

Action to Combat the Environmental crime of the Brazilian Amazon: The case of the Integrated Operation of the “Ponta do Abunã”

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Keywords— *Inspection. Ponta do Abunã. Amazon. Public policy. Environmental Sustainability.*

Abstract— *The objective of the study was to analyze the integrated inspection model of the Superintendencies of Ibama do Acre, Amazonas and Rondônia (integrated action) carried out in the Ponta do Abunã region as a more efficient and effective inspection model to be carried out in the State of Rondônia and in Western Amazon. Materials and Method: it's a case study. Two semi-structured instruments were applied with three subjective questions, comprising three axes: 1st Axis - characterization of the positive aspects; 2nd Axis - characterization of negative aspects; 3rd Axis - pointing out improvement measures to be integrated into the inspection model. The first instrument was applied to the Focus Group, consisting of the members who participated in the environmental inspection operation “Ponta do Abunã” and the second instrument applied to the Steering Group of the institutions that promote and execute environmental policies. Results: it was possible to perceive that the integrated inspection model has a greater protection of the environment in all spheres, given the improvement in the organization and the maximization of the use of resources. However, there is a lack of equipment and a logistics structure for the transportation and storage of seized goods. Thus, it could be perceived that there was an improvement in the State's capacity to prosecute violators, however, improvement actions are needed when dealing with the seized assets. Final considerations: it stands out as a positive point pointed out by the group the greater protection of the*

environment in all spheres, given the improvement in the organization and the maximization of the use of resources. The integration between the political and administrative entities allows inspection action of superior technical quality and with lower costs. In the perception of inspection agents, actions occur infrequently and this results in the loss of inspection effectiveness. According to the researched group, a more continuous inspection would bring better results.

I. INTRODUCTION

The history of deforestation and degradation of nature in Brazil has been a cause for concern and discussions aimed at promoting and adopting intervention measures aimed at eradicating it. It is known that at a global level, debates have been taking place in a fierce way, seeking to put an end to this situation. The political and economic development of the Amazon region and speculation of land along the roads, growth of cities, increase in cattle ranching, timber exploitation and family farming (more recently mechanized agriculture), mainly linked to the cultivation of soy and cotton, with this advancing in deforestation, has caused great losses of critical functions of the Amazon, requiring urgent measures of conservation and conscious use of its natural resources [1];[2]; [3].

Data from the Ministry of the Environment (MMA) point out that the deforestation process normally begins with the official or clandestine opening of roads that allow human expansion and the irregular occupation of land to the predatory exploitation of hardwoods. Subsequently, the exploited forest is converted into family farming and pastures for extensive cattle breeding, especially on large properties, this factor being responsible for about 80% of the deforested forests in the legal Amazon. But recently, pastures are giving way to mechanized agriculture linked mainly to soybean and cotton crops [4].

One of the great villains of the increase in deforestation rates in the Amazon and in Rondônia has been the increase in economic activities, making the situation increasingly critical, especially in recent years, which has caused, over the years, an intense struggle and in the search for solutions.

The understanding of the socio-environmental structure, as well as the historical aspects is of great relevance when planning environmental actions and activities, especially when it comes to the preservation of Amazonian forests, in which the forests of the State of Rondônia are inserted. In this context, it is necessary to understand the implementation and execution of environmental policy in the State of Rondônia so that it is possible to clarify, in a conscious and citizen way, to

express an opinion and intervene in projects that will certainly influence their lives and the community / society that has existed for a long time.

Within the scope of the Inspection Plan in Rondônia, the theme turns to control and access actions, mainly to protected areas, aiming to avoid the illegal occupation and extraction of wood around indigenous lands and conservation units. Although in the previous plan for the prevention and control of deforestation in Rondônia there was a zero rate predicted until 2015, it is worth mentioning that the main agents of deforestation continue to be small rural producers (settlers), migrants and landless, farmers, farmers, loggers, through of hidden deforestation.

With regard to inspection as an instrument to reduce degradation, the emphasis is on delegated responsibility to citizens and the State, to companies and institutions, duly supported by the Federal Constitution[5].However, it is noteworthy that it is up to the public authorities to ensure this inspection, using embargoes and measures that effectively combat deforestation. In this context, the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA) appears as an agency for action and combat, duly supported by legislation. In the state of Rondônia, the local peculiarities that require your intervention are challenging, and it is up to the partnership between the Union and the State to carry out actions aimed at protecting, preventing and fighting forest destruction.

In this sense, a way to achieve better results would be an option of integrated inspection between the different bodies responsible for the inspection and fight against deforestation, through the formation of teams composed of representatives of all the bodies, institutions and powers to face the difficulties and seek alternatives to remedy them, mainly through projects aimed at spreading human rights and protecting the environment. The research is justified since it offers subsidies for the awareness of the importance of popular participation in the defense of an ecologically balanced environment and promoter of healthy life through a joint inspection where partnerships are established between the federal and state governments, agencies and sectors responsible, among them IBAMA, so

that they assume a strong mobilization in favor of conservation and sustainable use.

