Towards a New Rural Development in Brazil: overcoming agrarian and social inequalities and building new markets through food, agricultural and environmental policies

[draft version]

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Rural development could no longer be associated with the actions of the State or the international organisations destined to intervene in the poorest and more backward regions. In Brazil, as well as in other Latin American countries, rural development programmes in the 1970s have targeted poor regions or peasant groups who have been considered incapable or inapt for being transformed and integrated in the capitalist economy through technological progress and the substitution of production factors. This perspective, which has been articulated with the modernisation theory and the technological diffusion, promoted compensatory and social intervention actions guided and targeted as an alternative for farmers or for rural regions that could not become technologically modernised, neither be integrated in the economy through other sectors such as industry, commerce and services. In Brazil, the PDRI "integrated rural development policies" have been considered as a feasible solution. Take the example of settlements in the Amazon area with people from others regions and the combats against desertification in the Northeast, among others. According to Ellis and Bigs (2000), this conception of development corresponds to a period when it was believed that the State was the only agent capable of creating these processes in rural areas.

Nowadays, there is an important change at the focus and understanding about rural development in Brazil. There are several reasons to this, although some of them must be highlighted. The first one is that rural development is not anymore about social assistance or pro-poor policies and marginalised regions. The second guideline of the new focus is related to the active participation of the benefactors in the layout, planning and execution of the policies, as well as in their regulation and accountability. The third feature is about the requirements of sustainability. Because of this, the new rural development in Brazil is an ongoing process strongly associate with public policies and State interventions started from at the 1990s with begin with the focus on fight against poverty and social inequality, but became slowly to the field of the ways and shapes how rural actors produce and reproduce their livelihoods and improve life conditions.

The Brazilian new development is far from being an articulated process. The different spheres of the State, especially the Ministries of Agriculture, Agrarian Development, Social Development and Environment, among others, have programs and actions that do not always connect, often overlapping each other and reaching areas and farmers "making more of the same".

The results and effects of the rural development policies are still unknown due to the short time they are running. In fact, many are still actions and government programs, which can be abandoned in any shift in the political scenario, as a change in the presidency. Similarly, there are still not studies about the role of stakeholders in the development and management of policies, forms of ownership of resources and the new relations of power and domination involved. Overall, this suggests that researches and assessments should be done near future, which partly we hope could be started through this document.

1. The context of the 1990s

The context in which rural development comes back in the public and policies agenda in Brazil might be situated at the period immediately after the country elaborate the New Constitution in 1988 and consolidate the return of the democracy, with the direct elections for president in 1989. Although these chronological events, effective public policies of rural development and social process have accelerated their rhythm from the middle of the 1990 onwards.

The economic crisis during the 1980s left deep scars behind and awoke the main Brazilian political forces towards the awareness that the key challenge for a country in a process of opening up to the outside world and re-democratisation was a macro-economic stabilisation, with a special attention to the inflationary problem. Stabilisation would only arrive during the third year of the 1900s when the vice-president Itamar Franco became President after the impeachment of Fernando Collor de Mello (Brazil had held its first direct free elections after the military when Collor de Mello was elected President in 1989). Subsequently to that trauma and the intention of setting up a neo-liberal and radical model, the centre-right political groups regained strength and articulated a macroeconomic stabilisation plan, known as "Plano Real" ("Real Plan" - 1993)¹. At this time, the sociologist and senator Fernando Henrique Cardoso was the Minister of Economy of Franco's government and through this position obtained a large political support and won the elections for Presidency in 1994 (with a smashing victory against his opponent Luis Inácio Lula da Silva, PT party) and a second term in 1998. During his first government, FHC entailed a rigorous control over monetary stabilisation, open the economy (privatisations) and changes in the regulatory framework which were not enough at all for galvanising economic growth and social development.

It is important to recognise that the process of stabilisation of the economy during the FHC period created room for debate on the possibilities of development in the country. This context became prone to the emergence of innovative proposals, among which those connected to rural development. Moreover, during the 1990s, particularly from 1993/1994 on, several laws that had been set up follow the New Federal Constitution, elaborated in 1988. For example, one of them dealt with politico-financial decentralisation, because municipalities became "federate entities", therefore being responsible for the execution of great part of the public policies (health, education, security, etc.). Other, perhaps more important, laws refer to the implementation of a set of actions promoting the social rights inscribed in the new Constitution, such as rural retirement (at 55 years of age for women and 60 years of age for men), demarcation of indigenous lands and remaining territories from *quilombolas* (descendants from former slaves), regulation of the use of public lands for extractives activities, fight against child labour, among others. Therefore, besides the scenario of macro-economic stabilisation, a renovated legal and institutional environment is introduced in the 1990s, which advocates a planning based on the greatest decentralisation of the political power in the State.

A second aspect to be considered as part of the context in which the discussion on rural development in the 1990s emerges, refers to the changes in the Brazilian civil society as a whole. In the 1980s, the social movements and civil society organisations that had been repressed during the military dictatorship returned to the political scenario. In the 1990s these actors change their scope of action and no longer merely demanded and protested but also gained a proactive and proposing character. Many of the organisations of

¹ This plan proposed the introduction of a new currency called *real* (substituting the old *cruzeiro*) and set up its value as equal to 1 US dollar.

the civil society arise, namely, due to the changes operating within the role of the State, assuming sometimes functions which were left uncovered by it (education, health, social welfare services, among others), or mediating the practical need of the population and the search for resources to meet them, via projects to raise state public funds. Besides that, these new social actors also acquire a role of surveillance and control over the actions of the State, having a much more effective and legitimate participation in the management and governance structures of public policies.

A third aspect to be considered as a part of the context in which the public discussion on rural development in Brazil is initiated, deals with the incorporation of the notions of sustainability and environment. The United Nations Conference on Environment and Development, in Rio de Janeiro (1992), caused a political mobilisation that had important repercussions over institutions, the State and, mostly, over intellectuals.

2. New pathways of rural development in Brazil: three generations of policies

The resumption of the State capacity for investment and intervention was undoubtedly an essential element for the retaking and development of policies for rural development in Brazil. In fact, many of these initiatives were responses to the demands and protests of the organized civil society actors, especially social movements, trade unionism and rural non-governmental organizations. In another study (Schneider, 2007) we try to demonstrate that there was also a decisive contribution of scholars and stakeholders who, through advisory activities and consulting, influenced many social actors and contributed decisively to the elaboration of the new public policies, especially those intended for family agriculture and regional development.

In short, from the period between the early 1990 until mid-2000 was formulated in Brazil three generations or new patterns of rural development policies. The separation into three generations of policies is purely heuristic and aims to show the development and differentiation of the instruments of the State intervention, which is not always the case in an articulate manner. Moreover, there is not a necessary unfolding or a logical and chronologic sequence of improvement and upgrade of these policies.

