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They didn't understand...: The failure of the information campaigns to prevent forest fires in the Brazilian Amazon

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Abstract.

In the last few years, the Brazilian Amazon has burned under the gaze of international media through the satellites lenses. The response of Brazilian Federal Government and nongovernmental organizations (NGOs) has been to implement and to intensify information campaigns. The basic idea is to transmit information about techniques for preventing "accidental fires", allegedly unknown or "inappropriately" used by family farmers and rural workers. The goal is to "teach" them on the importance of environmental protection and take them to a change in their "wrong" behavior. This article outlines the main conclusions of a research about the four major information campaigns in Brazil. As a result, it can be affirmed that the campaigns did not achieve their main objectives because they still did not consider the idea of a strategic behavior of the receivers of the information, considering them as just 'receivers' - according to the principles of the outdated Mechanistic Model of Communication - and not as interlocutors.

Keywords:Communication; Environment; Information Campaigns; Reception Studies; Brazilian Amazon.

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No han entendido...: El fracaso de las campañas de comunicación para prevenir los incendios forestales en Brasil

Resumen

En los últimos años, la Amazonia brasileña se ha quemado antee la mirada de los medios internacionales a través de lentes de satélites. El fuego es utilizado anualmente por los agricultores familiares que limpian el área para los cultivos o para el mantenimiento de los pastos. Muchas veces, sin embargo, el incendio se escapa del control provocando incendios forestales o lesiones económicas. La respuesta del Gobierno Federal de Brasil y de las organizaciones no gubernamentales (ONGs) ha sido implementar e intensificar campañas de información. La idea básica de estas campañas es transmitir información sobre técnicas para prevenir "incendios accidentales", presuntamente desconocidos o "inapropiadamente" utilizados por los agricultores familiares y los trabajadores rurales. El objetivo es "enseñarles" sobre la importancia de la protección ambiental y llevarlos a un cambio en su comportamiento "incorrecto". Este artículo esboza las principales conclusiones de una investigación sobre las cuatro principales campañas de información en Brasil. Como resultado, se puede afirmar que las campañas no lograron sus objetivos principales y no consideraron la idea de un comportamiento estratégico de los receptores de la información, considerando como justos "receptores" - de acuerdo con los principios de lo Modelo Mecánico de Comunicación - y no como interlocutores.

Palabras clave: Campañas de información; Campañas Comunitarias; Estudios de recepción; Amazonia brasileña; Incendio accidental.

Introduction

In the last few years, the Brazilian Amazon has burned under the gaze of international media through the satellites lenses. The fire is used annually by family farmers and rural workers who clean the area for crops or for the maintenance of pastures. Many times, however, the fire escapes the control triggering forest fires or economic injuries. The response of Brazilian Federal Government and non-governmental organizations (NGOs) has been to implement and to intensify information campaigns¹ directed, mainly, to family farmers².

The basic idea of these campaigns is to transmit information about techniques for preventing 'accidental fires'³, allegedly unknown or 'inappropriately' used by family farmers. The goal is to "teach" them on the importance of environmental protection and take them to a change in their behavior. The assumption is that these social agents do not have information, so they do not act adequately. "Historically, this assumption of human ignorance was central for much of the practice of 'communication for development'" (Hornick, 1989: 116).

The information campaigns can also be called 'community-based campaigns', especially because they differ from other kinds of campaigns by seeking complex and long-term outcomes.

[This campaign are] often in several related behavioral areas defined as 'lifestyle' (daily living and work habits), by the use of multiple strategies for intervention, and by an emphasis on 'community' as the nexus of social relations which form individuals behavior. (Finnegan, Brancht & Viswanath, 1989: 54).

