

Preparedness Paradox in the COVID-19 Health Crisis: Effectiveness of National Disaster Management Policy Instruments in Brazil

La paradoja de la preparación ante el COVID-19: efectividad de los instrumentos nacionales de gestión de desastres en Brasil

Ariel Macena¹ 

Vanessa Elias de Oliveira² 

Enviado: 20 de marzo de 2026

Aceptado: 18 de agosto de 2026

DOI: 10.32457/riem.v30.3640

Abstract

This article examines the effectiveness of the national disaster management instruments available in Brazilian legislation before COVID-19, asking to what extent they guided public managers facing a health disaster. Through a qualitative documentary analysis of federal laws, constitutional amendments, decrees, and ministerial ordinances enacted between 1988 and 2020, and applying Hood's (1983) NATO model and Howlett's (2011) procedural-substantive distinction, it evaluates the normative framework's capacity to guide multilevel governance during a public health emergency. Procedural instruments often operated as "fantasy documents", transferring the operational burden to subnational governments, while inflexible substantive instruments and political failures in coordination severely fragmented multilevel governance. Brazil was bureaucratically prepared nationally yet operationally unprepared locally—a preparedness paradox that offers critical lessons for decentralized systems, demonstrating that failing national normative instruments force

1 Universidade Federal do ABC. Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas. Programa de Pós-Graduação em Políticas Públicas – PGPP-UFABC. ariel.macena@ufabc.edu.br

2 Universidade Federal do ABC. Centro de Engenharia, Modelagem e Ciências Sociais Aplicadas. Programa de Pós-Graduação em Políticas Públicas – PGPP-UFABC.

municipalities to rely on distributed improvisation and interorganizational collaboration to manage systemic crises.

Keywords: Disaster management; Policy instruments; Policy effectiveness; COVID-19 pandemic; Multilevel governance; Federalism; Public health emergency preparedness; Policy design.

Resumen

Este artículo examina la efectividad de los instrumentos nacionales de gestión de desastres disponibles en la legislación brasileña antes del COVID-19, y se pregunta en qué medida orientaron a los gestores públicos ante un desastre sanitario. Mediante un análisis documental cualitativo de leyes federales, enmiendas constitucionales, decretos y ordenanzas ministeriales promulgados entre 1988 y 2020, y con el modelo NATO de Hood (1983) y la distinción procedimental-sustantiva de Howlett (2011), evalúa la capacidad del marco normativo para orientar la gobernanza multinivel durante una emergencia de salud pública. Los instrumentos procedimentales operaron frecuentemente como “documentos de fantasía”, transfiriendo la carga operativa a los gobiernos subnacionales, mientras que la inflexibilidad de los instrumentos sustantivos y las fallas políticas de coordinación fragmentaron severamente la gobernanza multinivel. Brasil estaba burocráticamente preparado a nivel nacional pero operativamente despreparado a nivel local: una paradoja de la preparación que ofrece lecciones críticas para los sistemas descentralizados, donde el fracaso de los instrumentos normativos nacionales obliga a los municipios a la improvisación distribuida y la colaboración interorganizacional.

Palabras clave: Gestión de desastres; Instrumentos de política pública; Efectividad de políticas; Pandemia de COVID-19; Gobernanza multinivel; Federalismo; Preparación ante emergencias de salud pública; Diseño de políticas.

1. Introduction

Following the World Health Organization's declaration of the end of the public health emergency, COVID-19 has received less attention in the news. However, from a Political Science perspective—particularly within the field of Public Policy—there remains a vast area of inquiry regarding the crisis, especially concerning the nature and impact of government responses. The pandemic reinforced the debate on the state's role in society, acting as a global stress test that revealed critical gaps in preparedness and response mechanisms worldwide.

Capano and Toth (2024), analyzing crisis management to understand governmental responses, scrutinized four key controversial issues: the effectiveness of emergency plans, the detection of early warning signals, decision-making under high uncertainty, and the challenges of balancing centralization and decentralization. They also reinforce that bridging public policy and crisis management is essential to address these controversial issues comprehensively, as contingency plans have less impact on response effectiveness in high-uncertainty scenarios without proper cross-sector integration. Regarding the usefulness of emergency plans, defined as “a document drawn up in

advance containing detailed instructions on how to behave in emergency conditions to which individuals must scrupulously adhere” (Capano and Toth, 2024, p. 3), the authors mention that although some scholars see them as one of the main instruments of disaster preparedness (Quarantelli, 1985), it is necessary to recognize that there is no such detailed plan adequate for every possible disaster case, with most of them being adequate only for frequent and well-known events. Consequently, a gap often emerges between the plan and the reality of the crisis, rendering rigid procedural instruments ineffective unless they are accompanied by flexible mechanisms for resource reallocation and rapid decision-making (Clarke, 1999; Valencio, 2010). In contexts of high uncertainty, contingency plans have less impact on response effectiveness.