The <u>first generation</u> of rural development policies were setup at the period from 1993 to 1998 and is characterized by a focus on agrarian and agricultural approach. The agrarian approach refers to the fact that the land reform matter takes an important place both due to the growth of political power and the actions of Brazilian Landless Movement (MST) and due to the pressure of other social groups favorable to changes at the unequal land structure, particularly progressive sectors of the Catholic Church linked to the Land Pastoral Commission (CPT).

But, the main rural development policy of this first generation was the National National Programme for Family Farming Enhancement (PRONAF). This program became the first agricultural policy that recognizes the specific nature of family farming as a social form of work and production in Brazil. Until then, credit policies, technical assistance and others working with an approach that consider that there were no significant differences of scale among small and big producers. Also, they don't require any specific policy considering the different types of farmers. This approach has had a long trajectory in Brazil and is been basically the same litany since the modernization period, at the 1960s.

Beyond to the agrarian settlement policy, land reform and credit for small scale farming that characterizes the first generation of new pathway of rural development in Brazil, it must be also highlighted the policy of rural retirements and pensions. Just after 1988, with the new Constitution, rural workers and peasants were granted with the access

to retirement benefits, for which they claimed since 1963, when was created the Rural Workers Statute by the military government. While rural retirement can not be considered as an agrarian or agricultural policy, the access to the rural social security benefits became more and more important after 1993. Actually, there are many scholars and assessments that report the positive impact of rural retirement's earnings of rural population as one of the most effective public policy with significant economic and social redistributive effects (Delgado, 2005).

The <u>second generation</u> of rural development policies cover the period 1998 to 2004/05 and are characterized by the creation and implementation of the major social and compensatory policies that run in Brazilian rural areas nowadays. In short, from the beginnings of the 2000s onwards the State is no longer merely concerned with the agrarian land reform settlements and credit for small scale family farms. Their focus is welfare initiatives as is the case, for instance, of food security policies and support for actions that might be considered as the promotion access to rights, social cohesion and societal justice. Regarding the latter, the policies against slave labour can be mentioned, through the creation of a specific Secretariat, the regulation and implementation of the remaining areas from *quilombos* (former African slave communities), social security policies for rural retired people, special credit and support for women and young people, more recently, actions for developing rural territories, among others.

The point about food security and public procurement deserves a specific comment. This topic returned to the agenda at the beginning of the 1990s, firstly due to campaigns against hunger and poverty, led by the sociologist Herbert de Souza, known as "Betinho". The impacts of the IPEA Hunger Map and the creation of the National Council for Food Security (Conselho Nacional de Segurança Alimentar), both in 1993 should not be forgotten in a moment when food security became a part of the main social programme of the FHC government, entitled "Solidary Community" ("Comunidade Solidária"). In more recent years, during Lula's administration, these actions achieved more room and a perception was created in the Brazilian society about the need for social policies. Since then, the government developed alternatives for transferring income to poor social groups, such as the "Bolsa Escola" programme (school grant programme) and also of direct subsiding (Milk Distribution programme, Vale gás - the "cooking gas coupon", etc). With the creation of the Extraordinary Ministry of Food Security and Fight against Hunger (MESA) in 2003, these programmes were altered and unified in the "Bolsa Família" Programme (family grant) which is nowadays the main social policy of the Brazilian State with a significant repercussion in the poorest rural areas (Hall, 2006; Ipea, 2007; Kageyama e Hoffmann, 2007).

One of the most important initiatives at this second generation rural development policies, the most consistent was the establishment of the Food Procurement Programme (PAA - *Programa de Aquisição de Alimentos*) from small scale family farms. Created in 2004, with the aim to works as a financial and market tool the mediate the relations between food production and public consumption. The Food Procurement Program (or Program of Food Purchase from Family Farming) aims to facilitate and improve access to institutional markets such schools and hospitals, through the purchase of products and food stuffs directly from family farmers and land reform settlements.

The <u>third generation</u> of rural development policies is an ongoing process. In a certain way, it's about programs and initiatives that are still undergoing adjustments and improvements, but there are also policies that are being completely redefined and reoriented with new designs, goals and institutional framework, much of them trying to integrate different levels of government as Ministries and other public spheres, but also

with the integration of local (municipalities), regional (Department governments) and national (federal government) scales.

Among the policies that had been implemented in rural areas it might be focus those that support processing and adding value to farm based and raw products, such as programs of training and development small and medium scale rural enterprises (designated in Brazil as "*agroindústrias familiares*" – something like farm based agroindustries), local productive systems and short food supply chains.

Another well promising initiative is related to the efforts in order to integrate the *new* food procurement policies, as the PAA, and *old* ones, as the Brazilian School Meal Programme (PNAE). It is a clear and stimulated effort to make works the support to construct new markets for farmers sells by the intervention of the State, at one side, and the commitment with concrete and feasible initiatives to fight against poverty and social inequalities, particularly in urban areas, by other side.

The central point of the third generation of public policies for rural development is related to a comprehensive understanding in Brazil that the fight against poverty, hunger and social inequality must target both sides of the problem, supply and demand, farmers and consumers. This seems to be the focus of some recent initiatives, that emphasis the reformulation of rural development policies regarding the Food and Nutritional Security policy (SAN), as is the case, for instance, of the Brazilian School Meals Programme (PNAE).

The school meal program is one of the oldest and permanent government's interventions on supplementing feeding within the country's social policies. Over the last few years the programme went through some important changes. The most important is related to the decentralisation processes, through the handing over of the management to local institutions (municipalities) and, more recently, the requirement to use at least 30% of the purchase of food stuffs from small scale family farms². These changes are stimulating a discussion on the programme's potential for strengthening processes beyond the students' dietary intake. The school meal programme is coming to be seen as a policy to combat hunger and food insecurity as well as improving health and education. Given its great potential in terms of food consumption and calories intake as well as the financial resources at its disposal³, one of the challenges of the programme is finding a closer relationship with food production, revealing itself as an attractive market for local producers, especially small-scale farmers and those assisted by the agrarian land reform.

Last but not least, there are currently in progress some actions and programs that seek to address the interface between the environment and rural development. Here too one can speak of initiatives that are part of the third generation of rural development policies, because many of them following the path that began at the outbreak of the end of the 1980s, passed the post Eco-1992 protests and only now started to gain a practical sense and effectiveness. In this space lie the initiatives and actions which support agroecology and ways to reduce the use of agrochemicals in the food production and developing of new strategies less intensive with industrial inputs. Support agroecology as productive practice has been fostered by the government, research institutions and development agencies in Brazil.

² Law number 11.947 of 16/06/2009.

³ During 2008 the programme reached 34.6 million students, almost 20 percent of the country's population (estimated at 186 million inhabitants) and had a budget of 1.5 billion Real, about 750 million dollars, passed on from the federal government to the states and municipalities. From 2010 this program enlarged its coverage giving school meals to other 6 million of adolescents until 17 years old that were unassisted by the central government.

