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# **Conflicts over water in Brazil**

Filipe da Silva Peixoto<sup>1</sup> Jamilson Azevedo Soares<sup>2</sup> Victor Sales Ribeiro<sup>3</sup>

<b>eywords:</b> 'ater crisis 'ork world division nvironmental justice	Abstract Water resource management must resolve problems about water scarcity in territory. Therefore, the way water resources are being managed in Brazil has not mitigated or resolved the resulting conflicts, quite the contrary, the hierarchical structures linked to the water resource management system have strengthened the performance of hegemonic groups. This article aims to understand the conflicts generated from the appropriation of water resources are related to the economic mineral-agroexporter, consolidating Brazil in a privileged situation in the context of underdevelopment in the world division of labor. For this purpose, the description and cartography of conflicts over water in Brazil made available by the Comissão Pastoral da Terra -CPT (organization linked to catholic church that catalogue data about conflicts over land in Brazil). Water has been the target of huge demands for grain production, and livestock in the Midwest, irrigated fruit in humid valleys in the Northeast Sami Arid.
	about conflicts over land in Brazil). Water has been the target of huge demands for
	is necessary to discuss alternatives to a growth model that causes an increase in water scarcity and may, in the near future, restrict the right to clean water at an affordable cost for most Brazilians.

<sup>1</sup> Universidade do Estado do Rio Grande do Norte - UERN, Mossoró, RN, Brazil. felipepeixoto@uern.br
 <sup>2</sup> Universidade do Estado do Rio Grande do Norte - UERN, Mossoró, RN, Brazil jamilsonsoares@uern.br
 <sup>3</sup> Universidade do Estado do Rio Grande do Norte - UERN, Mossoró, RN, Brazil victorribeiro@alu.uern.br

## INTRODUCTION

The world view on the per capita availability of water has always placed South America and Brazil in a privileged situation with regard to the degree of physical scarcity. Almeida and Pereira (2009) state that despite the water Brazil supply in being 40.000 m3/inhabitant/year, which places it in the group of nations with an abundance of water, the distribution of this resource in the national territory is uneven, considering that in the Northern Northeast this ratio is 500m3/inhabitant/year, corresponding to a very scarcity situation. The authors also emphasize that most of the current problems of a water nature are due to disorderly concentrations of demands, low efficiency in water supply and enormous degradation of the quality of water bodies.

The availability, use and control of water in Brazil show a situation marked by serious environmental injustices to disadvantaged groups or groups with little political capacity to exercise their interests in the shared management of water resources, as pointed out by Carneiro's studies (2004). Ribeiro, Cartaxo amd Borges (2006); Porto and Miralez (2009); Leite, Leite and Clemente (2010); Rigotto (2011); Galvão and Bermann (2015), Mendonça (2015); Pereira e Cuellar (2015); Pereira Filho and Mendonça (2016); Silva et al (2015); Rossi and Santos (2018), Silveira and Silva (2019), among outros.

the lack of effectivity in water resource management model to cope with storage and conflicts over water is a fact that has to be considered. According to Abers and Jorge (2005), water resources management in Brazil, the attempt of decentralization resulted in failures causing for lack of legal certainty to basin comities, besides lack of technical support and administrative, caused trouble to defender a security water fountain, mainly "when the political interests are characterized for patronage and corruption, that make political decisions without technical priorities" (2005,  $\mathbf{p.4}$ )

In addition, Tomaz Junior (2008, p. 100). points out that these conflicts have arisen around the polarizing nature of political interests, which are "strategic and class, opposing capital and social movements involved in the struggle for land and water. the reorganization of the Brazilian space"

Conflicts over water in Brazil have been configured as territorial disputes over its

control, which generates environmental and social impacts in spaces marked by deterritorialization, restructuring of production chains and the use of water resources on a large scale.

It is worth emphasizing that the conflict must be understood as a result of the context of social relations that materialize in the territory, as Castro expresses:

The issues and conflicts of interest arise from social relations and are territorialized, that is, they materialize in disputes between these groups and social classes to organize the territory in the most adequate way to the objectives of each one, that is, in a more adequate way. to their interests (2005, p. 41).

To place this situation more broadly, Santos considers that the modernization and diffusion of productive activities has intensified in underdeveloped countries thanks to the current technical-scientific period, and this phenomenon entails many others, such as: "The creation of new colonies peripheral in the underdeveloped world; the new forms of industrialization, with the internalization of the division of labor, and the arrival of capital and technology from the advanced countries..." (1985, p. 44). In addition to using labor, the environmental assets of underdeveloped countries are highly valuable, and Brazil is part of the club of countries with great natural resources, which have been transformed or used, above all for the production of commodities.