Global health emergencies require structured and coordinated response systems for their management, as well as prior risk and disaster management mechanisms that enable the swiftness of bureaucratic procedures. The absence of “standard procedures” can lead to ambiguous and conflicting actions, creating a scenario of great variability in responses and even, in a pessimistic scenario, a humanitarian crisis. In this sense, while recognizing the importance of local adaptation, it is vital to have a general regulation for disaster contexts that establishes the responsibilities and minimum operational procedures for the entities, as well as the governance of the response.

In the Brazilian context, characterized by federalism and a diverse territory, responding to global-scale health disasters requires not only local adaptation but also general regulation establishing responsibilities and governance. Accordingly, this specific question guides the paper: To what extent were the instruments available prior to the COVID-19 state of emergency effective in providing guidelines to public managers for responding to health disasters?

To address this question, the article moves beyond describing the legal framework to evaluate the effectiveness of policy instruments. Drawing on the literature on policy design and state capacity, effectiveness is assessed here by the presence of resilience mechanisms, particularly the flexibility of substantive instruments (such as budget execution) and the clarity of procedural coordination protocols. The analysis applies Christopher Hood’s (1983) NATO model and Howlett’s (2011) distinction between procedural and substantive instruments to identify the gap between the formal ‘toolbox’ and the actual capacity to deploy it during a crisis.

2. Objectives and methods

The initial step in evaluating the effectiveness of policy instruments related to disaster management is to describe the legal framework. After presenting the federal normative set that regulates governmental action in disaster situations, particularly health-related ones —referred to here as “pre-crisis management instruments”— the analysis examines how these regulations allocate the resources of Nodality, Authority, Treasure, and Organization among federal entities.

The article’s main objective is to assess the effectiveness of the national normative Brazilian disaster management instruments in addressing the pandemic crisis, and to analyze how the failure of these instruments impacted subnational decision-making. The object of study is specifically the federal

legal framework for disaster and emergency response and its operational translation during the COVID-19 pandemic (2020-2022).

To achieve the proposed objective, the article undertakes a qualitative documentary analysis. The extent of the documentation encompasses federal laws, constitutional amendments, decrees, and ministerial ordinances enacted between 1988 and 2020 that structure the Civil Defense and Unified Health System (SUS). The analytical procedure occurs in two steps. First, Hood's (1983) NATO model is implemented to categorize the resources mobilized by these documents (Nodality, Authority, Treasure, Organization). Second, Howlett's (2011) taxonomy classifies these instruments as procedural (coordination mechanisms) or substantive (direct resource allocation). The study measures 'effectiveness' not merely by the existence of the law, but by evaluating secondary data and reports from the 2020-2022 period to determine if procedural instruments successfully triggered substantive actions or if they hindered local improvisation. A limitation of this study is its reliance on document analysis and secondary literature, precluding primary data on the micro-level decision-making processes of individual municipal managers.

3. On disasters, covid-19 crisis and policy instruments effectiveness

Disasters are "wicked problems" in their nature (Head, 2022; Rittel & Webber, 1973). They mobilize different sectors and require varied technical capacities and skills for their resolution, thereby presenting challenges even for well-prepared institutions. Buchanan and Denyer (2013) note that one of the difficulties in the field of disaster management studies is the challenge of defining what constitutes a disaster. There are definitions that look at the magnitude of an event, while others look at its rarity (Laws & Prideaux, 2005, as cited in Buchanan & Denyer, 2013), and still others employ numerical indicators to determine milestones for nomenclature. Beyond terminological imprecision, which is socially constructed and contextualized, it is commonly recognized that if a certain issue is not considered a disaster, it is unlikely that there will be mobilization for its resolution or prevention.

This issue also reveals a peculiarity of public policies designed to address disasters: the opportunity to discuss disaster prevention is often catalyzed by the occurrence of the disaster itself; however, this momentum tends to dissipate once the event concludes. Nogueira et al. (2014), discussing risk management argue that:

Frequently, the very crisis or catastrophe that the risk reduction policy aims to prevent is what opens a window of opportunity to leverage it. The usual political-administrative activism that follows major landslide and flood phenomena, as well as the rapid decline of this political and media mobilization as soon as the waters recede, are revealing of the dilemmas of risk policies. This occurs, above all, because the most affected sectors—often with few economic and political resources and in extreme conditions of vulnerability—fail to maintain political pressure on political and administrative agents. The role of civil society and affected populations is, therefore, of fundamental importance for the success of a disaster risk management policy. (Nogueira et al., 2014, p. 181)

Furthermore, because a disaster represents a risk —a potential future event in the context of uncertainty— the organization of preventive actions is filtered through probability assessments, subjecting policy production to debates over the value of action versus inaction. Political gain in the face of risk and the allocation of resources for probabilistic actions is central to the formulation of these public policies. Conversely, the political and social deterioration resulting from a disaster must also be considered when determining whether governmental responses are warranted.