Among the policies and programs that interface between environment and rural development it should also be mentioned the actions related to the payment for environment services, such as PROAMBIENTE (Pilot Programme to Conserve the Brazilian Rainforest), which works in the Amazon region. The same apply to the National Program for Production and Use of Biofuels (PNPB) which aims to diversify energy sources and reduce consumption of fossil fuels by encouraging the production of raw materials by farmers that generate biofuels, such as castor, sunflower, sugar cane, etc. There is a forecast of increasing demand for biofuels in Brazil, since Law 11.097 was created on January 13, 2005. This law establishes the requirement of adding a minimum percentage of biodiesel to diesel oil sold in the country. From 2008 onwards the percentage of addition biofuels rose to 3% (B3) and in 2010 it will be 5% (B5). As a further incentive, the State grants the certificate of "Social Fuel" to companies who purchase biodiesel from family farmers.

A common feature among the rural development policies of the third generation is the fact that they are initiatives which involve the state as an inducer as well as the creation of new mechanisms for market access. In many cases, such as the school feeding program, it is about institutional markets, existing for a long time even though rarely accessible to small farmers. In other cases, as the case, for instance, of the production of products for nested markets of quality or even markets that have emerged due to technological innovations (biofuels) it is to build pathways of access entirely new and never before sailed.

3. From Agrarian and Agricultural Policies to Rural Development: land reform and family farming

During the first half of the 1990s there was a strong quarrel in Brazil on the family farming as a political and conceptual category, having afterwards been assimilated by scholars and policy makers. That debate conferred an extraordinary legitimacy to family farming such that it became a strong reference in opposition to other equally powerful notions, such as agribusiness.

Due to the power of social mobilisation and political pressure for social reforms, the trade unions, NGOs and other social organizations reached the recognition and support from the State for a set of rural subjects (that were claimed since the time before the dictatorship, 1964), such as agrarian land reform, food security, credit support for small scale farmers, and others. Under the governments of Itamar Franco and FHC, the State was the one legitimising the claims by social movements and promoting actions in rural areas as a whole. Firstly, it legitimised the agrarian reform, which resulted in the sanction of the Agrarian Act and of the Interim Rite, in 1993, followed by the establishment of the Special Secretariat for Agrarian Issues which later became the MDA (Ministry of Agrarian Development)⁴. Secondly, the SDR-MAPA (Secretariat for Rural Development) was also

⁴ The MDA arises in a context of social conflicts in the rural world and particularly, of a strengthening of the struggle for land in Brazil. On the one hand, there was pressure by small-scale family farmers connected to "CONTAG", claiming specific compensatory policies for the so-called "green anchor" that agriculture created with the price stability in the Royal Plan during the first government of FHC. On the other hand, the MST widened its social foundations and extended its scope of action until São Paulo (Pontal do Paranapanema). However, the decisive political facts occurring in this period include the massacre of landless farmers in Corumbiara, Rondônia (August, 1995) and Eldorado de Carajás, in the South of Pará (April 1996), both followed by a "march" to Brasilia (April, 1997), which culminated in a meeting gathering the estimated number of 100 thousand people. Given the national and international repercussion, the government created the Special Secretariat for Agrarian Issues that later became the Ministry of Agrarian Development – MDA (Carvalho, 2001).

created and then transferred to the MDA. Thirdly, the creation of PRONAF (National Programme for Family Farming Enhancement), in 1996, which became the main public policy for small-scale farmers in Brazil.

From this first generation of rural development policies, the policy of land reform and agrarian interventions was the most important one and largely the major prominent. The follow Table, below, indicate that from 1990 to 2008 Brazil settled 874,123 families in an area of 80.6 million hectares, what means an average piece of 73.35 hectares of land per lot. Table also shows that between 1995 and 1999 there were an increase in the number of families settled, which is certainly related with the growth up of the political pressure from social movements, especially the MST, and the creation of the Ministry of Agrarian Development (MDA), in 1996, as a State response intervention. The policy of land reform and agrarian settlements remains currently active, what could be noted by the fact that years 2005 and 2006 register the record of number of families settled. However, since then the policy of quantitative enhance of settlements has been criticized, and from 2007 onwards is register a decline in terms of number.

Many scholars suggest that in recent years there has been a reduction in demand for land reform and rural settlements in Brazil, which could be explained, among other reasons, to the success and positive results of other rural development policies, especially those like social transfers via rural retirements and resource allocation of financial support for poor families through the Family Grant (Bolsa Familia) program (IPEA, 2009). Other policies are also quoted as explanations for the decreasing demand for land reform, such as the support for small scale family farms via PRONAF and other programs such as the Food Procurement Programme (PAA), the growth of the formal employment and hired workers in rural areas and also the rising of the minimum wage salary as well as the growth up of the urban labor market.

Período/ano de criação do projeto	Número de projetos	Área (em ha)	Número de famílias (capac.)	Famílias assentadas	Área média por lote (A/B) (ha)	Capacidade ociosa (B-C)
1900 a 1994	936	16.453.204,61	257.040	161.573	64,01	95.467
1995	392	2.621.537,98	59.680	52.892	43,93	6.788
1996	467	2.573.420,07	62.502	56.695	41,17	5.807
1997	714	4.238.175,18	95.934	82.680	44,18	13.254
1998	755	3.002.052,86	80.109	71.669	37,47	8.440
1999	670	2.282.104,84	56.208	51.059	40,60	5.149
2000	422	2.153.736,90	39.082	33.928	55,11	5.154
2001	477	1.898.903,71	37.645	33.542	50,44	4.103
2002	382	2.400.928,16	28.112	25.281	85,41	2.831
2003	322	4.600.033,85	31.011	29.367	148,34	1.644
2004	456	4.677.217,45	40.821	36.229	114,58	4.592
2005	873	13.911.971,27	111.761	101.141	124,48	10.620
2006	704	9.311.088,32	105.371	87.496	88,36	17.875
2007	394	6.399.765,81	36.031	29.119	177,62	6.912
2008	326	4.121.812,45	58.127	21.452	70,91	36.675
Total	8.290	80.645.953,45	1.099.434	874.123	73,35	225.311

Table . Number of families settled through land reform policy in Brazil - 1990-2008

Fontes: MDA/Incra/Sistema de Informações de Projetos de Reforma Agrária (Sipra)/Coordenação-Geral de Monitoração e Controle (SDM). Relatório 0227, 4 mar. 2009.

