www.miqcb.org.br</a>. Accessed 29 de November 2012
- Mueller, C.C. (1992) "Agriculture, Urban-Bias Development and the Environment: The case of Brazil", <u>ISPN Working Paper</u>, n° 14, ISPN, Brasília.
- Nepstad, D.C. (1992) "The Challenge of Non-Timber Forest Products", <u>Advances in Economic</u>

  <u>Botany</u>, vol. 9, The New York Botanical Garden, New York, pp. 143-146.
- Padoch, C. (1992) "Marketing of Non-Timber Forest Products in Western Amazonia: General observations and research priorities", <u>Advances in Economic Botany</u>, vol. 9, The New York Botanical Garden, New York, pp. 43-50.
- Redclift, M. (1992) "Sustainable Development and Popular Participation: a framework for analysis", in D. Ghai and J.M. Vivian (eds.) <u>Grassroots Environmental Action People's</u> Participation in Sustainable Development, pp. 23-49, Routledge, London.
- Resor, R. (1977) "Rubber in Brazil: dominance and collapse, 1876-1945", <u>Business History Review</u> 51, n° 3, pp. 341-66.
- Ribeiro, D. (1995) <u>O Povo Brasileiro A Formação e o Sentido do Brasil</u>, Companhia das Letras, São Paulo.
- Silva, L. O. (1996). Terras devolutas e latifúndio: efeitos da lei de 1850. Campinas: Ed. Unicamp.
- Velho, O. (1972) Frentes de Expansão e Estrutura Agrária, Zahar, Rio de Janeiro.
- Vivian, J.M. (1992) "Foundations for Sustainable Development: Participation, Empowerment and Local Resource Management", in D. Ghai and J.M. Vivian (eds.) <u>Grassroots Environmental Action People's Participation in Sustainable Development</u>, pp. 50-77, Routledge, London and New York.
- World Bank (1989) "People and Trees: The role of social forestry in sustainable development", <u>EDI Seminar Series</u>, World Bank, Washington, DC.

World Bank (1994) "Pilot Programme to Conserve the Brazilian Rain Forest - Memorandum and Recommendation of the Director of the Latin America and the Caribbean Department 1 to the Regional Vice President on a Proposed Grant from the Rain Forest Trust Fund in an Amount Equivalent to US\$ 3 Million to the Bank of Brazil for Demonstration Projects", <u>Draft Confidential Report n° 12602-BR</u>, (26 July), World Bank, Washington, DC.

WCED - World Commission on Environment and Development (1987). <u>Our Common Future</u>, Oxford University Press, Oxford.