

Preparation and Performance of a Humanitarian Aid Force of the Brazilian Army

La preparación y operación de una Fuerza de Ayuda Humanitaria del Ejército Brasileño

Abstract: The objective of this work was to verify how the Brazilian Army prepares a Humanitarian Aid Force and how it acts in cases where it supports civil defense in situations of humanitarian disaster. In this context, this research conducted a case study on the sixth humanitarian aid exercise, carried out in the year 2022 by the 14th Motorized Infantry Brigade, in the city of São Francisco do Sul, Santa Catarina. For this purpose, data were collected through bibliographic review and through the participant observation of one of the authors of the article, in addition to an interview with an army officer who participated in the organization of the exercise. As a result, we identified the need for the effective performance of a Humanitarian Aid Force in the national territory.

Keywords: Humanitarian Aid Force. Humanitarian Disaster. Civil Defense.

Resumen: Este estudio analizó cómo el Ejército Brasileño prepara una Fuerza de Ayuda Humanitaria y cómo se da esta acción con el apoyo de la defensa civil ante situaciones de desastre humanitario. En este contexto, se realizó un estudio de caso sobre el sexto ejercicio de ayuda humanitaria, realizado por la 14.^a Brigada de Infantería Motorizada en la ciudad de São Francisco do Sul, en Santa Catarina, en 2022. Para ello, se recogieron datos a través de revisión bibliográfica, a través de la observación participante por parte de uno de los autores del artículo, y a través de la realización de una entrevista a un militar que participó en la organización del ejercicio. Como resultado, se confirmaron las necesidades para la acción efectiva de una Fuerza de Ayuda Humanitaria en el territorio nacional.

Palabras clave: Fuerza de Ayuda Humanitaria. Desastre humanitario. Defensa Civil.

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1 INTRODUÇÃO

Complementary Law No. 97 of June 9, 1999, amended by Complementary Laws No. 117 of 2004 and No. 136 of 2010, and which provides for general rules for the organization, preparation, and use of the Armed Forces, in its article 16, addresses that they have, as one of their general subsidiary attributions, cooperation with national development and civil defense, as determined by the President of the Republic (Brasil, 1999).

Therefore, in the event of natural disasters, in situations of public calamity, and to assist in humanitarian aid work, state civil defense agencies can request support from the Armed Forces through the National Secretariat for Civil Defense and Protection (SEDEC), which coordinates the necessary actions with the Ministry of Defense, following a presidential order. A second path to receiving the Armed Forces' support in emergency situations is via a direct request from the municipality or state.

In addition to this legal provision for the Armed Forces to operate on national territory, the National Defense Strategy states that the three Forces, in order to meet commitments made with the international organizations' support or to defend Brazilian interests abroad, must be able to carry out individual or joint international operations, whether they be expeditionary, peacekeeping, or of humanitarian aid (Brasil, 2016).

Thus, the objective of this study is to describe the preparation of a Humanitarian Aid Force of the Brazilian Army, understand its performance when it supports civil defense in situations of humanitarian disaster, and describe how this preparation occurred in one specific case. The case chosen was the sixth edition of the humanitarian aid exercise conducted in 2022 by the 14th Motorized Infantry Brigade—constituents of the Humanitarian Aid Force of the Southern Military Command—in the city of São Francisco do Sul, state of Santa Catarina (SC).

The main gap to be filled by this research is to identify the factors related to a successful humanitarian aid operation and to demonstrate the importance of conducting exercises of this nature. This is because training such as the one herein investigated—considering the number of participating bodies and level of complexity—are uncommon in other federative units of Brazil.

As for the methodology, this research was based on a single case study. The research was structured and systematized as follows: bibliographic review of the topic together with primary and secondary research sources; interview with the Operations Officer of the exercise, a military officer in a key role both in preparing the Brigade for this event and for its possible use in this type of mission; participant observation by one of the authors in the exercise coordination; triangulation of the data collected together with a documentary review and, finally, content analysis.

