



SOCIO-ENVIRONMENTAL PUBLIC POLICY FOR THE AMAZON BIOME: AN ESSAY OF THE PROAMBIENTE-RIO CAPIM POLE PROGRAM IN THE PARÁ AMAZON



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ABSTRACT

From the 1990s onwards, the debate around the environmental theme became increasingly present around the world. In this sense, the United Nations report entitled "Our Common Future", known as the "Brundtland Report", released in 1987, and the so-called United Nations Conference on Environment and Development (ECO-92), held in Rio de Janeiro in 1992 (FILHO-MONTIBELLER, 2001), were two events of global notoriety, in which the search for a new form of development was in evidence, expressed no longer only by environmentalists, but also by social movements. Many proposals of a socio-environmental nature were triggered from the context of society's discussion about development. The COP-30 itself to be held in Belém-PA was not only a forum organized under the leadership of the United Nations, it represents a historic moment where the various matrices of the global environmental movement express themselves in parallel with the official event when

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the idea of sustainable development is based on new premises of a guiding agenda for public policies.

Keywords: Socio-environmental Policy. Amazon Biome. Proambiente. Amazon of Pará.

INTRODUCTION

From the 1990s onwards, the debate around the environmental theme became increasingly present around the world. In this sense, the United Nations report entitled "Our Common Future", known as the "Brundtland Report", released in 1987, and the so-called United Nations Conference on Environment and Development (ECO-92), held in Rio de Janeiro in 1992 (FILHO-MONTIBELLER, 2001), were two events of global notoriety, in which the search for a new form of development was in evidence, expressed no longer only by environmentalists, but also by social movements. Many proposals of a socio-environmental nature were triggered from the context of society's discussion about development. The COP-30 itself to be held in Belém-PA was not only a forum organized under the leadership of the United Nations, it represents a historic moment where the various matrices of the global environmental movement express themselves in parallel with the official event when the idea of sustainable development is based on new premises of a guiding agenda for public policies.

In the Amazon, the environmental issue meets the discussions on the forms of implementation of development programs and policies for agriculture, especially for family farming. These discussions take place in a context in which it is consensual that policies and programs aimed at family production in the Amazon should develop mechanisms and formulate instruments to enhance sustainable practices for socioeconomic reproduction for this public.

In this scenario, the Policy Program, PROAMBIENTE, emerged in the midst of the social movements, which was the result of the discussion of the Federations of Agricultural Workers (FETAGs) of the Legal Amazon, the Confederation of Agricultural Workers (CONTAG), the Amazon Working Group (GTA), the National Council of Rubber Tappers (CNS), the National Movement of Artisanal Fishermen (MONAPE), the Coordination of Indigenous Organizations of the Brazilian Amazon (COIAB) and the technical cooperation of the Federation of Agencies for Social and Educational Assistance (FASE) and the Amazon Environmental Research Institute (IPAM) on the need to overcome the dichotomy between rural production and environmental conservation, the main theme of the 2000 Cry of the Amazon⁹.

⁹ It is a mass movement and political manifestation of small farmers, peasants, family farmers, rubber tappers, riverside dwellers, coconut breakers and other groups that represent the rural sector. Created in 1991 in the State of Pará, it spread throughout the Amazonian states where it provided the beginning of a process of democratization of rural credit, through the institution of the FNO-Especial. In 1994, the Cry of the Amazon was assumed as a form of struggle by rural peoples in other states, assuming the current form entitled "Cry of the Earth Brazil", which every year, usually in the month of May, promotes mobilizations in all Federation Units and a large demonstration in Brasília to demand the improvement and expansion of public policies aimed at rural areas (MATTOS, 2010)

This program was directed to family agricultural and agroextractivist production, built by organizations representing farmers and technical partners, appropriated as a public policy by the federal government in 2003 (VASCONCELOS, 2008; ARAUJO, 2007). It brings together a set of review elements related to the management practices and use of natural resources, like no other previous intervention policy. However, PROAMBIENTE is the result of a set of knowledge built over the last few years, from the implementation of several alternative experiences in different locations in the Amazon (ARAUJO, 2007), especially the Reca Project located on the border of Rondônia with Acre, FASE-PRORENDA-GTZ and CFR-25 de Julho in the Northeast of Pará and the Roça sem Queima Project in the West of Pará, all managed by organizations representing farmers who, in a broad way, propose a change in historical habits, based on a new conception of development in the countryside (VASCONCELOS, 2008; ARAUJO, 2007)

METHODOLOGY

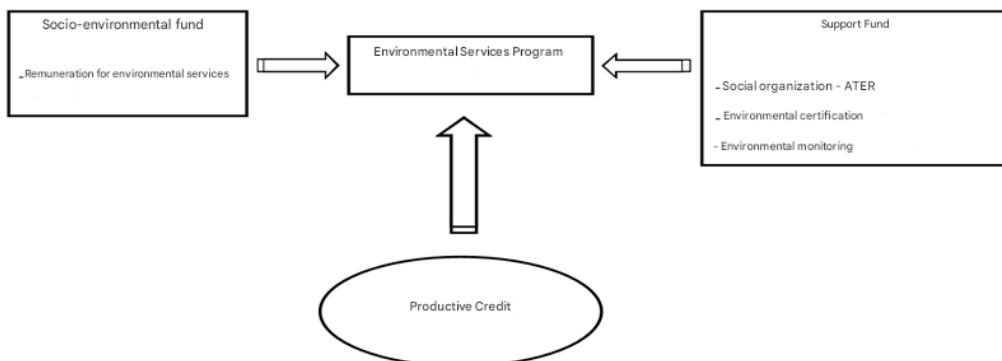
PROAMBIENTE was structured to operate supported by three strategic funds, with the objective of ensuring the operationalization of the program, as well as enabling its consolidation, through incentives for technical advice and financial support for the implementation of individual and collective projects.