This article outlines the main conclusions of a research about the four major information campaigns in Brazil. Its goal was to analyze the campaigns and to explain why they didn't contribute, as it was expected, to the reduction of the numbers of accidental fires in the Brazilian Amazon at the beginning of this century. It also sought to demonstrate, in the context of the information campaigns, how the power relationships between the agents from the environmental field⁴ and the agents and institutions focused on the family farm

- 1 The "information campaigns" included various communication strategies with the public, from personal contacts at meetings and courses, to the production and use of support material (e.g., brochures and posters) and insertions of advertising on newspapers, radio or TV. This communication, strategically planned, has as its main goal to change the behavior of peasants regarding agricultural practices with the use of fire.
- 2 The category "family farmers" refers to owners or residents of pieces of land, usually up to about 100 hectares (case of the Amazon), where they grow various crops, mainly manioc, rice, corn and beans, as well as small-scale cattle and permanent crops such as coffee. The work on the soil is done largely (but not only) by the labors available in the family. The family unit is both a production and consumption unit. The hectare ('ha') is a metric unit of area defined as 10,000 square metres (100 m by 100 m) and primarily used in the measurement of land.
- 3 The main techniques for preventing accidental fires released through the campaigns are: the construction of firebreaks (i.e.: clean tracks of vegetation around the land to be burned); preventing the fire to extend beyond the area to be burned (between 1.5 and 3 meters, as suggested by federal government' primers); to burn only after the second rain following the drought; to tell the neighbors about the days and times of burning; and use the counter-fire (light a fire near the firebreak on the opposite direction to the main fire).
- 4 Bourdieu's *field* concept refers to the idea of a system in which institutions and actors, as well as their acts and speeches, have meaning only relationally, through the game of oppositions and distinctions. The materialization history of a social *field* is present in institutions and attitudes of the agents who run these institutions or struggle against them. Thus, a field is a specific system of objective relations that may be of alliance and/or conflict, competition and/or cooperation among different positions, socially defined and established, independent of the agents' physical existences (Bourdieu, 1998: 133). The field's boundary is the limit of its effects.

field were established. Therefore, the communication relations explained by the research and established by the campaigns are power relationships that reaffirm the imbalance and tension between the environmental and family farming fields.

Although the information campaigns are aimed at a diverse audience, which involves different categories of social agents, such as farmers, ranchers, politicians, teachers, health workers, youth peasants, journalists and agribusinessmen, the preferred receptors of the campaigns are the family farmers. To them is reserved most of the information, the time of activities and the material produced by the campaigns (such as brochures, posters and radio plays). The fire, due to its easy management and low cost, is used annually by family farmers to clean the area for agriculture or pastures.

The main data of this research was obtained during field research in seven cities in the state of Pará in Brazil (Belterra, Santarém, Altamira, Paragominas, Marabá, Conceição do Araguaia and Santana do Araguaia) and one city in the state of Mato Grosso (Guarantã do Norte). Fourteen villages were visited and a total of 326 interviews were made in 2003 and updated in the last few years. The criteria used for the selection of the cities were the proven incidence of forest fires, the implementation of information campaigns to avoid accidental fire coordinated by Governmental Agencies or NGOs (non governmental organizations) and the different characteristics related to the type of ecosystems (upland and lowland), the time of land occupation (old or recent), the origins of the family farmers (Northeasterners, Southerners) and the production practices with the use of fire (livestock, agriculture).

Four projects and their campaigns were chosen to compose the *corpus* of the analysis: 1) Proteger/Protect, conceived and coordinated by the Amazon Working Group/Grupo de Trabalho Amazônico – GTA; 2) PGAI Queimadas/Program of Environmental Integrated Action Against Fire, under the coordination of the State Secretariat of Science and Technology of Pará; 3) O Bom Manejo do Fogo/The Good Management of Fire; conceived and implemented by the Instituto de Pesquisa Ambiental da Amazônia – IPAM /Amazon Environmental Research Institute; 4) Fogo Emergência Crônica/Fire Chronic Emergency, implemented by the international non-governmental organization Amigos da Terra/ Friends of Earth⁵.

