

**PRE-DECISION MAKING IN PUBLIC DISASTERS: A METHOD OF  
MORAL RESILIENCE**

***PRÉ-TOMADA DE DECISÃO PÚBLICA EM DESASTRES: UM  
MÉTODO DE RESILIÊNCIA MORAL***

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**ABSTRACT**

The postmodern State has exponentially expanded its management of people's lives and has arrogated practically all spheres of action to itself. If it assumed the management of societies during times of normality, it must also do so during times of abnormality, such as disasters. The question arises as to who should act preventively to avoid or minimize them. Even if it is determined who, it is still necessary to ask whether there was the possibility of action. This study proposes a method that precedes public decision-making. To this end, a form of public moral resilience is proposed based on three factors. Using an empirical and logical method, a formal theory is proposed, establishing verification stages for three state pre-actions: duty, possibility, and imposition. This approach defines public responsibilities, co-participation of public entities, reinforces the legitimacy of public authorities, and practically implements the 4R resilience model: Robustness, Redundancy, Rapidity, and Resourcefulness.

**Keywords:**Disasters, people, State, decision-making, public moral resilience.

**RESUMO**

O Estado pós-moderno ampliou de maneira exponencial a gestão da vida das pessoas e arrogou para si praticamente todas as esferas de atuação. Se assumiu a gestão das sociedades em momento de normalidade, também deve fazê-lo em momentos de anormalidades, como nos desastres. A pergunta que se coloca é quem deve agir de maneira preventiva para evitar ou minimizá-los. E mesmo que se descubra quem, ainda deve-se indagar se havia possibilidade de agir. O presente estudo propõe um método que antecede a tomada de decisão pública. Para tanto propõem-se uma forma de resiliência moral pública pautada em três fatores. Utilizando-se de um método



empírico e lógico propõe-se uma teoria formal que estabelece etapas de verificação de três ações estatais: dever, possibilidade e impositividade. Com isso se consegue definir responsabilidades públicas, coparticipação de entes públicos, se reforça a legitimidade das autoridades públicas e se implementam de maneira práticas o modelo dos 4 R's da resiliência: Robustez, Redundância, Rapidez e Desenvoltura.

**Palavras-chave:** Desastres, pessoas, Estado, tomada de decisão, resiliência-moral pública

## 1 INTRODUCTION

This article proposes a model that establishes duties, possibilities, and impositions for pre-public decision-making in cases of disasters. It is a multidisciplinary proposal. The object of study is public pre-decision-making, with the assumption that actors' action cannot be left to the uncertain public discretion, which can include "doing nothing" as an ultimate decision, which maintains or propitiates dire conditions to continue or unfold.

The postmodern State has exponentially expanded its scope of action and nowadays manages practically all aspects of private life. From sidewalk paving to tree pruning, nothing escapes State/government system of regulation, as described by the professor of sociology at the University of Bordeaux (Ellul, 1964, p. 284). This massification of State action in times of normality also applies to abnormal times. However, despite regulation, there is no clarity about the hypotheses in which there is or not an excuse for State's omission. For example, Law n. 12.608/12, as amended by Law n.14.750/23 (Brazil, 2012), does not clearly establish who is responsible for reparations in cases of disasters. In Article 2, it only mentions joint and several liability in cases of prevention but is silent on cases of reparations. The same applies to Article 5, which talks about restoring areas affected by disasters but does not say who should do so. Finally, Articles 15 and 16 use verbs such as "may" and "is authorized" regarding the federal government's financial aid to states and municipalities affected by disasters. There is nothing mandatory or obligatory about this. This topic in parallel to the considerations and knowledge regarding risks.