The program had environmental services as the central point of its structure (Figure 1), defines them as: "[...] the quality of life offered to society provided by qualitative changes in production systems". As for the value of the environmental service, the program itself identified it within the principles of valuation of the ecological economy, which was initially calculated as equivalent to half a minimum wage per month, based on the cost of eliminating the use of fire in production systems, called opportunity cost, which is: "[...] the additional cost to reduce the risks and environmental impacts of production systems that is not internalized in the final price of the product to the consumer market [...]" (PROAMBIENTE, 2003). This structure consists of:

- *the support fund* was responsible for raising the financial resources necessary for the operation of the program (management of the Pole, strengthening of farmers' organizations, hiring of teams in charge of technical advice to families registered in the program, and for the service of certification of services and environmental monitoring);
- *the optional productive fund* was responsible for the operationalization of financial resources intended to finance farmers' technical projects with a socio-environmental emphasis;

- The socio-environmental fund was responsible for the source of financial resources to guarantee the remuneration of environmental services, which among which is highlighted as the most important, precisely because it supports the basis of the program's differentiating conception. The figure below illustrates the structure of the composition of the program's funds.

Figure no. 01 – General structure of PROAMBIENTE



Source: Authors, 2024

In this way, the proposal was based on the recognition of the multiple strategic functions performed by *family units* and their benefits to society, considering fair and necessary the compensation for environmental services related to all activities of the production system or recovery of *legal reserve areas* and *permanent preservation areas*.

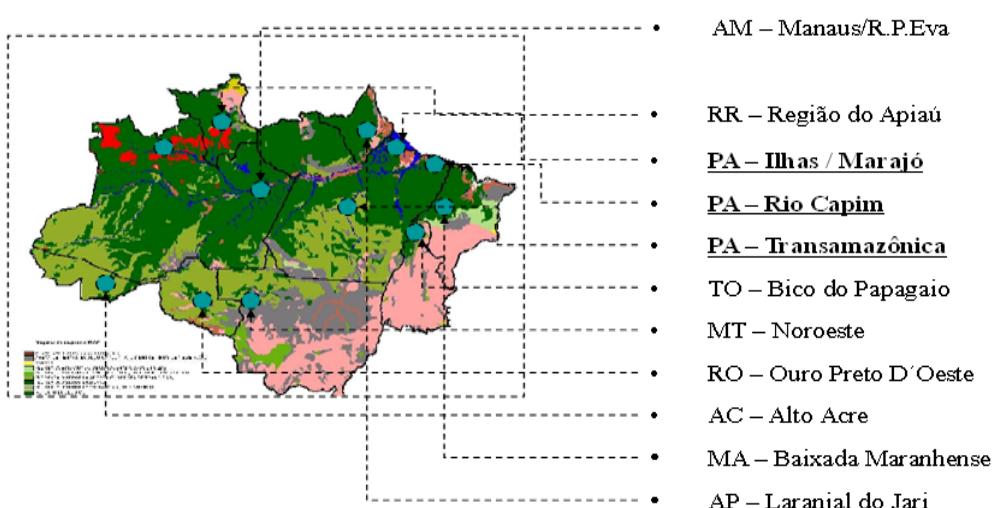
Presented as an alternative development proposal for the Amazon, the program adopted a new conception of rural development that "(...) must be accompanied by compatible technical and economic conditions for the achievement of these objectives" (PROAMBIENTE, 2003), also proposing a technical advice, differentiated and integrated with the different social actors, being one of the fundamental points for the success of the program, where it was intended to provide the Amazonian family farmer with the incorporation of family *units* to generate environmental services.

Mattos & Pereira (2003) observed that PROAMBIENTE has a plurality character because it included items that aim, among other things, to decentralize decision-making at the regional level through its management based on councils (national and pole), to strengthen the representative organizations of family farmers and to finance production under a new concept of credit with an environmental valorization profile.

From the end of 2002, 11 pioneer Poles were chosen to begin the implementation of PROAMBIENTE in the Amazon Biome. Each of the Poles was planned to benefit up to 500 families, forming groups close to each other, aiming at technical advice, future actions of other public policies and greater impact on the generation of environmental services (ARAUJO, 2007; PROAMBIENTE, 2003).

Vasconcelos (2008) points out that the pioneer Poles were chosen based on two main technical criteria: having collective organizations with experience in the execution of productive and environmental projects; have at least one pole in each state of the Amazon Region, however there was an exception in Pará, which has three (Capim River Pole and the Trans-Amazonian Pole, and one artisanal fishing pole in Marajó), as can be seen in the figure below.

Figure no. 02 – Location of the PROAMBIENTE Poles.



Source: Authors, 2024

According to Mattos, Faleiro & Pereira, (2001) in this formation process each Pole was divided into groups and each group composed of 30 to 35 families that elected a *Community Agent* (AGC) who was also one of the members of the group and who were part of the technical team, being responsible for periodically visiting these same families to identify demands for technical intervention. The AGCs were chosen at the meetings of the STRs of each municipality in the Pole. Throughout the process of choosing the AGC, decisions were made within the scope of the STRs and FETAGRI, with some involvement

of the technical team, especially in the choice of some AGCs. At times, the decisions were made under the interpretations of the leaders as to the best course to be taken, including from a technical and political point of view, and at others, in compliance with the requirements and requirements of the PROAMBIENTE proposal. In general, the geographical location and the performance of the STRs, together with the distribution of *family units* in the various zones and communities, were the main characteristics for the formation of the 17 community groups. The AGC would have 10 days per month for visits to the *farmers' family units*, so there would be 20 days left to be dedicated to the productive activities of their *family units*. The idealization of the AGC is extremely important, as it would serve as a strategic link between farmers and Medium Level Technicians (TNM's).

The TNM's mission was to maintain direct contact with the AGCs of each group. Its attributions were to elaborate, together, with the families the methodologies of the program and implement agroecological techniques in the *family units*. The role of the Higher Education Technicians (TNS) was to develop and execute training programs for farmers and TNMs, encourage reflections on the opportunities and limits of family production, elaborate and monitor the execution of economic projects, in addition to developing markets for products from the Poles (FIGUEIREDO, 2009).