However, the policy most identified with the resumption of rural development in Brazil at the beginnings of the 1990s is the National Program for Family Farming Enhancement (PRONAF). Established in 1994 and substantially improved from 1996 onwards, PRONAF evolutes from a program dedicated to the small-scale farming into a broad program of credit and support for family farming in Brazil. This made it absolutely innovative and original if it compared with the programs for small-scale farming existing before. The relevance and impact of the program can be easily observed by its effects and repercussions at the international scene, where the Brazilian policy is indicate as a case of success

If one wants to understand the trajectory of the family farming and the broad set of new rural development policies and initiatives in Brazil, the meaningful of PRONAF is the cornerstone. The genesis of family farming is intimately related to the growth in political enhance by the movement of unions of rural workers during the 1990s. Disputes for credit, better prices, differentiated forms of commercialisation, rural social welfare, protection and fight against deregulation and indiscriminate trade liberalization (promoted by Mercosul) encouraged the traditional unions to join other emerging movements in national protests. This resulted in forms of mobilisation and struggles which produced a significant political impact, such as the *Jornadas Nacionais de Luta* (one-day marches), which became the Shout of the Land Brazil (Grito da Terra Brasil), an annual movement that subsists until today.

The following Figures show the evolution of the contracts and resources rates that well indicate how the Government foster family farming through the National Program for Family Farming Enhancement. In year 2000/01 the program beneficiate 893 thousands contracts (each contract correspond to the application of credit resources in a small scale farm during one year) with a whole budget of 2 billion reais⁵. In harvest season of 2005/06 the number of contracts increase to 1.900.000 and the budget was elevated to 7,5 billion of reais per year.

Figure. Evolution of the number of rural credit contracts designated for family farming in Brazil – 1994/95 to 2008-09

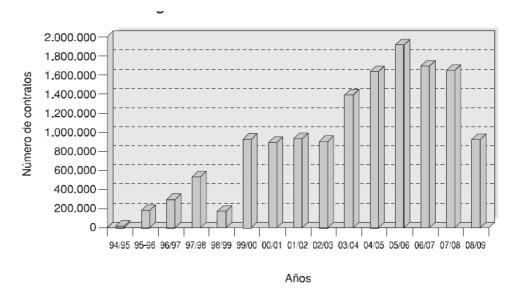
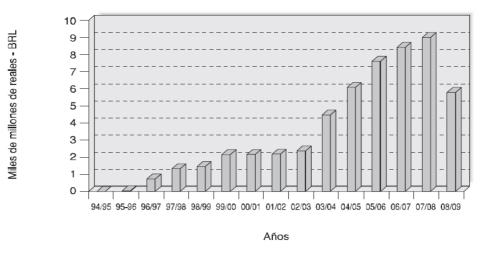




Figure 2 indicate the evolution trend of the amount of resources allocated through PRONAF family farming. It allows realizing quite more clearly the tendencies of the program since its start up in 1994/95. One can also noted that the period of greatest expansion coincides with the first term of President Lula (2003-2007), when PRONAF reveal a strong growth up, that reached an amount around 10,7 billion or reais in the 2008/09 harvest year.

⁵ The exchange rate is around 1 US dollar per R\$ 1,80 reais.

Figure. Evolution of amount of resources (in \$ reais) designated for family farming in Brazil – 1994/95 to 2008-09



Fuente: SAF/Ministerio de Desarrollo Agrario,

4. Food Security and Rural Development

Nowadays the food security is a priority of Brazilian public policy. The Zero Hunger Program, launched in 2003, is considered a kind of transverse policy acting through different areas such as Health, Nutrition, Social Assistance, Education and Agriculture and giving the guarantee of Food Security. The program was initiated after almost two years of debates with a team of many voluntary specialists that happened before the 2002 presidential campaign. Also, regarding the need to collect suggestions, it was organized three public hearings to look for contributions from the social sectors. Finally, the project was ready to present to Brazilian Congress as a technical contribution to the fight against hungry in our country.

Brazil has a large tradition in this type of war. It started in the 1930s with the works of the notable doctor and geographer Josué de Castro. Besides his famous books as *The Geography of Hunger* and *The Geopolitics of Hunger*, Josué de Castro was the main influence who led the Brazilian government to initiate an original program giving price subsidies to some products that were most consumed by workers, also he had created the first People's Restaurant and the School Meals Program in the urban areas, among many other programs for rural areas. Today Josué de Castro is known an example for the whole humanity considering that he was the first President of FAO Council in the year 1952.

The military took office in Brazil in the mid 1960s, and despite the economic growth, the income concentration, unemployment and social problems were aggravated. The military stayed more than 20 years in power. Eventually the political openness, in the end of the 1980s, brought about again the popular mobilization against hunger and high cost of living. In the early 1990s the sociologist Herbert de Souza, nicknamed Betinho, an activist, started to settle committees against hunger in every single neighbourhood or the cities. Finally in the year 1994, the new elected government called a nation conference for food security in order to discuss proposals and strategies to fight hunger. More than two thousand participants attended to this conference, representing many social organizations.

This were the atmosphere that was presented when the Institute for Citizenship, the Workers Party's think tank NGO, presented the Zero Hunger Project and in the beginning of this project, converted into public policy after Lula's election.

Considering the poverty line of US\$ 1 /capita/day and making some statistical adjustments we estimated that Brazil had 46 million people or 10 million households in food insecurity in 2001. At that time, the number of poor people was increasing among the urban population. Rural population poor and in food insecurity was the minor part of the problem considering the low participation of population dwelling in rural areas in Brazil, compared to Asia and Africa, and their access to pensions that was guaranteed to all rural workers by the new democratic Brazilian Constitution, approved in 1988.

Moreover, poverty in Brazil is regionally very concentrated. In the Amazon and in the semiarid zone of North-east we have hundreds of municipalities that have more than 50% of poor people, mainly in rural areas. In the South and West regions where are located the modern farms and the agribusiness the poverty is less apparent, hiding in slums all around the medium size cities and metropolitan areas.

Our study tells us that food insecurity in Brazil is not caused by lack of food. On the contrary, Brazil is a major producer and exporter of agricultural products. The main problem in Brazil still is the access from poor people to food. Basically is a problem of purchasing power and income distribution.

The Brazilian Food Security Policy (Zero Hunger) is based on some principles:

The first one is the respect to the Right to Food. Later on, during the Lula's administration, the CONSEA – Food Security Council of representatives proposed and was accepted a Public Law establishing the government obligation to integrate all food programs (in the three Brazilian governmental levels). Also in 2009 was approved by the Congress an amendment to Brazilian Constitution recognizing the Right to Food as one of the fundamental rights.

The second is that who is hungry, needs immediate assistance. Zero Hunger's strategy is a kind of hybrid acting in two sides: tackling the causes of hunger and – at the same time, alleviating the emergency of malnutrition for the neediest. That helps create the necessary conditions for families to guaranteeing their own food security after the emergency. This is in line with the "twin-track approach" recommended by FAO in the 1996 World Food Summit.

Another important principle is that Food Security needs to be guaranteed under good conditions of consumption and respecting cultural habits of different population. In this sense, people deserve to eat a nutritive meal in a clean environment. People's restaurants or meals in Schools, for instance, must be served in a clean room on the table, with plates and flatware. Finally, Zero Hunger program took seriously the opportunity to use a social action as a tool for economic development. Next, it has been showed some actions of Zero Hunger that were used to provide the first step in backward communities activating a bunch of new activities and trade in a Keynesian way.