Based on this table, it is a noteworthy fact that, in 2019, in seven of the ten most exported products by the country, a large amount of continental water was used for their production: soy, iron ore, cellulose, corn, beef, chicken, and coffee. These are produced in a very competitive way, due to the flexibilization of work and labor rights, mechanization and the low cost of water resources. Thus, the country is also one of the largest exports of virtual water in the world (MEKONNEN; HOEKSTRA, 2011).

The supply of large volumes of water is only possible with the exercise of power, through the regulation of territories, favoring the most modern forms of production. The hierarchical and organizational structure of the water resources management policy ensures control over water, and over natural or created hydro systems. It is through spatial practices that the social group connected to the space to be deterritorialized promotes access and locomotion restrictions, handling of signs expressed in the landscape, re-signifies places, modifies borders and instrumentalizes and alters the territory (SOUZA, 2020).

It is in this context that the conflict over water finds the objective conditions to emerge. Furthermore, each type of use has potential impacts, causing pollution and often the contamination of water resources, which may compromise the conditions of use for other demands.

It should be clarified that the conflict mentioned here is inherent to the structure and social dynamics due to its political links, given the power relations established between social groups, as expressed by Ribeiro et al.:

Social conflict has its origins in the structure and is part of the dynamics of societies. It is closely linked to the structure of power relations, their legitimation and the resulting positions according to the context in which it takes place, legitimizing itself by the recognition and public visibility of social actors (2019, p. 1022).

In this sense, Vianna (2005) observes that the conflict is an opposition or clash between different forces and interests, indicating that social actors are in dispute for an objective: the control of territory, of a population, of a natural resource. The territory changes as a result of the resulting picture as a product of the power relations at stake, based on the performance of social groups. In this context, in situations of the water crisis, for example, the correlation of forces between these social actors can define a situation resulting in more symmetrical or asymmetrical conditions. In the latter case, there would be an increase in the control and centralization of water resources, a fact that contributes to promoting the deterritorialization of communities dependent on this resource.

In line with the ecological crisis as a product of society's relationship with nature, the contemporary social theory proposes to rethink not only this relationship, but the structural determinants of the distribution of damage caused by reflexive modernity. Such an approach considers conflicts as immanent to the so-called "risk society", as seen by Beck:

With the advent of the risk society, the conflicts of distribution in relation to 'goods' (income, employment, social insurance), which constituted the basic conflict of the classical industrial society and led to the solutions tried in the relevant institutions, are overshadowed by the conflicts of distribution of 'harmful'. These can be decoded as conflicts of distributive

responsibility. They break into how the risks that accompany the production of (nuclear and chemical goods mega technology, the threat to the environment, supermilitarization and growing misery industrial outside society) can be distributed. avoided. controlled and legitimized. (1997, p. 17)

The conflict that most visibly demarcates the water issue in Brazil is represented by the struggle of the population of Correntina in western Bahia, when in November 2017 some of its residents, harmed by the privatization of water in its rivers, left for the direct action and destroyed machinery on agribusiness farms and, days later, they received the support of a significant part of the city's inhabitants, who took to the streets to express their discontent with the local scarcity situation and claim the right to water.

To reverse the growing dystopia established and amplified by the hegemony of the water market, Correntina's struggle for water from its rivers is the same as those that suffer most from conflicts over water in all parts of the country, mainly represented by people and communities traditional: fishermen, riverside dwellers, small landowners, quilombolas, indigenous people, graziers, settlers and those affected by dams, among others.

Due to the complexity that permeates the relationship between society and the environment, the theme developed in this study must be understood from the perspective of the global division of labor, in contemporary times, in an approach highlighted by Santos:

In our present time, and thanks to the globalization of the international division of labor, universality also encompasses the facts of man. And this happens at the same time that man becomes capable of generating natural events and of producing physical facts or of changing, through his action, the meaning, scope, consequences of natural phenomena, including them in the current of a universalized human history (1996, p. 106).

The redefinition of the present world division of labor, thanks to the ongoing globalization/globalization, places Brazil and underdeveloped countries in the condition of active agro-exporters of the global periphery. This form of insertion in the production model under neoliberal inspiration ends up imposing on these countries the absorption of activities with a high socio-environmental impact with high water and energy demands, and which is characterized by economic mechanisms for the appropriation of natural resources at low cost. Thus, the growing global demand for commodities has completely transformed the agricultural use of Brazilian territory in recent decades (THOMAZ JÚNIOR, 2008).