RESULT AND DISCUSSION

CONSTRUCTION OF THE RIO CAPIM POLE

The steps that refer to the process of building the Pole with the farmers included the choice of the technical advisory entity with a differentiated structure from the conventional Technical Assistance and Rural Extension (ATER) (for example, the participation of a farmer in the technical team, called "AGC"), selection and registration of families, assembly of 500 families, elaboration of the *socio-environmental certification standard* (PCSA), *development plan of the Pole* (PD), *use plan* (PU) and the construction of *community agreements* (ACs).

Definition and location of the municipalities of the Pole and choice of the executing entity

At the Pole, the representative entities (Rural Unions (STRs, associations, cooperatives) and, mainly, leaders of FETAGRI chose the executing entity that could legally represent the Rio Capim Pole in the PROAMBIENTE Program, also in charge of signing agreements to make financial resources feasible and, at the same time, provide technical advisory services.



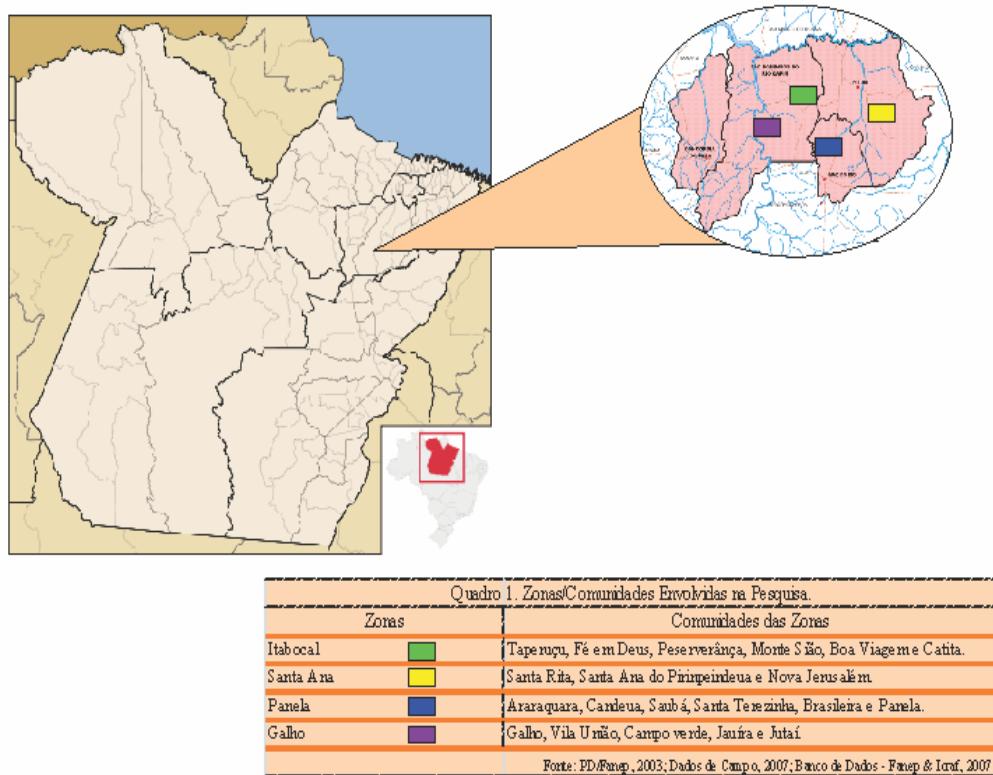
The definition of the municipalities covered, as well as the zones/communities to compose the Pole was under the responsibility of FETAGRI. This process took place during the regional seminar of PROAMBIENTE, which was attended by 150 people (technicians, farmers, managers, leaders and representatives of entities executing technical advice). The decision to define the territorial area of the Pole was proposed by the leaders of FETAGRI and the STRs of São Domingos do Capim, Mãe do Rio, Concórdia do Pará and Irituia.

In this seminar, the Socio-Environmental Foundation of the Northeast of Pará (FANEP) was also chosen to be the executor of the Pole, as it presented a structure and technical profile appropriate to the conception of the PROAMBIENTE Program, as it had experience in working with participatory methodologies and agroecological based practices, in addition to working for a long time in the region of the Northeast of Pará. In this way, building the Pole attributed, at that time, to the STRs of the municipalities and, evidently, articulated with the regional development project agreed around FETAGRI under the technical support of FANEP.

As in the other PROAMBIENTE Poles, in the Rio Capim Pole, the technical advisory entity, which, in this case, was FANEP which, together with its local partners¹⁰, during the period subsequent to the creation of PROAMBIENTE, converged the possible efforts to review the productive practices of the *family units*, as proposed by the program, with the direct involvement of 400 registered families, that made up the so-called Pole and its zones, with its geographical territorial base located in the municipalities of São Domingos do Capim, Concórdia do Pará, Mãe do Rio and Irituia (Figure no. 03)

¹⁰ Brazilian Agricultural Research Corporation (Embrapa Eastern Amazon), World Center for Agroforestry Research (ICRAF), Federal Rural University of the Amazon (UFRA), Federal University of Pará (UFPA)/Center for Family Agriculture Studies (NEAF), Technical Assistance and Rural Extension Company (EMATER), Bank of the Amazon (Basa), Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), Bank of Brazil (BB), Secretariat of State and Environment (SEMA), Women's Movement of the Northeast of Pará (MMNEPA), Federation of Agricultural Workers (FETAGRI - Bragantina Regional), among others.

Figure no. 03 Maps of the municipalities and zones of the Rio Capim Pole of PROAMBIENTE



Source: Authors, 2024

Assembly of 500

With regard to the assembly of the 500 families¹¹, as its name suggests, it was held with the purpose of bringing together, in this important event, all the farmers registered in the Pole, for presentation, debate of the conception and proposal of the program. These assemblies were subdivided into the four municipalities that make up the Pole and were attended by 606 people, including registered or non-registered farmers, leaders, researchers, technicians, representatives of the municipal government, among other participants.

