



## Spring restoration and environmental (in)justice: The case of rural producers in Galiléia/MG

### *Recuperação de nascentes e (in)justiça ambiental: o caso dos produtores rurais de Galiléia/MG*

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**ABSTRACT:** The current article considers in a particular way the spring restoration process in Renova's Program 27 implemented in Galiléia, as part of fulfilling the Conduct Adjustment Transactional Term (CAAT) signed in March 2016, four months after the disaster resulting from collapse of the Fundão dam in Mariana/MG. The paper aimed at evidencing the conflicts present in the dynamics of the territorialities established in P27 by rural producers, the Prosecutor's Office and Renova. To this end, we used spring restoration in the municipality of Galiléia/MG as framework. Through a literature review, as well as documentary analysis of the CAAT that established P27, we identified and analyzed the main actors and natural agents present in spring restoration in the program, performing a synthetic and global analysis of the conflict. All of the aforementioned under the historical, geographical and environmental contexts of the territory, against the background of environmental injustice. From this study, we understand that implementation of the program gathers diverse actors, who have different types of relationship and interests with the springs and marked power asymmetries. These power disparities of the actors involved and the discourse and the legal modality used to manage the issue act in favor of the companies and neglect the rights of the rural producers that joined the program, as well as of the entire population affected. In this scenario, there is certain repetition of socioenvironmental injustice patterns that date back from colonialism and are perpetuated to the present day.

*Keywords:* springs; socioenvironmental conflicts; environmental injustice; power asymmetry.

**RESUMO:** O presente artigo considera de modo particular o processo de recuperação de nascentes do programa 27 da Renova implantado em Galiléia, como parte do cumprimento do Termo de Transação de Acordo de Ajuste

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de Conduta (TTAC), firmado em março de 2016, quatro meses após o desastre decorrente do rompimento da barragem de Fundão, em Mariana/MG. O trabalho teve por objetivo evidenciar os conflitos presentes na dinâmica das territorialidades estabelecidas no P27 pelos produtores rurais, Ministério Público e Renova. Para isso, tomamos como recorte a recuperação de nascentes no município de Galiléia/MG. Através de revisão bibliográfica, bem como análise documental do TTAC que estabeleceu o P27, identificamos e analisamos os principais atores e agentes naturais presentes na recuperação de nascentes do programa, realizando uma análise sintética e global do conflito. Tudo sob a contextualização histórica, geográfica e ambiental do território, tendo como pano de fundo a injustiça ambiental. A partir deste estudo, entendemos que a implementação do programa reúne atores diversos, que mantêm distintos tipos de relação e interesses com as nascentes e uma marcante assimetria de poder. Essas disparidades de poder dos atores envolvidos e o discurso e a forma jurídica utilizada para gerir a questão atuam a favor das empresas e negligenciam os direitos dos produtores rurais que aderiram ao programa, bem como de toda a população atingida. Nesse cenário, há repetição de padrões de injustiças socioambientais iniciadas ainda no colonialismo e que se perpetuam até os dias atuais.

*Palavras-chave:* nascentes; conflitos socioambientais; injustiça ambiental; assimetria de poder.

## 1. Introduction

Faced with the largest disaster involving mining tailing dams in the world, a metric that takes into account the start date of records in 1915, (Milanez & Losekann, 2016), Samarco, Vale and BHP Billiton were imposed legal responsibility to promote repair and/or compensation for the damages caused. Under the claim of conferring concreteness to this purpose, the creation of both the Renova Foundation and 42 programs was also established. The interactions promoted in this panorama have been outlining territorialities and revealing social actors with different appropriation modalities, objectives and significance of the environment. It is also necessary to consider that the power asymmetry of the actors in focus, especially in the economic and political scopes, is promoted, among other factors, by the peculiar access portions or even lack of it in the aforementioned power branches. As a result, environmental injustice is established, becoming one of the elements that promote the complexity of restoring the Doce River basin.

That said, it is important to highlight that this research particularly considers the spring restoration process of Program 27 (P27) by the Renova Foundation, as part of fulfilling the Conduct Adjustment Transactional Term (CAAT) signed in March 2016, four months after the disaster resulting from collapse of the Fundão dam in Mariana/MG (Zonta & Trocate, 2016).

The study aimed at evidencing conflicts found in the dynamics of the territorialities established by rural producers, the State and Renova in the case of the implementation of P27 in the municipality of Galiléia/MG. Like many others in the basin, the municipality in focus has the Doce River as main water supply source, with Galiléia already having a mapping of springs at the time the CAAT was signed. In addition, it was also one of the first municipalities to be included in the Renova Foundation P27 program. Furthermore, the research scarcity on those affected in the mid part of the Doce River basin encouraged us to take a closer look at this territory.

The management of the conflicts that arise in the CAAT implementation process involves elaborating a series of amendments, including the term

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that became known as TAC-GOV and several other terms of preliminary adjustments (TPAs). This documentary-based article considers the existence of these documents/regulations and also deems them as evidence of the existence of conflicts in the process of repairing the damages resulting from collapse of the Fundão dam. In this paper we chose to focus on the CAAT signed in March 2016, as it is the one that, through Program 27, gives rise to the spring restoration process throughout the basin.

For our purposes, we followed the general recommendations of the methodological guidelines proposed by Paul Little (2001), which instruct a process for the analysis of socioenvironmental conflicts. Thus, we depict the main actors and natural agents involved in the Program, their characteristics, peculiarities and performance, displaying a synthetic analysis of the conflict during and after these presentations. To enrich this paper, we draw on the science that supports environmental justice, in addition to attaching to the proposal for the new water cycle supported by Porto-Gonçalves (2012).

In this sense, at a first moment, this text presents the characterization of Renova's Program 27 and the municipality of Galiléia, as well as a general overview of the data related to the rural area and landowners in the municipality (insofar as it is with them that P27 should be developed). Secondly, the actors involved in the environmental conflict are identified and characterized so that we can then present an analysis of it.

## **2. Spring restoration in Galiléia**

### *2.1. P27: The spring restoration project*

After the disaster resulting from collapse of the Fundão mining tailing dam, which affected the entire Doce River basin, the CAAT was signed in the context of process No. 69758-61.2015.4.01.3400, which is being processed in the 12<sup>th</sup> Federal Court of the Minas Gerais Judiciary Section. This was the main legal instrument to formalize the agreement to repair the damages caused to the basin by the mining companies involved in the causes of the disaster, namely: Samarco, Vale and BHP Billiton. The aforementioned instrument established the creation of a foundation, which came to be called Renova, the entity responsible for managing the mobilization and execution of repairs for the damages caused by collapse of the Fundão dam.

From a legal perspective, the Renova Foundation is classified as a not-for-profit organization and, as agreed in the CAAT, is responsible for all 42 programs established to promote recovery from the impacts of the collapse of the dam then located in Bento Rodrigues, municipality of Mariana, MG. Such programs imply long-term actions and, according to the Renova Foundation itself, are being implemented in the 670 kilometers of affected area along the Doce River and its tributaries. In this article, we will consider Program 27 – Spring Restoration (P27) in particular, given its centrality to recovery of the Doce River and the secondary impacts of the disaster exerted by the aforementioned program. Regarding this, the CAAT states:

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SECTION 11:  
FOREST RESTORATION AND WATER PRODUCTION

[...]