In the beginning, Zero Hunger was a set of 25 policies in the fields of health, nutrition, education, income distribution, rural development etc. and more than 40 programs regarding different beneficiaries. This strategy gathered and organized actions which were dispersed among ministries, secretaries and government owned companies.

Zero Hunger has three levels of government intervention.

The first is the structural level, in order to change the economic and infrastructural conditions for the needed population. That means the expansion of the human capabilities, as defined by Amartya Sen, and quality of life, to all Brazilians. This is a National-level, adopted and coordinated by the central government to address the primary causes of hunger and poverty. These include employment and income generation policies, the promotion of family farms, and agrarian reform, among others.

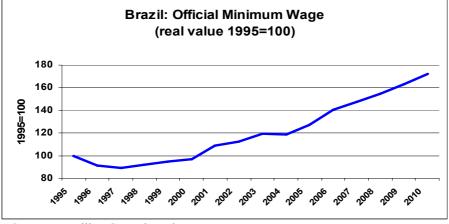
The second are specific food policies, targeting the neediest segment of our population. This was the track of the urgency in the Zero Hungry program. This is a level

of specific food security policies to enable all people to access the food they need for a healthy life.

Finally it was built some more policies regarding the local characteristics, because Brazil has almost six thousand municipalities and according to our federative Constitution, municipalities are autonomous in terms of the use of budget in social issues. But, more than this, Brazil is a huge country with a lot of differences and idiosyncrasies, mostly when it concerns to food consumption. Local-level policies were implemented through municipalities or civil society organizations regarding the objective of reducing the distance between producers and consumers.

Let's depict the main policies and some programs related to each level of intervention.

In the structural level some important policies were planned. The first one was to reactivate the Brazilian economy which was suffering with inflation almost out of control and low economic growth. In the last year of the former government the economic growth was reduced to near to 1.5 % per year and the inflation was around 25 % per year. The purpose was to reactivate the economy through the insertion of the poor in the economy, giving them access to the food market. The main tool used for this was the raise of the official minimum wage. According to Brazilian Bureau of Economic Statistics, 28 million employees receive just one single minimum wage but much more than this, most of the Brazilian workers have their salaries calculated based on the minimum wage. The same occurred for pensions. In 8 years the government increased the minimum wage twofold (53 % in real terms) and the impact on inflation indexes was null considering the growth of the economy (see graph).



Source: Brazilian Central Bank

Many other policies were initiated in order to stir up the economy, mainly in the remote areas where is located the misery. They were policies as housing, electricity, personal microfinance and other. In the rural areas, the focus was to develop the small agriculture by preferential government acquisitions. Also the government try to speed up the agrarian reform in order to reduce the huge land concentration that exists in our country.

To Brazil, Food Security Policy means mainly give access to food to poor people. In some cases, a piece of land means a place to live and little basic food for the selfsufficiency. Is not expected that this newly farmer could be inserted in the capitalist market immediately. That's the importance of the government procurement (preceded by credit and technical assistance) in order to give the first step for the emancipation of this producer. Supplying the governmental institutions (public schools, army, hospitals etc.) and also participating in the local markets, to the newly local consumers as well, could give to these farmers the necessary skills to grow up and keep them out of the poverty.

In the specific policy level, there were two important initiatives which are important to be detached: the condition cash transfer policy and the school meals policy.

The conditional cash transfer was originally planned to be as a food stamp to poor, like the U.S. food stamp program. Unfortunately this plan was abandoned considering the problems involved in stamp distribution and its redemption. On the other hand, the capillarity of the Brazilian banking network is remarkable and this characteristic convinced the government that would be much more easy and cheap to make cash transfers to the women in the family using a special card and the recommendation to beneficiaries to use this money in order to buy food. In Brazil, every single municipality has a branch of Bank of Brazil. Also each municipality has a Post Office and they are all connected by Internet. These conditions made much more easy and safe against corruption to transfer money directly to beneficiaries. The conditionalities imposed to beneficiaries were only three: the child attendance to schools, health consultation for pregnant and babies and professional qualification programs for adults.

This strategy was correct and gave results. In this year of 2009 the Brazilian program Bolsa Família is covering almost the estimate universe of poor families, that means 12 million families or 48 million people that receive, in average US\$ 60 /month (considering the number of children, their ages etc.). The interesting thing is that some research on the expenditure of these families reveals that they spend more that 75% of their transfer in food. The problem from now is to know how to pressure these families for healthier options in their food baskets.

The second huge Brazilian program is the School Meals Program. This program has started nationally fifty years ago. In 1994 it was decentralized and every Brazilian municipality receives a certain amount per student enrolled for 200 days /year. This money is of exclusive use for buying food. On the other side, the municipality must pay for the structure. That means: the kitchen and the personal. For the Zero Hunger Program, this policy changed radically. First of all, it was extended to pre-school students and adolescents until 17 years old. Second, the amount of resources transferred to each student which was fixed since 1994, was expanded (from 7 to 17 U.S. dollar cents in January 2010, and upon this amount the municipality has to complement with the same value). Third, it were established that 70% of the municipalities' procurement should be acquired in staple – non-processed food. Recently this norm was improved defining that 30% of that purchase must be from the family farms. All these rules are controlled by local councils elected among parents and civil society organizations. Now the School Meals Program serves food everyday for more than 41 million children and young students.

Lastly in the local level, the Zero Hunger program has been operating in three different situations. It is also important to implement actions adjusted to the specific needs at the local level, since there are significant differences between the problems faced by the poor according to whether they live in rural, urban or metropolitan areas.

For rural areas, the Zero Hunger tackles with micro-credits and improving the production and distribution system for the consumers market. One interesting policy supported by Hunger Zero is the water cistern construction in the draught zone in order to store rainwater for use during the dry season, what represents guarantee of potable drinking water and some smallholder food production. The plan is to build 1 million cisterns. Each cistern costs only US\$ 600 in a partnership with municipalities and institutional donors. Until now it was built 300 thousands cisterns.

Other important policies were those of market creation for small family farmers. This was possible through government procurement in small localities for school meals, besides

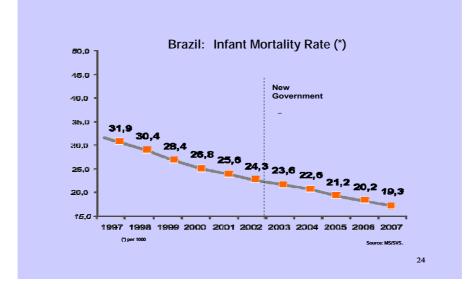
the amount transferred thru the School Meals Program, and either for institutional consumption (hospitals, charity institutions etc.). Also the rural credit (PRONAF) for what we define as family farmers were improved and now represents almost 1/4 of the all credit in rural system (US\$ 7,7 billion). So, as a result, many localities that were delayed in their development flourished and started to produce. Now these small producers are selling directly to the institutional programs and to the new consumers brought by Bolsa Família.