Historically delimited in the "contemporary neoliberal phase" where the water management process itself becomes an "object of commercial transaction and a direct source of accumulation" (IORIS, 2010, p. 129), the "participatory" water management model in the country, effectively, takes place without a broad and plural participation. The lack of a minimum technical structure, personnel and legal security to act according to their attributions makes the river basin committees stuck to a hierarchical structure, often politically taken by hegemonic groups. Thus, the basin plans, concession concessions and water allocation measures end up favoring financially strong groups, in political alliances with the government. Furthermore. social and environmental externalities are absorbed throughout society. Problems related to water scarcity cause the aggravation of social problems of food sovereignty and water security, in addition to environmental and economic damage to traditional populations territorially dependent on these resources.

This article seeks to understand the conflicts generated from the appropriation of water resources and their relationship with the mineral-agro-export economic model. This model placed Brazil in an underprivileged situation in the context of underdevelopment in the world division of labor, as pointed out by Santos (1978; 1996). This reality is configured due to the competitive advantages offered due to the low cost of environmental resources, which contributes to attracting foreign companies. Part of them, without an effective commitment to the environmental issue, a fact that leads them not to assume responsibility for the social and environmental impacts caused in the areas of the territory where they operate. Part of these contradictions is reflected in the form of conflicts, as a result of the control of water to support the productive resources restructuring of territories and the consequent processes of deterritorialization.

## **METHODOLOGY**

To produce the cartography of conflicts over water, data produced by CEDOC Dom Tomás Balduino (Comissão Pastoral da Terra - CPT, 2020) were used as the main source, and since 2009, it has produced reports on conflicts involving water in Brazilian territory.

We sought here, through maps produced in the Quantum Gis software, version 2.14 Las Palmas, to demonstrate the non-cumulative evolution of these conflicts, the number of affected families and their consequences in the Brazilian states, between 2010 and 2019. if, also, for the year 2019, the productive sectors that caused the conflicts.

The analysis and integration of data recognizes the nature of economic processes that have been reflected in socio-environmental They involve problems. national and transnational companies, and the sectors of agribusiness, mining, expansion of energy generation, and works promoted by the government itself. Mapping this phenomenon at the state level represents identifying the expansion of productive activities that potentially generate conflicts, questioning not only the water resources management model adopted in the country, but the economic development model itself based on the exploitation of natural resources and diffuse absorption by society. of the socioenvironmental externalities generated by the disorganization of territories.

#### **RESULTS AND DISCUSSION**

#### **Evolution of conflicts**

In absolute numbers, 1,764 conflicts were registered by the CPT between 2009 and 2019. There was a marked increase in conflicts in the period covered. In practically all the states of the country there were conflicts in greater or lesser numbers, except for the Federal District and Roraima (Figure 1).



Source: Comissão Pastoral da Terra (2020); Elaborated; by the authors (2021).

In 2010 and 2011, the states of Bahia and Minas Gerais were the ones with the highest number of conflicts, with 21 and 24 respectively (Figure 2). In the South Region, the state of São Paulo and part of the Midwestern states had few conflicts, with the majority having 1 or 2 conflicts. In the years 2012 and 2013, the phenomenon becomes more widespread, with the increase in registrations in several states, especially in Pará (Figure 3). It is important to emphasize that the data are not cumulative, so the emergence of new conflicts is registered at each represented time interval.

As of 2014, the increase in conflicts is notorious, with an increase in registrations in practically all states, with a greater concentration in the states of Bahia and Minas Gerais, but Pará shows a faster growth in the amount of conflicts (Figures 4 and 5). In addition to being the state with the largest number of mobilized families, large projects such as the Belo Monte Hydroelectric Power Plant, whose works started in 2012 and began operating in 2016, produced enormous impacts. These conflicts are related to traditional populations, as a result of the damming of the river, flooding of upstream areas, reduction of downstream flow and the change in the socioeconomic context of the region" (Garcia, 2020 p. 7)

In states in the Northeast where there were no more than 10 conflicts until 2018, with the exception of Bahia, there have been many conflicts since then. The Midwest Region started to register an increase in conflicts over water in the state of Mato Grosso in 2016 and 2017. In addition, other states in the region of expansion of the country's agricultural frontier registered a large increase in conflicts over water, such as Pará and Rondônia, in 2018 and 2019 (Figure 6).