SUBSECTION 11.3:

Spring restoration program, encompassing the following compensatory measures

[...]

DISPOSITION 163:

**It will be up to the FOUNDATION, as a compensation, to restore 5,000 (five thousand) springs,** to be defined by the Doce Hydrographic Basin Committee (*Comitê de Bacia Hidrográfica*, CBH-Doce), with restoration of 500 (five hundred) springs per year, counting from signing of this agreement and over a maximum period of 10 (ten) years, as established in the CBH-Doce Integrated Water Resources Plan, with the possibility of covering the entire area of the Doce River Basin (BRAZIL, Federal Regional Court, 1<sup>st</sup> Region, 2016, p. 75) (emphasis added).

It is to be considered that the degradation history of the Doce River Valley was governed by economic interests. This is because, especially between 1940 and 1970, its landscape was subjected to intense transformations as a consequence of extractive exploitation, extinction of forest cover, sharp decrease in fauna, soil physical and chemical modifications, contamination of surface and ground waters, and accelerated degradation of slopes, generating long-term environmental problems (Espíndola, 2015). As a result of this excessive exploitation of nature, deforestation, pollution, siltation and

urban and industrial areas began taking the place of native fauna and flora.

The health status of the Doce River was already considered precarious and, in 2013, two years before collapse of the Fundão dam, the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE) announced that it ranked 10<sup>th</sup> in the list of the most polluted rivers in the country and was facing an extreme drought, which drastically reduced its water volume. It is noted that, to the detriment of the environment, the rule of economic interests was already causing harms to the Doce River basin, even before the disaster under analysis, and that, even before November 2015, there was an imminent need to recover the Doce River Basin and its sources. It should be noted that projects in this sense had already been developed by the Information and Technical Advisory Center (*Centro de Informação e Assessoria Técnica*, CIAT)<sup>1</sup> since 2006, as well as by the Terra Institute<sup>2</sup>, since 1998. It is to be mentioned that initiatives such as the aforementioned ones did not originate from the CAAT signed between the Samarco, Vale and BHP Billiton mining companies and the State. In addition, so that monitoring of compliance with the Comprehensive Repair Programs for the Doce River Basin, including P27, could be carried out, the *Ramboll Brasil Engenharia e Consultoria Ambiental Ltda* international institution was held responsible for monitoring, evaluating and producing

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<sup>1</sup> This is a Non-Governmental Organization (NGO) founded in 2006 and operates through the Development of Sustainable Communities, an intervention model based on improving the social and human capitals of urban and rural groups. The technology disseminated by the NGO in spring restoration is *barraguinha* (“small rainfall water storage”). More information available at: <https://ciaat.org.br/>.

<sup>2</sup> This is a not-for-profit civil organization founded in April 1998, which operates in the Doce River Valley region, between the states of Minas Gerais and Espírito Santo. It was through it that the “Olhos D’água” (“Eyes of the Water”) program emerged, involving actions such as reforestation and spring isolation. More information at: <https://institutoterra.org/>.

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reports to assess the results of the Programs signed via the CAAT.

When we wrote this article, the Ramboll reports<sup>3</sup> about Program 27 had diverse information dating from March 2016 to September 2020. All the information made available over these more than four years contributes demonstrative data that reveal budget planning exceeding 269 million reais, of which more than 44 million reais have already been spent (16% of the total amount) in a total of 19 municipalities considered by the Program (Figure 1). Galiléia is among the seven municipalities covered by Payment for Environmental Services and, together, this group of municipalities totals 169 properties. According to the Program 27 monitoring leaflet prepared by Ramboll, the definition of the areas to be recovered takes into account studies that defined alternative sources for water collection for the purpose of public supply to reduce dependence on the Doce River. The Doce River Basin Committee (CBH-Doce) defines the number of springs to be restored per year in each region selected, with 2,500 springs having already been chosen, which corresponds to the first five years of the Program.

The Ramboll reports also show that, up to August 2019 (Year 3), 1,500 springs should be fenced and with planting completed. However, only 511 were concluded; in other words, three years after the Program was first implemented, only the amount proposed for Year 1 was completed. The originally scheduled date for completion of the Program is March 2026; however, this date was extended for another ten years in May 2020, postponing it to March 2036. Although the CAAT foresees a fine in

case of non-compliance with the agreement, at no point does the Ramboll report indicate any type of sanction imposed on the SAMARCO/VALE/BHP Billiton companies due to the non-compliances highlighted.

In 2020, the Program reached 1,311 mobilizations and 994 fencings were carried out, with restoration initiated in 820 springs, which corresponds to 54% of the total planned. The above highlighting that the Forest Restoration and Water Production Technical Chamber (*Câmara Técnica de Restauração Florestal e Produção de Água, CT-FLOR*) determined that the Renova Foundation should reassess the springs included in the Program due to the problems found in field inspections carried out by IBAMA (*Águas Operation, Olhos d'Água Phase*), such as: double registered springs; including springs that were already in a well-preserved forest fragment and without any restoration need; divergence in the locations presented; and divergence in the size of the areas under restoration.

## 2.2. Galiléia-MG and P27

Galiléia is one of the municipalities covered by Program 27, is located in the East of the state of Minas Gerais and makes up the Doce River Valley Meso-region, in the *Governador Valadares* Micro-region. Its area is 720,355 km<sup>2</sup> and its population totals 6,951 individuals, who live in the urban area for the most part (81.9%)<sup>4</sup>. The population estimate for 2019 was recorded at 6,817 people (IBGE, 2010). The 2016 Municipal Basic Sanitation Plan

<sup>3</sup> Reports available at: <http://www.mpf.mp.br/grandes-casos/caso-samarco/documentos/relatorios-ramboll>.

<sup>4</sup> IBGE Census <https://censo2010.ibge.gov.br/sinopse/index.php?uf=31&dados=29>.



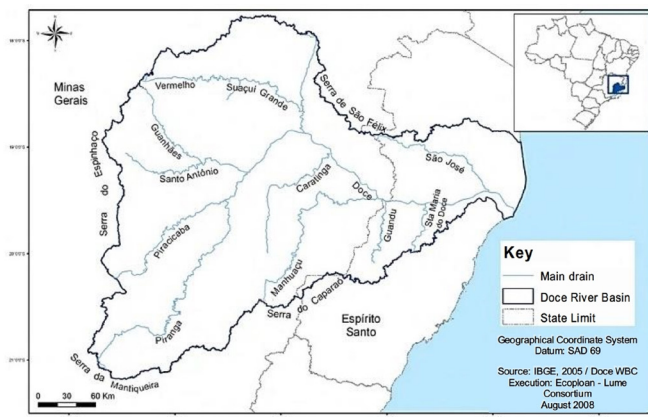
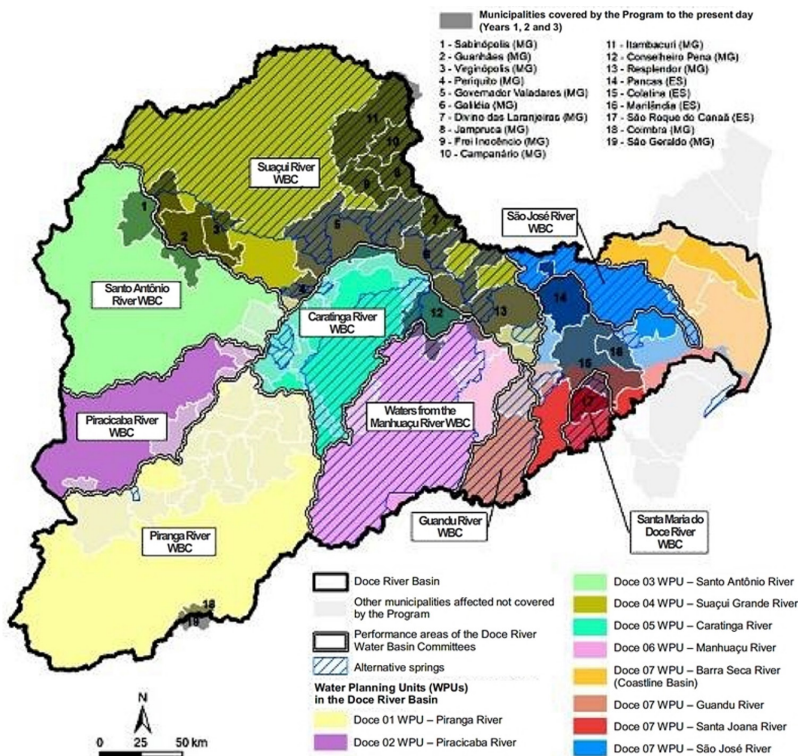