Creation of the Rio Capim Pole Council (CONGEP-Rio Capim)

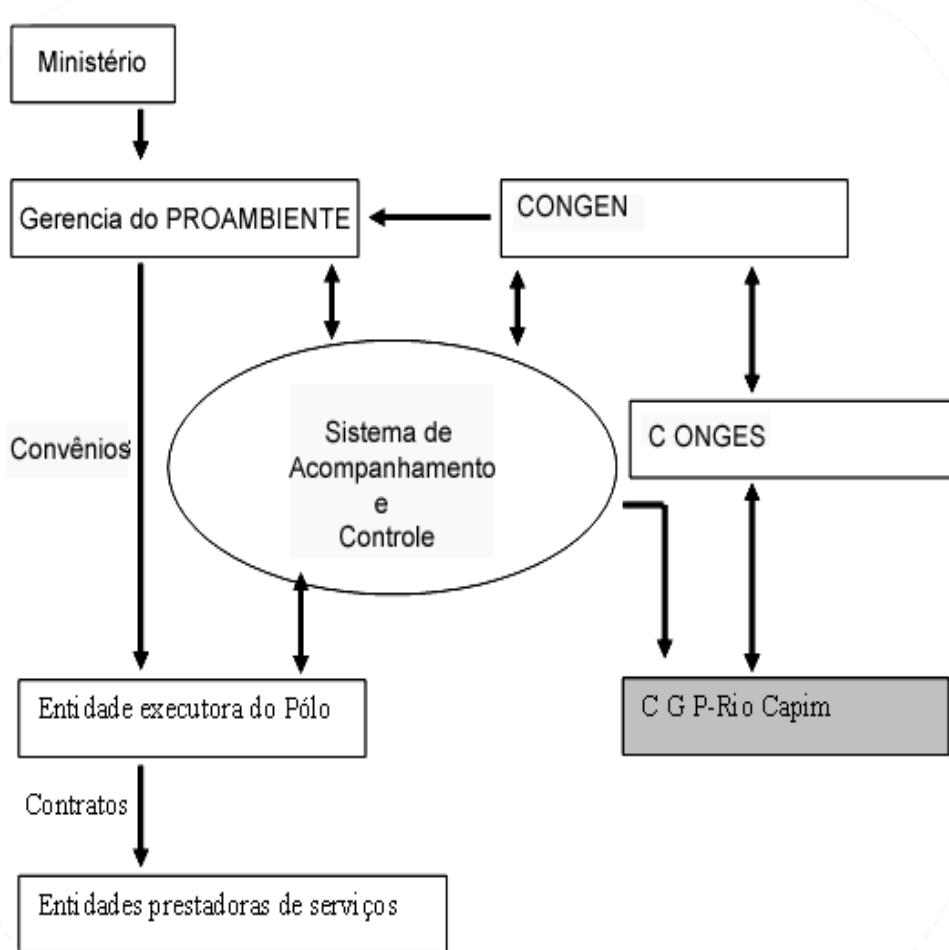
Due to the various debates and discussions about the PROAMBIENTE program with the entities that worked in the Northeast region of Pará, especially in the Pole, where these discussions culminated in the creation of CONGEP Rio Capim, a collegiate body responsible for decision-making at the local level, respecting the resolutions of the National

¹¹ In the structure of the PROAMBIENTE program, the registration of 500 families per Pole is planned. However, in the Rio Capim Pole, only 400 families were registered. This reduction was due to several reasons, especially problems with personal documentation and dropouts during the selection process.

Management Council of the PROAMBIENTE Program (CONGEN). CONGEPRio Capim is directly in dialogue with CONGEN and often attends to and respects the decisions and executes them within the scope of the Pole.

It is up to CONGEPRio Capim to discuss the actions, follow up and monitor the activities of the technical advisory of the executing entity. It also aimed to ensure the social control of the program and ensure the participation of representatives of organizations representing family farmers, local public authorities and governmental and non-governmental entities from the three spheres of the federation (municipal, state and federal), all involved in the execution of these agreements and contracts within the scope of the Pole, as shown below:

Figure no. 04 - Structure of the PROAMBIENTE management model



Source: PROAMBIENTE, 2003; ARAUJO, 2007.

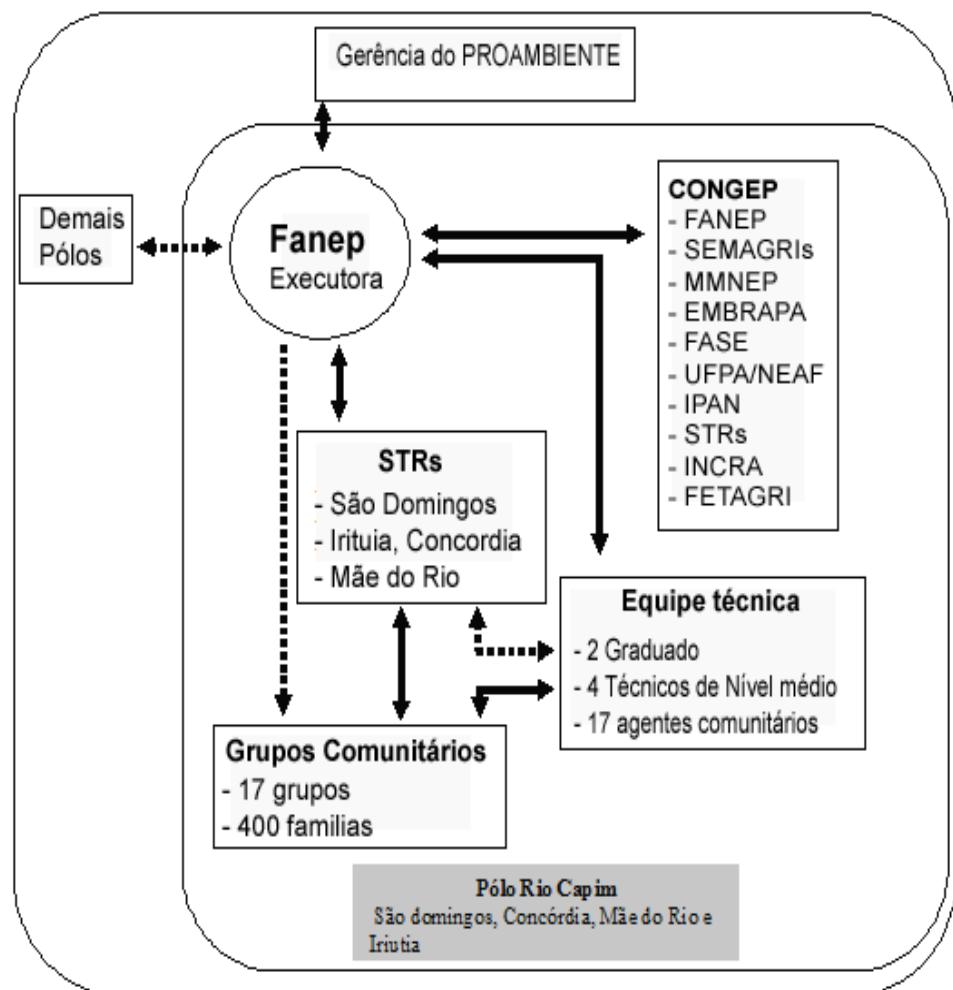
The CONGEPRio Capim was of a decision-making nature and formed by a collegiate that mostly presented entities representing the family farmers of the Pole, including: STRs (Mãe do Rio, São Domingos do Capim, Irituia and Concórdia do Pará);