According to the Center for Research on the Epidemiology of Disasters and the United Nations Office for Disaster Risk Reduction (CRED & UNDRR, 2020), between 2000 and 2019, the global economic impact and direct losses from natural disasters were estimated at US\$2.97 trillion, affecting more than 4.2 billion people. Morais et al. (2022) further note that the intensity and impact of such events have increased throughout the twentieth century, presenting new challenges for contemporary societies:

In the context of the COVID-19 pandemic, local and regional authorities faced unprecedented pressure. Amrani et al. (2024) explored strategies and decision-making in local authorities, demonstrating that during times of pandemic, local governments are forced to rethink traditional hierarchies and adopt highly adaptive strategies. Furthermore, when central coordination fails, local entities must resort to distributed improvisation (Phillips et al., 2023). Phillips and colleagues highlight how authorities can support this distributed improvisation by relaxing rigid procedural constraints during major crises. Additionally, Steen et al. (2024) point out that interorganizational collaboration is vital for the viability of disaster response operations, emphasizing that pre-existing collaborative networks are more effective than rigidly planned hierarchical responses. The capacity for health policy execution at the subnational level, heavily reliant on expert advice, also creates significant disparities in how different regions respond to the same crisis (Costa & Montpetit, 2025).

Given this context of high complexity, the analysis of governmental response must go beyond the stated goals and focus on the means employed. This approach is known as the “sociology of public policy instrumentation”. According to Lascoumes and Le Galès (2007), policy instruments are not neutral devices; they produce specific effects independent of the intended objective, shaping actor behavior and power distribution.

To analyze the Brazilian response, two complementary taxonomies are employed. First, Christopher Hood’s (1983) NATO model categorizes government resources into four types: Nodality (Information), Authority (Legal Power), Treasure (Finance), and Organization (Direct Action). Second, Howlett (2011) distinguishes between substantive instruments, which directly affect the production and distribution of goods and services, and procedural instruments, which modify the behavior of policy actors and the policy process itself.

Recent literature on policy design emphasizes the necessity of both robustness and resilience (Capano & Woo, 2017). Robustness refers to the capacity to maintain performance under expected stress, while resilience denotes the ability to adapt and modify instruments in the face of unexpected shocks (“unknown unknowns”). As the analysis will demonstrate, overreliance on rigid procedural instruments without flexible substantive support can result in the “bureaucratization of crisis

management,” wherein plans exist on paper (“fantasy documents”) but fail to precipitate effective action (Clarke, 1999; Marchezini et al., 2020).

4. Normative structure for disaster response in Brazil

To understand the Brazilian response to COVID-19, it is essential to analyze the “toolbox” available to public managers before the crisis. The Brazilian normative framework is characterized by a duality: a highly institutionalized health system (SUS) and a civil defense system that, despite modern legislation, suffers from structural and financial fragilities.

Unlike the Unified Health System (SUS), which is specifically addressed in the 1988 Constitution with guaranteed funding and a defined career structure, Civil Defense occupies a peripheral position in the constitutional text. Article 21, XVIII, assigns to the Union the competence for “planning and promoting permanent defense against public calamities”, but execution historically falls to Military Firefighters (Article 144, § 5º), resulting in a path dependence on militarized and reactive responses (Brasil, 1988; O Senado, 2011).

However, the Constitution does not provide for a national civil defense that integrates the efforts of the various entities of the Federation. Art. 21, XVIII, determines the Union’s competence to ‘plan and promote permanent defense against public calamities, especially droughts and floods.’ In the same vein, according to art. 22, it is the exclusive attribution of the Union to legislate on civil defense, among other topics. At the state level, according to art. 144, § 5º, the military fire departments are responsible for carrying out civil defense activities. (O Senado, 2011)

To modernize this sector, Federal Law No. 12.608/2012 established the National Policy for Protection and Civil Defense (PNPDEC) and the SINPDEC, the National System for Protection and Civil Defense, assigning different competencies to the Union, States, and Municipalities, in addition to indicating the minimum operational composition of Civil Defense in the country. This theoretically shifts the paradigm from “disaster response” to “risk management”, encompassing prevention, mitigation, preparedness, response, and recovery (Brasil, 2012).

Article 3 states that the “PNPDEC must be integrated with policies of land use planning, urban development, health, environment, climate change, water resources management, geology, infrastructure, education, science and technology, and other sectoral policies, with a view to promoting sustainable development”; and in Article 4, it states that one of its guidelines is the “articulated action between the Union, the States, the Federal District, and the Municipalities for disaster reduction and support to affected communities”, reinforcing the importance of a structured governance for disaster response, in addition to acting with a “systemic approach to prevention, mitigation, preparedness, response, and recovery actions”, highlighting the need for pre-event risk management with a strong planning component (Brasil, 2012).

