

The military dictatorship and water governance in Brazil

Ideology, politic economic power and civil society in the construction large hydroelectric power plants

Executive English Summary

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One of the consequences of the dictatorial regime in Brazil, established through a coup d'état in 1964, was the construction of large hydroelectric plants, popularly called "pharaonic" due to their size, their cost and the work employed in their construction. These constructions were part of the polarization context of the cold war, but they also represented the materialization of the third industrial revolution, made possible in Brazil and other Latin American countries by the developmental ideology, which had been evolving since the early twentieth century. In Brazil, the developmental ideology took on a specific bias when, during the military regime (1964-1985), it combined with the National Security Doctrine.

In this context, this research aims to discuss the legacies that the field of water governance received from the Brazilian military dictatorship and those large hydroelectric plants. In so doing, it seeks to elucidate three questions. The first question is about the institutional and legal framework created during the dictatorial period and its most important actors and funding. The second question is about the role of discourse, through government propaganda and other media, in legitimizing those great works through influencing the public opinion. The third question is about how civil society reacted to such socio-spatial changes. The answers to these three questions will help create a response to the main question: Why has the Brazilian water management system failed to promote effective and democratic water governance even after the promulgation of the National Water Resources Policy of 1997.

The expansion of hydropower infrastructure relates intrinsically to the transformation of territory and land and water use, which also affects the transformation of society, leading to the reshaping of social relations at different scales. Dams for power generation are thus, in addition to the water dammed there, the materialization of a series of negotiations between demands for their use and the needs they will meet.

As a general hypothesis, it is argued that the modern roots of water governance in Brazil were planted during the military dictatorship and that the large hydroelectric dams played an important role, as they engaged in an environmental intervention by permanently changing the Brazilian waterscape, thereby creating a new territoriality. The dictatorial regime also shaped the decision-making processes related to water resources, as a new range of political practices came into existence between the institutional layers of the State as well as with other representatives of power, such as corporations, communities, social organizations and the media.

To conduct the analysis, the study proposes an analytical framework composed of four fields: socio-natural space, knowledge, political and economic power, and ideology. This framework offers a holistic view of the possible relations between the fields, which occur through cooperation and conflict.

The socio-natural space accommodates the long-lasting interventions on watercourses, promoted by hydroelectric power plants, modifying not only the natural landscape but also the regional cultural landscape.

The field of knowledge concerns technology, research, techniques, specialists and traditional knowledge. This study deals specifically with engineering knowledge and technological innovations as they played an essential role in the construction of the large hydroelectric dams, as did the social and environmental studies.

The field of political and economic power considers the government policies, institutions, laws, financing, civil society, social movements, the media and civil rights.

The field of ideology includes discourses, forms of government, and ideas about development, among others. The understanding of the world is influenced largely by the interests of power-holding groups, so symbolic struggles for the imposition of representations are as important as economic struggles. This study analysed the formation of an imagination related to development and the credibility of the institutions, especially through propaganda.

Chapter 1 of this dissertation provides a theoretical review of the concept of water governance, drawing attention to the fact that the governance of large hydroelectric plants represents a special mode of water governance, either by scale or by the need for hydraulic infrastructure management. The chapter also presents developmentalism and the National Security Doctrine as categories of discourse and power that underpin the analysis, as they were ideological substrates for sustaining governmental practices regarding spatial interventions and also contributed greatly to the rearrangement and power consolidation of the Brazilian elite.

Chapter 2 presents a historical account of the energy sector in Brazil and the main decision-makers who were in power, mainly in the Ministry of Mines and Energy and in the Brazilian power utility company Eletrobrás. In addition, it also analyses the financing of the electricity sector in Brazil from 1950 to 1980.

The conclusion is that the State has become the largest investor in the construction of mega hydroelectric plants, thereby fostering a huge growth of private enterprise, especially among contractors, who have benefited from large contracts and special legislation. It was also identified that, during the dictatorial period, the energy sector dominated water management.

Chapter 3 begins by addressing the general context of the electricity sector in Brazil, stating that over 50% of the installed power generation capacity in 2006 was concentrated in hydroelectric plants built during the military period. This began to change only during the 2010s, with the inauguration of new large plants in the Amazon region as part of the second Growth Acceleration Program. Next, it shows how modern water resource management in Brazil was triggered by conflicts over water use in São Paulo in the 1970s. In addition, it provides case studies of the Tucuruí, Balbina and Belo Monte hydroelectric plants, all of which are in the Brazilian Amazon. It is shown that the dynamics underlying the construction of the latter in 2000 resembles that of the first two, which were constructed during the dictatorship.

The chapter concludes that the developments created by the military governments came at a very high cost for the traditional and indigenous populations. It also had environmental costs that, in the case of the Balbina hydroelectric dam, for example, were so immense that the construction of that dam could never be justified on economic grounds. The construction and management of those hydraulic infrastructures involved a multitude of social and institutional actors and mobilized human, financial and environmental resources, thus creating a “development pattern” for the Amazon – a pattern that was, and still is, replicated in the construction of several large hydroelectric plants, using many of the legislative tools created during the dictatorship.