FIGURE 1 – Top: Municipalities considered by the Program (P27 – Spring Restoration) until assessing the results of the Programs signed via the CATT (Conduct Adjustment Transactional Term), formalized by the Prosecutor's Office and the mining companies responsible for the Fundão tailing dam disaster in 2015 at the municipality of Mariana, Minas Gerais, Brazil. Bottom: Location of the Doce River Basin.

SOURCE: modified from the monitoring report produced by Ramboll Brasil Engenharia e Consultoria Ambiental Ltda in 2020; Integrated water resources plan for the Doce River Basin, 2010.

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(*Plano Municipal de Saneamento Básico*, PMSB)<sup>5</sup> reveals that Galiléia has around 500 springs, which were mapped (p. 111) by the technical team of the Caratinga Educational Foundation (*Fundação Educacional de Caratinga*, FUNEC) through data made available by the Minas Gerais Water Management Institute (*Instituto Mineiro de Gestão das Águas*, IGAM)<sup>6</sup>.

In turn, in the Galiléia agricultural census carried out in 2017<sup>7</sup>, we found that the staff employed in agricultural facilities totals 1,209 people, 824 of whom are blood-related to the producers, with 550 men and 274 women. Among the workers who are not blood-related to the producers, 269 are permanent, 112 are temporary and four are partners. It can also be concluded that 59 of the producers received some type of funding.

Regarding schooling levels, it is important to note that part of the producers never attended school, with a total of 33 illiterates; however, the majority had Incomplete Elementary School, totaling 141 producers who attended the first grades (literacy class, literacy for young people to adults, primary or elementary); another 113 state having Complete Elementary School and, among these, 56 having attended Old Junior High School, also called 1<sup>st</sup> cycle; another 55 claim to have completed regular 1<sup>st</sup> grade, and another two Education for Young People and Adults or supplementary 1<sup>st</sup> grade (Figure 2). Another 106 declare having Complete High School, nine of which with Complete Technical Education. Finally, another 93 state having Higher Education, with six indicating MSc or PhD degrees.

Regarding land use, it is mostly devoted to pastures, with a smaller percentage for permanent or temporary crops. On the properties, 92 producers carry out fertilization procedures, of which 81 receive technical assistance, with another 405 not enjoying such assistance. The forests or natural forests devoted to permanent preservation or legal reserves occupy 9,244 hectares, and 1,627 hectares are occupied by Agroforestry systems of areas cultivated with forest species and also crops and animal grazing.

Regarding livestock, there are two facilities with donkeys. There are 35,060 net cattle heads distributed across 456 agricultural facilities, where 7,387 liters of milk are also produced per year. There are 80 net goat heads distributed across seven agricultural facilities. There are 1,486 net horse heads distributed across 337 agricultural facilities. There are 309 net mule heads distributed across 163 agricultural facilities. There are 217 net sheep heads distributed across eight agricultural facilities. There are 11,000 net chicken heads distributed across 267 facilities, where 28,000 eggs are produced per year; in addition to 125 net turkey heads distributed across 25 agricultural facilities and 588 net other birds distributed across 61 agricultural establishments. There are 666 net pig heads distributed across 126 agricultural facilities.

In this scenario where more than half of the producers did not complete more than Elementary School according to diverse information provided by Renova, the mobilization to join Renova's Program 27 was initiated in December 2017. Thus, in

<sup>5</sup> Available at: [https://www.cbhsuacui.org.br/wp-content/uploads/2015/07/P8\\_R1\\_GALIL%C3%89IA.pdf](https://www.cbhsuacui.org.br/wp-content/uploads/2015/07/P8_R1_GALIL%C3%89IA.pdf)

<sup>6</sup> Available at: <http://www.igam.mg.gov.br/>

<sup>7</sup> Available at: <https://cidades.ibge.gov.br/brasil/mg/galileia/pesquisa/24/76693>

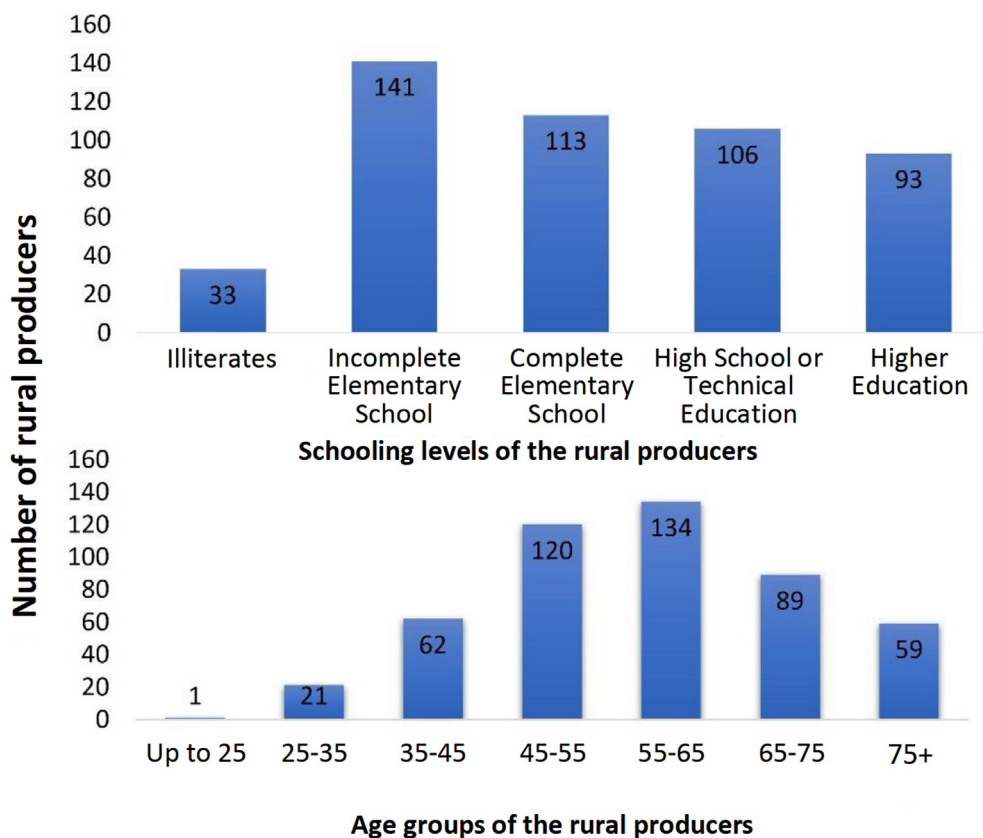


FIGURE 2 – Schooling (top) and age group (bottom) of the 486 rural producers in the municipality of Galiléia, MG, Brazil.  
 SOURCE: the authors – IBGE 2010 census data.