FANEP; MMNEPA; PHASE; IPAM; Secretariat of Agriculture and Environment of the Municipalities (Mãe do Rio, São Domingos do Capim, Irituia and Concórdia do Pará); Embrapa Eastern Amazon; INCRA; UFPA/NAE/NEAF and ICRAF.

CONGEP-Rio Capim was the collegiate body responsible for decision-making at the local level. It would be up to this resort to define and monitor the executing entity of the Pole, which had the attribution of signing agreements with the management of PROAMBIENTE and hiring service providers to develop the activities of the Pole.

The figure below illustrates the composition of CONGEP-Rio Capim and the organizational structure of the Pole's management, as shown in the figure below.

Figure no. 05 – Management and control structure of PROAMBIENTE at the Rio Capim Pole.



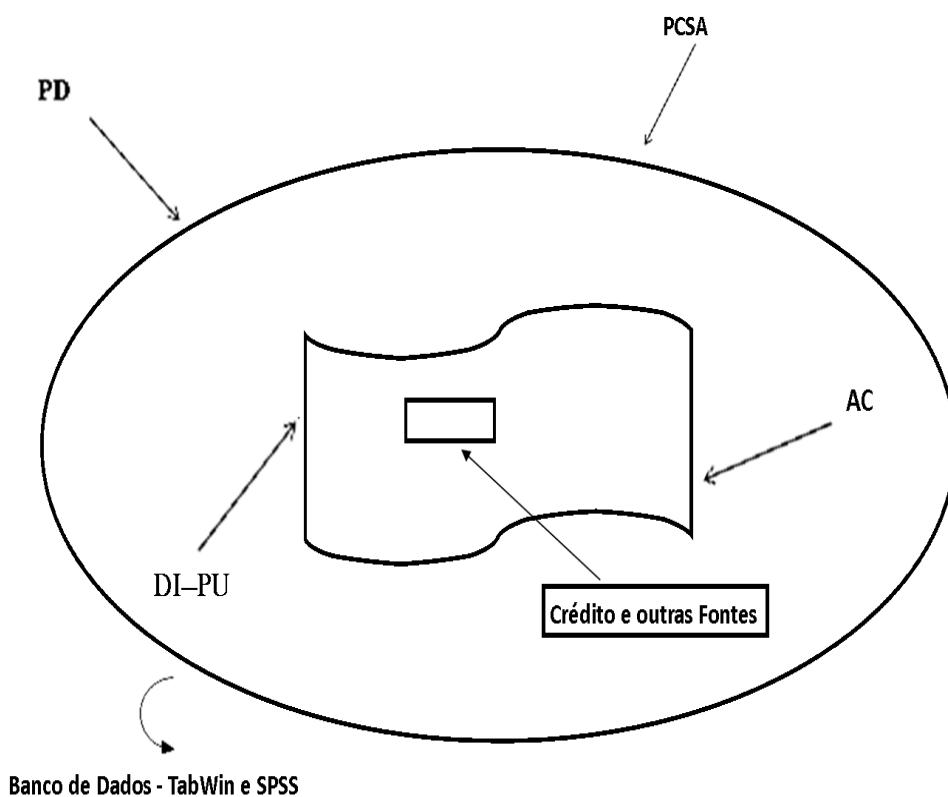
Legend: More intense relationship; Less intense relationship

Construction of the Pole Development Plan (PD) and the Socio-Environmental Certification Standard (PCSA)

The *development plan of the pole* aims to establish strategies for the sustainable development of family production in the area covered by the Pole, in an integrated manner with the *standard of socio-environmental certification*, *individual diagnosis/use plan* and *community agreements* of family groups, incorporating the vision of the future of all actors of local development, based on the understanding of the potential and limitations of the internal context of family production, as well as the opportunities and threats of the external context.

The figure below shows the configuration of PROAMBIENTE's methodologies.

Figure no. 06 - Configuration of PROAMBIENTE methodologies



Fonte: Adaptado da gerencia,

Source: PROAMBIENTE, 2003; VALENCIA, 2008.

One of the main purposes of the construction of this methodology was to format a database through statistical software – *TabWin* and *SPSS* to subsidize information for future research and strategic actions to strengthen the registered *family units*, supported both by the program management and by future partnerships signed during the construction

of the Center, in addition to subsidizing the preparation of *plans for the use of family units* in line with the strategic actions set out in *the development plan of the pole*.