It is the acceptance or rejection of the campaigns' messages by family farmers what legitimizes the actions of the authors and releasers of these campaigns. However, family farmers are not only an object of dispute. They also take part in the meaning negotiation, confronting interests and developing strategies and tactics (Certeau, 1994, pp. 99-100),

⁵ Briefly, the four projects mentioned are distributed as follows in the cities where the field research was conducted: 1) Proteger: Marabá, Paragominas, Altamira, Conceição do Araguaia, Santana do Araguaia and Santarem (all in the state of Pará - PA) and Guarantã do Norte (state of Mato Grosso - MT); 2) PGAI Queimadas: Conceição do Araguaia, Santana do Araguaia, Marabá and Belterra, all in the state of Pará; 3) O Bom Manejo do Fogo (*The Good Fire Management*): Paragominas and Belterra, in Pará; and 4) Fogo Emergência Crônica (*Chronic Fire Emergency*): Marabá-PA and Guarantã do Norte -MT.

i.e., transforming the meaning of the original emissions in other meanings and projecting changes over the 'environmental field' and over the 'family farming field'.

The campaigns did not operate, as it will be seen throughout this text, in general, with the idea of a strategic behavior of the family farmers, considering them just as 'receivers', according to the lines of the outdated Mathematical Model (Shannon and Weaver, 1949), not as 'interlocutors'.

The Main Theoretical and Methodological References

The information campaigns were analyzed through their *discourses*, taking them, also, as producers of the reality, i.e., the reason for the political struggle for hegemony (Bourdieu, 1998, p. 173). The theory of social discourses deals with the processes of the formation of the discourse, which can be defined as the locus for the production of meaning, so, it is a discursive practice⁶.

Communication relations are thus power relations that depend on the symbolic capital⁷ of the agents and the institutions involved, related to the material and institutional structures of society (Bourdieu, 1998). The discursive legitimacy, based on the recognition that the social agents give to it, establishes its inherent power relationships. It is determined by factors that go beyond the social and institutional position or the social and economic power of the agents. These include individual, group and class interests, the history of previous institutional relations, the discursive mediation type and the competition from other discourses (Costa, 2006). The language presents itself therefore as an arena of social confrontations in which the meaning relations are an essential part in the constitution of power relations.

By using the concept of *discursive formations* developed by Foucault (1970), understood as a set of discursive rules that determines the existence of objects, concepts, strategies and modalities of the enunciate, Orlandi observes that words receive their meaning from the

- 6 "The context of discursive action picks up its justification in Austin and in the theory of 'speaking acts': speeches do not express actions – they are actions: the act of speaking is constitutive of meaning effects. Therefore, the practice can be understood as discursive context of discourses" (Araújo, 2000, p. 141).
- "Capital is an accumulated labor (in its materialized form or in its 'incorporated' form) which, when appropriated on a private, i.e., exclusive, basis by agents or groups of agents, enables them to appropriate social energy in the form of reified or living labor. It is a vis insita, a force inscribed in objective or subjective structures, but it is also a lex insita, the principle underlying the immanent regularities of the social world (Bourdieu, 1998, p. 1). The symbolic capital is a credit; it is the power granted to those who have obtained sufficient recognition to be in a position to impose recognition.

discursive formation in which they are produced⁸. The author notes that "the fact that a text is associated to a meaning is an illusion of the individual" (Orlandi, 1978: 35), because he/she ignores the necessary inclusion of the entire sequence in a *discursive formation* (and not another), so that it makes sense and therefore he/she has the impression that he/ she is the source of that meaning.

The marks of history present in a discourse bring a dual observation: that the individual does not fully control his speech, as it is the place of the symbolic disputes which exceed his consciousness; and that all discourse is built from other discourses and is linked to them (Fausto Neto apud Araújo, 2000: 166).

