

The Brazilian Policy of Irrigated Perimeters and its Major Developments in Ceará

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Abstract

The present article aims to reflect on the Brazilian policy of irrigated perimeters pointing its main unfolding and considering those situated in Ceará, since this federative unit is the one with the greatest number of projects. Throughout the text it is possible to understand which projects are derived from this public policy created in 1970 ending up in changes which meet capitalist needs oriented to the Brazilian market, being directed to the development of capital and market relations of agribusiness, which becomes an instrument for the establishment of irrigation targets and due to the state's neoliberalism, has been resumed since 1990, with other taxpayers being detrimental to the collective good.

Keywords: Irrigated perimeters; Ceará; regulations.

Introduction

This article emerges from the need of a debate about irrigated perimeters policy, created strategically by the Brazilian State to the semi-arid north-east in 1970, according to the strategy of growth of the American government in the 1970s, according to prerogatives to meet social demands for agrarian reform and the attendance of other equally urgent demands. Over time, it was reported through the qualitative research carried out between the years of 2012 and 2018, that it did not meet such demands as previously mentioned in the official discourse to justify its creation, but it ended up aggravating the existing social problems, providing the emergence of new problems, whether they are social or environmental.

Methodology

The present article derives from a qualitative research carried out between the years of 2012 to 2018, which was based on three fundamental pillars, namely: theory, empirical evidence and document research. Given that some specific readings were considered, even though there are so many important others, it deserves emphasis the works of the authors Diniz (1999) and Martins (2008), which are essential to understand the creation of public policy of irrigated perimeters in the context of the civil and military dictatorship established in Brazil from 1964 to 1985.

Regarding empirical evidences, surveys of fields were conducted, in which one hundred people, who are directly or indirectly inserted in the context of this public policy of irrigated perimeters, were interviewed. These people are still representatives of the state power or producers selected or not by DNOCS (National Anti-Drought Department) to occupy the irrigated perimeters as well as rural workers hired to work on the projects, families expropriated in reason of the implementation of irrigated perimeters, among others whose testimonies served as basis to understand some issues and the appearance of new concerns about such policy. Documental researches were conducted over the years characterized mainly by visits to producers of irrigated perimeters, to expropriated families and to collections of means of communication such as newspaper, which provided information about implemented policy and projects at that time, in particular the collection of DNOCS library, located in Fortaleza/Ceará/Brazil,

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Where historical documents are available for consultation and in turn expresses the paths established by politics over the years since its inception.

In view of information, data and records collected and made during these surveys, it is provided the necessary support to understand the issues reflected here and many others that permeate the policy of irrigated perimeters.

The Creation of Irrigated Perimeter Policy and the Implementation of Projects.

The irrigated perimeters are public irrigation projects established by the Brazilian State through DNOCS. These projects result from the national policy of irrigated perimeters, elaborated in the context of the Civil-Military Dictatorship present in Brazil from 1964 to 1985.

In this period of the Brazilian history, military and civilian governments made efforts to dismantle and stifle social movements, among which were those who fought for agrarian reform such as the peasant leagues that since the 1950s had been claiming such measure to solve several other social problems arising from the historical concentration of land in Brazil, inheritance of the colonial period that lasts until nowadays.

Strategically, military and civilian governments resorted to countless devices to implement in the conservative social strata, fears that linked these movements to possible threats to national unity and security, criminalizing social movements with the support of the media (as it is done today) controlled and entirely submissive to the governments with which they had close relations.

In doing so, they won the support of conservative social classes and stifled these movements of struggles contrary to the hegemonic interests of the Brazilian ruling classes. Having disarticulated and criminalized the social movements of the countryside, the Brazilian State under the domain of civil and military governments, present as a solution to the problems arising from the land concentration in the country, the policy of creating public irrigation perimeters implanted in the northeastern semi-arid region, which was affected by drought periods.

These irrigated perimeters were part of the National Integration Plan (NIP). Created by Decree-Law No. 1,106 of June 16, 1970, the PIN was defended by the then President of Brazil, General Emílio Garrastazu Médici (1969-1974), as the "most important project in the agricultural area" of Brazil in those times (MARTINS, 2008, page 43). Thus, the official discourse propagated PIN as the "solution to the problems arising from droughts and to the improvement of the standard of living of the semi-arid populations", as Diniz (1999, 84) points out. Like NIP itself, the policy of irrigated perimeters that integrated it was presented in terms of redemption to the problems of the Northeast that, because of its insurgency, posed a strong threat to these civil and military governments that commanded Brazil in that historical period (1964-1985).