In this context, IBAMA is responsible for executing an action plan that prioritizes the identification of problems and, in the face of them, search for alternatives that elucidate their implications, where control and monitoring, protected areas and territorial ordering are emphasized, encouraging sustainable activities so that inspection takes place effectively. The establishment of partnerships between the federal, state and municipal spheres, as well as the bodies with competence to act in the area, becomes a possible instrument for strengthening the application of the integrated action for the inspection of IBAMA, a fact observed in the case of the Operation Ponta do Abunã in Rondônia.

1.1 DESCRIPTION OF THE PROBLEM SITUATION

The efforts made by States, Municipalities and the Federal District to deal with the complexity that involves environmental issues require collective care from the whole organized society in favor of eradicating deforestation and environmental degradation. What underscores the extent of environmental damage and the emerging need for valuing, preserving, controlling and inspecting natural assets through attitudes that influence local and planetary sustainability.

Thus, actions such as training, educational campaigns, observation posts, patrolling and inspection, training of brigades, in addition to measures aimed at fighting fires, through a plan for preventing, controlling and fighting fires and investigating their causes, monitoring outbreaks via satellite and specific fire inspection operations have been developed by IBAMA in view of the initial policy adopted and the current reality of deforestation in the State of Rondônia.

In this context, the research was guided by the following problem: The actions developed by the State of Rondônia in the face of the problem of deforestation have observed the constitutional principles, adapting the inspection methods of IBAMA to local situations, and given an account of effective control and prevention of deforestation in the state through sustainable alternatives?

In this context and with the objective of further deepening the study on deforestation, the integrated action that took place in the Ponta do Abunã region, in the state of Rondônia, was chosen with representatives of the Brazilian Army, Federal Police (PF), Federal Highway Police (PRF), Military Police of the State of Rondônia (PMRO), National Police and IBAMA of the Superintendencies of Acre, Amazonas and Rondônia. When analyzing and discussing this situation and based on the knowledge of IBAMA's form of inspection, it is

intended to suggest the implementation of an integrated action plan, in which inspection strategies are carried out that include inspection based on environmental quality indicators, where the integrated action between IBAMA, governmental spheres and authorities of the various bodies responsible for the environment, is capable of preventing, controlling, inspecting and punishing those responsible for damages, contributing to the environment and, consequently, the quality of human life.

The panorama of deforestation in Rondônia requires a preventive character to face it in critical areas. In this sense, there is a need for guidelines to be established for sustainable development. Thus, the guarantee of a management area for sustainable development must be a concern of the government, since the current legislation allows the forest concession in public areas for the supply of raw material, with a view to this development. Following the national environmental policy, the environmental policy of the State of Rondônia presents actions that enable the execution of projects that provide for the selection and hiring of companies for sustainable exploitation through the forest management of the areas of the State Forests of Sustainable Income, with the commitment protecting and conserving your resources. Although there is an environmental policy duly supported by the current environmental legislation, with projects and actions aimed at sustainable yield, it must be admitted that the environmental inspection carried out in the State of Rondônia is not able to meet the great demand for illegal deforestation, corroborating for there to be greater incidence of illicit acts performed and less accountability of offenders.

The State of Rondônia requires the implementation of a policy consistent with regional needs, capable of monitoring deforestation, heat sources, natural regeneration, licensed properties, and a duly approved management plan, with accessibility via the Internet, therefore not meeting the scope of legality, prevention, inspection and control of the demands presented in the face of disorderly deforestation and the negative consequences that this deforestation brings to the State, to Brazil and to the world. Thus, this research aimed to analyze the integrated inspection model of the IBAMA Superintendencies of Acre, Amazonas and Rondônia (integrated action) carried out in the Ponta do Abunã region as a more efficient and effective model of inspection to be carried out in the State of Rondônia.

II. MATERIALS AND METHODS

2.1 TYPE OF RESEARCH

The research is characterized primarily as to the means or according to the procedures for the collection of information as a Case Study. Regarding the use of results or their purpose, they can be classified as applied research, qualitative in terms of their nature or in terms of approach and descriptive in terms of purposes or objectives. Bruyne et al [6] affirm that the case studies allow the application of “techniques of collection of information equally varied (observations, interviews, documents)” to generate an analysis of an organization or to measure some performance. In Yin's [7] view, the case study type of research seeks to broaden and generalize theories based on theoretical analysis and not from a statistical perspective. Although the case study can also use quantitative methods to support the collection and treatment of information, in this research only the qualitative approach was used. For Godoy [8] even though, in essence, it has a qualitative character, case studies can also contain quantitative data to clarify some aspect of the question investigated. The study of a case allows the professional to observe, understand, analyze and describe a certain real situation, acquiring knowledge and experience that can be useful in decision making in the face of other situations. It is a method of investigation in which the professional has a great involvement and that includes as steps, the collection of information, a process of thought, constituted by data analysis and determination of solutions, and a process of judgment or evaluation [9]. The practical value of the case study and analysis is to provide an opportunity to examine a real life situation.