The communication focused on social intervention

The communication practices of the organizations correspond to their communication policy, which in turn corresponds to their project of social intervention. "They cannot be understood as a mere set of techniques and materials being evaluated and improved by only one instrumentalist perspective" (Araújo, 2000: 7-16).

The communication established through the information campaigns, with the agents that compose the "field of family farming", is based on a working method that involves meetings and workshops in farmers' communities, associated with the use of media, especially the printed ones (primers, posters, calendars and billboards) and radio. In a reduced proportion, videos are used in meetings and short institutional advertisements are produced to be broadcast by TV.

Araújo (2000) notes that the behavioral theories, i.e., the theories of learning based upon the idea that behaviors are acquired through conditioning, underlies the informational models, since they search for desirable behavior and attitudes. The goal of communication is to change values, behaviors and knowledge.

Although many institutions (or almost all) define that one of their main aims is to ensure the participation of family farmers in the communicative process, the assumptions of the Information Theory/Mathematical Model, present in the communicative practice, lead to intense use of expressions such as "to take awareness," "to show the social reality", "to reflect upon" or "to allow the access to information". These expressions have a dialogue appearance but, in fact, they reproduce the basic unidirectional scheme "sender - message - receiver" of Shannon and Weaver (1949).

⁸ Orlandi also observes that there are some interpretations that understand the discursive formations as "closed and stabilized regions". The author argues, however, that the discursive formations, while determining the position of the individual, also do not fill this position with meaning completely, because the discursive formations are consisted of the differences, contradictions and movement, i.e., of a continuous process of reconfiguration. "Delimit themselves by approaches and departures. But in every gesture of meaning (interpretation) they establish and determine the relationships of meaning, even momentarily. And this is what gives identity and meaning to the subject "(Orlandi, 1994: 10- 11).

The assumption of family farmers' "inadequate knowledge"

The projects and their respective information campaigns adopted basically the same script: meetings with local governmental agencies and family farmers' unions; meetings at the communities with family farmers; short courses about accidental fire prevention; distribution of support material (e.g. primers and posters); insertions of institutional messages related to the prevention of accidental fires in media (especially radio) or in "alternative" media (such as communities' radios and newspapers); optional training on some techniques to prevent and control fire (especially when there was a partnership with the Public Fire Department), monitoring visits at the communities and the evaluation of activities.

The campaigns' production process took place predominantly in the sphere of specialists of the environmental field (with a short participation of experts from other fields). There was, in general, a limited interference of family farmers or their representative organizations in the conception of the campaigns, in the selection of the topics to be addressed, or in the planning of the activities and their duration.

The assumption that there is something to be taught through the campaigns marks their content and format. Prevention techniques - how to make firebreaks, burning only after the second rain, warning the neighbors about the days of burning - are reported and discussed in local meetings or through the media and support materials, such as, primers, posters or calendars.

The results of this research and others demonstrated that the assumption was wrong. The family farmers didn't need to be taught. They already used the techniques when they wanted to do that. Such techniques were, generally, already well-known by them because they learned the techniques from their own parents or neighbors, therefore, the techniques are part of the family farmers' culture.

The use of fire is a cultural practice, embedded in the farmers' habits and economically satisfactory. Its replacement will be appropriate only if other alternatives have more significant economic and cultural advantages. It is a system of production linked to strong symbolic elements, related to the reproduction of families and to their members' subsistence. The knowledge about how to manage the land goes through generations.

The relationship with agents and institutions of the environmental field may allow other farmers' demands to be taken in consideration, or at least, known, outside the family farming field, and to acquire the potential to be seen as legitimate and socially necessary. Family farmers, thus, develop tactics, according to Michel de Certeau (1994), to cope with the strategies outlined by the campaigns, inherent to the environmental field logic.

Generally, the campaigns' results take into account what was done by the family farmers, but not how they did it. Some farmers interviewed were explicit about this issue:

We made firebreaks, but it was to avoid problems later with these people from the project and from the government. I made it and my brother-in-law also made it, but the firebreak was only one meter in length (Family farmer from Tauri, Tapajós National Forest. Personal Communication).