Thus, the policy of irrigated perimeters constituted itself as a solution to regional problems "whether they were of a natural order arising from droughts, in particular, social: characterized by the threats that social movements and struggles for agrarian reform represented, or economic: through the modernization of the field with a view to national developmentalism "and the stimulus to the expansion of agribusiness. (XIMENES, 2018, p.28).

The projects were implemented near the water sources that would give subsidy to the irrigated agriculture to themselves. In order to do so, it was important DNOCS hydraulic phase (1909 - 1959), period in which this state organ was dedicated to the construction of dams, and according to the official discourse, they would supply the backcountry population, but in practice these works were constructed in private latifundiums, being afterward captured by the rural elites who benefited from the results. The reservoirs constructed by DNOCS would be responsible for the subsidy to the activities to be carried out in the irrigated perimeters allocated in lands close to these water sources. These lands, in turn, housed families and their histories and those of their ancestors, however, in an authoritarian and vertical way the State removed them from those lands whose affective value was incalculable.

By means of expropriation processes and indemnity payments, families were removed suffering disarrangement, deterritorialization and reterritorialization provoked by this policy, which, since the end of the 1960s, promoted the implantation of a total of 38 irrigated perimeters in the northeastern semi-arid region distributed among the federative units of Bahia, Paraíba, Pernambuco, Piauí, Rio Grande do Norte and Ceará, as shown in Table 1, below:

Table 1- Distribution of irrigated perimeters in the Brazilian semi-arid, by federative unit.

FEDERATIVE UNITS	NUMBER OF PERIMETERS	CONSTRUCTION PERIOD		
		1968-1979	1980-1989	1990-1992
Bahia	3	3	0	0
Ceará	14	10	3	1
Paraíba	3	3	0	0
Pernambuco	4	4	0	0
Piauí	6	4	2	0
Rio Grande do Norte	5	4	1	0
Maranhão	3	0	3	0
TOTAL	38	28	9	1

Source: DNOCS (2012). Organized by Ximenes (2013).

As shown in Table 1, the first irrigated perimeters to be implanted date back to the 1960s and 1970s, during which time the largest number of projects was built, 28 in total and 10 of them implanted only in the territory of Ceará.

In the subsequent decades, 1980 and 1990, 10 more projects were implemented being 3 of them in the territory of Ceará, constituting a majority of 14 projects implanted only in this federative unit. The spatial distribution of these projects in the Northeast region of Brazil can be visualized in the image of Figure 1.