However, the National System (SINPDEC) lacks a mandatory organic structure at the municipal level, resulting in significant heterogeneity in local capacities (Barone, 2021). This regulatory vacuum at the federal level generates highly differentiated effects across local territories. Without a mandatory framework guaranteeing the establishment and funding of municipal Civil Defense structures, subnational governments are left to navigate the crisis with highly unequal financial and administrative capacities. Consequently, the reliance on national normative instruments exacerbates regional and local inequalities during a disaster.

A critical yet frequently overlooked instrument is the financing mechanism for disasters. Federal Law No. 12.340/2010 regulates the transfer of federal resources to states and municipalities, establishing “mandatory transfers” for response and recovery, contingent upon the submission of detailed “Work Plans” within stringent deadlines (Brasil, 2010). This legal design creates a “bureaucratic bottleneck”: while transfers are legally mandated, operational requirements often delay the flow of “Treasure” resources to the local level. The law also restructured the National Fund for Public Calamities (FUNCAP), intended to fund prevention, but FUNCAP has historically been undercapitalized and focused on post-disaster reconstruction rather than pre-disaster mitigation.

In contrast, the SUS possesses robust instruments anchored in Law No. 8.080/1990, which governs the organization of the Brazilian health service. Article 3 identifies as one of the objectives of the SUS “assistance to people through actions of health promotion, protection, and recovery, with the integrated realization of assistance actions and preventive activities” (Brasil, 1990a), including in this interim the execution of sanitary and epidemiological surveillance actions. The system is decentralized, hierarchical, and regionalized, with responsibilities for monitoring population health status and disseminating information shared among federative entities. The Tripartite Intermanagers Commission (CIT) serves as a procedural instrument for consensus-building between the Union, States, and Municipalities (Brasil, 1990a).

Ordinance No. 4.279/2010 structures the health service based on networks, fostering health regionalization and comprehensive care. Decree No. 7.508/2011 regulates network structuring and mandates Health Planning by each entity, while Ordinance No. 2.135/2013 (Brasil, 2013) details the composition of planning instruments, including the Health Plan.

Regarding emergencies, Ordinance No. 2.952/2011 regulates the declaration of a Public Health Emergency of National Importance (ESPIN), which is a:

situation that demands the *urgent use of prevention, control, and containment measures for risks, damages, and harms to public health* in (...) a) epidemiological situations: outbreaks and epidemics [that] (1) present a risk of national dissemination, (2) are produced by unexpected infectious agents, (3) represent the reintroduction of an eradicated disease, (4) have high severity, or (5) exceed the response capacity of the state direction of the unified health system; b) disaster situation (...); c) situation of lack of assistance to the population (...). (Brasil, 2011b, *emphasis added*)

This instrument acts as a legal trigger, enabling expedited procurement and the mobilization of the National Force of the SUS (FN-SUS) (Brasil, 2011b). The 2014 National Response Plan established command-and-control structures (COES) and adopted International Health Regulations (IHR) standards, introducing the concept of “Risk Management” and emphasizing integrated planning and intersectoral collaboration.

(...) risk management for public health emergencies is a multi-sectoral and continuous competence, which requires horizontal and transversal articulation within the scope of the Unified Health System, in partnership with other actors, especially with civil defense bodies. (Brasil, 2014, p. 26)

Although the Plan acknowledges Civil Defense as a strategic asset for public health emergencies, the document references it only once, failing to establish clear mechanisms to foster or sustain this collaborative process. Conversely, the principle of intersectoral collaboration is more robustly articulated within the framework of the Emergency Operations Center (COES). Specifically, the regulations authorize the Secretary of Health Surveillance to “invite representatives from other intra- or intersectoral areas” (Brasil, 2014). Furthermore, the Plan delineates essential instruments for crisis preparedness, including templates for contact lists and resource inventories, response protocols identifying key actors, and the mandatory development of *ex-ante* Contingency Plans (CPs)³.

Finally, a vital instrument for the subnational response to COVID-19 was Federal Law No. 11.107/2005 (Public Consortia Law). This law allows federated entities to form a new legal person to manage shared services. Northeast Brazilian states utilized this mechanism to create the “Consórcio Nordeste,” facilitating joint procurement and the establishment of an independent Scientific Committee, thereby demonstrating the resilience generated by organizational instruments when central authority fails (Abrucio et al., 2020; Brasil, 2005).

The following table summarizes the main instruments for disaster management in Brazil, illustrating the sector’s institutional development over time.