This research is based on the whole-of-government approach, which, according to Hunt (2005), is a government strategy to facilitate cooperation between departments and organizations, aiming at the development and implementation of specific public policies and/or delivery of services in an integrated manner. Thus, this study was guided by the following question: based on the case study of Santa Catarina, how does the Brazilian

Army prepare the Humanitarian Aid Force and how does it act in cases where it supports civil defense in humanitarian disaster situations?

First, important concepts related to humanitarian aid operations will be presented. Next, some of the humanitarian aid operations and exercises that are conducted or have been conducted in Brazil will be addressed. The presentation will then be limited to humanitarian aid operations and exercises in Santa Catarina. Finally, the sixth humanitarian aid exercise in the state will be analyzed.

2 CONCEPTS RELATING TO HUMANITARIAN AID OPERATIONS

Better civil-military integration is a reality that is possible in humanitarian aid operations with the creation of inter-body coordination group and good guidance at the strategic level. Effective civil-military coordination can impact the unity of effort, facilitating the achievement of the desired outcome in operations of this nature. Therefore, timely and integrated guidance at the strategic level and vertical coordination are fundamental to lateral planning at the operational and tactical levels, since effective lateral coordination is often difficult to reproduce without this vertical coordination (Wize, 2004).

The difference in principles and doctrines that guide the work of military forces and humanitarian and development organizations in disaster relief is one of the challenges for this civil-military coordination. The different agendas, operational styles, and functions complicate inter-body relationships. The establishment of collaborative supply chain strategies can be affected by the different management styles and administrative structures of the actors participating in a humanitarian aid operation. As a result, the cooperation, coordination, and collaboration of the military with non-governmental organizations can be uneven and uncertain. What works for one organization may not work for another (Heaslip, 2012).

In terms of coordination and control, it is important to establish communication with other organizations before disasters occur in order to know the appropriate points of contact and interact effectively at the time of a disaster. Information technologies play a fundamental role in achieving effective communication goals and decision-making in emergencies. Thus, promoting inter-organizational communication and trust allows for the acceleration of the coordination of this network in emergency management response operations (Kapucu, 2006).

In terms of logistics, military supply chains are directed at serving the mission of these professionals: war and peacekeeping, but also humanitarian aid and disaster relief. Military logistics and its command and control systems are fundamental to humanitarian aid and disaster relief, since they are prepared and trained to operate in areas with a lack of stability, infrastructure, and communication, in cases of disaster situations or large-scale war. Consequently, most military doctrines in the world conceptualize humanitarian assistance as a military operation other than war. The military's main functions, in these cases, are security and protection, the distribution of humanitarian supplies, and engineering works (Barber, 2012).

The logistical requirements in humanitarian operations must consider where and how civil-military involvement can be most effective and efficient during all phases of humanitarian operations. For this reason, civil-military logistic cooperation has evolved and strengthened in recent years. Merely providing security is not enough for military forces in an environment where perceptions and ideas are centers of gravity in the conflict (Heaslip; Barber, 2016).

The military personnel's participation in disaster relief highlights the challenges and opportunities that exist in terms of civil-military logistics cooperation and coordination and collaboration in humanitarian relief logistics. When analyzing the military personnel's role in complex emergencies, such as conflicts, one finding is that military assistance for the logistical aid provision is very important and occurs over time. On the other hand, in the event of a natural disaster, the greatest impact of military participation is significant immediately after the event takes place (Heaslip; Barber, 2014).

Martel et al. (2013) address the importance of establishing a supply chain for the implementation and support of missions abroad, in the case of the Canadian Armed Forces. Whether for their international disaster relief functions or for humanitarian assistance, peacekeeping, or peace enforcement missions, the implementation and maintenance of missions of this nature are complex operations that require efficient logistical support.

For Scarpin and Silva (2014), the critical factors in the logistics of responding to environmental disasters are: regarding suppliers – their importance, location, quality, and relationships; regarding donors – location, reception, communication with them and needs; regarding the distribution center – physical resources, human resources, transportation agility, transportation obstacles, location of warehouses, and their organization; and regarding beneficiaries – their organization and control.