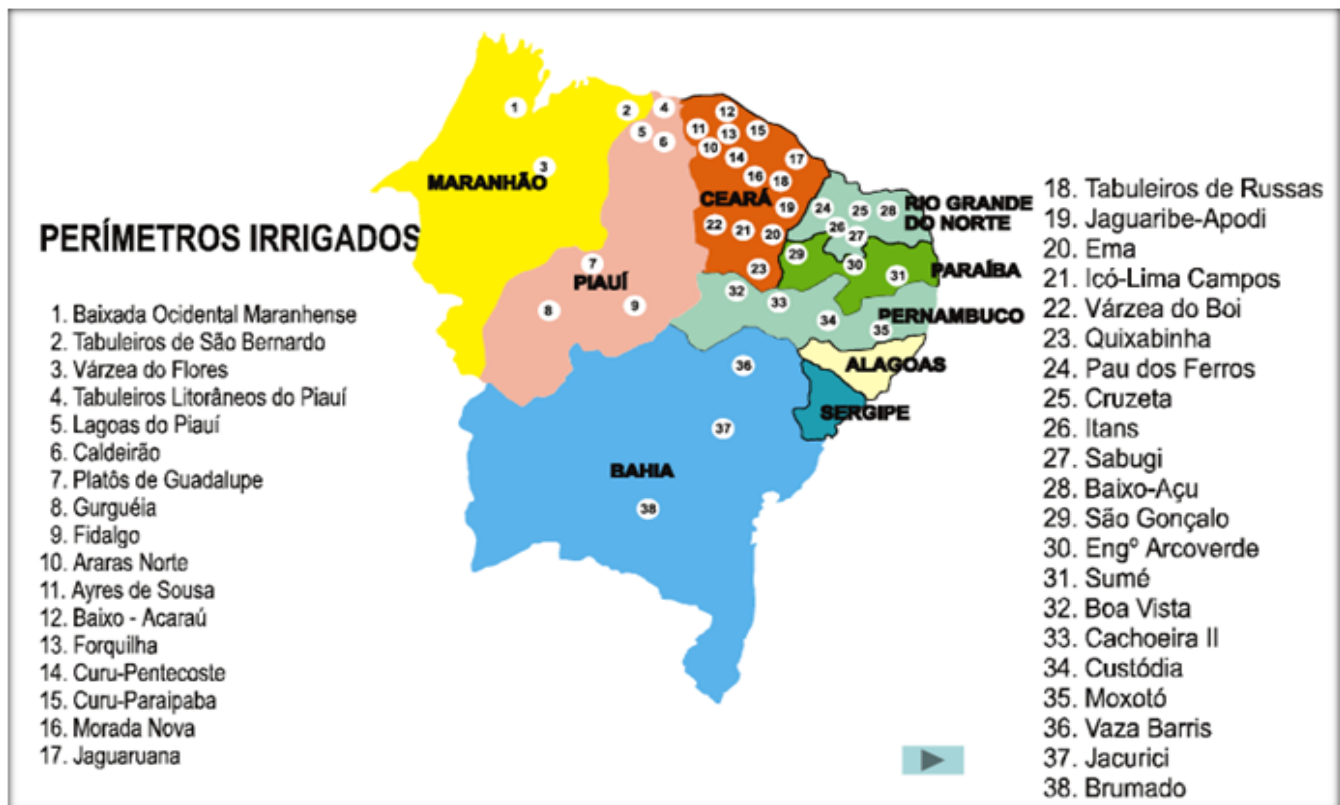


Figure 1 - Irrigated perimeters implanted in the Semi-arid.

Source: Ministry of National Integration; Secretariat of Water Infrastructure (2013).

From Figure 1 it is possible to see clearly the concentration of irrigated perimeters in Ceará if compared to others federative units such as Maranhão and Bahia, both with 3 projects each, despite having more extensive territorial extensions. Due to the fact that the policy of irrigated perimeters is very present in Ceará, being possible to demonstrate better its consequences from the observation of the peculiarities that characterize and distinguish between each Ceará project, it was decided to study it from the projects implemented in this federal unit.

Main Developments of Irrigated Perimeter Policy in Ceará.

In order to implement the policy of irrigated perimeters in Ceará, a total of 108,443.98 hectares of land had been expropriated, in which 14 irrigated perimeters were built and together they occupy an area of 52,689.31 hectares of land. It was seen, during the last two years of the 1960s, the beginning of the implantation processes of the first two irrigated perimeters of Ceará, namely: Morada Nova and Icó-Lima Campos, whose works began in 1968 and 1969 respectively.

Later, in the decade of 1970s, 8 new irrigated perimeters were implanted, whose denominations are: Quixabinha and Ema, both built between the years of 1971 to 1973; as well as the projects Várzea do Boi, from 1973 to 1975; Curu-Paraibapa, in 1974; Ayres de Souza, from 1974 to 1978; Curu-Pentecoste and Forquilha, between 1974 and 1979; and Jaguaruana, between 1975 and 1979. In the 1980s, continuing with state interventions based on irrigated perimeter policy, three more projects were built: Baixo-Acaraú, built in 1983; Jaguaribe-Apodí, in 1987, the same year in which North Araras was established.

The main information about these irrigated perimeters located in the territory of Ceará is organized in Table 2, presented below:

Table 2 - List containing data of the irrigated perimeters implanted in Ceará / Brazil.