Disasters are seen here as times of abnormality and have always demanded responses from actors such public authorities and individuals. However, as the State increasingly assumes control of urban and environmental infrastructure tasks, it takes



upon the role of ensuring private safety intentionally or not. Of course, this position as guarantor is not absolute, as there are disasters that are unpredictable and unavoidable, such as the “common cause disaster type”, which largely refers to natural hazards cause (insert reference), or those disasters that cascades and escalates into catastrophe (insert reference). Nonetheless, the State cannot claim a lack of causality through artificial rhetoric that in matters of disasters, there is always unpredictability and inevitability, which is part of the scientific understanding of what a disaster is. Anthropological studies show that the notion of disaster varies from people to people, depending on their organization, way of life, religious system, economy, etc. (Henry, 2005). In Western society<sup>1</sup> there is a common sense that disaster is “the realization of a danger caused by multiple factors and which leads to the loss of human lives...” (Ferrari; Séllos-Knoerr & Souza Netto, 2023) in a similar way United Nations report:

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts. (UN, 2016)

Thus, disasters are analyzed from a restrictive perspective, categorized as events that directly or indirectly affect people adversely. It is explained that a society requires actors who are associates, hence the Greek origin of the word “societas” (Spengler, 1934). However, a society is not formed abstractly; it has a reality basis, something real and concrete that makes people want to join and be associates in a larger project. Various elements act as aggregators in the social order process, such as law, morality, public authority, religion, or disasters. However, this factor of social union resulting from disasters is the resilience of private individuals.

The analysis proposed here focuses on the relationship between public authority and morality. The choice of these two elements considers doctrines (Fromm, 1994), (Denney, 1950) and (Mills, 1951) that highlight that as society becomes increasingly complex, public authorities become distant from the people, becoming what they term “anonymous authorities.” Power exists, but it is unclear who wields it. Three immediate consequences arise: the lack of legitimacy of these authorities, the

<sup>1</sup> Western has the meaning of culture and not of people, as proposed by (Nemo, 2005)



ease of hiding responsibility for avoidable or minimizable disasters, and, finally, the massification of human beings, who become mere objects of State actions (Barret, 1962). This doctrine of “anonymous authorities” finds its empirical apex today, as people are unaware of key decision-makers: who failed to shut down the power grid, who ordered the dams to open, who did not issue warnings? These are questions that, unfortunately, are almost impossible to answer in underdeveloped or in-development organizations and governments and remains a challenge in developed societies (references). Some of the consequences perceived to the failure to act or to prevent disasters is the downfall of public actors such as the change of head public figures, such as the news about the change of Emergency Management Agencies Secretaries a bit after the crisis was addressed such as published by ABC (2005).

Disasters involve a wide range of interrelated relationships, a network organizing structure (Croope and McNeil Sue. 2011). Thus, they always involve environmental issues, public health issues, infrastructure management, financial management, moral attitude, individual freedom, property protection, etc. Disasters and catastrophes are always polymorphic in their interactions and consequences. From this, certain consequences arise, such as the type of disaster’s damage, which may affect one community environmentally and another economically. Another consequence is that public responses to disasters vary in extent and depth. Regarding extent, studies exist that demonstrate extra-national disaster effects (Heyward, 2014). These two consequences alone suffice to create vulnerable communities (Agyeman J, et al. 2016) and disadvantaged communities (Jason P Giovannettone, et al., 2024). Moreover, official government statistics (California Environmental Protection Agency, 2022) show that disaster responses are disparate within a nation, prompting the U.S. federal government to establish a data system to monitor “disadvantaged communities” (Executive Office of the President, 2021), and to push forward processes to mitigate the issue of the left behind communities to disaster mitigation investments, such as Justice40 and the Community Disaster Resilience Zones – CDRZ (Brazil, 2022; USA, 2022).

This study specifically concern is the moral attitude of the State, which inevitably produces actions and effects on the aforementioned relationships. Starting from Dr. Croope’s propositions that resilience “requires continuous effort and represents more a way of thinking than the application of a specific tool or technique” and that “.In general, resilience can be defined as the capacity to prepare and plan,



absorb, recover, or adapt more successfully to real or potential adverse events...” (Croope, et al., 2024), a way to improve public sector resilience thinking is proposed.

The proposal of this article is to demonstrate how public decision-making in a crisis environment can be improved and accelerated through the proposed model of moral resilience.