In cases of heavy rain warnings that precede floods, some preparatory activities can be carried out in order to prevent disasters. Therefore, important logistical aspects need to be considered in emergency measures against floods, in which emergency management should be directed at a preparedness-focused approach. This preparedness includes a risk management cycle, which encompasses mitigation, prevention, response, and recovery activities (Leeuw; Vis; Jonkman, 2012).

After a natural disaster, it is not always possible to reach an affected area by land or sea in the first few days, making air delivery the main means of quickly supplying the affected population. Moreover, because the delivery of humanitarian aid supplies is often taken over by unfriendly groups within the affected population, the use of direct airdrop systems to deliver large quantities of individually packaged food and water items allows for faster provision of humanitarian aid among the affected population (Bastian et al., 2016).

With all these relevant concepts presented, it is clear that the post-disaster environmental context is typical of an inter-body environment. According to Araújo Neto, Barp, and Cardoso (2017), this environment is characterized by a cooperative approach in relation to the coordination approach between different government bodies. The authors state that in Brazil this is an incipient and incomplete doctrine, given that it is not a topic found in many public documents. Nevertheless, it is a doctrine characterized by practical military experience.

At the end of this section on concepts related to humanitarian aid operations, it is observed that one of the most important reflections regarding the whole-of-government approach, according to Hunt (2005), is the difficulty in acting at different levels of processes, such as: the interdepartmental level, with the coordination and joint elaboration of policies between bodies and departments of the Federal Government; the intergovernmental level, with the action of federal, state, and municipal bodies; and the intersectoral level, with the participation of government bodies, individuals, non-governmental organizations, community organizations, and professional organizations.

Thus, due to their logistics, engineering, air assets, and training in humanitarian assistance missions, military forces are able to contribute to civilian bodies in supporting civil defense emergencies. Nevertheless, for this cooperation to be effective, there must be organizational trust between the actors involved and synergy in civil-military coordination.

3 HUMANITARIAN AID OPERATIONS AND EXERCISES BY THE BRAZILIAN ARMED FORCES

The Brazilian Armed Forces are constantly involved in humanitarian aid operations in response to different public disaster situations. According to Kawasinski (2022), in January 2022, for example, troops from the Brazilian Navy, the Brazilian Army, and the Brazilian Air Force operated in southern Bahia to support the emergency situation caused by heavy rains in the region. These troops from the Ministry of Defense, in coordination with a government task force set up in the region, distributed 30 tons of donated food, around 2 tons of medicine, mineral water, and supported isolated Indigenous villages, using the human resources of the three forces and their various air, water, and land resources.

In this context, the Brazilian Army works with the Humanitarian Aid Force structure, a modular and flexible structure designed for each type of humanitarian disaster. The use of resources thus is considered in a dual manner, that is, in times of peace, on national territory, and in armed conflicts, because the civilian population present on the battlefield may be affected. Besides, the members of this Force come from the various military organizations of the Brazilian Army, on a temporary basis, in compliance with the constitutional mission of supporting civil defense, as a subsidiary duty (Alcoforado; Miranda Neto, 2018).

Farroco, Terror, and Vichi (2020) analyzed the Brazilian Armed Forces' actions in response to natural disasters in Rio de Janeiro's mountainous region in 2011. The humanitarian logistics of the Armed Forces were studied on the occasion of the 2011 heavy rains that hit the region in January, affecting more than 300 thousand people.

In this disaster, the Armed Forces' logistical capacity for immediate response in disaster situations was evident, through assistance to the Civil Defense Office and other participating bodies, in the mission carried out to minimize human suffering. Among the actions taken, the following stood out: clearing roads and reestablishing bridges; setting up field hospitals and shelters for victims, and distributing meals, water, hygiene items, and clothing to the affected population. Thus, in the first hours, when search and rescue bodies had difficulty accessing the affected areas, such actions by the Armed Forces proved to be crucial to reducing both the State's response time and the suffering of those affected by the disaster (Farroco; Terror; Vichi, 2020).