the municipality in focus, twenty-four properties were registered in the Program by the end of 2020. According to the classification established in Article 4-II of Law No. 8,629/93, eighteen of the rural properties participating in the Program are classified as small (with an area comprised between one and four fiscal modules), five are classified as medium-sized properties (with an area comprised between four and fifteen fiscal modules), and one is classified as a large property (with an area exceeding fifteen fiscal modules). The activities carried out on the proper-

ties to produce income were listed, namely: family farming; beef and dairy farming; and extraction of ornamental rocks. Among the rural landowners, 21 identified themselves as male and three as female.

After the mobilization, in March 2018, the fencing implementation activities were initiated. According to diverse information provided by the Renova Foundation, the spring restoration techniques used in Galiléia alternated between total planting and conducting passive regeneration or restoration tasks. As of September 2020, Renova



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declared a total of 105 springs restored in the municipality, which corresponds to slightly more than 12% of the total recovered throughout the basin to the present day (n=820) by Renova's Program 27. This number evidences unequal distribution, with certain concentration of restored springs in Galiléia, which we understand to imply losses for the other municipalities in the basin.

In the notice for the selection of those interested in voluntarily participating of the Forest Restoration Program (notice from July 2019), the Renova Foundation lists a “basket of offers for those contemplated”, which includes:

(1) Encouragement and support for rural owners and possessors in enrolling at the Rural Environmental Registry;

(2) Alternative access to animal watering or construction of drinking fountains for animals; and

(3) Payment for Environmental Services (PES). In addition to the benefits listed above, the notice asserts that others may be included by the Renova Foundation, while the partnership terms last. In return, each property participating in the Program shall provide a minimum of 1 (one) hectare of area for restoration.

According to the same notice, the Renova Foundation assumes responsibility for the preparation, execution and maintenance of the restoration activities, including the acquisition and supply of all necessary inputs and labor, as well as Payment for Environmental Services to all rural owners or possessors covered. In turn, rural owners or possessors will be responsible for ensuring maintenance of the areas intended for spring restoration, not allowing domestic animals access to them, in addition to

also allowing technicians to access the property. The notice also states that, in order to receive the amount corresponding to Payment for Environmental Services, the recipient should immediately report the existence of attacks by ants and other insects on the seedlings, keep the fences and firebreaks duly maintained and not allow livestock to enter the sites under restoration.

Thus, the recovery techniques proposed by Renova involve fencing the area around the springs and revegetating them, which would enable ecosystem recovery, given the possibility of restoring a series of ecological services, among which water supply would be included. On the other hand, this implies a restriction in land use and direct access to the water source by the land owners, which we believe to be a complication and, at times, an impediment, especially for small producers. In addition to that, it does not presuppose the owners' choice of the species to be planted, which can reinforce the incompatibility between the Program's objectives and the producers' interests. In this sense, voluntary adherence to the Program becomes a dilemma, given the economic and logistical implications for the producers in this scenario marked by historical degradation, where exploitation of resources is culturally established. The fact is that, from a universe of 486 rural producers in the municipality of Galiléia, only 24 had joined the Program by the end of 2020.

When organizing understanding, it becomes necessary to validate that the idea of spring recovery and/or restoration implies the existence of a degraded spring. Here we highlight that, according to Rodrigues (1998, p. 13), a degraded spring “concerns not only intrinsically natural problems, but also those arising from social action”. Consequently,

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spring degradation is not merely punctual or local, but globalized, as it is the result of rationality and of the theoretical paradigms that drove and legitimized economic growth, overvaluing the exchange value of nature to the detriment of its use value, all on a global scale, which even affected the history of the Doce River Valley (Espíndola, 2015).

It is possible to verify that between a degraded spring and its effective restoration, in addition to the legal and technical aspects, there are people and their needs, which cannot be ignored. Leff (2015, p. 222) reminds us that “raising awareness in society, incorporating emerging environmental knowledge into the educational system and training high-level human resources were considered fundamental processes to guide and implement the environmental policies”. Thus, we consider that society's relationship with nature has at its core an intrinsic relationship between people since, first and foremost, it is a relationship between living organisms.

In this article we were inspired by the sustainability principles and considered springs from a multiple, diversified and participatory-democratic perspective, highlighting their essentiality and the dependence of human needs on their diverse uses, where these applications are oftentimes inappropriate and lead to environmental degradation. It is in this sense that we highlight the intertwining of conflicting interests and requirements in relation to land use and, especially, in referring to springs.

We agree with Porto-Gonçalves (2012), who points to water as territory, and we will describe the main actors involved in spring restoration in the Doce River basin, using the municipality of Galiléia as a spatial focus. For us, the spring restoration foreseen in Program 27 of the Renova Foundation, in compliance with the CAAT signed by the min-

ing companies responsible for the socio-technical disaster resulting from collapse of the Fundão dam in 2015, implies a territorial network of actors vying for power over the springs.

We will continue to uncover the conflict installed, as well as revealing its specificities. Despite the fact that there are no fixed recipes or uniform treatments for conflicts, as each one has its own peculiar outline, Little (2001, p. 118-119) argues that, starting from the environmental, geographic and historical contexts, the analysis of environmental conflicts should be carried out under at least three standard procedures, herein briefly listed:

- 1) Identification and analysis of the main social actors;
- 2) Identification/Analysis of the main natural agents and possible impacts; and
- 3) Synthetic and global analysis of the conflict (Topic 3), this requirement being what Little (2001) called “analysis of the power equation” between the conflict participants, in order to emphasize the asymmetries between powers and the antagonisms of interests.

Little (2001, p. 107) consolidates the idea that conflicts are an inevitable part of our everyday lives, thus defining socioenvironmental conflicts as “disputes between social groups derived from the different types of relationships they maintain with their natural environment”, showing that “each social actor has its own way to adapt, ideology and way of life that clash with those of other groups, thus giving rise to the social dimension of socioenvironmental conflicts” (Little, 2001, p. 107/108).

It is important to note that, in this research, we consider the terms “Socioenvironmental conflict”

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and “Environmental conflict” as synonyms and validate the understanding that both are included in the “Social conflict” category. As an illustrative example of this premise, we have the adoption of the new water cycle presented by Porto-Gonçalves (2012), where society is contained within it, with all its contradictions. Thus, we also welcome the understanding in which the environmental crisis, seen from the water issue, also reveals the character of the crisis in society and its forms of knowledge.

Also to support the problem of “conflicts”, we resort to the source of Social Sciences, which contribute advanced studies on this event. It is in them that the practice of interconnecting such events through research studies to the factors of change or conservation of social orders is carried out. Herculano (2006) brings to vogue three main approaches to social conflicts in Social Sciences:

- 1) Recognition of conflicts as a social “disease”;
- 2) Recognition of conflicts as constitutive of modern societies; and
- 3) Denial of conflicts.