The question is: did the State act according to moral resilience rules, doing everything it could beforehand to prevent or minimize the effects of disasters? Did it have the duty to act? Did it have the possibility to act?

To answer these questions and establish parameters for public moral resilience, a formal theory based on three factors is proposed: a) conditioning reality, b) societal continuity, c) human value. These occur in a necessary sequence and unidirectionally, without interpolation. These three factors, if verified, respectively generate: duty of action, possibility of action, and imposition of action.

The importance of establishing a method that can serve as a model for public administration while also verifying whether its omission responsibility meets imperative justice criteria is clear. Doctrine focuses on a special responsibility for the damage causer, restoring the victim to being “whole again” or to the “restituto in integrum” of the Romans (Goodin, 1989), (Page and Heyward, 2016).

This proposed method aids in demonstrating whether public authority relates to the causality principle in liability matters. It is worth noting that doctrinal divergence exists on this matter. Some argue for clear causality between action and damage (Wallimann-Helmer, 2019), while others understand this causal relationship as indirect (Miller, 2007) or even as historical responsibility (Wallimann-Helmer, 2023).

Additionally, this method aids in uncovering “anonymous authorities” and, by identifying them, dismantles social massification and reinforces human value.

Finally, the proposed method fits perfectly with the 4R resilience model from the 4 R’s doctrine: Robustness, Redundancy, Rapidity, and Resourcefulness (Bruneau et al., 2003). It reinforces responsibility, creates redundancy in spheres of action, allows for multiple authorities to act together (meeting the rapidity criterion), and finally strengthens resource sources to overcome difficulties.



2 PUBLIC PRE-DECISION MAKING IN CRISIS ENVIRONMENTS: MORAL’S RESILIENCE METHOD

The improved and accelerated public decision-making in a crisis environment proposed through a moral resilience model is designed as a formal and a *posteriori* model, meaning a participatory procedure that precedes the practice of concrete actions. Its foundation lies in the necessity to establish or have the moral duty to act before acting. However, there are two variables in this process that may interfere with the results and must be analyzed. These are unpredictability and inevitability. If these occur absolutely, they eliminate the first factor of analysis, rendering the proposed theory inapplicable. Therefore, it is a model that requires, at a minimum, predictability. If this is present, the first factor applies, and with it arises the duty to act. The inevitability variable always operates second, defining the degree to which the duty to act applies. Thus, the inevitability variable operates on the plane of the existence of a duty to act, while inevitability works on the degree of that duty.

The proposed model is based on three factors that must be addressed sequentially:

- a) Conditioning reality: local resilience and the duty to act.
- b) Societal continuity: regional resilience and the potentiality to act.
- c) Human value: national resilience and the imposition to act.

A) CONDITIONING REALITY: LOCAL RESILIENCE AND THE DUTY TO ACT

This factor of conditioning reality connects the experienced reality to the intellectual reality without discrepancy. For instance, certain American cities are annually affected by hurricanes, consistently causing power grid failures. The experienced reality indicates that similar disasters will happen in the future with the same grid failures. Public authority cannot appeal to an intellectual reality to establish that such events may not occur in the future. Here, past facts that repeat yearly generate a moral duty to act, with no mitigating, exculpatory, or attenuating factors.

This first stage imposes the duty to act on public authorities. Once it assumes governance over people, it assumes the position of guarantor. In crisis environments such as disasters, local reality reinforces the duty to act. For example, in a flood-prone area, the State must take preventive measures to eliminate or mitigate risks. Such



measures may include infrastructure solutions like expanding underground galleries, creating containment dikes, or redirecting rivers. Alternatively, regulatory measures may be implemented, such as, not exclusively, prohibiting construction or residence in flood-prone areas, or preventing even temporary settlements of temporary housing in high hazards risk locations.