2.2 DATA AND INSTRUMENT COLLECTION TECHNIQUE

Gil [10] asserts that the data collection technique in a case study is used to: a) explore real-life situations whose limits are not clearly defined; b) describe the situation in the context in which a given investigation is being carried out; c) explain the causal variables of a given phenomenon in very complex situations that do not allow the use of surveys and experiments [11]; [12] and [13]. The present case study was carried out through the application of 2 semi-structured instruments, individually with the research subjects. As a data collection instrument, the interview previously prepared with open questions was used. The instrument is composed of three subjective questions comprising three axes: 1st Axis - characterization of the positive aspects adopted by the integrated inspection model; 2nd Axis - characterization of the negative aspects adopted by the integrated inspection model; 3rd Axis - pointing out improvement measures to be integrated into the inspection model. The first instrument for collecting data and information was applied to the Focal Group, made up of members who participated in the

environmental inspection operation “Ponta do Abunã”. We opted for the use of the Focus Group technique in order to understand the perception and conception of environmental agents in relation to the “Ponta do Abunã” inspection model. To this end, a script of interviews was constructed to carry out the technique, placing questions that indicate the main positive, negative aspects and notes for the improvement of the inspection model. According to Prates et al [14] the Focal Group technique brings together the social actors that are linked from common perspectives, so it allows: [...] the exchange of ideas, experiences, feelings, beliefs, behaviors and points of view, providing reflection and, even, the change of opinion or the reasoning of the initial position. With this technique, through group integration, it is possible to understand how the perceptions, daily practices, representations and symbologies of a certain group are constructed [15]; [16]; [17]. Through the technique, group discussions take place that allow us to understand the way individuals see the world and their different life experiences. The results, in turn, are obtained directly from the statements coming from the group's reports, at the moment when they describe their perceptions about the investigated theme. For the citations of the agents designated in this research, the acronym “P” was adopted, followed respectively by a number. Although it was not mandatory for the interviewees to be identified, only one of the nine interviewees did not identify. All team members who participated in the research are male, working with the inspection: 02 two years ago; 03 with experience varying between five and eight years; 01 to 19 years; 01 to 25 years; 01 to 36 years; and 01 that did not inform the time of experience, that punctuated the integrated inspection model according to the researched axes. The second instrument for collecting data and information was applied to the Steering Group, made up of the members who planned the environmental inspection operation “Ponta do Abunã”.

2.3 SAMPLE SIZE AND SAMPLE SUBJECTS

A fraction of these individuals in the population, when studied in isolation, is called the sample. Sample corresponds to a subset of the population from which a value judgment is created regarding universal characteristics. Sample corresponds to a subset of the population from which a value judgment is created regarding universal characteristics. According to Kazmier [18], there is a random sample using “a procedure such that each member of the population has a known probability of being chosen and that does not have any known source of systematic error”. The decision for the sample size was referenced in the Central Limit Theorem, presented by Kazmier (2008): “As the sample size

increases, the distribution of the average sample approaches the form of the normal distribution, whatever the form of population distribution". In this work, the limit reference adopted by Kazmier[18] was used, that is, a sample of 10 environmental agents, environmental police from the Military Police and environmental authorities was used, regardless of age and sex / gender and time of environmental inspection. In this sense, the sample granted for accessibility was a group formed by 10 agents (9.25%) of the total of environmental agents in a total universe of 108 subjects. The data and information collected were described as answered by the research subjects.

2.4 ETHICAL ASPECTS

The research subjects were informed about the objective, nature, risks and benefits of the study. It was only after signing the informed consent form that they were submitted to the application of the semi-structured instrument (questionnaire). Inclusion Criterion: All those who answered the instrument and returned it to the researcher. Exclusion Criterion: All subjects who received the instrument even after signing the informed consent form and did not return the instrument duly answered.

III. RESEARCH RESULTS AND ANALYSIS

4.1 CASE STUDY: PONTA DO ABUNÃ OPERATION

The present research is the result of a case study, here the data obtained in the operation Ponta do Abunã adopted as an inspection model are presented, on which the following aspects are evidenced:

1. Regarding the Inspection Model: Corresponds to the permanent, shared and joint inspection action, between the IBAMA superintendencies in the states of Acre, Amazonas and Rondônia and, IBAMA Headquarters. The model was constructed from information from the intelligence services of the Brazilian army, federal police, federal highway police, ABIN, Funai, civil police, public agents selected by the superintendencies and employees infiltrated in business organizations and local society, in addition to information from municipal governments, ICMBio, MDA, INCRA, registry offices, municipal and state finance departments, among other employees. In this context, it is structured around a set of managers and civil servants active in the inspection, in its daily planning and execution process, and must be carried out with a concentration of efforts in large scale and visible actions, with objectivity, technical zeal for discipline [19]; [20]; [21]; [22].