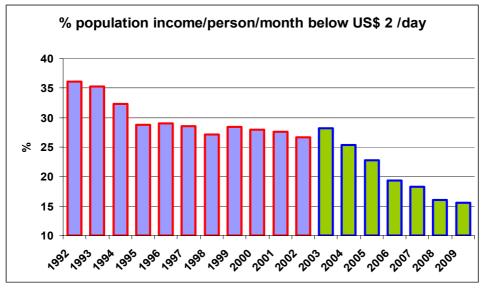
In the small and non metropolitan cities the purpose was to develop some urban resources in order to improve the food system for emergencies and structural change as well. Some collected initiatives were implemented as People's Restaurants, communal kitchens, urban agriculture, food banks and the integration between food producers and the local retailers.

The metropolitan areas have been the most difficult challenge. How to relieve hunger without being assistentialist? How to develop new programs that could let the poor people emancipate? The solution was a combination of actions as large scale people's restaurants, community centres, urban agriculture and, the most important: cheap alternatives for buying food. That means: the restructuring and modernization of the public wholesale markets, which are outdated and a good food supply system to street markets, small shops etc. That doesn't mean the elimination of the private retailer. On the contrary, we have to learn with them, and Hunger Zero proved that is possible to work in partnership with private sector regarding the common benefit.

Brazil has a network of almost 100 public wholesale markets. They were an important tool to approach small food producers to retail in the 1970 and 1980 decades (Belik, 2007). However due to the lack of investment they lost their capacity to regulate the market and reinforce standards to food products. At the same time, the retail chains promote an aggressive policy of procurement to farmers and also invested in platforms and logistics. The result is that nowadays 80% of food is sold in supermarkets and hypermarkets. The Zero Hunger strategy for this segment is to attract the modern food retail to operate through restructured and efficient public equipments and also, on the other hand, promote the supplying of small food producers to supermarkets.

The whole Food Security Policy had cost US\$ 10.8 billion in 2009 for the Central Government and involved the budget of 7 ministries. Some results reached in the early period are presented in the following graphs.





Brazil: Some Results of Social Programs under Zero Hunger

Source: IBGE - PNAD

5. Rural Development Processes, Environmental Policies and New Markets

This section is meant to draw a quick view of how environmental policies are related to rural development processes in Brazil and the emergence of new markets. For that, we start by showing the main drives of the environmental policies up to date; the two conflicting processes of rural development – that of modernisation policies (green revolution) and more environmentally friendly production processes, here generally called agroecological farming system. The emergence of new markets in Brazil is strongly related to the growing "naturality" of the consumption pattern, in response to the crescent awareness of the consumers worldwide about the environmental and health concerns.

Environmental policy in Brazil mostly addresses the conservation of nature's biodiversity (forest), soil and water through a set of norms established by law (Código Florestal - Forestry Code) as old as 1934, converted into a federal law (and updated in 2001, which establishes biodiversity reserve areas for every rural property public or private, from 20% up to 80% of the total area depending on the biome. For the protection of surface water, forest cover lining the river banks is mandatory as well as the preservation of forest cover on top of the hills and hillside slopes. More recently, another legal instrument was approved establishing norms for the creation of the system of conservation units (SNUC – Sistema Nacional de Unidades de Conservação) at federal, state and municipal level. The effectiveness of this policy can be seen in the impressive figure of 148,6 million hectares in federal and state conservation units, in both categories of integral protection and sustainable use units, up to year 2005. In the last year in office, Minister Marina Silva has created another 18 million hectares of new conservation units at federal level. So, at present, we might have over 170 million hectares, i.e. over three times the territorial size of France.

The Forestry Code is now under strong opposition by the agribusiness sector, because most of the farmers of all categories, large "fazendas" or tiny smallholders are, in fact in the illegality. The Ministry of Agriculture and Livestock spoke out in favour of these farmers with the impressive figure of more than 3,0 million illegal farmers under the present Forestry Code, with no perspective of complying with its terms in the short run.

This is why there a movement led by the agribusiness sector, but with the support of small family farmers, has been launched in 2009, for a deep change in the Forestry Code law, or be substituted for an Environmental Code, obviously much less strict to farmers. The main argument is that the Code as it is, is inoperable and unrealistic, outlawing millions without any hope that they could meet its terms, even in the long run. The present Code, establish a period up to 30 years, together with a Term of Compromise (TAC-Termo de Ajuste de Conduta), for farmers willing to comply with the Code. There is a dispute within the government – the Ministry of Agriculture against the Ministry of the Environment – opposing farm and environment sectors over decades but last year tensions had risen enormously and although some points of convergence seems to be reached, the issue is far from the end of dispute.

This issue leads to the core of the conservation policy in Brazil, to the main environmental problem of high rate of deforestation, especially in the Amazon rainforest. Cattle ranchers are to blame for the most of the doing, as demonstrated by Margulis (2003) an unsuspected senior economist from the World Bank. He argues that low transaction costs make rural productive activities profitable and competitive, led by livestock but it is also true for some commodity grains such as soybeans in Mato Grosso, the major grain producer state in the country. There is an attempt to say that land speculation is not the main drive of deforestation in the Amazon, but it is difficult to de-link it from the admitted argument of low transaction cost, and therefore, to the competitiveness of the whole agribusiness sector.

Environmental policy, in sum, is seen by rural productive sector as constraint to development, in the sense of economic growth.

For water conservation, a specific policy was set out in 1997, to deal with this valuable economic resource and input for energy generation, irrigated agricultural production, for industrial production and, of course, for urban household consumption. Water provision for large urban conglomerate such as the metropolitan area of São Paulo became critical, electric energy source in Brazil rely mostly on water resources and modernised agriculture increasingly used irrigation water, arising a number of water conflicts.

Lastly, in the eve of the 2009, the Congress has voted another specific policy for climate change mitigation and adaptation, including more consistent measures to curb deforestation in the Amazon and cerrado (Brazilian savannah) biome as a voluntary commitment to reduce global GHG emissions, in the Climate Change Convention, in Copenhagen.

Climate Change policy brought the environment issue, for the first time in history, to the core of the federal government decision-makers. Even in the Ministry of the Environment, where sustainable development has been treated only marginally and mainly by channelling resources from international donations, such as PPG7 (Pilot Programme to Conserve the Brazilian Rainforest), a multilateral initiative that joined Brazilian government, civil society and international community aiming at the implementation of pioneering project that would contribute to the reduction of deforestation. This programme has started in 1992, with the initial provision of US\$ 428 million to the Rainforest Trust Fund, administered by the World Bank, ended up by spending just over US\$ 40 million, in the first phase of the programme and the IAG – the Ad Hoc Evaluation Group recommended not to implement the Phase II. Nevertheless, actual results are quite substantial, benefiting over 100,000 dwellers in the Amazon and the Mata Atlântica biomes. Successful projects targeted the improvement of extrativist production systems, ecotourism, local education, social infrastructure and others. The Phase II was aimed at the conversion of these local experiences into public policies, mostly by state governments. One of these pilot projects is the Proambiente Programme, which will be commented later on.