There is a moral duty for the State to act because its resilience cannot be negative but must be active. Negative resilience (or lack thereof) means failure resulting from extreme and permanent disruption and damage. When only one party can act, it must act automatically. If no individual can alter river courses, intervene in public infrastructure, etc., the State cannot omit its actions and transfer all resilience responsibilities to individuals. Individuals are of diverse characteristics and capabilities, therefore an uneven resilience base layer for which their organizing processes to addressing community needs has a historical base of constituting government to take care of their collective interests and needs (Leclercq, 1964) and (Benedict, 1989).

Moral duties are those that drive action (Hessen, 1974). Without them, preventive or restorative actions cannot be planned. Planning actions, tasks, and goals is futile if moral conditions for such actions are not established. As the human factor is indispensable for public actions, and as the State assumes the administration of cities, it cannot justify its omission by appealing to the unpredictability and inevitability of disasters. Even if the financial capability is a challenging factor, it cannot justify, all the same, its omission by appealing to the unpredictability and inevitability of disasters.

If a disaster has occurred several times, the unpredictability factor is peremptorily excluded. The probability of future disasters, therefore, must be taken into consideration, and the public authority already has a duty to act. However, two questions remain: does the duty to act exist solely for the community directly affected by the disaster? Can this community or communities act? For this, we move to the next factor.

## **B) SOCIETAL CONTINUITY: REGIONAL RESILIENCE AND THE POTENTIALITY TO ACT**

The potentiality to act is linked to two sub-factors: economic and financial capacity and factual capacity. The most frequently cited justification for State's



omission is a lack of funds to act. The second sub-factor pertains to the absence of human means, materials, equipment, etc., to act.

Economic and financial, and the factual capacity must be analyzed in relation to their scope. Thus, a small disaster with minimal extent, such as one affecting a small area of a municipality, justifies the power of public administration to act. It is not feasible to claim economic or factual impossibility. The extent of the damage evidences the power to act. And history together with science makes it possible for pre-disaster resilience status to be assessed and worked on, enabling changing the odds from a reactive to a proactive opportunity to make the decision to act.

However, in other situations, the damage extent is broader, affecting larger social groups, either directly or indirectly. For example, a flood might be confined to one city but impact neighboring cities through supply chain collapse, a lack of employees residing in the flooded area, or interrupted mobility beyond the flooded city. Disasters are not contained within political manmade boundaries.

In such broader dimensions, the potentiality to act acquires an extraterritorial dimension (i.e., beyond a development area, a municipality, a sub-region, a metropolitan region, a state, a region, or even a country). Given that disaster effects reach other municipalities, the potentiality to act automatically arises for all of them. A power to act inherently entails a duty to act as a necessary logical antecedent. Observe that there is no power to act without a prior obligation, i.e., a duty to act. An analogy clarifies this reasoning: for example, one cannot speak of a child without the necessary antecedent of parents. However, this necessary logical relationship between child-parents stems first from reality. That is, we observe the sensitive reality and then employ the logic of reason. In this case, the power to act is necessarily preceded by a duty to act. In the example of power grid failures, if the disaster's effects extend to neighboring cities, these cities are automatically obligated to act and capable of acting. Reality generates the following relationships. Thus, we do not discuss abstract, purely intellectual powers to act.

A second factor reinforcing the power to act is the actual existence of disadvantaged communities. If statistics demonstrate that such a situation exists, the power to act arises for nearby communities, affected or not. For instance, if a community is consistently affected by disasters and public authorities cannot provide an adequate response, this community automatically becomes disadvantaged. Anthropological analysis reveals that humans have always been migratory, primarily





driven by survival instincts (Mannheim, 1962). From this empirical observation, reason tells us that people will migrate from a disadvantaged community to a favored one (Mannheim, 1957). Forced migrations are neither natural nor desirable as they disrupt an individual's sense of community, participation, and belonging by severing emotional ties to the place they lived. The receiving community also faces new problems due to population density increases, which demand additional public resources, and adaptive capacity to maintain a minimum resilient condition (Cox and Perry, 2011). Uncontrolled population growth can even initiate a disaster previously non-existent.