The discourse used by the government and the mainstream media that helped to legitimize the socio-spatial transformations promoted by large hydroelectric plants is analysed in Chapter 4. These socio-spatial transformations were imbued with ideologies and interests that sought to legitimize themselves socially using discursive strategies such as governmental and private propaganda.

The analysis reveals the breadth and sophistication of the government discourses and the ways in which the military found the media and propaganda to be essential for ensuring the predominance of its development project and its ideologies (Image 3). It follows that it is

necessary to understand the propaganda of the time not as an isolated fact in itself, but as part of a much larger social construct, which serves certain social groups that somehow benefit from the perpetuation of the ideas of exploring nature as a condition without which the development of the country would not be possible.

Chapter 5 deals with the manifestations of civil society – in particular, the Movement of People Affected by Dams (MAB) – as a counterpoint. This movement emerged in the late 1970s from the organization of different groups in various parts of Brazil, with the support of the Catholic Church's Pastoral Land Commission, among others. In Brazil, the construction of dams has socially and economically affected more than one million people in the last forty years. Most of these people have not received fair – or any – compensation for their land.

Because Brazilian military developmentalism did not consider a democratic participation and, therefore, did not promote the institutionalization of structures that could cope with the pressures to expand political and social citizenship, a machine was created that favoured unequal relations in the name of national security and supposed development.

Megaprojects such as hydroelectric power plants often function as icons of widespread social injustice, as they make clear the precarious power that the poorest part of society has in negotiations. Their most basic rights are run over, increasing their exclusion and fragility. In addition to direct state violence, indigenous peoples, who are among the most fragile groups, have suffered from the government's systematic exclusion from services and the abuse of individuals and private enterprise.

It concludes that the MAB and other resistance movements appear as statements of the contradictions generated by the unequal logic of development that often appropriates common goods essential to people's livelihoods, prioritizing economic activities for a business elite.

The thesis concludes that the use of the proposed analytical framework made it possible to take a holistic and critical perspective at the theme of water governance arising from the interventions carried out during the military period through the large hydroelectric dams, emphasizing that the governance process is multifaceted and complex.

In answering the main question of why the Brazilian water resources management system cannot actually promote participatory water governance in the country today, we conclude

that, in Brazil, water governance whose modern roots were planted during the military dictatorship should review several of the decision-making mechanisms that go beyond specific policies for the technical management of water resources.

The study identifies and provides the basis for further discussion of some of the key elements to be considered for effective water governance in the country. Some of the main bottlenecks identified were: sectoral planning without connection to water resources plans; failure to safeguard indigenous areas and reserves; lack of prior consultation with affected populations; and the existence of a peculiar imagination in relation to megaprojects and state power.

To achieve more equitable dam planning, appropriate information dissemination, transparency and intense debate with the directly-affected people and with the wider public should be considered. The idea of social participation should also embrace non-institutionalized spaces, as in the case of social movements, which, as a matter of principle, do not participate in institutionalized spaces, such as the Watershed Committees. This is because these spaces are part of a system that hosts unequal forces and that in some cases privileges, albeit unintentionally, certain segments over others.

The expansion of economic activity, as well as the considerable expansion of the country's role in the globalized economy, will boost expectations regarding the role that the country will play in facing global problems, including environmental. The problem is that the country reproduces again today, as it did during the dictatorship, a secular and submissive pattern of insertion into the international economy, based on the export of natural resources and low value-added products, which does not place the environmental issue at the centre of the tension between growth and social welfare. Water governance is, thus, strategic in the confrontation between socioeconomic and political forces ahead of the expansion and consolidation of capitalist relations.

This study used many primary and secondary sources. The files of the National Archives of Brazil, in Rio de Janeiro and Brasilia, were valuable and contributed for the originality of the work. The "Memórias Reveladas" (Memories Revealed) archive contains a rich collection produced by the National Information System during the Brazilian military dictatorship. This national system had arms in all public administration bodies and universities, and in some private companies. It also had the Nation Information Service (SNI) with regional agencies and its own "political police" who were responsible for

investigation and interrogation, sometimes using force or torture to gather information. In this research, we are publishing the original structure of the National Information System – including the structure of the SNI – for the first time (Figure 4).

Access to this collection gave us a privileged look “inside” the thoughts of civilians and the military in power at that time. These documents, which were confidential, show that the social and environmental impacts were already known at the time of the construction of the hydroelectric dams and that they only worsened over time.

We also collected information from the Electricity Memory Centre and the Getúlio Vargas Foundation Centre for Contemporary History Research and Documentation (CPDOC), both in the city of Rio de Janeiro, Brazil.

We analysed as many as 200 pages in newspapers of wide circulation at the time, such as *O Estado de São Paulo*, *Folha de São Paulo*, *Jornal do Brasil*, *O Globo*, *Gazeta Mercantil* and *Veja* and *Manchete* magazines. Film and sound material, as well as print advertisements for magazines and newspapers, produced by the Presidency's public relations advisors and the National Agency in the late 1970s and early 1980s, were also analysed, especially those available in the virtual repository of the National Teaching and Research Network.

Finally, we conducted interviews with the National Coordinator of the People Affected by Dams Movement (MAB), Luiz Dalla Costa, in 2016 and 2017, in São Paulo’s capital.