If I burn just at the beginning of the evenings, there is a risk of not burning sufficiently, but I think that the best to do is not to confront the technicians. I burned at two o'clock instead of noon (Family farmer from Paragominas. Personal Communication).

As shown in the quotes above, the adoption of prevention techniques against forest fires can be effective for a period, but usually not permanently. Instead of three meters, as the campaigns recommend, the firebreaks had only one meter in length. Instead of burning at three p.m, the burnings began at two p.m., when the sun was still strong.

So, if the campaigns require behavioral change by family farmers, these campaigns have to incorporate the demands of the farmers and their *modus vivendi* too, or the campaigns will "talk to a brick wall". The Proteger project, carried out mainly by institutions of the family farming field, has incorporated this idea. Note in the quotation below, the reference to the need to work on technical assistance and credit lines in order to improve the campaigns.

The use of fire has determinant factors related to culture, social and economic inclusion and to the political-institutional situation in which the target audience of the Project is inserted. As a result, even if it succeeds in promoting the broad dissemination of initiatives and technological possibilities, the shift of production systems will be directly related to changes in those determinant factors, which are beyond the scope of the Project. Still so, the Project will contribute to this behavior change, promoting the discussion and the development of ideas concerning to the current policies of funding and technical assistance to the family farmer's sector (GTA, 2001: 22).

However, even in the case of the Proteger project, the treatment of issues like these happened in a very occasional way in the campaigns, making more difficult the possibility of a regular dialogue among the social agents involved. The excerpts reproduced below point to the long time lag between the campaign activities and to the fact that they are usually sporadic. This happens because of the short duration of each project and the small number of technicians involved (compared to the number of family farmers that the campaigns aim to reach).

A technician came here, but only once. He never came back again. No news, nothing. I think it was just to make a *mis-en-scene* for the government (Family farmer from Santana do Araguaia city. Personal Communication).

They talked about the fire. They even played a video, but I don't know if there was any result. It's not very effective, right? (Family Farmer from Paragominas city. Personal Communication).

Not even the children obey their parents, you can imagine what happens with the primers that the technicians leave anywhere when they come (Family farmer from Santana do Araguaia city. Personal Communication).

The Brazilian social scientist Alfredo Homma also noted the mismatch between the demands of the environmental field and the family farming field.

The challenge related to the technology gap and the existence of 600 thousand family farmers, who have to deforest to ensure their survival, reflect the dangers of proposals that are essentially environmental, neglecting an agricultural policy for the Amazon. One may wonder about the validity of current policies in achieving the "zero deforestation" in the Amazon and reducing environmental damage without an agriculture technification and the creation of alternatives for family producers. The conventional thinking among environmentalists about the Amazon of condemning the intensive technologies may have an adverse effect on the conservation and preservation, leading to a sustainable underdevelopment for the Amazon (Homma, 2003: 243).

The argument about environmental issues is a more recent "problem" (by the late 80's) than the discussions about agricultural credit or types of crops more suitable for a particular soil. Macro environment issues, such as the carbon sequestration, were also part of the campaigns meetings' content, besides the prevention techniques and an assessment of these techniques' costs. Thus, the discourse of the campaigns also reaffirmed a "coresponsibility" of family farmers for a global environmental problem.

It does not mean, however, that there was no interest or curiosity for macro information by family farmers. On the contrary, the access to such information "facilitates" the interlocution with the campaigns technicians and other social agents. Besides, this access helps to increase the family farmer's knowledge and the themes to be discussed in various spheres (daily life, family and circle of friends).