Thus, to develop this analysis, we adopted the second approach presented by Herculano (2006), in which conflicts are seen as constitutive of modern societies, opening space for the functioning of democracy, in which transformation can be made viable through the possibility of clarifying social contradictions.

Therefore, conflicts are inherent to any social system and act as drivers of change and, even though they are seen as promoters of possible ruptures, they are important for the dynamics that historically reinvent societies and the identities of

the different social actors (Herculano, 2006). We therefore understand that conflicts should be managed, although without the intention that they will be solved, eliminated or hidden (Malagodi, 2013), and that consensus is a form of contingency, given the impossibility of a definitive resolution of social conflicts (Da Costa, 2005).

It is opportune to mention Quintas (2004), who confers strength to the understanding that environmental management cannot be neutral and that, as its practice has an intrinsically conflicting character, managers should commit themselves “to those segments of the Brazilian society that, in the dispute for control over the country's environmental assets, are always excluded from the decision-making processes and bear the greatest burden” (Quintas, 2004, p. 3). This speech evidences the power asymmetries (political, economic and environmental), as well as the relevance of the movement for Environmental Justice, where the need for the existence of strong and enforced laws is reasserted, although its emphasis is on the fight for all communities to be treated equally by the law, supported and receive fair and equitable environmental protection, ensuring that no social group or person is above the law (Acselrad, 2004 and 2009).

Law aims at monitoring social relations and, as a general rule, what affects society is susceptible to legal protection. Given this important legal dimension for society, in this article we will contribute a markedly legal focus, mainly with regard to the conceptualization of rural owners, the Prosecutor's Office and Renova, which are currently the main actors in the conflict to be uncovered, as well as the conceptualization of the springs, which are the main natural agent involved in the plot. Both the

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former and the latter have legal conceptualization in common.

Despite this relevance, it is important to note that reality denounces the insufficiency of laws and of the State machinery, given that, although the 1988 Federal Constitution establishes that “everyone is equal before the law, without creed, race or ethnicity distinctions”, the statistical pattern evidences that the most powerful people and communities tend to have resources that turn into protection, whereas those that are weakest in the relationship end up helpless.

### ***3. Identification and analysis of the main actors***

The main actors involved in the execution of the Renova Foundation Program 27 include the following:

(i) The Foundation itself, a not-for-profit legal person governed by private law;

(ii) The Federal Prosecutor's Office (*Ministério Público Federal*, MPF), the State of Minas Gerais Prosecutor's Office (*Ministério Público do Estado de Minas Gerais*, MPMG) and the Espírito Santo Prosecutor's Office (*Ministério Público do Espírito Santo*, MPES), all public bodies respectively represented by their Public Prosecutors and Justice Promoters; and

(iii) The Rural Producers and/or Possessors that joined Program 27, all qualified as physical or natural persons.

Although we recognize the importance of the participation of other actors in carrying out spring

restoration actions, such as the various state bodies that signed the CAAT, or even the private companies responsible for the dam collapse in Mariana/MG, in the current paper we chose to characterize the Renova Foundation, the Prosecutor's Offices and the rural producers from Galiléia, as they are the parties with most active engagement in the Program 27 dynamics, whether in managing and executing or in monitoring, or even making the Program viable through adherence to it. That said, we will now discuss the legal and legal-doctrinal definition of these actors.

#### *3.1. Main actors*

The legal norm is inherent to social life, as almost all of what society encompasses is susceptible to the care and protection of laws which, in turn, aim at maintaining social balance and organization. In this sense, Law proposes to monitor social relations, where an interpreter of the law, upon understanding the recurring dynamism of this science, takes great care to cautiously indicate the conceptualization of the people who occupy the main hub in the various social relations.

The Civil Code addresses people as subjects of Law and, in this way, categorizes two persons that make up the legal system: the so-called natural or physical person; and the so-called legal person. In this way, for us to understand the conflict arising from the spring restoration task in question, we present each of the main actors involved in P27 of the Samarco CAAT from a legal perspective, taking into account that such actors are social figures who present their own logics of appropriation of the environment they occupy.

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Acselrad (2004, p. 14) states that “societies produce their existence based both on the social relations that are specific to them and on the modes of appropriation of the material world that correspond to them” and presents three types of appropriation practices of this universe material, namely: technical, social and cultural.

In turn, the social appropriation practices of the material world give shape to the “processes of social differentiation of individuals, based on unequal structures of distribution, access, possession and control of territories or sources, flows and stocks of material resources” (Acselrad, 2004, p. 15). This asymmetric structuring of the power distribution over resources configures the core of the production of differentiations present in the interactions of different societies. Finally, in addition to productive or utilitarian purposes, the cultural appropriation practices of the material world become the object of activities related to attributing meanings.

In this interface between the social world and its material basis, the technical appropriation practices are configured in the modes of use, biophysical transformation, extraction, inclusion and displacement of materials in the different territories, which transforms the biophysical environment. What societies do with their material environment is not limited to satisfying needs and overcoming material restrictions, but also consists in projecting different meanings into the world: designing landscapes; democratizing or segregating spaces; standardizing or diversifying social territories, etc.

### *3.1.1. The Renova Foundation: A legal person governed by private law*

According to Maria Helena Diniz (2013, p. 544-545), a legal person is “the unity of natural persons or assets, which aims at achieving certain ends, recognized by the legal system as a subject of rights and obligations”. In a practical sense, a legal person is nothing more than a set of people (natural or legal) or assets, which has its own legal personality in accordance with the legal norm. In this way, a legal person is endowed with the capacity to carry out legal actions or any act that is not illegal. It is noted that legal personality arises from Law and has a fictitious character in the legal system.

Such being the case, the Foundation is perceived as a legal person arising from private law and is characterized as an autonomous fund, a personalized asset, that is, with legal personality, and which has a preordained purpose to a specific social end. The Foundation is listed as one of the categories of legal persons under private law, regulated in the Civil Code and described in articles 62 to 69, an instance that is separated to deal with the procedure for its creation and operation. Regarding the purpose of foundations, the ends for which they are intended are always of a social nature, and their activities are recognized as public utility services. The 2002 Civil Code conceptualizes a foundation as an asset endowed with legal personality for the achievement of a given social purpose, establishing that it can have both a public and private nature.

On its institutional website<sup>8</sup>, the Renova Foundation presents itself as “the entity responsible for

<sup>8</sup> <https://www.fundacaorenova.org/a-fundacao/>.



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the mobilization to repair the damages caused by collapse of the Fundão dam in Mariana (MG)”. In accordance with Article 37, item XIX, of the 1988 Constitutional Charter, the performance areas of a public foundation will be defined in a complementary law.

According to Carvalho Filho (2019, p. 765), we can consider a first division for foundations from the outset: “1. Private foundations, established by people from the private sector; and 2. Public foundations, with the State as founder”. In these terms, taking into account that the Renova Foundation was established by the Samarco/Vale/BHP private companies, it complies with the current legislation. Therefore, Renova is qualified as a legal person under private law, not-for-profit and with administrative, patrimonial, financial and operational autonomy.