The *development plan of the pole* was divided into two parts: a diagnosis itself, made with the techniques of Rapid and/or Participatory Rural Diagnosis (DRP), with the objective of portraying the socioeconomic and environmental reality of the region of the Pole through updated information on the different family groups, production system, infrastructure, environment, commercialization and, also, from the point of view of local organizations and external institutions that operate in the region.

The second part refers to the elaboration of actions aimed at the Pole through a *Matrix* that was carried out with the techniques of Strategic Planning (SP) that basically determines the actions by objectives and aims to contemplate the main strategies of the families to overcome the obstacles to their own development, in addition to the guiding guidelines and the most urgent actions of the *development plan of the pole*.

During the construction, data deserving attention were debated for the analysis of the *development plan of the pole* that confirms the information of the Executive Secretary of Science, Technology and Environment - SECTAM (1996) (today the State Secretariat of the Environment - SEMA) that the area of the Pole presents a serious picture of environmental degradation, pointing to accelerated deforestation and inadequate soil management, resulting from practices of area preparation through slash and burn and accelerated cattle ranching process (PD/FANEP, 2003)

For the construction of the *development plan of the pole* and the *socio-environmental certification standard*, the "*landscape reading map*¹²" *method was used* in the areas of the municipalities indicated by FETAGRI and the STRs as priorities for the implementation of the referred Pole. In the landscape reading carried out at the time of the construction of the *development plan of the pole* and the *standard of socio-environmental certification*, it was possible to observe that all the areas of the Capim Pole are well served by water resources, but with poorly preserved riparian forests. At that time, a high incidence of fires for agricultural purposes was detected, which are beyond the control of farmers, causing serious damage to natural vegetation and to neighboring farmers' areas intended for production, confirming SECTAM data from 1996 (Apud PD/FANEP, 2003).

¹² The technique consists of going through the previously defined areas in order to get to know the particularities of the region, its natural resources, among others. It also subsidizes the debate of the groups according to characteristics, trends, differences, similarities, etc. To allow the identification of structures within the same geographical space, such as, for example, schools, roads, health centers, etc., in addition to providing a systemic view for the group under discussion during the workshops on the *development plan* and the *socio-environmental certification standard*.

Therefore, in the Pole, the environmental issue was quite worrying, because, due to the intense demographic pressure, there were serious investments in the areas of forest and secondary forests (capoeira), timber extraction and cattle raising, causing erosion in natural resources with repercussions on the environment, in addition to the traditional system in the preparation of the area with slash and burn all this, a reflection of the policy adopted by the state in recent years. with a productivist vision.

In the Pole, the most diverse productive activities of animal, vegetable and mineral extractivism, food crops (swidden), livestock, permanent crops, monocultures, and at the time many farmers were adopting the Agroforestry Systems (SAFs) in their *family units*. It was perceived that in the current landscape of the Pole, most of the vegetation cover was composed mainly of capoeira (in different stages of growth), as a result of the devastation of native forests by the predecessors of the current occupants, as well as by the itinerant model (cutting/burning) of the current occupants, in the implementation of their swiddens and pastures. However, it was observed at that time that there were small areas of preserved forest and "thick" capoeira in recovery, notably in the *family units* registered in the Pole (PD/FANEP, 2003).

At the time of the construction of the *socio-environmental certification standard*, the technical team opted for an agenda that encompassed a broad discussion on the objectives and conception of PROAMBIENTE, with the main emphasis centered on the provision of environmental services, agroecological-based production practices and the external view of what would be the new role of the family farmer from the implementation of the program. before these construction processes begin.

From this initial clarification on the conception of the PROAMBIENTE Program, space was opened for the introduction of the discussion directly focused on the *socio-environmental certification standard* for later closure with field tests with test of applicability of the standards, assembly of indicators of the certification criteria.

It is worth mentioning that the *socio-environmental certification standard* are sets of principles, indicators and criteria that, if met, give beneficiaries the right to receive Payment for Environmental Services (PES), whose principles express general concepts to be followed by families. These criteria transform the concepts and principles that constitute guidelines for the work of the families and the indicators transform the criteria into practical questions that can be applied during the field audit.

The novelty in relation to other processes, underway at the time in several locations, was the component of the provision of environmental services to society. In other words, the groups of family farmers belonging to the Pole proposed to perform environmental

functions, in addition to the traditional ones of food and fiber production, as an additional source of external resources to support their own development process (PROAMBIENTE, 2003). The principles of PROAMBIENTE, together with the criteria and indicators, form the standard of socio-environmental certification. These standards guided the work of field auditors in the phase of future certification.

It is worth mentioning that, in the workshop for the construction of the *socio-environmental certification standard*, the PROAMBIENTE environmental services certification booklet was used to support the understanding of the standards, principles¹³, criteria and indicators.

All the material of the workshops was prepared on paper (40 kg) with figurative language and accessible text. The process continued with the application of the questionnaire for field tests¹⁴ in some *randomly chosen family units*. It was observed that part of those involved in this process share the same concern with the maintenance of natural resources and the reduction of the use of fire.

Most of them were unaware of environmental laws, especially the *legal reserve area* and *the permanent preservation area*. However, the farmers and technicians involved evaluated that there is a possibility of meeting the criteria for certification, as long as there is a broad and constant process of training, clarification, technical support and promotion of activities to provide environmental services.

It is worth mentioning that a Socio-Environmental Certification System (SCSA) is planned. The certification process was divided into two stages (ARAUJO, 2007). In the first, families certify each other (participatory certification), within the framework of *the community agreements* signed. In the second stage, an (independent) certifying institution was hired to carry out field audits to confirm the information provided by the families. For *family units* to be certified, two preconditions were required: that the family had drawn up the *plan of use* and that its community group had constituted a *community agreement*.

Construction of the *Use Plan* (PU) and *the Community Agreement* (AC)

Regarding the *use plan*, it was prepared by the families with the support of the FANEP technical team. The *plan of use* is the integrated planning of the family. It is also the basis for technical projects of rural credit, for the conduct adjustment term (TAC) and for the

¹³ These principles are general concepts that must be followed by families in order to provide environmental services.