2. Regarding the Study Area: The Ponta do Abunã region comprises the Vista Alegre do Abunã, Extrema and Nova

Califórnia Districts that are part of the Municipality of Porto Velho. It also covers the southern part of the municipality of Lábrea, in the state of Amazonas, which connects with this region of Rondônia, through several branches that enter the territory of the state of Amazonas. These areas are close to the State of Acre, presenting relations regarding the main environmental illicit activities in the region. The main economic activities in the region are cattle ranching and logging, both with a ballast of illegality over the years, and with recent intensification, especially in illegal logging and fraudulent transactions in the control system (DOF). Over the past few years, the Ponta do Abunã region has been the target of major illegal deforestation aimed at the implantation of livestock activities, as well as the commercial exploitation of high-value forest species by timber companies. In addition to the activities of illegal logging and use of wood by the timber industries, there is also the occurrence of fraud with the DOF System, aiming at the acquisition of wood credits to "warm up" (legalize) them.

3. Regarding the Operation under Study: The objective of the operation was defined as that of combating illegal deforestation in areas of Amazonian forest, on indigenous lands, Conservation Units, Settlement Projects and private properties, as well as combating illegal logging. According to the Ministry of the Environment [19] and [20], the fight against illegal deforestation is at the center of the Brazilian strategy to face climate change. To this end, the country has already put in place specific plans to protect the forest and encourage sustainable activities in the Amazon and the Cerrado, including goals for reducing the loss of vegetation cover in both biomes. The main instrument of the Brazilian government to combat the problem is the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon [4].

4. Regarding Deforestation in the region: Brazil has great vegetation cover, which favors deforestation. Very serious crimes, such as burning and deforestation, are devastating this Brazilian vegetation cover very quickly.

5. Regarding Combat Actions: To combat illegal deforestation, activities aimed at mapping deforestation polygons were adopted, as well as drawing up infraction notices and areas embargoes. In this case, information on the polygons inspected was issued by the Monitoring Centers (Geoprocessing), with the procedures being discussed and defined jointly by the respective Technical Divisions (DITEC), with the main and priority focus on the identification of the deforestation polygons in progress and still in the initial phase, for preventive combat, that is, before it happens or expands. Priority was given to environmental offenses identified within Indigenous

Lands, Conservation Units, Public Lands and, finally, private properties.

6. Regarding the Inspection Routes: The missions were daily, with the shortest possible routes, with three to six polygons, and if, after two days, a team had difficulty locating the violators, they should communicate with the operation coordinator, who could assign these calls to another team, then assess the situation.

7. Regarding the Executed Actions: Request for administrative processes related to the target projects, through official letter from IBAMA to the environmental agencies of the states of Amazonas and Rondônia; Field surveys carried out by a team of specialists, coordinated by an environmental analyst from one of the Superintendencies of the states of Acre, Amazon and Rondônia; Procedures for administrative assessments and embargoes, instruction and judgment of processes; Surveys of illegal companies that work to buy and sell virtual wood credits in SISDOF, as well as surveys of companies that have a large volume of wood in the yard; Supervisão, transporte e armazenamento de madeira no pátio das empresas; Permanent guard of the seized wood and equipment until its undoing; Preparation of inspection reports, infraction notices, seizure terms, deposit terms and embargo terms; Open administrative procedures with the SEI. Fixed and mobile barriers were also implemented in the main outlets for illegal timber aimed at combating the illegal transportation of timber from its origins to the beneficiation site, thus discouraging illegal exploitation. Barriers were set up on the main illegal wood outlets, as well as on interstate outlets (federal highway BR 364), which was under the responsibility of the Federal Highway Police.

8. Regularity: With regard to the activity of verifying the situation of regularity of the logging companies with the DOF System, this activity aimed to combat illegal companies, which operate with the sole purpose of generating fictitious credits in the DOF system for heating illegal wood.

9. Regarding the Collection of Data / Information: The information for carrying out these activities was provided by COINF / DIPRO / IBAMA-SEDE, which was filtered by NUINT / AC and NUCOFIS / AC, in order to determine the targets.

10. As for the Inspection Targets: The inspection targets were defined by the Intelligence Nucleus of the entities involved and by the Monitoring and Information Nucleus of the respective Superintendencies and the action procedures were discussed and defined jointly by their Technical Divisions and by the representatives of the command or control bodies participating in the operation.

11. Regarding the Hierarchical Organization: The higher authority was exercised hierarchically by the Presidency of IBAMA, the Director of DIPRO and the General Inspection Coordinator. This instance has the role of ratifying the Operational Plan and providing the necessary resources and means to carry out the Operation, being able to decide on any point of the Operational Plan, aiming at the achievement of institutional goals and objectives. The general coordination exercised in a collegial manner by the Superintendents of the Superintendencies of Acre, Amazonas and Rondônia, has the role of approving the Operational Plan and submitting it to the higher authority for approval, defining the general guidelines, supervising, monitoring and guiding the coordination actions executive and the execution of activities.