3 Contingency Plans (CPs) constitute preparatory frameworks for potential events, serving as the foundation for the development of Event Action Plans (EAPs). As fundamental instruments guiding the Health Emergency Operations Center, CPs define organizational responsibilities, priority actions, and resource allocation strategies for specific public health emergencies. The Health Surveillance Secretariat has designated CPs as priorities for managing threats such as dengue, yellow fever, influenza, hantavirus, visceral leishmaniasis, and natural disasters (floods and droughts) (BRASIL, 2014)

Table 1. Instruments for disaster management in Brazil

Instrument / Law	Creation Period	Category (Hood, 1983)	Type (Howlett, 2011)	Function in Crisis Management
Tripartite Commission (CIT)	Pre-Pandemic (1990)	Organization	Procedural	Forum for negotiation between Union, States, and Municipalities.
Lei 11.107/2005 (Consortia)	Pre-Pandemic (2005)	Organization	Procedural	Allows horizontal cooperation to bypass federal inaction.
Lei 12.340/2010 (Transfers)	Pre-Pandemic (2010)	Treasure	Substantive	Regulates federal fund transfers with strict bureaucratic requirements.
National Force of SUS (FN-SUS)	Pre-Pandemic (2011)	Organization	Substantive	Direct deployment of health professionals to disaster areas.
Portaria 2.952/2011 (ESPIN)	Pre-Pandemic (2011)	Authority	Procedural	Legal trigger for emergency measures and fast-track procurement.
Lei 12.608/2012 (PNPDEC)	Pre-Pandemic (2012)	Authority	Procedural	Establishes the National System and responsibilities of federal entities.
National Response Plan (2014)	Pre-Pandemic (2014)	Nodality / Organization	Procedural	Defines command structures (COES) and alert levels.
EC 106/2020 “War Budget” (2020)	Pandemic Response (2020)	Authority / Treasure	Substantive	Ad hoc instrument created during the crisis to bypass fiscal rigidity.

Note. Elaborated by the authors.

Brazilian legislation encompasses a broad spectrum of topics and elements related to disaster management. However, as the public policy literature indicates, possessing policy instruments is only one aspect of the implementation process—important, but insufficient. Effectiveness is a central component of policy design, and assessing public policy effectiveness remains a critical challenge, necessitating a framework that considers both the instruments themselves and their applicability.

5. Effectiveness of the instruments for disaster management in health: how effective are they?

An analysis of the Brazilian normative framework through the lens of public policy instruments reveals a critical paradox: the existence of a sophisticated “toolbox” for crisis management did not

translate into an effective response capability when confronted with the COVID-19 shock. To understand this failure, it is necessary to distinguish between procedural instruments—which organize interactions and legal mandates—and substantive instruments—which deliver resources and services to the population (Howlett, 2011).

First, it is important to emphasize that COVID-19 was an unprecedented disease, which mobilized the global scientific community for its understanding and management (Fundação Oswaldo Cruz [FIOCRUZ], 2020). The initial measures adopted were ambiguous and conflicting, thereby creating difficulties for governmental response. Furthermore, in Brazil, skepticism on the part of the federal government regarding the severity of the pandemic had significant consequences for the coordination process of the response among states and municipalities.

The legislation review employed in this article indicates that Brazil possessed a robust set of procedural instruments. The “Contingency Plans” recommended by the Ministry of Health and the “Civil Defense Plans” required by the PNPDEC are classic examples of instruments designed to structure governance ex-ante. In theory, these documents should have provided the “Nodality” (information/coordination) and “Authority” (legal power) described by Hood (1983) to manage the crisis.

However, the analysis reveals a tendency towards what Lascoumes and Le Galès (2007) describe as the “bureaucratization of action through instruments.” The plans often function as “fantasy documents” created to satisfy legal requirements rather than to guide actual operations (Marchezini et al., 2020; Valencio, 2010). The disconnect is evident: while the 2014 National Contingency Plan for Public Health Emergencies established clear command chains (COES), its activation was delayed and politically undermined. The instrument existed but lacked the political legitimacy necessary to organize the federation’s response.

Another major finding is the absence of pre-designed substantive instruments capable of providing rapid financial and logistical responses. The Brazilian planning system, as critiqued by Cardoso Jr. (2011), suffers from extreme rigidity. The Multi-Year Plan (PPA) and the Fiscal Responsibility Law (LRF) prioritize control and fiscal stability (robustness) rather than adaptability to shocks (resilience) (Capano & Woo, 2017).

When the pandemic struck, the existing instruments were unable to release funds quickly enough. The lack of usefulness of these pre-existing instruments is evidenced by the structural paralysis observed between 2020 and 2021. For instance, the pre-pandemic financial instrument (Law No. 12.340/2010) failed to release funds rapidly due to its requirement for extensive “Work Plans,” proving completely ineffective for a fast-moving virus. This necessitated the reactive creation of the “War Budget”, the EC 106/2020 (Brasil, 2020). Furthermore, the procedural command structures (COES) were officially activated but systematically ignored by the federal executive leadership, fracturing the national response and forcing states to rely entirely on their own health policy capacities and expert advisors (Costa & Montpetit, 2025).