¹⁴ It is the application of a questionnaire with the families registered with PROAMBIENTE containing the principles, criteria and indicators of the *socio-environmental certification standard* discussed in the workshop. This information made it possible to assess what is really feasible for the reality of family farmers in the Rio Capim Pole, in order to comply with the *socio-environmental certification standard*.

Environmental Licensing (AL) of the *family unit* (MATTOS, 2010). According to the methodology used in the elaboration of the *use plans*, each family was encouraged to draw the current use of the land and the desire of the families in relation to the future use of their *family unit*, on a sheet of paper, which already served as a basis for the farmers to visualize the planning of the *family unit* and its possible change in land use.

For Vasconcelos (2008), the *use plan* consists of a general planning of the *family unit*, based on the operationalization capacity of the family members, foreseen for a period of 15 years, containing short, medium and long-term actions.

It is worth noting that the *individual diagnosis* was the basis for the construction of the *use plan*. These two methodologies, even though they were correlated, were constructed at different times, but with the same method of the *development plan of the Center* that used the DRP, with the *individual diagnosis* and the *use plan* adapted to each situation (Ibid, 2008).

The *community agreements* aimed to promote the certification of environmental services with the families participating in the program and, specifically, to ensure that the *socio-environmental certification standard* is respected. In addition to ensuring that families are complying with the *use plans*, it empowers community groups and contributes to the adjustment of the *use plans*.

Considering that one of the objectives of the *community agreements* was to ensure that families are complying with the *plans*, it is important that one family knows the *plans for use* of the other families. Therefore, a rescue of the *plans* elaborated was made. In this way, each family presented its *plan of use* based on the current and future maps already prepared. This socialization was facilitated by the technical team, presenting the main common points of conversion in the *use plans* of each community group.

In the *community agreement*, each local group was supported by the technical team and its agreement was agreed and signed, in which the families undertook to execute their own *use plans* and to comply with the standards established in the *socio-environmental certification standard*.

As for the verification methodology, it provided for a mixed certification system, that is, a first stage of participatory certification was provided for that culminated in the elaboration of agreements between the groups and a second stage of conventional certification that was completed with the certification audits.

After one year of implementation, the subgroup should review its *agreement* and appoint its doers and non-doers. Then, according to the original proposal of PROAMBIENTE, entities registered by the program and accredited by the National Institute

of Metrology (INMETRO) would carry out certification audits to verify the *agreements*. As it was not possible to carry out audits in 100% of the Pole, each year, around 10% of the subgroups must be audited, closing 100% of the audit over 10 years. On the other hand, subgroups that are not audited are worth what the *agreement* says.

Each subgroup of the Pole meets and establishes its *agreement*, which pointed out the collective commitments for the fulfillment of the *use plans* and the *socio-environmental certification standard*. The *community agreements* were established based on the commitments defined in the *socio-environmental certification standard* itself (reduction in the use of fire, reduction in the use of poison, reduction in deforestation, etc.). For example, the group could define collective strategies to prevent the occurrence of accidental fires (through joint efforts, firebreaks, etc.)

In chart 1, we can identify the points, demands and practices of agroecological transition that occurred in the process of building the methodologies of technical assistance, which were discussed in the *use plans*, agreed upon in the *community agreements*.

Table 1. Matrix of the main biophysical demands of the family units that are in the use plans and community agreements plotted (in the form of variables) in the statistical software TabWin and SPSS.

Convention Points	Current Usage Type	Unit	Conversion Method	Type of Future Use	Unit
Preparation of the area with the use of fire and increase of the area of brush-cutting	Cutting/burning+food crops+fallow	1 ha	Shredding/Tritucap ¹⁵ , preparation without the use of fire manually and use of firebreak	Food crops and avoiding accidental fire in <i>legal reserve area</i> and <i>permanent preservation area</i>	4 ha/year
Farm with no perspective for SAFs	Food crops	2 ha	SAFs	Plantations of food crops, fruit trees, forest essences destined for <i>legal reserve area</i>	1 ha/year
Recovery of vegetation of streams, rivers, lakes, streams, etc.	Deforested vegetation	0.5 ha	Recovery of riparian vegetation with plantations of native species in general (random)	Fruit trees and forest essences, family fishing, daily bathing and consumption in general for animals and family and <i>restored permanent preservation area</i> .	0.125/yr
Backyard with low production	Loose breeding of small animals	0.25 ha	Agroecological chicken coop ¹⁶ and	Semi-confined breeding,	0.25 ha/year

¹⁵It refers to a machine called TRITUCAP, which prepares the area without the use of fire by crushing the biomass of the capoeira. This system allows two cycles of food crops to be carried out in the same area, in addition to simultaneously allowing the planting of fruit trees and forest essences throughout the cultivation of food species.

¹⁶And the management of birds in a semi-confined system with agroecological principles