Despite what is established in Article 5 of Decree-Law No. 200/67, the Renova Foundation was peculiarly created under the argument that it would be the executive arm of the Samarco, Vale and BHP companies in repairing the impacts caused by collapse of the Fundão dam. Thus, it was thought out and determined within the CAAT scope. It is important to note that the motivation presented for establishing the Foundation was the target of questions and opposition, under the allegation that it would be a protective shield for the companies that were legally responsible for the socio-technical disaster (Zhouri *et al.*, 2018). Despite this, the Belo Horizonte Foundation Promoting Office authorized institution of the Renova Foundation through PT-FBH Resolution No. 16/2016 of June 30<sup>th</sup>, 2016.

Zhouri *et al.* (2018) show signs of an eventual change in the path of environmental regulation policies in Brazil, outlining a migration from a model

based on weak regulation to self-regulation. It points out that, on the one hand, socio-technical disasters such as collapse of the Fundão dam are the result of a weak formal State control model and that, on the other hand, the transfer of responsibility for monitoring and auditing the recovery actions and environmental compensation to the Renova Foundation and consultancy companies hired by it is a clear shift from the weak State regulation model to the self-regulation model by private companies. It also highlights that this change is not a particularity of Brazil, as it follows global trends linked to the advancement and deepening of Neoliberalism.

It should be noted that the CAAT adopted a critique of the methodology for defining affected people, by conferring the Renova Foundation the power to arbitrate who these individuals would or would not be, as well as creating a series of restrictions and requirements so that people can be recognized as affected and, consequently, compensated:

DISPOSITION 34: The FOUNDATION will define the compensation parameters considering the socioeconomic conditions of those AFFECTED in the PREVIOUS SITUATION, as well as the general principles of the Brazilian law and the parameters existing in Brazilian jurisprudence.

[...]

SECOND PARAGRAPH. Eligibility determination of the AFFECTED PARTIES for the COORDINATED NEGOTIATION PROGRAM and the compensation parameters to be established within the same scope will be proposed by the FOUNDATION and submitted for validation by the INTERFEDERATIVE COMMITTEE (BRAZIL, Federal Regional Court, 1<sup>st</sup> Region, 2016, p. 36).

Another indication that the State decided to absent itself is Disposition 10, the CAAT, which

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establishes that “mechanisms must be provided to ensure fair, fast, simple and transparent negotiation, which can be monitored by the PUBLIC AUTHORITIES” (Brazil, 2016, p. 27); thus signaling that the Renova Foundation is responsible for direct negotiation with the affected people, individually and without mediation guarantees by public agents. Given the difference in power between the people affected and the negotiators that will represent the Foundation, these negotiations are unlikely to fully meet the needs of those affected (Zhouri *et al.*, 2018).

The fact is that, with or without the purpose of protecting the private companies in focus, the Renova Foundation is responsible for managing and executing 42 socioeconomic and socioenvironmental programs to repair the damages resulting from the Samarco/VALE/BHP disaster. This function confers the Foundation and its directors the power to directly influence the social benefit resulting from the Programs, including P27 and the alleged restoration of 5,000 springs along the Doce River Valley basin.

It is also to be considered that these same functions and responsibilities attributed to Renova by the CAAT also condition the Foundation's responsibility for complying or not with the terms included in the agreement in question. Dispositions 247 to 252 establish penalties for non-compliance with the agreement established via the Conduct Adjustment Term, such as payment of fixed fines combined with daily ones, per each item not complied with.

It remains shown that non-compliance with the agreement imposes consequences that might exert significant harms to the economic interests of the Samarco, VALE and BHP companies. In these dispositions, we see that fixed monetary fines encourage the companies legally responsible for the socio-technical disaster to comply with the agreement. We also see the Foundation's relevance and responsibility in the face of the economic interests of the committed companies.

By establishing an organization exclusively devoted to the repair process, a governance model was also created, which gathers the presence of more than 70 entities that work together<sup>9</sup>. In this way, the Renova Foundation brings together technicians and specialists from different knowledge areas, dozens of entities with socioenvironmental performance and scientific knowledge from Brazil and the world and, currently, has nearly 7,000 people (including its own collaborators and partners) working on the CAAT execution process, from Mariana to the Doce River mouth.

Furthermore, the Renova Foundation has been accused of conveying incorrect content, associated with spending millions in advertising that simultaneously deceives and confuses mining company shareholders without clearly informing those affected<sup>10</sup>. During this research, we had difficulties accessing data related to P27 on the Foundation's communication channels, and the information we obtained by email proved to be absolutely vague and superficial. Thus, we can notice that, despite the “not-for-profit” status legally pre-established

<sup>9</sup> <https://www.fundacaorenova.org/quem-faz-parte/>

<sup>10</sup> <http://www.mpf.mp.br/es/sala-de-imprensa/noticias-es/caso-samarco-mps-e-defensorias-publicas-querem-que-fundacao-renova-deixe-de-veicular-conteudo-incorreto-e-evite-gastos-milionarios-em-propaganda>

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for the Renova Foundation, it has the primary intention of looking after the image and, above all, the economic interests of the Samarco/Vale/BHP companies, where repairing the damages caused by collapse of the Fundão dam, including spring restoration, is a necessary path to achieve this end.

### *3.1.2. The Prosecutor's Office: An independent body*

The Prosecutor's Office (*Ministério Público*, MP) does not have legal personality; it is actually a depersonalized body and also necessary for functioning of the jurisdictional exercise, in view of its essential functions for justice. This institution is not part of the Judiciary Power, although it carries out its activities alongside it. Therefore, in line with the Federal Constitution, the Prosecutor's Office is an independent body which, in turn, is not linked to any of the Powers (Executive, Legislative or Judiciary).

It is relevant to note that, even though it is a public body and, therefore, a depersonalized entity, the MP carries out actions in its own name, whether outside or within the procedural relationship, and that its members (justice promoters and public prosecutors) respond civilly (CPC, Article 85), criminally and administratively (CF, Article 37, § 6), for their acts. Therefore, if on the one hand there is no legal personality, on the other there is responsibility and functional autonomy for the actions carried out so that it can perform the function entrusted to it by CF/88. This entire maneuver by the Constituent when establishing the Prosecutor's Office aims at providing robust independence, so that this entity can act, if necessary, even to the detriment of the State (whether in the Executive, Legislative or Ju-

diciary spheres). The legal provision of this institute is found in articles 127 to 130 of the Constitution of the Federative Republic of Brazil.

Taking into account the case of the socio-technical disaster at Samarco and the various legal offenses (of an administrative, civil, criminal and environmental nature) that this event represents, as well as the current need for spring restoration already outlined, it is worth highlighting the role of the Prosecutor's Office and its constitutional duty to shelter and protect the transindividual and collective interests of those affected, including the population and the environment in this case.

In this sense, when developing the role of guardian of the environment, it develops activities within the Administrative, Civil and Criminal Law scopes. Consequently, it is responsible for monitoring the administrative functions of bodies that are part of the public administration and that work directly in defense of the environment, as well as of the community.

Article 225 of CF/88 provides for the obligation to preserve the environment when it defines it as an asset for common use by people and essential to healthy quality of life, therefore holding the public authorities and the community accountable for its preservation. In addition, in the same legal context, it also proposes to safeguard the determination of the obligation to repair environmental damage, as well as the proper use of criminal and administrative sanctions for those who somehow harm the environment.

It is important to highlight that, in its role in defending the Environment, the Prosecutor's Office has protection tools and modalities, whether administrative, civil or criminal, which aim at assisting in execution of its assistance. In this sense, among

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these protection modalities we have Public Civil Action, such as the Conduct Adjustment Commitment, known as CAT.