To wrap up this first part of the discussion, environmental policies in Brazil took the defensive drive from the beginning throughout the period of the implementation of the agricultural modernisation process, which started in the Southeastern Brazil more consistently in the mid 1960s, by establishing limits to forest clearance in rural areas. From the 1960s on, waves of agricultural frontier expansion headed to the Northern region, with peasant farmers expelled from their tiny plots of land in the South, gaining new areas by simply occupying public lands or settled in reformed areas of land settlement projects and reproducing their traditional system of food production. Modernisation policy at the time meant the implementation of public investment in infrastructure, from new roads to warehouses, decentralised agricultural research and extension system, subsidised rural credit system and minimum price policy. With this policy support, rapidly modernised grain and livestock producing systems transformed Brazil in major agricultural commodity exporter, outcompeting powerful exporter such as USA, Australia and Argentina.

The second part of the discussion argues that rural development process did not take a linear path; on the contrary, it took diversified local and regional processes, according to the capacity of actors to integrate and adapt to policies and markets.

Mainstream process which came out of the modernisation policy created a powerful agribusiness sector based on appropriationist industrial technological mode of production (Goodman, Sorj & Wilkinson, 1989) which has been criticised in Brazil since the 1980s, in many accounts, from environmental to social and political.

In the 1980s, social movements, professional agronomist associations and environmental NGOs started took the stance for an alternative agriculture, organising national meetings (EBAA- Encontro Brasileiro de Agricultura Alternativa) and culminating with a historical event in Petrópolis-RJ, gathering 17 State Secretaries of Agriculture. Although little had happened in practical terms, political opposition increased with CUT and CONTAG (industrial and rural workers union confederations) joining the movement (Shiki, 2009). Alternative agriculture took different approaches but the influence of some leading agronomists and Miguel Altieri was crucial to reinforce the agroecological approach. Professor at the University of Berkekey at the time, he had inspired agricultural researchers and extension services, especially in Rio Grande do Sul and Paraná states. Environmental NGOs such as the AS-PTA led the civil society to a national movement epitomised by the ENAs (National Agroecology Meeting), now in the third version.

Understanding the needs to embed strategic actions, organisations such as the AS-PTA tried to accumulate local experiences, referencing local knowledges in farming practices, recovering local native seeds, promoting local fairs to exchange varieties of seeds as diverse as spices, indigenous varieties of beans, maize, manioc. Local experiments with a strategic help from concerned scientists (from Embrapa Agrobiologia) showed that non-hybrid maize locally improved seed could yield harvests as productive as the industrially selected hybrids, with no chemical fertilisers and the use of pesticides. With these experiences and others as examples, Embrapa's research budget has been allocating substantial amount to finance family farming system research programme, where most of agroecological research projects fit in. State agricultural research institutions are also making their efforts to recuperate local knowledges and genetic materials, implement participatory methods of research and experimentation, and adaptation to local social and ecological conditions.

Embrapa is a Brazilian public agricultural research organisation, entirely funded by the government, created in 1973 as part of public investment in infra-structure, together with Embrater, for the extension service. Important agricultural states also created their own research institutions, in the same institutional format as Embrapa (empresas estaduais) intended to deliver new industrial modern technologies to the farmers. Productive improved varieties started and hybrids, combined with other mechanical and chemical technologies, together with abundant subsidised credit, was the successful formula to improve yields, mainly on export crops. Nowadays, Embrapa has the power to export technologies to many countries, but principally, kept the innovation structure in the hands of public sector.

However, Embrapa has not opposed to the advance of foreign GMO technologies dominated by powerful biosciences transnational corporations, that have incorporated key input provider sectors, from seeds, fertilisers, pesticides, herbicides and veterinary medicines.

How these local agroecological processes link with the core of rural development policies?

Rural policies in Brazil are divided in two sectors, (a) one which is dealt with by the Ministry of Agriculture and Livestock, establishing norms and regulations and economic incentives to the agribusiness sector; and (b) another treating the broad agrarian development sector, where land reform and family farming gain specific policies and politically gaining ministerial status.

This second sector gained identity of their own when the government recognised family farming as having specificities in terms of development that required differentiated policies. The boldest of policy instrument, the subsidised credit for farming operations, investment and commercialisation, (PRONAF – National Programme for Family Farming Enhancement) for instance, gained specific interest rate and even substantive discount or rebate in the principal, as in the case of newly settled farmers. Reformed farming sector, which represents more than 800 thousand families, and more recently, forest dwellers, from artisanal fisherman to extrativists are being identified institutionally as farmers. The latter is especially relevant in the Amazon region, constituting a totally new economy based on family dwellers working in the traditional way of reproducing their livelihoods and creating new markets, using timber for handicrafts and non-timber forest products for food, cosmetics and medicinal uses. There is no much studies measuring the size of these markets, especially the locally run market through fairs local commerce, self-consumption.

However, the costs of this financial support to family farmers are still very high, with the interest rate barely covering the inflation rate (4-5% p.a.) compared to the support OECD country farmers get from their heavily criticised system, such as PAC. Even so, the number of contracts rose from 174,286 in 1998/99 harvest year to 723.602, and the amount borrowed from US\$ 358.8 million to US\$ 2,384.6 in the same period, i.e. more than six times in a decade. The impact of the PRONAF policy has been considerable and effective, including about one million family farmers that took credit for investment and operational purpose, i.e. to purchase machines, cattle and inputs.

Traditional staplefood crops, milk and petty animal products and including some fruits vegetables appear as family farming production success (Table 1, marked in yellow), showing its considerable weight in the economy, especially for the provision of the domestic local market. This success can be attributed to PRONAF, although contributions from poorer farmers, those that not had access to official financing source, may not be negligible.

Product	β	R ²	%VBP Family Farm***
Milk**	2,98	0,8355	52,1
Beef meat			23,6
Pork meat			58,5
Eggs**	5,40	0,814	39,9
Banana	0,90	0,4935	57,6
Cocoa	-1,89	0,4269	
Coffee	0,74	0,0339	25,5
Orange	2,12	0,8338	27,0
Grappe	2,80	0,7601	47,0
Cotton	16,71	0,7688	33,2
Rice	4,26	0,8792	30,9
Sugarcane	1,70	0,9429	9,6
Onion	6,61	0,9045	72,4
Haricot beans	1,05	0,3328	67,2
Tobacco	2,54	0,8258	97,2
Manioc	1,30	0,0443	83,9
Maize	4,17	0,8557	48,6
Soybean	3,13	0,7894	31,6
Wheat	3,67	0,6982	

Table. Annual yield growth rate (*β) of selected products in Brazil:1970-2006 (Index 1970=100)

Source: IPEADATA/IBGE* β) Estimated by Ordinary Least Square method of linear regression (OLS) of the Yield Index Y = Σ P/(ha)/(animal)

**) Calculated from data series -1974 to 2006

***) VBP (Product Gross Value) Calculated from Agricultural Census Data 1995/1996 IBGE, Projeto de Cooperação Técnica INCRA/FAO, Novo Retrato da Agricultura Familiar, 2000

It would be interesting to know to what extent these lending helped family farmers to develop ecological improvements that would allow a transition to agroecological farming. It is also very interesting to know whether they are doing any different to those peasant farmers that did not borrow a penny from PRONAF. They are more than three million families in Brazil, mostly in the Northeast. There is a regional factor to consider here.