The meetings with family farmers, promoted by the information campaigns, generated discussions about the accidental fires and also brought up questions on the perception of the farmers about the environment, making them to rethink their practices in relation to their habits. Thus, the discussions were not limited to the issue of fire and involved other environmental topics, even occasionally, such as game scarcity, silting up of rivers, predatory fishing, drier climate, soil exhaustion and exploitation of certain trees species. The maps and satellite images, shown by the researchers, besides the curiosity awakened by the use of this technology, called the attention to the power of detection (surveillance). However, as it was seen before, the meetings did not happen regularly and also did not incorporate important demands of family farmers, as mechanized agriculture.

The concept of environment is not "neutral", but a historical and social construction, which acquires different meanings when it is referred by environmental field agents or by the family farming agents. In other words, a "protectionist and conservationist" focus in the first case (that values the "standing forest") and another vision of the environment,

in the second case, which also incorporated a protectionist strong focus, but in which the protection of the forests should integrate the specific reproductive logic of family farmers⁹, directly linked to their own economic and cultural survival.

The family farmers are guided by a concept of environment marked mainly by "preservationalism". The notion of protecting the environment has always been present in the culture of family farmers, because the environment is the basis upon which the reproduction of family farming happens. However, the relationship between the family farmer and the environment, i.e., the different possible ways to interact with it through the use of land, attend the requirements dictated by cultural, economic and social parameters. These parameters did not incorporate the environmental protection logic of an untouched nature, as an absolute priority, as opposed to what happens in the environmental field.

The main inadequate communicational instrument of the campaigns: the primers

Primers were the predominant and the most reproduced and distributed campaigns' materials. They were also the most remembered and mentioned by the family farmers. However, they pointed out that primers were more useful for children. The quote below refers to the "inadequacy" of the primers for adults, with emphasis on the elements related to the children's world ("smiling tree...").

I saw one primer, but I don't know which institution made it. There were some indicative drawings of how to make firebreaks. Some trees were smiling or weeping. There were some happy cows. It was cute. But, it is wasted money (Family farmer from Marabá city).

The previous knowledge about the content of the primers (generally, about prevention techniques against forest fires) and the large number of illiterates among the farmers (in the case of the interviewees for this research, the percentage was over 60%), also restrict the interest of adults in primers.

There are many people with sight problems. People do not read the primers. (Family farmer from Santana do Araguaia city. Personal Communication).

We don't have reading habits, we want to work (Family farmer from locality of Tauari, Tapajós National Forest. Personal Communication).

Peasants are tired of so many promises. Am I going to eat paper? (Family farmer from Altamira city. Personal Communication).

With the money that they spend on paper, they could buy a lot of tractors (Family farmer, from Conceição do Araguaia city. Personal Communication).

⁹ As summarized Costa (Costa, 1994, p. 20), the level of reproductive efficiency of a peasant family is assessed as appropriate when it allows members of a given structure to assume a sustainability condition in social and physical meaning, i.e., "enough earnings to fill the biological and culturally delineated necessities and the achievement of personal values (understandable and achievable in the parameters of a collective identity)".

The above quotes also highlight other mediations¹⁰ that intervene in the farmers' interests on the primers: sight problems (very common among older peasants, who do not wear glasses) and some peasants' dissatisfaction about the campaign's orientations. One of the family farmer highlighted the gap between the need for environmental protection raised by the campaigns and the need for agriculture production ("Am I going to eat paper?").

A primer defines a literary genre whose definition cannot be separate from the sender's (the one who knows and who teaches) and the receiver's images (the one who does not know and who learns), from the relationship between the two poles (student-teacher) and from the sender objective: to teach the rudiments of any knowledge, in a pedagogical way. (Araújo, 2000: 227).

The author observes that when a sender assumes that his/her discursive product is a primer, even if it is not, he/she produces a definite meaning and indicates his/her conceptions of society and the image he/she has of the social agents involved in the scene.