Acolhida Operation is another example of a humanitarian aid operation conducted by the Brazilian Armed Forces. According to Cerávolo, Paiva and Franchi (2020), the Brazilian Government's response to the migration crisis in the state of Roraima occurred by establishing this operation, which began in 2018. The operation provides non-governmental organizations, government entities, and civil society with working conditions, giving them access to infrastructure and logistics of the Humanitarian Task Force. Furthermore, providing the immigrants the means to be allocated elsewhere in the country gives them the opportunity to leave the fragile region of the Brazilian border.

As stated by Lieutenant General Antonio Manoel de Barros, Operational Coordinator of *Acolhida* Operation and commander of the Humanitarian Logistics Task Force, from January 2020 to August 2021, the first operation effort was to organize the border. In the second axis, related to shelter, the Brazilian solution was not based on refugee camps, but rather on the construction of shelters, precisely to provide humane and dignified treatment to people. In the third axis, the aim was to integrate socioeconomically the Venezuelan beneficiaries into other municipalities in Brazil, with social protection of life and within the legal process, through the creation of an Internalization Coordination Center in Roraima (Barros; Simões; Franchi, 2022). In summary:

[...] it is possible to state that the Armed Forces are essential actors in situations of humanitarian crisis, be it caused by natural disasters or resulting from conflict and/or turbulent environments. On these occasions, the Armed Forces primarily use their logistical structure to assist the vulnerable population, in cooperation with governmental and international humanitarian bodies and actors, as well as with other several members of civil society [...] the complexity related to humanitarian logistics in the state of Roraima has required the Armed Forces, particularly the Brazilian Army, to have capabilities that transcend the area of logistics and humanitarian aid, also demanding efforts in the fields of support for government bodies, interoperability and protection (Silva; Gomes, 2021, p. 186-187, our translation).

When the COVID-19 pandemic occurred, Roraima was experiencing a crisis within a crisis. In addition to the issues of the migration crisis, a cabinet was set up to deal with the health issue, composed of three daily meetings with the agencies. Thus, *Acolhida* Operation provided a care area, with installations similar to a field hospital, and a protection area, with an isolation area for suspected and confirmed cases that did not require hospitalization (Barros; Simões; Franchi, 2022).

Continuing on the topic of the Armed Forces' role in humanitarian aid during the health crisis, it is possible to mention the case study conducted by Migon, Grigoli, and Silva (2022), which addressed the actions of the Southeast Joint Command, an integrated and provisional organizational structure activated by order of the Ministry of Defense for actions in response to the COVID-19 pandemic, within the state of São Paulo. One of the main conclusions, transcribed below, refers to the importance of civil-military cooperation in such operations.

It is worth highlighting, in particular, the effective capacity for civil-military cooperation achieved, which is largely due to the interconnection and dialogue established at the operational (military denomination)/tactical (governmental denomination) level. The activation of a liaison and planning support team by the Joint Command, and the reception and integration of this team within the scope of state efforts are elements that significantly influenced the results achieved in the period, both from the perspective of the military forces and, in the view of these same actors, from the perspective of civilian structure members (Migon; Grigoli; Silva, 2022, p. 147, our translation).

Abroad, after the earthquake in Haiti in 2010, in which Brazilian troops were present, humanitarian aid support and post-disaster reconstruction activities became essential for the country stabilization. During this period, these activities were as important as security missions and in establishing law and order due to fears of a resurgence of crime and political manipulation of violence (Oliveira, 2022). Thus, the Peacekeeping Infantry Battalion (BRABAT) and the Peacekeeping Engineering Company (BRAENGOY), Brazilian military units of the contingent, fulfilled their duties in implementing the mandate of the United Nations Stabilization Mission in Haiti (MINUSTAH), which, at that time, included provision of support for the country reconstruction, in addition to humanitarian aid and disaster relief (Farias; Martins, 2019).

Regarding reconstruction, BRAENGOY carried out artesian well drilling, earthmoving services, road repairs, paving, and water treatment for the population, in addition to working with civilians to carry out part of this work. In view of Haiti's reconstruction needs, the Brazilian Army also increased its presence, with military engineers. The missions carried out by BRABAT were also very important. The Battalion provided security for the area and escorted logistics convoys, so that international donations could be distributed (Farias; Martins, 2019).