Source: Comissão Pastoral da Terra - CPT, (2020); Elaborated by the authors (2021).





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Source: Comissão Pastoral da Terra - CPT (2020); Elaborated by the authors (2021).

Among the states where conflicts over water have become more evident in the last ten years (2009 - 2019) represented in the map below (Figure 7), Minas Gerais (445), Bahia (354), Pará (169), Sergipe (130), Espírito Santo (108), Rondônia (85) and Pernambuco (68), are respectively the seven states with the highest number of conflicts. As for their social impact,

the number of families mobilized is considered an important indicator. In this sense, the most affected states are: Pará (127,213), Rio de Janeiro (69,963), Bahia (64,831), Minas Gerais (40,186), Roraima (33,524) and Pernambuco (25,621). These states alone have more than 77%of the total of 466,370 families mobilized by conflicts related to water in the last ten years.



Source: Comissão Pastoral da Terra - CPT (2020); Elaborated by the authors (2021).

As for the causes of conflicts, it is possible to identify that there are two blocks whose represent different typologies ways of territorializing productive activities. Conflicts caused by problems in water quality (use and preservation) are the most frequent in the eastern sector of the country. In fact, it is the most industrialized part of the country as a result of the expansion of capitalist relations resulted urban that in growth and metropolization, which generated greater potential for pollution and water contamination.

Another block that can be broken down is corresponding to the northern sector of the country, involving border states between the North and Northeast regions where agribusiness is expanding poignantly in the states of Mato Grosso, Pará, and in the states that are part of the MATOPIBA project, which covers an area the size of Germany, inserted in the states of Maranhão, Tocantins, southeastern Piauí and western Bahia. According to EMBRAPA (2021), the flat topography and the low cost of land compared to the consolidated areas of the Center-South led entrepreneurs to invest, reaching the Cerrado Biome through strong mechanized agriculture, mainly for grain production, especially soy, corn and cotton.

Another phenomenon that generated conflicts was the expansion of hydroelectric activity, which has been taking place in a very intense way in the northern region of the country. Thus, even though the construction of dams and dams account for about 29% of the causes of conflicts (Figure 8), in Amapá, Pará, Tocantins, Mato Grosso and Rondônia this was the main cause of conflicts, especially in Rondônia and Pará, where the construction of dams causes about 100% and 80% of conflicts, respectively.



Figure 8 - Causes of conflicts over water.

Source: Comissão Pastoral da Terra - CPT (2020); Elaborated by the authors (2021).

#### Consequences of conflicts and agents involved

There is a dialectical relationship between causes and effects of conflicts, as they involve a relationship marked by the mutual interaction between society and nature, after all, "in the objects of the environment, all social practices developed in territories and all uses and meanings attributed to the environment interact and connect materially, whether through water, soil or the atmosphere" (ACSELRAD, 2004, p. 8).

The State's action as a mediating instance for the resolution of these conflicts is almost always biased, unilateral and contradictory, as Peixoto points out:

As the State has the duty to organize the territory to take advantage of its potential, it provides investments in water infrastructure to ensure high demands, especially for the most productive sectors or those with greater political influence (2020, p. 91).

Thus, the State ends up playing a double role: that of the agent causing conflicts and that of the institution that structures decision-making systems to resolve them. Thus. it is understandable that some authors question the way in which the participatory democratic model in water management in Brazil is structured, claiming that there are no technical and legal means for representative institutions, such as the Basin Committee, to effectively exercise representation democratic groups of users, such as Ioris (2004), Tomaz Júnior (2008) and Abers and Jorge (2005).

The typologies adopted by the CPT to specify the consequences of conflicts demonstrate situations in which the conflict that erupted did not have conditions for fair negotiation or mediation, converging to a clash of forces between groups, in which one or some of them see themselves at risk or with losses already materialized. According to these typologies, conflicts materialized in the following forms: threat of expropriation (111); historical-cultural deconstruction (19); pollution of water resources (812); decreased access to water (226); disagreements (24); lack of settlement (32); denial of access to water (83); failure to comply with legal measures (342); lack of resettlement (28);overfishing (19),and inadequate resettlement (28). In some conflicts (70), there was no description of their consequences.

At first, some of these consequences have to do with water, but many large projects such as the construction of hydroelectric plants or dams, as well as the installation of activities with a high demand for water, can also compromise access to land, to the necessary resources. food sovereignty and water security of affected groups.