Northeast Brazil concentrate the bulk of the rural poor, and in this way, by far the most important region in terms of beneficiaries of Bolsa Família programme. Caatinga biome is not as rich as the Amazon or the Mata Atlântica in terms of biodiversity and even in terms of carbon stock, the climate is semiarid in most of the region, which means the lesser privileged of regions in terms of agro-food production. This is also an additional difficulty for the Northeast of an eventual programme aiming at the transition to agroecology. Only large public investment in irrigation made the São Francisco valley competitive in the production of fruits and vegetables, but peasant farmers had been kept out of this lucrative but highly intensive in capital. Those who are not able or do not want to indebted to PRONAF or other sources of financing are possibly beneficiaries of Bolsa Família, which means inability to produce even enough for their subsistence. The Northeastern ASA (Associação do Semiárido) and other NGOs are working for some time on agroecology projects and experiencing the production of caatinga's natural products, even for export. This is the way local community organisations are trying to overcome subsistence economy, beyond Bolsa Família.

One last point to discuss is how policy initiatives are linked to the above processes of transition to agroecology and a possible emergence of new markets.

Agroecology is the point of convergence between two ministries, the environment (MMA) and agrarian development (MDA), although the specific piece of legal instruments and norms for organic agriculture is in the hands of the Ministry of Agriculture (MAPA).

The MDA is trying to implement a more ecological line of production based on the agroecology experience in Rio Grande do Sul, where PT government introduced the concept in the state extension service, from where most of the key decision makers in that ministry brought their own experience. After seven years of internal discussion, the most significant outcome is the linkage of the concession of federal financing source of state extension services conditioned to the adoption of agroecology as farming production principles, and the devise of a more appropriate credit system (PRONAF), i.e. financing the whole production system instead of crop specific project.

The MMA had been introduced to the theme by the organisations of the civil society through Proambiente, a programme devised for the Amazon region aiming at driving family farmers, extrativist dwellers, local artisanal fishermen, quilombola communities, and indigenous people to produce and develop their livelihood more sustainably, introducing agroecological concepts and principles. These ecological benefits resulted from these practices has been named "environmental services", and as these ecological benefits are of public nature, that is, benefits everyone in the society, including international community, it is asked a payment for environmental services.

Proambiente was offered to the MMA to be run as an official programme, which had already implemented seven pilot projects called "pioneer poles" out of eleven planed by the civil society organisations. The difficulty for the MMA is of the regulatory nature, the lack of a legal instrument to finance a programme so far funded by PPG-7 programmes and bilateral donors, more importantly, The Netherlands and Germany. This why MMA proposed a law project to the Congress and it should be voted in the beginning of the 2010 sessions

Payment for Environmental Services (PES) is designed to provide an economic instrument powerful enough to encourage materially the transition to agroecology. Many states and local organisations are eager to start devising projects, although the experiences in place are mostly focused on water protection. This is the case of Espírito Santo, Minas Gerais and São Paulo, but other states such as Paraná and Santa Catarina are already discussing their own projects.

Conversation between the two ministries are very frequent and institutionally organised such as the CONDRAF (Conselho Nacional de Desenvolvimento Rural Sustentável) presided by the minister of agrarian development but the environment minister has also a seat.

At operational level, there are always tensions but most of the time cooperation prevails and this will be essential if the PSE scheme is to work.

6. References (to be completed)

- BELIK, W. Agricultura, concentração no setor de comercialização e novos espaços para a distribuição de produtos frescos. <u>Economia Ensaios</u> V.22, p. 28-48, 2007.
- CARVALHO F°, J.J. Política agrária do governo FHC: desenvolvimento rural e nova reforma agrária. In: LEITE, S. Org. Políticas Públicas e Agricultura no Brasil. Porto Alegre, Editora da UFRGS, 2001.
- DELGADO, G.C. e THEODORO, M. Desenvolvimento e política social. In: JACCOUD, L. (Org.) Questão social e políticas sociais no Brasil. Brasília, IPEA, 2005.
- ELLIS, F. BIGGS, S. Evolving themes in rural development 1950s-2000s. <u>Development</u> <u>Policy Review</u>, 19 (4): 437-448, 2001.
- GOODMAN, D. SORJ, B. & WILKINSON, J. (1987) Da Lavoura a Biotecnologia. Rio de Janeiro, Ed. Campus.
- GUANZIROLI, C.E. PRONAF dez anos depois: resultados e perspectivas para o desenvolvimento rural. XLIV Congresso da SOBER, Fortaleza/CE, 22-25 de julho de 2006, CD-Room.
- GUANZIROLI, C.H. e CARDIM, S. E. (Coord.) Novo Retrato da Agricultura Familiar O Brasil Redescoberto. Projeto de Cooperação Técnica INCRA/FAO. Brasília, 2000.
- HALL, A. From *Fome Zero* to Bolsa Familia: social policies and poverty alleviation under Lula. Cambridge, Journal of Latin American Studies, 38, 2006.
- IPEA. Políticas sociais acompanhamento e análise. Brasília, IPEA, Edição especial nº 13, 2007.
- IPEA. Sobre a Recente Queda da Desigualdade de Renda no Brasil. Nota técnica. Brasília-DF, 2007.
- JACCOUD, L. (Org.) Questão social e políticas sociais no Brasil. Brasília, IPEA, 2005.
- KAGEYAMA, A. e HOFFMANN, R. Pobreza, segurança alimentar e saúde no Brasil. Campinas/UNICAMP, FECAMP, Relatório de pesquisa, 2007.
- MARGULIS, S. (2003) Causes of Deforestation in the Brazilian Amazon. Washington, DC. World Bank Working Papers. December.
- RYLANDS, A.B., BRANDON, K. (2005) Unidades de Conservação Brasileiras. Megadiversidade, Vol. 1, n. 1, July 2005.
- SCHNEIDER, S. Trends and matters in rural development studies in Brazil. Paper presented at the ESRS Conference. Wageningen, 20–24 August, 2007.
- SHIKI, S. (2008) Política Agrária e Conservação da Biodiversidade no Brasil. Unpublished paper presented at International Seminar, CPDA/UFRRJ, September.