As for humanitarian aid exercises, the AMAZONLOG, a multinational logistics exercise conducted by the Brazilian Army Logistics Command in 2017, on the triple border between Brazil, Colombia, and Peru, stands out. In addition to the three countries mentioned, 17 others participated as guests, in addition to 23 agencies, with a total of 1,940 participants, demonstrating the full complexity of conducting an operation of this magnitude in the Amazon region. The exercise aimed to stimulate the integration and cooperation of the Armed Forces and government bodies of the three countries, with the implementation of combined and inter-body operations (Gaspar, 2018).

There was also the Paraná Exercise, from September 12 to 16, 2022, at the headquarters of the 15th Mechanized Infantry Brigade, in the city of Cascavel, state of Paraná. The exercise was attended by General Staff officers from 13 countries, with the purpose of planning strategies aimed at solving a fictitious humanitarian crisis in the region. This planning exercise served as preparation for an exercise with troops on the ground, in 2023 (Brasil, 2023d).

At the end of this section on humanitarian aid operations and exercises by the Brazilian Armed Forces, it is clear that one of the most important reflections regarding the

whole-of-government approach, according to Hunt (2005), is that society increasingly expects government bodies to work on establishing partnerships with other government and non-governmental bodies to resolve the various complex problems that may arise, as well as establishing public policies aimed at improving the population's quality of life.

Thus, whether in national territory or abroad, the Brazilian Armed Forces have constantly participated in humanitarian aid operations and exercises. In this sense, Brazil has been standing out as a relevant international actor by participating with a leading role in humanitarian emergencies in the context of UN peacekeeping missions such as MINUSTAH, as well as by hosting multinational exercises with the presence of dozens of friendly nations. Furthermore, it is worth highlighting the role played by the Armed Forces in supporting government bodies in Brazil, which has contributed significantly to alleviating the humanitarian crisis in Roraima, public calamities in different regions of the country, as well as being of great use in the health emergency resulting from the COVID-19 pandemic.

4 CIVIL DEFENSE, ARMED FORCES, AND HUMANITARIAN AID OPERATIONS AND EXERCISES IN SANTA CATARINA

In the case study conducted by Scarpin and Silva (2014) on a flood that occurred in the city of Blumenau in 2010, the authors make the following main observations about the critical success factors for the logistics of responding to environmental disasters: prior registration of suppliers helps provide agility to affected families; cities that suffer from environmental disasters need a management committee, responsible for strengthening the relationship between the government and private companies; a distribution center is important and necessary for disaster cases; the greater the media coverage, the more donations are received, and the existence of a distribution center structure and intermediate posts, close to the homes of the victims, is essential.

In each region of Brazil, government bodies have a unique way of responding to disasters, with this action varying due to the nature of the disaster and according to their own organization and preparation, because of each location's needs. In the context of the Brazilian states' governments, Civil Defense Office is the body that coordinates humanitarian aid efforts, and Santa Catarina's is one of the best structured; together with the state Fire Department, Santa Catarina's Civil Defense Office has a unique organization, acting quickly in any location in the state (Carneiro, 2020).

In 2018, the Integrated Center for Risk and Disaster Management (CIGERD) started operating in the city of Florianópolis, aiming to encompass several bodies for action in disasters in the state, integrating several bodies for crisis management. The structure has a center for monitoring, alerting, crisis management and disaster response, with a meteorology, hydrometeorology, and geology system, with mapping of risk areas, in addition to contingency plans and emergency action plans. The CIGERD in the capital works in an integrated manner with the regional CIGERDs. The state's Civil Defense Office has also Logistics Centers, which are places used to