12. As for the sharing of responsibilities: Knowledge about the progress of the work is shared in real time with the three Superintendencies, through their DITEC's and NUFIS, in addition to the intelligence services of the partner agencies. It was suggested the creation of a Specific Unit in the Document Management System of IBAMA (SEI), called "Ponta do Abunã Operational Unit", to accommodate the processes, reports, consolidated spreadsheets, images and data on the activities in execution, being that the generated processes are attributed to those responsible for field actions, as well as to DITEC's, Superintendents, COFIS and CGFIS. The role of the Superintendencies was to indicate the targets; appoint the coordinators of the work teams; establish the guidelines and procedures for the teams to act within the scope of the action lines; establish partnerships with institutions so that they can receive seized products, as well as for the development of actions in the field; establish the permanent communication channel with DIPRO and its Coordinations; provide the necessary logistics for the withdrawal and deposit of seized products and prepare management reports to be shared by DITEC and Offices. While the role of CGFIS (COFIS and COINF), it was determined that it should focus on providing the resources and means for the logistics necessary to carry out the activities listed in the lines of action; transfer of budgetary resources; availability of specialized teams and recruitment of federal environmental agents based in other units of the Federation.

13. Regarding the opening of Infringement, Instruction and Judgment Proceedings: The formalization of processes has followed the current legal parameters, in compliance with the provision contained in Instruction Normayiva 10/2012 of IBAMA that the processes will be opened, instructed and judged (if applicable) in the state of origin of the infraction. Thus, it is up to the inspection teams and the coordination of operations to forward the infraction notices

and terms for opening the processes to the respective superintendence, or, if possible, a special Unit must be registered in the SEI System so that the processes can be opened and instructed in the base itself.

14. Regarding the Destination of Seized Goods and Products: All available means must be used to collect the seized goods, and the destruction must occur only in extreme cases and when its removal is not proven to be possible, even in Indigenous Lands or Conservation Units. The vehicles and equipment will be entrusted to the faithful depositary, which may be the institution itself, where it can be reverted to the equity, or to local institutions, and the processes must obey the accelerated rite for judgment and forfeiture decision for donation on an urgent basis. The seized products are classified into four categories: durable: machines, vehicles, boats, equipment and live animals; non-durable: tools, utensils, equipment, weapons and ammunition, parts, lubricants and agricultural products in their original packaging, processed wood and forest products, packaged and stored in storage; consumption: general goods, parts, lubricants and agricultural products outside their original packaging; perishables: Meat, fish, slaughtered animals, wood and products of forest origin in natura, in its raw state subject to the weather.

15. Regarding the use of vehicles, expedient material, equipment: The use of vehicles, depending on the amount needed, must be shared between the superintendencies involved. A permanent fleet of 08 vehicles and one to serve the Operational Nucleus must be maintained at the Operations Base. Other vehicles may be requested as needed.

16. Regarding the Composition of the Workforce: The number of personnel to be used in the Operation's workforce consists of employees of the institution itself, partner institutions and support personnel to be hired for specific activities, which require specialized knowledge or operational support. For the safety and support of the teams in the field and at the Operational Base, the police force of the Military Police of the three States and Battalions of Environmental Police were used. And in the first three months of the Operation, it counted and / or can count on the reinforcement of other security agencies, such as PRF (Federal Highway Police), Federal Police, National Force and the Brazilian Army.

17. Regarding the Staff: It comprises a permanent and support team, in the following aspects (Table 1).

Table 1: IBAMA and Security personnel - Permanent team

| Specification | Type | Amount | Total |
|-----------------------------|------------------------------------|---------|-------|
| Team Coordinator | AAF - Environmental analyst -IBAMA | 1/team | 09 |
| Federal Environmental Agent | AAF – IBAMA | 6/team | 54 |
| Agent Geo | Agent Geo – IBAMA | 1/team | 09 |
| Administrative support | Technician – IBAMA | 2/team | 18 |
| Safety | BPA/PM | 12/team | 108 |

Table 2: Support staff

| Specification | Activity | Amount | Total |
|----------------------|---|---------|-------|
| Truck driver | Removal of Seized Goods | 2/ team | 18 |
| Machine operator | Yard loading and handling | 1/ team | 09 |
| Botanical Identifier | Assistance in the Management Plans and sawmills yards | 1/ team | 09 |
| Patio support | Measurement and movement of sawmill yard | 3/ team | 18 |

18. Regarding the Scale of Performance of the Superintendencies (Table 3).

Table 3: Performance of the Superintendencies

| RESPONSIBLE | | Mar | Abr | Mai | Jun | Jul | Ago | Set | Out | Nov |
|-----------------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ACRE | | | | | | | | | | |
| Coordination | | 01 | | | 01 | | | 01 | | |
| Agent Geo | | 01 | | | 01 | | | 01 | | |
| Administrative support | | 02 | | | 02 | | | 02 | | |
| Federal Environmental Agent | | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 |
| AMAZONAS | | | | | | | | | | |
| Coordination | | | | 01 | | | 01 | | | 01 |
| Agent Geo | | | | 01 | | | 01 | | | 01 |
| Administrative support | | | | 02 | | | 02 | | | 02 |
| Federal Environmental Agent | | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 |
| RONDÔNIA | | | | | | | | | | |
| Coordination | | | 01 | | | 01 | | | 01 | |
| Agent Geo | | | 01 | | | 01 | | | 01 | |
| Administrative support | | | 02 | | | 02 | | | 02 | |
| Federal Environmental Agent | | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 |

19. Regarding the Establishment of Partnerships: The operation can also count on the reinforcement of personnel from the Brazilian Army and the Federal Highway Police, in addition to other partnerships with the Federal Police, ANATEL, ANAC, FUNAI, ICMBIO, MDA, INCRA, SEFAZ and City Halls.