In a context where the federal government refused to act and coordinate subnational governments, these entities were compelled to innovate, developing new instruments to coordinate themselves and

bypass the federal government. The failure was not due to a lack of legal provision for coordination, but rather to the political decision to deactivate these instruments, demonstrating that policy design cannot succeed without political commitment. This scenario illustrates a classic tension in multilevel governance. In the face of a vertical coordination collapse by the federal government, subnational entities were forced to forge horizontal local arrangements to secure basic supplies and formulate joint policies. This demonstrates local territorial resilience but also highlights the severe fragmentation of the national multilevel governance system.

In summary, Brazil was “prepared” on paper (procedural instruments) but “unprepared” in practice (due to a lack of substantive flexibility and political-relational capacity to coordinate), revealing a structural mismatch between formal readiness and the actual ability of subnational governments to adapt, collaborate, and respond effectively under crisis conditions.

6. Discussion: were we prepared for Covid-19?

Disasters constitute complex problems that demand unified and distinct responses, supported by structured and, depending on the scale of the disaster, multilevel governance that transcends local boundaries and operates in conjunction with other governmental entities. The degree of preparedness for an event of such magnitude can determine the severity of its impact, including the number of fatalities.

The documentary analysis conducted herein demonstrates that, prior to the crisis, the Brazilian state had established a comprehensive normative structure. As identified in the results, the legal framework provided for: (a) regulations governing ESPIN positions; (b) defined functions and responsibilities for disaster scenarios; (c) specific protocols for emergency management; (d) organizational charts of involved sectors; (e) model reports for capacity analysis; (f) provisions for professional training; and (g) mandates for simulation exercises. In terms of Christopher Hood’s (1983) NATO taxonomy, the government possessed abundant resources of Authority (laws and decrees) and Nodality (information systems and plans).

However, the pandemic revealed that these instruments often functioned as “fantasy documents” (Clarke, 1999; Valencio, 2010)—plans designed to satisfy legal requirements and simulate order, rather than to guide actual operations in high-uncertainty scenarios. Three critical disjunctions explain this failure:

While procedural instruments (plans and committees) were abundant, substantive instruments (financial resources and direct service provision) were constrained by fiscal rigidity. The fact that the National Congress had to approve a constitutional amendment, EC 106/2020, the “War Budget” (Brasil, 2020), to bypass the Fiscal Responsibility Law proves that the pre-existing “Treasure” tools were not designed for the speed of a pandemic. The system lacked “automatic stabilizers” (Howlett, 2019) capable of releasing resources without prolonged political bargaining.

The effectiveness of instruments depends on state capacity, particularly the political ability to coordinate federated entities (Gomide & Pires, 2014). The federal government's refusal to utilize the Tripartite Intermanagers Commission (CIT) effectively forced subnational governments to innovate with ad hoc instruments to fill the void in Organization resources.

Although Law 12.608/2012 mandates integration, in practice, Health and Civil Defense operated in silos. The "Civil Defense Contingency Plans" often did not communicate with the "Health Contingency Plans," revealing a fragmentation that hindered a unified national response.

This "preparedness paradox" is not unique to Brazil. As noted by the Global Preparedness Monitoring Board (2019), many countries with high self-reported compliance with International Health Regulations (IHR) failed to translate that into effective response. The Brazilian case during COVID-19, however, is emblematic of how political choices can deactivate even a robust instrumental apparatus.

7. Final considerations

Returning to the guiding question of this article — *"To what extent were the instruments available prior to the COVID-19 state of emergency effective in providing guidelines to public managers for responding to health disasters?"* — the analysis of the Brazilian normative framework suggests a nuanced answer: Brazil was prepared bureaucratically, possessing a sophisticated "toolbox" of procedural instruments, but was operationally and politically unprepared to deploy them effectively under the stress of a wicked problem.

The case of the COVID-19 pandemic and its management process demonstrates that future disaster management policies in Brazil must move beyond the production of formal documents towards adaptive forms of governance. This requires designing flexible legal mechanisms that allow for the rapid repurposing of funds during emergencies without the fear of bureaucratic punishment, institutionalizing horizontal coordination mechanisms (like interstate consortia) as permanent components of the disaster response system, thereby reducing dependence on the central government. Furthermore, contingency plans must be transformed from static documents into "living plans", regularly tested through real-world simulations that integrate Civil Defense logistics with SUS epidemiological intelligence.