The most perceived consequences are pollution and/or destruction of water resources, non-compliance with legal measures, and reduced access to water. Pollution or degradation of water resources is very present in the states where the most conflicts have occurred (Figure 9). Particularly in Minas Gerais, the socio-environmental disasters of Mariana and Brumadinho fundamentally contributed to this. Furthermore, large cities are real diffuse sources of pollution due to the discharge of domestic and industrial sewage, and, thus, the worst water quality indices are usually registered close to the main metropolitan regions of the country (BRASIL, 2006).

In this turbulent scenario in which the country's environmental conditions are found, 57.6% of the Brazilian population does not have sewage collection. In addition, 60% of collected sewage is discharged in natura into water bodies (BRASIL, 2019). Water pollution and

contamination increase its qualitative scarcity, in an urban-industrial territorial configuration that gradually increases the demand for water. Thus, there is a growing need to increase the supply of water, coming from farther and farther away from urban centers and at enormous economic and socio-environmental costs (PEIXOTO, 2020).



Source: Comissão Pastoral da Terra - CPT (2020); Elaborated by the authors (2021).

In most states in the Southeast and East Northeast, pollution of water resources is the main consequence, associated with the loss of water and environmental quality, making groups that carry out traditional production activities the most impacted, such as small farmers and fishermen, in addition to quilombola and indigenous groups.

The impediment or reduction of access to water are the relevant consequences of conflicts in the semi-arid Northeast, as can be seen in the states of Bahia, Paraíba and Ceará. The evolution of agribusiness adapted in irrigated perimeters in humid valleys, associated with the construction of large dams such as Castanhão, in Ceará, may explain this reality.

According to studies by Silveira and Silva (2019), the Northeast is the second region with

the most conflicts and the third in the number of mobilized families. Hydraulic solutions for the drought, based on the construction of large dams, in addition to the use of wet valleys, aquifers and water allocation for irrigated fruit growing, as has been happening in the São Francisco River Transposition Project, have caused several of these conflicts (PEREIRA; CUELLAR, 2015).

In the states of Mato Grosso do Sul and Goiás. associated with agribusiness continuously and on a large scale, there are also significant proportions of reduction or loss of water. The Brazilian access to agrarian/agricultural model is based on two pillars that would be: the maximized mode of production with technical and scientific overvaluation, and the need to expand land and abundant water (PORTO GONÇALVES, 2017). In the Midwest and Southeast, according to Thomaz Junior (2010), the Polygon of agribusiness, in the West of São Paulo, East of Mato Grosso do Sul, Northwest of Paraná, Triângulo Mineiro and South-Southwest of Goiás, holds 80% of the sugarcane plantations in the country, in addition to 30% of the land with soy, and also registering a great expansion of eucalyptus cultivation for pulp production.

Considering the spread of conflicts throughout the national territory, in 2019 there were no conflicts registered in only five states: Acre, Roraima, Rio Grande do Sul, Distrito Federal and Espírito Santo. However, the 74% increase in conflicts this year projects the exponential growth trend for the coming years (Figure 1). The states that registered the most conflicts are located in the east of the Brazilian territory, with Minas Gerais and Bahia leading the numbers, followed by Sergipe and Pernambuco.

The agents that caused the most conflicts were transnational corporations (174), followed by mining (130), the hydroelectric sector (85) and large farms (31) (Figure 10). Conflicts caused by transnational companies are more evident in the states of the eastern Northeast, Minas Gerais and Rio de Janeiro (Figure 11)



Source: Comissão Pastoral da Terra - CPT (2020); Elaborated by the authors (2021).

In the states of the Northeast region, foreign companies focused on irrigated fruit production have shown intense activity in recent years, in irrigation poles and irrigated perimeters associated with large-scale hydraulic works.

Regarding the large impacts of mining, the state of Minas Gerais is the most affected, especially due to the disruption of the Mariana tailings dam, in 2015, which left 15 dead and 1 missing, and that of Brumadinho, in 2019, with 259 deaths. and 9 disappeared - the latter, proportionally much greater in terms of impacts and with complex socio-environmental consequences. some of which are still unpredictable and irreversible. The loss of human life and incalculable damage to the environment resulting from the two major tragedies were caused by the mining company Samarco Mineração S/A, whose shareholder Vale S/A is a shareholder, and by the company that operated the tailings dam at the Córrego do Feijão mine. in Brumadinho. Apparently, the second largest mining company in the world prioritized profit to its shareholders at the expense of safety and care for human life and the environment.