20. Regarding the Schedule of Activities: It presents itself with the following activities: Aiming of targets: from January to November; Elaboration of performance procedures: from January to February; Preparation of management reporting models: from January to February; Preparatory events: from January to March; Combating illegal deforestation: from February to November; Combat illegal logging and infractions in SISDOF: April and November; Preparation of management reports: from March to December.

4.2 PERFORMANCE AND RESULTS OBTAINED FROM THE PONTA DO ABUNÃ OPERATION

As for the line of action: Operation Ponta do Abunã was mainly aimed at combating illegal deforestation (polygons) and illegal and disordered logging. The latter encompassing Forest Management Plans, Exploration Plans, Forest Transport, Industries and wood deposits and infractions committed in SISDOF.

Regarding the Evaluation: When dealing with the assessment of individual performance, the plan foresaw the

inclusion of an individual goal in the work plan of the Nuclei for Prevention and Assistance to Environmental Emergencies - NUPAEM, in the following terms: I - provide assistance to at least 50% of environmental emergencies of federal competence, according to art. 5 of the Internal Regulations for Environmental Emergencies (RIEMA); and II - execute the minimum number of shares listed in Attachment III. Single paragraph. Those responsible for the NUPAEM will be able to distribute the actions listed in Annex III to the Environmental Emergency Agents and other members of the NUPAEM of their unit, after hearing the head of the Technical-Environmental Division.

4.3 AS TO THE PRIMARY DATA OBTAINED FROM THE RESEARCH

Regarding the analysis of the data obtained from the quantitative aspects of the research, the support was given by the teachings of Bardin [23], using the interview as a non-directive research resource, as it consists of open questions.

As for the Characterization of the aspects considered positive adopted by the integrated inspection model.

The interviewee was asked to point out at least 3 aspects considered positive, adopted by the integrated inspection system. In view of the item presented, the following aspects stand out: Of the group interviewed, 66% pointed out as the main positive aspect the greater protection of the environment in all spheres, given the improvement in the organization and the maximization of the use of resources; 44% the number of professionals in the inspected regions; 33% the largest coverage in the supervised area; 33% of the group said that the knowledge of those involved in the inspection activity is also a positive point to be considered; 22% pointed out the highest number of assessments made; also, 22% said that concurrent administrative support with support for inspection personnel; for 11% of the group, another positive point is the integration between police and state and federal agencies; and 11% also understood that the detection of other crimes is a positive point.

It can be seen from the interviews that the Ponta do Abunã operation has contributed significantly to the control of deforestation and, consequently, of the consequences that it can cause due to the greater protection of the environment and, also, as pointed out in the positive

aspects, evidenced by the interviewees, has contemplated the actions of PNAPA. The social responsibility delegated to the environmental protection agencies stands out, with the integrated action being a mechanism to ensure the aforementioned process of control, prevention, inspection, evaluation and dissemination of an environmental policy aimed at environmental quality, the forest management for multiple use in family properties, as well as the certification of production units.

Among the aspects considered positive adopted by the integrated inspection model, the following aspects stood out: 1. Support from the partnerships of the Superintendencies: Rondônia, Acre and Amazonas, which enabled interaction within the inspection operation plan. 2. Coordination performance that, even with equipment difficulties, did not measure efforts in the execution of activities. 3. Dynamics of administrative support, through the intensification of work in the preparation of consolidated reports and opening of processes.

As for the characterization of the negative aspects adopted by the integrated inspection model.

Each interviewee was asked to point out at least 3 aspects considered negative, adopted by the integrated inspection system. In view of the item presented, the following aspects are highlighted (table 4).

Table 4: Negative aspects

| Negative aspects | Percent |
|---|---------|
| Lack of vehicle, trucks to transport seized goods and their logistics | 55% |
| Lack of storage space for seized goods | 33% |
| Almost no exchange of information | 22% |
| Lack of SEI system integration for process monitoring | 22% |
| Lack of team training | 22% |
| No counterpart from the federal agency to the state | 11% |
| Existence of personal conflicts | 11% |
| Conflict of competences between institutions | 11% |
| Difficulties in organization and general control | 11% |
| Lack of place for accommodation for all involved, without division of teams | 11% |
| Shortage of inspection personnel, as well as inspectors with inspection ordinance | 11% |
| Difficulties in identifying those responsible for properties with deforestation | 11% |
| Project management authorization in areas bordering forest reserves | 11% |
| Lack of support and immediate communication in emergencies | 11% |
| Difficulty in identifying those responsible for environmental crimes | 11% |
| Inconstancy regarding the inspection period in the area, in the year | 11% |
| Collection of numerical results of fines and little concern with the quality of the | 11% |

| | |
|---|-----|
| assessments | |
| Unnecessary advertising with self-promotion by managers | 11% |
| Appropriation of timber equipment, without proper analysis of documents | 11% |