The Brazilian experience offers critical lessons for other countries, particularly for other decentralized systems. The reliance on "fantasy documents", documents that only create an illusion of preparedness, and the excessive rigidity of substantive instruments show that national bureaucratic preparedness does not automatically translate into local operational capacity. For decentralized policies that depend on central transfers and complex multilevel coordination, strengthening robustness and resilience must go beyond abstract discussion: advancing towards adaptive forms of governance is an urgent necessity to protect local territories from future systemic crises.

Acknowledgments.

This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) - Finance Code 001

References

- Abrucio, F. L., Grin, E. J., Franzese, C., Segatto, C. I., & Couto, C. G. (2020). Combate à COVID-19 sob o federalismo bolsonarista: um caso de descoordenação intergovernamental. *Revista de Administração Pública*, 54(4), 663–677. <https://doi.org/10.1590/0034-761220200354>
- Amrani, N., Tallaki, M., Hemmi, M., & Bracci, E. (2024). Exploring strategies and decision making in local authorities in time of the pandemic. *Corporate and Business Strategy Review*, 5(1, Special Issue), 394–409. <https://doi.org/10.22495/cbsrv5i1siart13>
- Barone, M. R. (2021). *Interação entre Proteção e Defesa Civil e setor de Saúde em resposta à pandemia da COVID-19 em Vinhedo-SP* [Master's thesis, Universidade Estadual Paulista]. Repositório Institucional UNESP.
- Brasil. (1988). *Constituição da República Federativa do Brasil de 1988*. Presidência da República.
- Brasil. (1990a). *Lei nº 8.080, de 19 de setembro de 1990*. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. Diário Oficial da União.
- Brasil. (1990b). *Lei nº 8.142, de 28 de dezembro de 1990*. Dispõe sobre a participação da comunidade na gestão do Sistema Único de Saúde (SUS) e sobre as transferências intergovernamentais de recursos financeiros na área da saúde e dá outras providências. Diário Oficial da União.
- Brasil. (2005). *Lei nº 11.107, de 6 de abril de 2005*. Dispõe sobre normas gerais de contratação de consórcios públicos. Diário Oficial da União.
- Brasil. (2010). *Portaria MS/GM nº 4.279, de 30 de dezembro de 2010*. Estabelece diretrizes para a organização da Rede de Atenção à Saúde no âmbito do Sistema Único de Saúde (SUS). Diário Oficial da União.
- Brasil. (2010). *Lei nº 12.340, de 1º de dezembro de 2010*. Dispõe sobre as transferências de recursos da União aos órgãos e entidades dos Estados, Distrito Federal e Municípios para a execução de ações de prevenção em áreas de risco de desastres e de resposta e de recuperação em áreas atingidas por desastres e sobre o Fundo Nacional para Calamidades Públicas, Proteção e Defesa Civil. Diário Oficial da União.
- Brasil. (2011a). *Decreto nº 7.508, de 28 de junho de 2011*. Regulamenta a Lei nº 8.080, de 19 de setembro de 1990, para dispor sobre a organização do Sistema Único de Saúde (SUS), o planejamento da saúde, a assistência à saúde e a articulação interfederativa, e dá outras providências. Diário Oficial da União.

- Brasil. (2011b). *Portaria nº 2.952, de 14 de dezembro de 2011*. Regulamenta, no âmbito do Sistema Único de Saúde (SUS), o Decreto nº 7.616, de 17 de novembro de 2011, que dispõe sobre a declaração de Emergência em Saúde Pública de Importância Nacional (ESPIN) e institui a Força Nacional do Sistema Único de Saúde (FN-SUS). Diário Oficial da União.
- Brasil. (2012). *Lei nº 12.608, de 10 de abril de 2012*. Institui a Política Nacional de Proteção e Defesa Civil (PNPDEC). Diário Oficial da União.
- Brasil. (2013). *Portaria nº 2.135, de 25 de setembro de 2013*. Estabelece diretrizes para o processo de planejamento no âmbito do Sistema Único de Saúde (SUS). Diário Oficial da União.
- Brasil. (2020). *Emenda Constitucional nº 106, de 7 de maio de 2020*. Institui regime extraordinário fiscal, financeiro e de contratações. Congresso Nacional.
- Brasil, Ministério da Saúde. (2014). *Plano de resposta às emergências em saúde pública*. Secretaria de Vigilância em Saúde.
- Buchanan, D. A., & Denyer, D. (2013). Researching tomorrow's crisis: Methodological innovations and wider implications. *International Journal of Management Reviews*, 15(2), 205–224. <https://doi.org/10.1111/ijmr.12002>
- Capano, G., and F. Toth. 2024. "Controversial Issues in Crisis Management. Bridging public policy and Crisis Management to Better Understand and Address Crises." *Risk, Hazards, & Crisis in Public Policy* 16: e12304. <https://doi.org/10.1002/rhc3.12304>
- Capano, G., & Woo, J. J. (2017). Resilience and robustness in policy design: A critical appraisal. *Policy Sciences*, 50(3), 399–426. <https://doi.org/10.1007/s11077-016-9273-x>
- Cardoso Jr., J. C. (Org.). (2011). *A reinvenção do planejamento governamental no Brasil*. Ipea.
- Center for Research on the Epidemiology of Disasters, & United Nations Office for Disaster Risk Reduction. (2020). *Human cost of disasters: An overview of the last twenty years (2000–2019)*. CRED; UNDRR.
- Clarke, L. (1999). *Mission improbable: Using fantasy documents to tame disaster*. University of Chicago Press.
- Costa, M. A., & Montpetit, É. (2025). Health policy capacity and reliance on expert advice in comparative perspective: COVID-19 responses across Brazilian states. *Journal of Comparative Policy Analysis: Research and Practice*, 28(1), 50–68. <https://doi.org/10.1080/13876988.2025.2595492>
- Fundação Oswaldo Cruz. (2020). *A gestão de riscos e governança na pandemia por COVID-19 no Brasil: análise dos decretos estaduais no primeiro mês*. Centro de Estudos e Pesquisas em Emergências e Desastres em Saúde.
- Global Preparedness Monitoring Board. (2019). *A world at risk: Annual report on global preparedness for health emergencies*. World Health Organization.