By combining the efforts of affected and unaffected healthy communities capable of receiving migrants, it is possible to delineate agents that should and can act factually, as pooling human resources, machinery, materials, etc., enabling otherwise infeasible large-scale projects. However, the issue of economic and financial feasibility remains unresolved, as even combined efforts may fall short of funding a significant project or strategies. Here, the third factor must be considered.

**C) HUMAN VALUE: NATIONAL RESILIENCE AND THE IMPOSITION TO ACT**

Human value is a conditioning factor for all State and societal activities because it constitutes their foundational core. If humans created cities, organizational structures, and entities, it logically follows that these serve humanity. From this humanistic perspective, humans are the foundation of all human creations. This is not derived from empirical intuition, subject to temporal change, but rather from logical, formal, immutable, and necessary observation. Human value does not vary by State, skin color, economic conditions, etc., and thus has axiological neutrality. There are no and cannot be degrees of valuation among humans. Human value is a moral value, a virtue of doing good, altruism. It should be noted that humans have created value scales for everything, but one value surpasses all others—human value, a moral value.

The previous two factors involved possibility-impossibility elements in a duty-power dynamic. However, this is not the case in the third stage, where both preceding factors lead to imposition.

This is an imperative: if public authorities in stages 1 and 2 could not act, higher-level entities are compelled to act.

This final factor, due to its broader spectrum, necessarily requires the occurrence of the previous two factors. This avoids subjectivity at the national level. Its

foundation lies in intersubjectivity, which, as is known, possesses an objective nature. This links it again to the anthropological aspect of society, i.e., what is felt by many people loses its subjective character and becomes objective due to intersubjectivity. In a federal State model, this assumes greater relevance. Since the parts form the whole (the Union), as associates in a shared life project, an abstract power (Union) cannot disregard the parts.

To conclude, reaching the third factor (human moral value) automatically reinforces the basic structure of society: the human being. If a hurricane hits Florida (US, NOAA) or a flood devastates Rio Grande do Sul (Brazil, 2024), and the municipalities or states affected lack economic/factual ability to act, the other associates in this societal model are compelled to act.

This demonstrates that the concept of human value stands independently of any utilitarian criterion. Thus, in the example above, Florida would not be aided because it hosts many tourists, and omission would harm the nation's international image. When a utility criterion is used, implicitly, something is measured, weighed, or assessed to determine whether it is worthwhile. This only occurs because there is a value scale. However, as humans lack measurable values and possess only one intrinsic value, nothing needs to be weighed, and no utilitarian option is available to State actions. Instead, a moral imposition to act prevails. This moral value imposes action, creating social harmony among the associates of this entity called the State.

Note that the valuation for individuals by insurance is of a completely different nature, which is not the human moral value, but that of a productive capability and value for private limited interests. Therefore, this matter is outside the scope of this analysis. Such elements in this context produce the discrimination and disadvantage that exercise the utilitarian criterion.

### 3 DISCUSSION

The present methodology is, as stated, formal in nature. Thus, it has a logical sequence of a single direction, an upscaling. It does not admit interpolation or suppression, under penalty of breaking the multidisciplinary logical chain. It also does not allow for the alteration of the reality-logic relationship to logic-reality. In other words,



it is a theoretical approach that rationalizes empirical reality and extracts from its necessary action factors.

It begins from the part (cities, communities) to the whole (nation), with the key element of this empirical observation being the disaster-human-State relationship. It is the rationalization of reality. Thus, it distances itself from positivist models, which advocate a duty-to-be based on an abstract mental construction with no connection to reality. For this reason, positivist theories are criticized for being easily captured by ideologies, movements, or entities.

The proposed theory also distances itself from purely constructivist models, such as those proposed by Hobbes (the absolute State) (1996) and Rousseau (the social contract) (1968). These create abstract models to justify the duty-to-act that they hypostatize reality to justify the theory.

The proposed method starts from three real factors (reality, continuity, and human value), which, if verified, generate three actions (duty, power, and imposition).