IRRIGATED PERIMETER	MUNICIPALITY	WATER SOURCE	ÁREA (ha)		IMPLANTATION / YEAR		
			EXPROPRIATED	IMPLANTED	STARTING	ENDING	OPERATION
ARARAS NORTE	VARJOTA; RERIUTABA	AÇUDE PAULO SARASATE	6.407,39	1.616,50	1987	2014 ³	1998
AYRES DE SOUZA	SOBRAL	RIO JAIBARAS (AFLUENTE DO RIO ACARAÚ)	8.942,75	615,00	1974	1978	1977
BAIXO-ACARAÚ	MARCO; BELACRUZ; ACARAÚ	RIO ACARAÚ	13.909,42	8335,00	1983	-	2001
CURU-PARAIBAPA	PARAIPABA	RIO CURU	6.912,50	3.004,14	1974	-	1975
CURU-PENTECOSTE	PENTECOSTE; SÃO LUIZ DO CURU	AÇUDE GENERAL SAMPAIO, AÇUDE PEREIRA MIRANDA	4.569,37	1.068,00	1974	1979	1975
EMA	IRACEMA	AÇUDE EMA	352,03	42,00	1971	1973	1973
FORQUILHA	FORQUILHA	AÇUDE FORQUILHA	3.327,13	218,00	1974	1979	1977
ICO-LIMA CAMPOS	ICÓ	AÇUDE LIMA CAMPOS	10.583,18	2.712,00	1969	-	1973
JAGUARIBE-APODI	LIMOEIRO DO NORTE; QUIXERÉ.	RIO JAGUARIBE (ATRAVÉS DO AFLUENTE RIO QUIXERÉ)	9.605,71	5.465,09	1987	-	1989
JAGUARUANA	JAGUARUANA	RIO JAGUARIBE	343,08	231,31	1975	1979	1977
MORADA NOVA	MORADA NOVA; LIMOEIRO DO NORTE.	AÇUDE BANABUIÚ; AÇUDE PEDRAS BRANCAS	11.166,31	4.474,19	1968	-	1970
QUIXABINHA	MAURITI	AÇUDE QUIXABINHA	530,35	293,00	1971	1973	1972
TABULEIRO DE RUSSAS	RUSSAS; LIMOEIRO DO NORTE; MORADA NOVA	RIO JAGUARIBE E RIO BANABUIÚ	18.915,00	10.765,72	1992	-	2004
VÁRZEA DO BOI	TAUÁ	AÇUDE VÁRZEA DO BOI	12.878,71	326,00	1973	1975	1975
TOTAL CEARENSES IRRIGATED PERIMETERS			108.443,98	52.689,31	-	-	-

Based on the information contained in Table 2, it is possible to understand that the projects implemented in Ceará had different durations of time in their constructions, containing cases in which they were inaugurated with unfinished works remaining until the present day, like the perimeters located in the municipality of Sobral/CE/BR and Araras Norte project in the municipalities of Reriutaba/CE/BR and Varjota/CE/BR. There are also situations in which the area of the irrigated perimeters was divided in two, with only one of them being built, as it is the case of Araras Norte project. Its irrigation infrastructure had been implanted only in the first stage of the Project and inaugurated in the year of 1998, even though there was not infrastructure in one of the four sectors of this Stage

³Foreseen year for the finalization of the second stage, however, until April 2019 has not yet been completed.

making the development of irrigated agriculture unfeasible in it, and staying just the same until the present day, that is, April 2019.

Still in relation to this project, it was expected to conclude its Second Stage for the year 2014 (as shown in Table 2), however, it remains without completion of its works until the present date. Likewise, it is important to point out that this policy of irrigated perimeters, conceived in the 1970s, underwent changes over time having altered not only its target audience but also the project focus, once the neoliberal state printed in these projects the need to attend the expansion of national agribusiness, transforming these projects into territories of capital and the search unbridled for profit.

This change interpreted as a political reorientation of the irrigated perimeters occurred in the mid-1980s, when the exclusive character of service to the peasant families that would have access to the lands through the projects was replaced, conquering not only public opinion but also propagating a response to the social movements of the countryside (which fought for agrarian reform among other demands), and included other categories that would serve as a model of productive performance for the then small producers, who, in this case, were the peasants who had been selected as settlers in the 1970s and irrigators in the 1980s onwards to occupy project lands.

As the years went by, in the 1990s the consolidation of this political reorientation of the projects began with DNOCS leaving the management of them, confirming the instituted neoliberal character and replacing the state action, which was at the time paternalistic and authoritarian, for this decrease in projects that became the locus on the search for profit; the exploitation of labor in the countryside; land concentration, among other social problems.