The State itself, in its federal, state and municipal spheres, participates as an agent causing conflicts in the states of Minas Gerais and São Paulo, in the latter being the main cause of conflicts. The high demand for water for urban-industrial activities and the periods of drought and water rationing in recent years led the government to set up chambers to manage the water crisis, without the participation of the Basin committees (MAURO, 2016). Thus, the solution used was the largest transfer of water from the Juquiá, Itapanhaú, São Lourenço, Itatinga river basins, promoting a contribution of about 6.7 m3/s to other systems that supply Metropolitan Region of São the Paulo (SORIANO et al., 2016). In the states of Rio Grande do Norte, Pernambuco and Ceará, the dam, as well as the installation of irrigated perimeters in valleys perpetuated by dams, and the hydraulic works related to the transposition of the São Francisco River are associated with these more recent conflicts.



Source: Comissão Pastoral da Terra - CPT (2020); Elaborated by the authors (2021).

Conflicts caused by the expansion of hydroelectric plants in most states in the Midwest and North regions are evidenced in terms of their distribution in the Brazilian territory, in addition to being the 3rd largest cause of conflicts, the hydroelectric power generation activity is also one of the main causes. by the number of families mobilized. Some of these hydroelectric plants are already installed, but the resulting conflicts have not been resolved, as in the case of Belo Monte, which started operating in 2016, and other hydroelectric plants that are in the expansion plans of the electric sector in the Legal Amazon, such as the project in São Luiz dos Tapajós, which foresees a flood zone of 376 km2 of forest. The Decennial Energy Plan predicts that by 2023, twenty new hydroelectric plants will come into operation in the Amazon.

# FINAL CONSIDERATIONS

The water, as an extremely necessary resource for the reproduction of capital, has been the target of enormous demands for the production of grains and livestock in the Midwest, irrigated fruit growing in humid valleys in the Semi-arid Northeast, expansion of the hydroelectric sector in the North of the country and mining activities in Bahia and Minas Gerais. The impacts resulting from activities carried out with the use of water have generated serious consequences for the environment and affected populations, generating conflicts that perpetuate and expand in these territories.

The main consequence of the resulting conflicts is the pollution of water resources, because the way cities are managed produces high polluting loads generated by domestic and industrial sewage. Thus, the deficit in basic sanitation combined with the expansion of cities is linked to the qualitative degradation of water bodies, especially in the most urbanized areas of the country. Added to this, agricultural and mining activities produce, either by inputs from the productive activity, or by tailings, numerous potential water contaminants such as fertilizers, pesticides and mining tailings. This situation results in a vicious cycle situation, in which the more the population grows in these cities, the greater the demand for water and the generation of potentially contaminating effluents. Thus, the need to search for water increasingly far from cities results not only in an increase in the cost of transporting and treating water, but in several social and environmental impacts resulting from structural works necessary for the integration of basins and the construction of reservoirs for the increase in water supply.

The way water resources are being managed in Brazil has not mitigated or resolved the resulting conflicts; on the contrary, the hierarchical structures linked to the water management resources system have strengthened the role of hegemonic groups increasingly interested in exploring this socializing resource and externalities, generating conflicts with socially vulnerable groups, who do not have the conditions for strength and mobilization for a more effective political action that asserts their rights and interests, together with representation in the basin committees.

The water resources management policy has acted as an invaluable support and facilitator for the action of some agents representing the big capital, such as foreign companies, mining companies, companies linked to the civil construction sector and the electricity sector and agribusiness. It is worth asking whether, in fact, the high investments applied by these companies effectively offset the imposition of negative externalities for society as a whole? Especially for deterritorialized populations, is it possible to accept the restriction of basic survival rights in their territories?

Finally, due to the considerations made based on the framework described from the data and information presented, we emphasize that it is necessary to expand more specific studies that point out not only the situations of conflicts caused by the issue of access to water, but that propose alternatives to a growth model that, in the near future, signals that it is destined to contribute to the increase of water scarcity and to the restriction, more broadly, of the right to water, which is conceived as a collective universal good and accessible to the entire population., above all as an expression of social and spatial justice. The example given by the population of Correntina points out ways to feed utopia and possibilities to build hope. Let's all be Correntina!

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#### **AUTHORS' CONTRIBUTION**

Filipe da Silva Peixoto conceived the study, analyzed the data, wrote the text; Jamilson Azevedo Soares wrote the text, revised and edited the text; Victor Sales Ribeiro collected the data, wrote the text.



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