If the Adjustment Commitment is not effectively implemented and the Prosecutor's Office concludes that there are no elements to propose Public Civil Action, it should promote filing a Civil Inquiry. Therefore, the Civil Inquiry would be the last protection mode, which consists of an investigation instrument exclusive to the Prosecutor's Office whose purpose is to collect elements to constitute the conviction regarding the existence or not of environmental damage that warrants proposing a Public Civil Action.

In relation to the CAAT that originated the spring restoration program in the Doce River basin, the absence of the Prosecutor's Office is notable, considering that, as a defender of social interests, it did not participate in the discussions on the agreement terms, as well as the affected population, holder of the rights in question, which was not even consulted (Dornelas *et al.*, 2016). In an attempt to repair these faults, the TAC-GOV was signed as a result of the pressure exerted by those affected and action by the MP, in which these actors were incorporated.

In the case of the Samarco disaster, the MP acted from the first moments after collapse of the Fundão dam, establishing an investigative inquiry into the causes of the collapse and those possibly responsible, which culminated in the prosecution of several people for civil, administrative, criminal and environmental infringements. The MP also hired independent consultancies, such as Ramboll and Lactec, to analyze the impacts and monitor the recovery process proposed in the CAAT.

In the specific case of Galiléia, the presence of the MP is noticed throughout the process of choosing the consultancy agencies and organizing the commission of those affected (FBDH, 2019). It can also be noted that most of the information we had access to for this research was found on the MP website, which provides reports from independent consultancies. However, to the present day, the MP actions have not been sufficient to hire the technical assistance chosen by those affected in Galiléia to take place, resulting in dismantling of the commission of those affected.

### *3.1.3. Rural producers: Physical or natural persons*

Normative Instruction of the Brazilian Federal Revenue (*Receita Federal do Brasil*, RFB) No. 971/2009 provides a legal definition of rural producers, stipulating that:

Article 165. The following is considered:

I – Rural producer: the physical or legal person, owner or not, who develops agricultural, fishing or forestry activities in urban or rural areas, as well as extraction of primary products, vegetables or animals, on a permanent or temporary basis and directly or through representatives, namely:

Therefore, rural producers can be physical or even legal persons. According to the Brazilian Civil Code, a *physical or natural person* is every human being who, according to the legal system, is considered a subject with rights and obligations. In this case, it is a subject endowed with capacity that is acquired at live birth, as per Article 2 of the Civil Code.

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Therefore, from a generic perspective, it is considered that every human being is seen as a “natural person”, where it is worth remembering that the Brazilian legal system also agrees on the “physical person” nomenclature, a name that derives from the designation adopted by France and Italy, also conceived in our legal system for the purpose of regulating income taxes. In this same sense, it is also understood that the so-called legal personality is initiated with live birth, which corresponds to the ability that allows a person to acquire rights and contract duties.

Regarding the acquisition of legal personality, the Brazilian Law adopted the theory of Conditional Personality, enunciated in Article 2 of the Civil Code, Law No. 10,406, which establishes the following: “A person's civil personality begins at live birth although the law protects the rights of an unborn child from conception”; from this legal perspective, it is possible to conclude that, at the same time, live birth is fulfillment of the condition required for legal personality and the initial framework for exercising it, even though the legislation was also concerned with ensuring the rights of an unborn child, “the one that will be born”.

Regarding capacity, what is highlighted in Article 1 of the Civil Code is that “every person is capable of rights and duties in the civil order”. This capacity consists of a person's ability to fully execute and perform their civil life acts. In simpler terms, the legal text states that a capable person is an individual that can answer for their actions carried out in society, such as signing contracts or making a purchase or sale.

Bearing in mind that the capacity institute is the competence to carry out legal acts and trans-

actions, it should be noted that this understanding gives rise to the classification of the *right or enjoyment capacity*, in a generic way as the possibility that every person has to be a holder of exercising rights and duties, and as *the in-fact or exercise capacity* contemplated by the ability to perform civil life acts on its own.

It is also noted that, in the legal world and in society in general, civil legal age is an important time milestone and that we have articles 1 to 5 of the 2002 Civil Code regulating the issue.

From these devices we can extract that, at the age of 18, a natural person is legally entitled to perform all civil life acts. Therefore, in compliance with the legislation general rules, it is sufficient for rural producers that meet the physical person requirements to reach the legal age to be considered capable of formalizing agreements between them and the Renova Foundation on their own. However, the power disparity between these two actors becomes evident. In an attempt to compensate for these power asymmetries, the TAC-GOV provided for the hiring of technical consultancies for the affected populations, which includes rural property owners and possessors.

It is important to highlight that, in the case of the municipality of Galiléia, despite the technical consultancy having been chosen in December 2018 (when P27 had already been launched), the effective hiring has not materialized until the present day; therefore, the producers are negotiating individually with the Foundation's teams. Failure to hire this consultancy, which in this case is the Tamanduá Agroecological Center (*Centro Agroecológico Tamanduá*, CAT), also contributed to dismantling of the municipality's commission of affected people. Those affected in Galiléia were interviewed by



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the Brazilian Human Rights Fund (*Fundo Brasil de Direitos Humanos*, FBDH) (from January to March 2018), and spring restoration does not appear among the priorities they listed in the report, although there is concern about water quality and agricultural production.

We highlight the FBDH report (2018) here, which records that rural producers, most of whom with no access to reading or writing, took part in the process of choosing the consultancy since the beginning. When distinguishing the groups of rural producers who joined P27, we observed that, of all 24, the majority (18 properties) are considered small producers, as their properties are focused on family farming and do not exceed four fiscal modules, that another five producers are medium-sized, with properties between four and fifteen fiscal modules, and one large property remaining (more than fifteen modules). It is again to be noted the evident power asymmetry between the Renova Foundation teams and the producers, who, although considered capable by law, mostly cannot even read and write.

As previously stated, in the notice to join the Forest Restoration program, the Foundation highlights a “basket of offers to those contemplated”. In this basket, in addition to other “benefits”, the Foundation highlights Payment for Environmental Services (PES). Such payment is provided for in the Forest Code and, in the notice, the Foundation asserts that the properties covered will be remunerated for a minimum period of 5 (five) years, with the possibility of extending it for up to the same period.

It is noted that, although this payment is treated as a benefit, it is nothing more than compensation for the gains that the producer might generate in the fenced area for spring restoration. According to the notice (2019, p. 21) “calculation of the reference

value for the PES was considered as [...] the rental value of land for extensive livestock farming/hectare/month and the carrying capacity of 0.6 cattle heads per hectare”.

Despite divergences between the producers' desires and the notice requirements regarding the PES values or the fencing within their properties, the fear of fines from IBAMA and the Forest Police, responsible for environmental inspection, weighs on the producers. Thus, we remember that Law No. 9,605/98, for example, establishes that anyone who destroys or damages springs will be imprisoned for one to three years or applied a fine, or both cumulatively.

#### ***4. Synthetic analysis of the conflict and final considerations***

What does the characterization and relationship between these actors (Renova, MP and owners) reveal? It is mainly characterized by power asymmetry!

How do power relations take place between these actors and how do these relations impact the environmental conflict in question? Obscuring the conflicts through individually negotiated solutions.

In addition, after presenting the actors and diverse information regarding P27, how can we characterize this conflict in a more incisive way?