The IBAMA-GTA's primer is an example of this power relationship established by the campaigns and reflected on the support materials. It reaffirms the imbalance between the sender and the receiver, when building both images. By using the mechanism of question and answer in the elaboration of the text and by adopting a comic story and the same format as early grades' coursebooks, the primer "infantilizes" the receiver. At the same time, it highlights the wisdom of a qualified sender, who teaches. The idea of "primers" refers to the literacy process, for those who are just starting to learn.

We already learned this stuff when we were children. It's more like a comic book, right? It's for children (Family farmer from locality Del Rei, Paragominas city. Personal Communication).

The campaigns producers tried to supply the information that was supposedly lacking and make up for the fact that many family farmers were illiterate, using a speech that shows the image of the reader as someone who has to learn the ABC of prevention techniques to prevent forest fires. Below, some excerpts from the above mentioned primer:

I am an anteater. People call me "Blaze." I was chosen as the animal-symbol to represent the prevention and fighting against forest fires. As I'm concerned about the environmental damage caused by forest fires, I came to teach some techniques to help to control the burning. Be careful and follow my instructions (Ramos and Santos, 2001: 5).

¹⁰ To understand communication through the *mediations* is to conceive it as an interaction among multiple instances, e.g., the neighborhood, workplace and family. So, *mediation* can be understood as a set of elements that interfere on structuring, organizing and reorganizing the perception of reality in which the individual is inserted (Martín-Barbero, 1997)

"Blaze", can you explain each point? Calm down, guys... I'll explain everything to you. (Ramos and Santos, 2001: 9).

The tone "teacher-student" is quite explicit in the excerpts reproduced above. Note also the "dialogue" among the characters, in which Blaze is answering a "request" from the receivers ("Blaze, can you explain each point? Calm down, guys..."). The primer's receivers are "spectators" and not interlocutors. The primer supposedly speaks with them, but based on a family farmer image built by the sender.

Conclusions

The institutions which were at the forefront of the information campaigns to prevent forest fires in the Amazon did not have an explicit or "conscious" strategy to oppose, deliberately, the interests of agents in the family farming field. What occurred, in general, is that the agents responsible for the production of the information, predominantly from the environmental field, even with "the best of good intentions", were still based on a communication model (Mathematical Model) that restricted the dialogue possibilities with the receivers of information.

Moreover, the environment protection, understood as an absolute priority, is the basis of the environmental discourse and part of the "world view" of the environmental field and their agents, justifying their practices and assumptions, and feeding the field dynamics.

As it was demonstrated above, the family farmers were not treated as interlocutors in most situations. Even before the development of campaign activities, the image built by their producers of the message receiver was of someone whose behavior was incorrect, thus, he/she had to relearn how to act properly from a correct environmental point of view.

A hierarchy of teacher-student type was established during the process. The teacher, who has the authority and the knowledge is the sender, leaving for the receiver the tasks of interaction. The receiver has to complement the sender' speech with his/her own personal experience as family farmer and can even question the sender, but without undermining the principles that govern the campaign, in other words, without disrupting the main idea that environmental protection should be a priority traversing all the others.

This is, surely, what the environmental field agents tried to do through the information campaigns, self-called "educational" and self-evaluated as successful experiences based on some indicators like the reduction of forest fires in certain years, the temporary adoption of prevention techniques, the number of taught courses or volunteer brigades formed.

It is not allowed to "question" the campaign itself nor its basic assumptions, in favor of other ways of dealing with environmental issues, certainly more effective from the family farmers' point of view. During the implementation of the campaigns, the participation of family farmers was not effective. The meetings provided time to register the family farmers' words, but not to change the programmed actions. This occurred because the technicians or researchers did not hold, in most of the cases, the specific knowledge to attend certain demands, such as, soil's chemical information and comparative information on costs and implications of working with agriculture machines. In addition, the campaign's actions were sporadic.

The time lag between one meeting and another could be six months long, reducing the chances for systematic evaluation of campaigns. The telephone, mail and digital contact generally failed because of the precarious structural characteristics of the communities. Also the technicians were usually absorbed into many other activities and projects. Sometimes, the responsibility to follow up the actions was delegated to the family farmers themselves under the support of a "community agreement".