The research shows that some aspects that need to be reviewed and better structured in the face of the problems experienced by the Superintendencies of Rondônia, Acre and Amazonas. In this sense, it is necessary to prioritize the identification of the problems raised, carrying out actions that clarify their implications, where the control and monitoring are highlighted, protected areas and territorial ordering, fostering sustainable activities so that the inspection takes place effectively. Thus, it is essential to establish partnerships between the federal, state and municipal spheres, as well as the bodies with competence to act in the area, in order to strengthen the application of the integrated action in the inspection of IBAMA.

Regarding the negative aspects adopted by the integrated inspection model, the team formed by members who acted in the Inspection of Operation Ponta do Abunã, made the following highlights: 1. Collection of numerical results, fines. Much concern with the numerical results, leaving the quality of inspection services to be desired. 2. Unnecessary advertising (media). 3. Appropriation of equipment used by loggers. The immediate seizure and removal of equipment with the support of the Brazilian army.

As for the improvement measures to be integrated into the inspection process, the following measures were pointed out to be integrated into the “Ponta do Abunã” inspection system (table 5).

Table 5: Improvement Measures to be Integrated

| Improvement Measures to be Integrated | Percent |
|--|----------------|
| Acquisition of equipment and machinery for the logistics of withdrawing and transporting seized goods | 55% |
| Intensify inspection (emphasis on the logging yard) and promote continuity of operations throughout the year | 44% |
| Improvement in the value of the daily rates, as well as the unification of values for all | 33% |
| Provision of a warehouse for the storage of seized goods | 22% |
| Greater number of people to do bureaucratic work | 22% |
| Installation of an Operational Base, with necessary logistics at Ponta do Abunã | 11% |
| Investment in technology in the Environmental Police Battalion (BPA) | 11% |
| Greater information sharing (total communication between IBAMA inspectors and security staff) | 11% |
| Suitable vehicles with tires for hard to reach places, winches and better equipment | 11% |
| Creation of an integrated system between the federal entity and the state | 11% |
| Access to information from other entities involved in the environmental issue | 11% |

The relevance of inspection to combat deforestation is understood, and the context of the effectiveness of this operation runs through state, structural, organizational, legal and human aspects. Thus, working conditions must prioritize resources, equipment, accessibility, security, communicability and personal / professional enhancement. In this sense, the inspection team highlights the following improvement measures, necessary: 1. Logistics for transporting seized goods. 2. Office and computer equipment logistics. It is observed that there is a need for transportation, deposit for storage

of seized goods and adequate / updated equipment for the development of inspection.

In this context, it is believed that a good integrated action to be adopted by IBAMA depends on the following criteria, according to the competencies of each governmental sphere: Revoke Ordinance No. 14/2017 - Internal Regulation of IBAMA, returning the legal powers to the State Superintendents, without ideological, partisan or doctrinal bias; Creation of the Advisory and Deliberative Council of IBAMA State Superintendencies; Creation of the Sectorial Chamber for the Amazon;

Creation of a privileged forum for discussion of environmental issues pertinent to the Amazon, minimally constituted by the governors of the Amazon, representatives of the Federal Public Ministry, Brazilian Army, Brazilian Navy, Aeronautics, ABIN, Federal Highway Police, IBAMA Superintendencies in the Amazon; Restructuring of all Superintendencies (SUPES) and the return of all commissioned positions that were removed from SUPES and transferred to IBAMA / Brasília, as a means of equipping the Institution; Repealing the Ordinance that nationally lists the servants considered fit to exercise inspection activities, this instrument reduced the number of servants involved in command and control activities, creating a pseudo elite in the inspection; That the Superintendencies have autonomy to enforce the purposes of IBAMA foreseen in Law nº 7.735 / 1989; Role definitions between the Ministry of the Environment (MMA) and IBAMA, respectively, who formulates and executes; Strengthening of the Environmental Control System; Strengthening of Formal and Non-Formal Environmental Education programs and projects; Articulated Implementation of PPCDAm; Implementation of the National Environmental Crime Prevention Program; Decentralization of the competences established in art. 3rd and subsequent of LC 140/2011, promoting actions such as reestablishing or creating municipal environment councils, restructuring / or structuring and organizing municipal environment departments, transferring expertise and technology to SEMAS, promoting and encouraging the transfer of resources to the agreed municipalities, permanent and interconnected performance with SEMAS and state environmental agencies, implementation of a management and monitoring system for the actions established in the fundamental objectives of LC 140/2011; Establish delegation of competence to state and municipal entities; Create mechanisms for temporary and permanent action in the base units established in the priority municipalities; Integration of IBAMA and command and control institutions with the participation of military institutions in the scenario of combating environmental crimes; Invest in the sustainable management of water resources, in the revitalization of river basins and in river decontamination, in protecting strategic aquifers and in rural and urban water tables; Creation and implementation of the decentralized and unbureaucratic Environmental Licensing program; Attribution to the Superintendencies the competence to license projects characterized as protected by the Union, within the limits of their technical capacities to do so and within the limits of their jurisdictions; Implementation of the Environmental Extension Program, aimed at the use, monitoring and surveillance of natural resources, involving small