In the first place, it is interesting to note that the conflict does not specifically begin with the issues surrounding the implementation of Renova's P27. This conflict is prior to that. It is the result of a context that includes the way in which society has historically related to the environment. For example: part of this context is the existence of

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certain technical-scientific rationality associated both with an ideology of control and spoliation of nature and with the *modus operandi* of the Capitalist system; all of this developing over the last few centuries (Lipietz, 2003; Santos, 2003; Porto-Gonçalves, 2012). We believe that this stance towards nature is not separate from the predatory way in which mining companies have acted in the national territory, which culminated in the last two major socio-technical disasters known in Brazil (collapse of the Fundão dam, in Bento Rodrigues, and of the Feijão Stream, in Brumadinho).

In addition, it is interesting to note that this relationship with the environment (permeated by technical-scientific thinking, domination of nature and Capitalist relations) is not separated from the modern-colonial world system dynamics (Porto-Gonçalves, 2012). This corresponds to the fact that Latin America is a source of wealth and conquered territory for the use of foreign institutions (states or companies at the center of the Capitalist world) (Porto-Gonçalves, 2012). Even though colonization has ended, coloniality persists (as a qualitative aspect of social relations and the society-environment relationship). This is related to the fact that, historically, it is in Latin America and other regions on the world economy periphery that significant environmental impacts arising from economic activities are concentrated, which often-times have their idealization elsewhere, as well as the concentration of advantages resulting from these activities. In other words, if a conflict concerns the relationships that different social groups want to establish with the environment (Little, 2001), the way in which Samarco/Vale/BHP install themselves in the territory, imposing environmental impacts on

those who occupy it, already inaugurates a large-scale environmental conflict.

As a result of this major conflict, we have, paradoxically, the conflict that involves spring restoration. Collapse of the Fundão dam meant intense and extensive destruction, with significant media coverage and mobilization from different sectors of society (therefore differently from the environmental impacts that are oftentimes invisible and diffuse); which weighs heavily on the mining companies to compensate society and the territory. If, on the one hand, spring restoration should be a solution to environmental problems, concretely, it also turns into a conflict. This launches us into the complexity of factors and processes to be understood with a view to a better approach towards environmental conflicts.

In this way, this research clearly showed the existence of conflicts in the P27 execution process. In fact, the adaptations to the initial project imposed by the current pandemic scenario due to COVID-19 appeared to us as an impediment to the process of acquiring primary data that would be obtained in the field from interviews. This same impediment rendered non-publicizing of documents and data related to P27 more evident, showing to which extent the population of Galiléia and the mid part of the Doce River basin has been neglected by the foundation responsible for carrying out the repairs, as well as by researchers and the media in general.

It is remarkable that power asymmetries act directly on the incongruity of the data involving a municipality such as Galiléia where, from a universe of 486 rural producers in the municipality, only 24 joined P27, or even the fact that the municipality has a population of almost 7,000 inhabitants and the Doce River as its primary water source and, even

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so, only has 369 properties registered by Renova as affected, totaling less than 900 people from 272 families.

Our results point to the absence of a mapping of the socioeconomic and ethnic profile of those affected, which implies the impediment of a precise understanding of the impacts, also resulting in the impossibility of fair restoration. For example, it is remarkable that, in the case of spring restoration, Payments for Environmental Services are made to all rural producers based on a regional mean value, regardless of the importance or proportional impact that fencing of each spring means for each property; therefore, there is no treatment for the unequal ones, to the same extent as their inequalities.

Likewise, it is necessary to consider that the aforementioned payment by Renova will be made for a limited period of time (five years, which can be extended for the same period), thus leaving a series of questions open, namely: After 10 years (maximum payment time provided for by Renova), who will bear the PES? If payment does not persist, should producers bear the burden of fencing the springs? Does the spring restoration process consider the real needs and contribute benefits to the producers? Does the spring restoration process rely on the producers' effective sensitization, or does mobilization take place until the producers adhere to P27?

In addition to that, is the restoration process considered complete at the time of planting or from the moment the spring is effectively restored in a sustained manner within the property? Here, it should be noted that it is important to highlight the need for integrated management processes that consider the regional scenario and not only the isolated springs, given that the mining activities

developed in the region (namely granite extraction) compromise the springs' water replenishment.

The vulnerable situation of the rural producers from Galiléia in relation to P27 can also be noticed due to the fact that they are approached individually by teams of qualified professionals. In addition, the following can be read on the Foundation website:

At this moment, we are looking for the Doce River protagonists, rural producers, to develop a closer relationship with these actors. The objective is to support the technical recovery process and, at the same time, environmentally adapt the properties, incorporating the best socioenvironmental practices for agriculture, forestry and livestock throughout 2019 (Renova Foundation, 2020, n.p.).

What we see is an approach to rural producers, mostly owners of small properties, with no access to reading and writing, by teams comprised by experts in social and environmental technologies, with different priorities and interests in an asymmetric power relationship, negotiating conditions and means for restoring springs. This scenario conditions the population, especially those most vulnerable, to bear the largest share of the burden, characterizing a situation of environmental injustice.

It is worth emphasizing that this strategy has been known for a long time, as mining companies use individual negotiation to dismantle the affected victims, putting people against each other in order to destabilize any collective group.

Therefore, Ferreira (2020) highlights that, despite the “legality veneer” of the negotiation solution model adopted by the companies and the justice bodies responsible for dealing with the damages resulting from the Samarco/Vale/BHP

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Billiton disaster, in the practice, the reparation for those affected was individualized based on the negotiated mediation technique used in the Mediated Compensation Program (*Programa de Indenização Mediada*, PIM), favoring the Renova Foundation by reducing the repair costs for the companies causing the damages. Public authorities and bodies from the legal system are also benefited, overvaluing the legal and economic discourse, which dismisses the judicial process as slow and bureaucratic. The rights of rural producers and the affected population in general remain harmed, as they are treated as equals in relation to the companies when, in fact, there is an abysmal asymmetry between the parties (Ferreira, 2020).

Thus, this article not only considers the difference in interests as a producer of conflicts, but also the immense power inequality; ultimately, Renova enters the dispute for the springs to fulfill a legal obligation and improve the image of the mining companies that caused the disaster, whereas the producers depend on the land where the springs are located for their own livelihood. Although the Renova Foundation website makes a good impression with its aesthetics, we were unable to locate precise information about the spring restoration process in the municipality of Galiléia, such as the profile of the producers and properties that joined P27 or the number of springs restored. There is also no transparency regarding the protocol of the mobilization processes (not even the notices for voluntary adherence), despite the images and news with producers participating in meetings related to environmental recovery. It is remarkable that defense of the image of the mining companies is successfully achieved, given that, after the disaster and despite the immense number of people and

ecosystems that are still impacted and without even having technical assistance, the profits of the mining companies reach new records (Milanez *et al.*, 2019).

Finally, although the producers' disinterest may explain the low voluntary adherence to the program, we believe that the difficulty achieving the spring restoration goals evidences these conflicts and signals a resistance and/or distrust movement by the rural producers who, despite knowing about the advantages offered by the program, chose not to join it. In this way, even though the conflicts surrounding spring restoration are less evident than many others, as is the case of homeless people and fishermen, they remain latent and obscured by the power asymmetry between Renova/Samarco/Vale/BHP and the rural producers.

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