Therefore, these projects, which would be initially occupied by peasants, and afterwards by companies, agricultural technicians and agronomists selected by DNOCS, started to have its lands occupied by people not selected by this organ, but, by seeing in such projects a good opportunity to obtain income through land, buy or lease land in these projects.

Different reasons lead the selected producer to discard his lands, either because of lack of identification with the way of living and/or produce in the irrigated perimeters, or because of the lack of production among other factors. The fact is that since the operationalization of these projects there are withdrawals and the exit of producers, who pass on the right to use these lands to third parties upon payment. With the political reorientation of the irrigated perimeters and the establishment of the new neoliberal logic, from the 1990s, it intensified the social and economic issues that motivated the exit of these producers from the project and commercialization of the land, which in turn leads to cases of land concentration and private accumulation of capital made possible by federal public policies.

Although these practices are not legally permitted they are in fact commonplace, so it is difficult to have controls due to lack of records of the mentioned situations, which also promote the establishment of monoculture-based agricultural models, since when they return for the market, production in these lands requires technical specialization consequently culminating in the occupation of the same with the cultivation of a single product, a fact that attracts the consumer to be able to acquire large quantity of a certain product in the lands of this producer.

The market-oriented production ends up intensifying other issues such as the exploitation of cheap labor in plots of irrigated perimeters, as well as the widespread use of pesticides made without adequate technical knowledge to the handling of these substances extremely dangerous to human health, fauna and flora besides polluting natural resources such as soil, water and air.

In addition, the implementation of monocultures to the detriment of productive diversity, which would guarantee greater diversity in the consumption of consumers, increases the search for new markets, that in turn, are far from the place of production causing the produced products in these perimeters to be trading poles specialized in the purchase and sale of products usually sold in large scale, returning to the municipalities where the perimeters are with increased values and in the form of agribusiness merchandise.

From the political reorientation of the irrigated perimeters there is also the enrichment of some producers better adapted to the capitalist models of production. On the other hand, producers who are unfamiliar with such a production logic, that is, those producers who are familiar with agriculture and not with the market, are therefore expelled, subordinating the agriculture developed in these projects to capital and not to the nutrition of surrounding populations or to the minimization of social issues as it is the case of the democratization of access to land or the mitigation of inequalities.

Irrigated perimeters now aggravate old social problems which in the 1970s were said to be combated from these projects, but, ironically or not, are aggravated by them, creating or intensifying new problems as it is the case of the indiscriminate use of pesticides; human subjection to capital from the exploitation of cheap labor in the crops and also consuming a lot of water resources, since the activity is based on high water consumption, what is incompatible with the water supply of the Brazilian semi-arid.

Final Considerations

When reflecting on the directions taken by the policy of irrigated perimeters, from its creation, conceived in an authoritarian and vertical way, aiming at its establishment and evolution, it is understood that it never actually aimed (and superficially) to mitigate the problems that triggered it in response. This policy, established under the domain of civil and military governments, came with the purpose of "modernizing" the countryside in the Brazilian semi-arid through the insertion of exclusive and selective agricultural models practiced in federal public projects, and in order to be implemented it expelled rural peasants, promoting the rural exodus through actions like expropriation of land.

Then, with the evolution of the public policy of irrigated perimeters, its increasingly evident direction to meet the economic interests of capital is remarkably noticed, leaving aside any welfare character that may have already defended this policy when presenting justifications to its existence in the decade of 1970, when it was created. As a result, there is an infinity of social and environmental problems which it is not observed any interest on the part of the State in mitigating, since what is currently interested is to promote the development of agribusiness in the Northeast, having irrigated perimeters as support.

Furthermore, little is said about the resolution of environmental problems arising from the excessive use of water and pesticides in production, since the State, when assuming its neoliberal character, becomes somewhat oblivious, deliberating on the basis of the interest in fomenting the productivity and the expansion of this that turned into an (agro) business lacking in any assistance objective.

With regard to social problems, it is advocated a reformulation of the objectives of these projects, which for the moment are directed to agribusiness, proposing they promote the sovereignty and food security of surrounding populations, practicing organic and diverse agriculture aiming not the market but the health of these populations, after all, it was invested public resources in the construction of these projects that should be more democratic and contemplate a larger number of people who would have access to those lands and could produce in them.

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