- Gomide, A. de Á., & Pires, R. R. C. (2014). *Capacidades estatais e democracia: a abordagem dos arranjos institucionais para análise de políticas públicas*. Ipea.
- Head, B. W. (2022). *Wicked problems in public policy: Understanding and responding to complex challenges*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-94580-0>
- Hood, C. (1983). *The tools of government*. Macmillan.
- Howlett, M. (2011). *Designing public policies: Principles and instruments*. Routledge.
- Howlett, M. (2019). Procedural policy tools and the temporal dimensions of policy design. *International Review of Public Policy*, 1(1), 27–45. <https://doi.org/10.4000/irpp.310>
- Lascoumes, P., & Le Galès, P. (2007). Introduction: Understanding public policy through its instruments—From the nature of instruments to the sociology of public policy instrumentation. *Governance*, 20(1), 1–21. <https://doi.org/10.1111/j.1468-0491.2007.00342.x>
- Marchezini, V., Mourão, C., Scofield, G., Metodiev, D., & Leite Flores, S. S. (2020). Sistemas comunitários de alerta de risco de desastres associados a inundações e deslizamentos: aspectos teóricos e metodológicos. *Revista de Estudios Latinoamericanos sobre Reducción del Riesgo de Desastres*, 4(2), 36–56. <https://doi.org/10.55467/reder.v4i2.49>
- Morais, G. M., Martins, H. C., & dos Santos, V. F. (2022). Resilience in the context of pandemics and disasters: A framework for public governance, ecosystem innovation, co-creation, and co-production. *International Journal of Business Administration*, 13(1), 15–29. <https://doi.org/10.5430/ijba.v13n1p15>
- Nogueira, F. R., Oliveira, V. E. de, & Canil, K. (2014). Políticas públicas regionais para gestão de riscos: o processo de implementação no ABC, SP. *Ambiente & Sociedade*, 17(4), 177–194. <https://doi.org/10.1590/1809-4422asoc1100v1742014>
- O SENADO - Secretaria de Coordenação Técnica e Relações Institucionais da Presidência do Senado do Brasil (2011). *O Senado e o sistema de defesa civil*. Em Pauta, n. 172, Brasília, Semana do 4 a 8 de abril.
- Phillips, R. O., Baharmand, H., Vandaele, N., Decouttere, C., & Boey, L. (2023). How can authorities support distributed improvisation during major crises? A study of decision bottlenecks arising during local COVID-19 vaccine roll-out. *Journal of Cognitive Engineering and Decision Making*, 17(2), 166–187. <https://doi.org/10.1177/15553434221125092>
- Quarantelli, E. L. (1985). What is disaster? The need for clarification in definition and conceptualization research IN. Sowder, B. Disasters and Mental Health Selected Contemporary Perspectives. Washington D.C.: U.S. Government Printing Office, 1985, 41-73. Disponível em <https://udspace.udel.edu/items/f57e6f51-a441-4ef3-8570-76f2b38fe8b5>
- Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169. <https://doi.org/10.1007/BF01405730>

- Steen, R., Roud, E., Mikkeldrup Torp, T., & Hansen, T.-A. (2024). The impact of interorganizational collaboration on the viability of disaster response operations: The Gjerdrum landslide in Norway. *Safety Science*, 173, 106459. <https://doi.org/10.1016/j.ssci.2024.106459>
- Valencio, N. (2010). Desastres, ordem social e planejamento em defesa civil: o contexto brasileiro. *Saúde e Sociedade*, 19(4), 748–762. <https://doi.org/10.1590/S0104-12902010000400003>