The interviews and field observations showed that monitoring and "self-encouragement" for the continuation of actions (based on the adoption of prevention techniques), virtually ceased to exist when the technicians departed.

There are two possible explanations for the fact that the campaigns turned farmers into "receivers", much more than into interlocutors. One of explanations is that institutions have used and reinforced the dominant model of communication (Information Theory/Mathematical Model) even if this was not a "conscious" option. In this case, the institutions "would be 'victims' of the effect-theory that naturalize the models and make the discursive options inevitable" (Araújo, 2000: 266).

The other explanation is that the discursive practices of the campaigns reflect, with reasonable fidelity, the institutional reality, which is characterized by a tendency to reproduce the power imbalance between the "environmental field" and the "family farming field". In this case, the first one holds the largest *symbolic power* (Bourdieu, 1998), i.e., the power of constructing reality (the immediate meaning of the social world), and enforces its worldview.

The imbalance could be seen when the government and NGOs attributed to the family farmers themselves the responsibility for the success of the campaigns. Such success would be directly linked to the ability of the social agents to respond appropriately to the messages.

For the family farmers, the campaigns acquired different meanings according to the family farmer's expectations, interests and possible consequences. Several mediations (Martin-Barbero, 1997) were present in this assessment (that was not always conscious), including the farmer's cultural practices, the campaigns' benefits and the social, economic and cultural damages that could come along. Thus, the change in the family farmer's behavior would depend on a revaluation of the material and symbolic gains and losses that could come out of it.

From an environmental discourse supposedly universal, the campaigns followed - and still follow - a very similar kind of discursive "roadmap". It had many converging elements,

as the theoretical and methodological point of view, the goals, the format and the content of materials produced, besides the built negative image of the family farmers.

This image, of negative connotation, was of farmers who did not know how to deal appropriately with the environmental issues and that, in some cases, knew techniques to prevent accidental fires, but rarely used them. The reasons for such behavior, from the standpoint of the sphere of campaigns production, would be: a supposed lack of individual or collective initiative; the lack of interest related to environmental and economic damages that could be caused to others; the costs and the extra allocation of labor as discouraging factors; and the "habit" of not using the techniques for "cultural" reasons. These problems could supposedly be "solved" by the family farmers' "awareness" and goodwill.

These allowed a more significant accumulation of symbolic power by the environmental field and indicated a relationship of forces with the family farmer field marked by the imbalance.

The campaigns' content and strategies did not consider sufficiently the risk to the reproductive efficiency of the families, i.e., the "mediations" (Martín-Barbero, 1997) in which they are involved.

Therefore, the conclusions of this research on the information campaigns to prevent accidental fires in the Brazilian Amazon, and particularly in the state of Pará, point out that the campaigns are not aware of the actions that the reception sphere develops as responses to the information offered. Moreover, these actions are difficult to understand because the assessment mechanisms of the projects are geared towards the effectiveness of the production process, through quantitative indicators, such as: number of hot spots recorded, meetings, courses and participants, trained monitors, Community Agreements concluded and registered cases in hospitals due to smoke provoked by forest fires. As noted previously, the focus is more on what was done than on how was done. The sphere of the campaigns' production has a limited knowledge of the new meanings that its practices acquired in the receiving sphere.

The strategies used by the institutions responsible for the campaigns, predominantly from the environmental field, have achieved relative success in spreading the world view of this field, however, this seems to be the limit. The environment "alert" was understood by family farmers, but a permanent change in their behavior will only happen when the campaigns incorporate the demands and values of the family farming field, that is, when there will be a real "space" for dialogue that breaks the "old fashioned" Information Theory/Mathematical Model (backdrop of campaigns) and allows a rebalancing of power in the relationship between the two spheres.

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