This method has a multidisciplinary foundation. It is based on the political theory of Democracy, in which power belongs to the people. Thus, no domination by the State is admitted, not even domination to transfer the effects of public inaction. Public power cannot monopolize the distribution of disaster effects and assign them solely to the people.

It is based on constitutional law theory, according to which public administration actions that are unethical are automatically unconstitutional.

It is based on an anthropological perspective, as humans depend on the environment they live in and establish social bonds there. Thus, those who take on the administration of all must act to ensure these bonds do not deteriorate.

There is a foundation that can be drawn from political theory, as it studies power. In this case, public power is the one that holds the authority to determine conduct for those who lack power. If we obey traffic laws, it is because we lack the power to oppose them; if we cannot create our own electricity supply without State authorization, it is because we lack the power to do so. However, this theory of power has a bipolar dimension: if one side has complete absence of power and all power is concentrated on the other side, only the latter is responsible for action. There is no way to transfer power to someone who cannot act.

This model of moral resilience does not resemble Kant's ethical postulates (Kant, 2015), as, for him, ethical norms operate a priori before any experience. This



proposed model starts from reality and only later rationalizes it. This is precisely because this theory involves two variables (unpredictability and inevitability) that can entirely prevent the verification of the first factor (conditioning reality). For example: a fire caused by lightning.

Critique of the present model might first allege that the theory fails to demonstrate the necessity of factors one (1) and two (2), as the third factor is all-encompassing. In this sense, the earlier factors would be superfluous. That is, one could always rely on the highest authority to prevent or solve disasters.

This claim, however, does not hold, because in federative State models, there is a constitutional division of competences, which requires the existence of public agencies at three levels of action. If the reasons for this criticism were adopted, municipalities and states would no longer be necessary, as the nation would be expected to resolve everything.

A second critique might argue that there is no clear proof of the need for strict and sequential observance of factors 1, 2, and 3. In other words, one could verify factor 1, move directly to factor 3, and subsequently decide whether or not to adopt factor 2.

Similarly, this critique lacks coherence. Note that the nature of the proposed method is formal, and, as such, it has a logical order. One cannot get out of bed before waking up; similarly, one cannot assign a duty to act to someone who does not participate in the effects of the disaster. One also cannot interpolate the factors, as this disrupts the social structure's order, which requires communities to assist one another. In each society, the closest associates are called to act first, followed by the more distant ones. If this natural order is not followed, society itself is destabilized by a rupture in the sense of responsibility. Imagine a hypothetical case where a municipality could always rely on the nation to resolve its disasters. Obviously, it would lose its sense of responsibility and, thus, its political power over the community members.

## 4 CONCLUSION

The proposal for moral resilience serves to strengthen the legitimacy of public authorities. This is because it becomes clear to the people that these authorities act preventively, reinforcing the aspect of care and consideration for the population. Furthermore, by acting to remedy an existing situation, authorities demonstrate their



concern for the people, thereby reinforcing the character of co-participation and social solidarity.

Moral resilience serves to unequivocally demonstrate the responsibility of public authorities. This is because it reveals whether there was omission. And all public omissions only exist if the public authority had the duty to act and could act. In this way, the proposed method makes it simple, through objective criteria, to demonstrate the responsiveness of the State.

Moral resilience serves as a tool to correct or eliminate the existence of disadvantages among communities. The emphasis on the moral qualifier of resilience demonstrates that its scope can be expanded. In this way, the solidarity of society is strengthened and disadvantaged communities are eliminated. Therefore, this methodology also builds the foundation for moral resilience decision-making to enabling actions to deal with disasters and catastrophe in a proactive and pre-disaster resilience stage.

This proposal strengthens the 4R resilience model of the 4 R's doctrine: Robustness, Redundancy, Rapidity, and Resourcefulness. Factor 1 defines the responsibilities of public authorities. In Factor 2, responsibilities are expanded, and redundancy is created in spheres of action by allowing more authorities to act together. Factors 1 and 2 together meet the requirement of rapidity, and finally, all three factors together fulfill the need to strengthen funding sources.

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