producers; Construction of a basic model of instruction and judgment of administrative processes, transparent and clear; Creation of a permanent nucleus of experts to resolve possible divergent interpretations, allowing greater speed of instruction, judgment and approval of processes in the administrative sphere; That SUPES, through a specialized chamber representative of the federative unit, can elaborate and define by means of Fines Conversion Notices, the services for the preservation, improvement and recovery of the quality of the environment, the actions, activities and works included in priority projects with their regional and local specificities; That IBAMA, through the conversion of fines and destination of seized goods, can support the States and Municipalities in the management of solid waste such as selective collection, recycling and the assembly of a mini processing industry for this raw material; Eradicate the irresponsible and criminal destruction of seized assets, guide them to be auctioned bringing resources to the Union or donated to institutions that need them, we understand that after the seizure of what was seized, it becomes the Union's property until the final judgment of the process.

IBAMA, ICMBio and the Brazilian Forest Service - SFB, are three institutions linked to the same Ministry that go through extreme fragility, mainly with regard to human and budgetary resources. It is necessary to promote and implement an investment program with resources from the Amazon Fund and the National Treasury, via BNDS, in the areas of territorial ordering (Economic Ecological Zoning - EEZ and Land Regularization) management of public forests and conservation units; environmental control (monitoring and inspection); economical alternatives with the use of sustainable production technologies; sustainable management of renewable natural resources (forest, fisheries and wildlife), recovery of altered areas; resumption of PPCDAm [24].

Consecrated authors discuss environmental issues, both from the point of view of environmental law, environmental licensing, environmental responsibility, environmental inspection, deforestation, assessment of environmental impacts, as well as topics such as a plan to prevent and combat deforestation. The following authors can be highlighted [25]; [26]; [27]; [28]; [29]; [30]; [31]; [32]; [33]; [34]; [35]; [36]; [37]; [38] and [39].

IV. FINAL CONSIDERATIONS

It stands out as a positive point pointed out by the group the greater protection of the environment in all spheres, given the improvement in the organization and the maximization of the use of resources. It is important to emphasize that society requires government officials not

only to meet their needs, but that these needs are met in the best way and at the lowest cost. When assessing that in the perception of the agents, there was greater protection of the environment and with an improvement in the use of resources, it can be said that in producing greater protection for the environment the model was more efficient, while maximizing the use of resources demonstrates effectiveness.

The integration between political and administrative entities allows each one to act on what is most apt. This combination of competences allows specialists to act in their area, leading the operation to superior technical quality and lower costs.

On the other hand, the item most remembered as negative was the lack of vehicles, trucks for transporting seized goods and their logistics. The vehicles used by Ibama are rented and all are equipped with a tow truck. However, there are no vehicles with tires with studs suitable for roads with puddles. In addition, Ibama does not have tractors or trucks to transport seized goods, nor does it have an outsourcing contract for this type of service. It is evident that the timber inspection activity includes the service of apprehending logs and sawn wood, which requires the availability of machinery inspection bodies for this work. Due to this lack of equipment, many servers claim that without alternatives, what remains is to destroy the seized goods.

Even in integrated action, the State is deficient in the capacity to transport the seized goods, either due to the lack of appropriate equipment or the lack of adequate planning. An adjustment in this direction could prevent the destruction of goods and merchandise, as well as allowing the use of these materials for the benefit of society. It was found that the second point most negatively remembered is the lack of an appropriate place for the deposit of these goods. It is clear that both the logistics of transportation and that of warehouses should be studied more carefully, seeking to find alternatives that meet the need for inspection, which on the one hand is effective in assessing and seizing used products and fruits of illegal activities, on the other hand, it is unable to deal with the product of this inspection properly.

For the sake of logic and concatenation of reasoning, it should be emphasized that the same agents who answered the first axis also answered the second and third axes. When suggesting improvements to the inspection, it is clear that the group attacked the main negative point and was concerned with seeking a solution to this deficiency. Thus, the acquisition of equipment and machinery for the logistics of withdrawing and transporting the seized goods was the suggestion for

improvement most pointed out by the group. Then, it was also suggested, intensify the inspection (emphasis on the logging yard) and promote the continuity of operations throughout the year.

In the perception of inspection agents, actions occur infrequently and this results in the loss of inspection effectiveness. According to the researched group, a more continuous inspection would bring better results. In this research, not all the positive points, not all the negative points, nor all the suggestions for improvements were presented. A survey of this magnitude does not exhaust the subject, but it can serve as an aid to other research and as a source of information for those interested in the subject of inspection, especially in this rich and important region of the planet.

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