and inadequate management			formation of forest farms	Forest backyards in use (seeds and etc.) intended for <i>legal reserve area</i>	
	Unused Fruits of <i>Family Unity</i>	-	Fruit dryer ¹⁷ , living pharmacy and home garden.	Desiccated and stored fruits, medicinal plants and vegetable gardens.	One unit of each
Inexistence and/or "inadequate management" of açaí trees	Açaí extraction without management	1 ha.	Management of açaí trees and introduction of SAFs	Açaí managed for consumption/sales and SAFs destined for the <i>legal reserve area</i>	1 ha/year
Deforestation of capoeiras	Early fallow and slash/burn	1 ha.	Avoided deforestation, increased fallow and use of firebreaks.	Allocate to the <i>legal reserve area</i> .	1 ha/year
Legal Reserve (RL) Deficit	Cult. Food and single.	+ 80% deforested	Management of capoeira, SAFs, bees and enrichment of capoeira.	SAFs, bee breeding, fruit tree planting and natural and accelerated recovery of the <i>legal reserve area</i>	80% recovery
Cattle ranching process, increase in pasture area and inadequate management of animals and pasture	Degraded pasture, unmanaged cattle and expansion of pastures.	2 ha.	Agrosilvopastoral system ¹⁸ , protein bank and rotational grazing.	Agroecological cattle and management of <i>legal reserve areas and permanent preservation areas</i>	2 ha/year
Capoeira in the process of deforestation, early fallow and low fertility	Fallow and firewood removal	1 ha.	Management and enrichment of capoeira	Enrichment with fruit trees and forest essences and management of the <i>legal reserve area</i> .	2 ha/year
	Deforested capoeira and planting of food crops	1 ha.	Introduction of beekeeping (with or without sting)	Capoeira enriched with beekeeping destined for <i>legal reserve area</i>	10 CX/2HA/YEAR
Lack of agroecological equipment in the <i>family unit</i>	None	0.5 ha.	Seedling nursery	Seedling production	1.000 1 unit 0.5 ha
			Manure	Organic fertilization	
			Legume field	Seed and green manure	
FNO - abandoned and unproductive	Fruit growing (orange and coconut)	1 ha.	SAFs	Planting of legumes and introduction of SAFs for the <i>legal reserve area</i>	1.0 ha/year

¹⁷The construction of agroecological equipment for fruit dehydration is intended to strengthen food security within *family units*, since in general fruits from agroforestry/forestry backyards are very perishable and wasted due to lack of storage.

¹⁸They are characterized by the breeding and management of animals in consortium with food crops, forest essences and fruit trees. (Ex: pig breeding with agroforestry, cattle raising with capoeira).

and existing monocultures					
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CONCLUSION

For decades, the numerous policies and programs aimed at the family sector have accumulated failures and left serious sequelae, which today are shown in the very structuring and productive organization of the sector, such as the massive concentration of land, high valuation of land as an asset, marginalization and worsening of the social situation, unequal food distribution, formation of an economically strong employer category to the detriment of the family productive sector, in addition to irreversible environmental problems.

As a result of this exclusionary and selective policy implemented in the country, rural credit, the main instrument of this policy, was allocated primarily to the more developed regions and to the most capitalized rural producers, who were the main beneficiaries of the instrument, causing the decapitalization of the vast majority of family farmers. Credit, despite being the most important financial instrument aimed at family production in the Amazon Region, the charges and conditions of the FNO-Special¹⁹ and other lines of financing consider only the costs of production and labor for the financed crops and livestock, not recognizing the existence of an additional cost for the adoption of agroecological based practices in the production systems and, consequently, not valuing the environmental services provided by these family farmers. Another point to be noted is that, historically, public policies for rural areas, especially for farmers in the Amazon region, have always left something to be desired, since the level of education is insufficient; Access to credit is difficult and there is no concrete mechanism to guarantee a minimum price in the markets. This situation still persists and becomes a great challenge for the planned intervention of the program and public policies. Finally, the policies, programs and credit lines are generally selective and concentrate income and, often, supported by the official ATER service, end up imposing technologies that are not adapted to the socioeconomic reality of family farmers and the environment, in addition to denying their participation in this intervention process.

¹⁹ The Constitutional Funds were created by the 1988 Constitution, which established the obligation of the Union to allocate 3% of the collection of IR (Income Tax) and IPI (Tax on Industrialized Products) to be applied in financing programs for the productive sectors of the North (0.6%), Midwest (0.6%) and Northeast (1.8%) regions. For the Northern Region, regulated by Law No. 7,827/89 and Complementary Law No. 9,126/95, the Constitutional Fund for Financing the North (FNO) was created, with financing programs for rural and industrial private productive sectors. The FNO's resources are managed by Banco da Amazônia (BASA), a public financial institution linked to the Ministry of Finance

In the search for a new perspective, PROAMBIENTE was a public policy endowed with participatory methodologies, socioeconomic changes and management of natural resources, in addition to proposing the qualification of available credit lines. Thus, the program has been implemented since the beginning of its implementation through an innovative technical advisory that sought to support the farmers of the Pole in the process of providing environmental services, with the objective of reverting to the socioeconomic conditions and the negative impacts on the environment caused by the interventions of past public policies, especially access to credit.

The intervention of PROAMBIENTE's technical advisory in the Pole brings a great challenge to this research. Because the socioeconomic condition of the families and the changes in the type of land use and management of natural resources in *the family units* that occurred due to this intervention, mainly triggered by the tools of *the use plans* and *community agreements*, will be a great opportunity to verify its effects.

For Mattos (2010), the *use plan* was the main instrument of the program for the integrated economic and ecological planning of the *family unit* (and which also plays an important role in the design of technical credit projects applied). The *use plans* were a technical document before family farmers and technical advice, which were based on the achievement of the objectives that should be in line with the standards of the *socio-environmental certification standard*. On the other hand, *community agreements*, which formalized community bonds of trust, establish methodologies for participatory verification of environmental services and collective means of conflict resolution in the use of natural resources. Therefore, the *community agreements* represented the decision of the groups of family types on the provision of environmental services and add the criterion of community dialogue on the process of execution of the *use plans*, whose result, although depending on the individual action, will be visualized in the collective, in addition to systematizing the accumulated knowledge of the reality of the Pole, incorporating actions according to the analysis of the potential of natural resources.

The *use plans* and *community agreements* were recognized by the families selected by PROAMBIENTE as the main result of the program, in order to direct the planning of *family units* in a fifteen-year time frame (2005-2020), but paradoxically they were not recognized by government bodies as a productive and environmental management result, even though they are in the implementation phase by the families in the Amazon biome (by 2020), and are also fully recognized as the main instrument for reorganizing the lives of farmers and the productive conditions of their *family units*.



Finally, it is justified to study the implications of the variables generated through *the use plans and community agreements* in order to verify which ones most influence land use and, at the same time, to identify the potential variables of changes in the type of future land use, in order to generate information capable of qualifying the application of integrative policies (for example, technical assistance and credit) in the modification of the socioeconomic and environmental reality of family farming in the State of Pará.

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