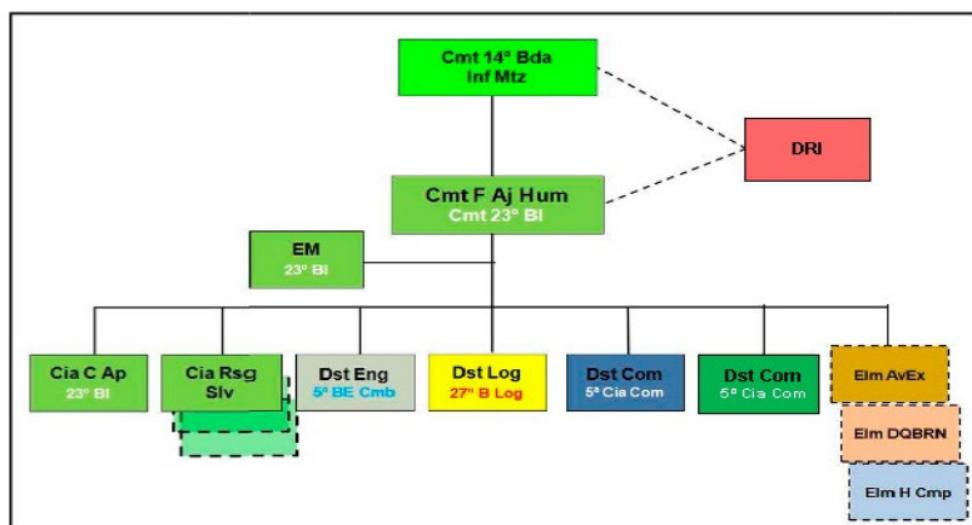
store humanitarian assistance items such as mattresses and cleaning kits, among others, to be used in immediate assistance to municipalities affected by adverse situations (Brasil, 2023b).

Due to the history of natural disasters, because of the volume of rain, it is observed that several other bodies and agencies in Santa Catarina seek to cooperate with civil defense in matters related to humanitarian aid. For example, according to Vicente (2018), the Military Police of Santa Catarina (PMSC) created its Humanitarian Aid Program in 2011, and it has been updated over the years. This program allowed the PMSC to acquire equipment (institutionalizing the program by the corporation); develop a strategy for building skills based on simulations and region-based training; use the Operations Command System as a management and organizational improvement tool, and train military police officers to act in missions of this nature.

On the part of the Armed Forces, in the state, an important initiative is led by the 14th Motorized Infantry Brigade, a Large Unit subordinate to the 5th Army Division, of the Southern Military Command (CMS), of the Brazilian Army. Since 2017, this Brigade has conducted the Humanitarian Aid Exercise annually, in coordination with the state Civil Defense Office and several other bodies, for the use of the CMS Humanitarian Aid Force (Brasil, 2023d).

The 14th Motorized Infantry Brigade has the following subordinate military organizations: the 23rd Infantry Battalion, headquartered in the city of Blumenau; the 62nd Infantry Battalion, headquartered in the city of Joinville; the 63rd Infantry Battalion, in the city of Florianópolis; the 28th Combat Artillery Group, in the city of Criciúma; the 1⁴th Combat Engineering Company, in the city of Tubarão; the Command Company and the 14th Army Police Platoon, also in the capital. The Large Unit also has the 27th Logistics Battalion, headquartered in the city of Curitiba, state of Paraná (Brasil, 2023d). These are the Brazilian Army units that provide their human resources and means to the CMS Humanitarian Aid Force.

Figure 1. CMS Humanitarian Aid Force Organization Chart



Source: Prado and Lima (2021, p. 20).

According to the organizational chart (Figure 1), the Commander of the CMS Humanitarian Aid Force is the Commander of the 23rd Infantry Battalion, for training and readiness purposes. He receives orders from the Commander of the 14th Motorized Infantry Brigade and deploys an Initial Response Detachment (DRI) (Prado; Lima, 2021). This detachment is the main instrument to assist the Humanitarian Aid Force in its actions; it is composed of military personnel instructed and trained in disaster management, and its mission is to build the capabilities and resources necessary for the force to operate (Alcoforado; Miranda Neto, 2018).

Once the DRI's work is completed, the Humanitarian Aid Force is organized into: a Command and Support Company; three Rescue Companies; an Engineering Detachment; a Logistics Detachment; a Communications Detachment; Army Aviation elements; Chemical, Biological, Radiological, and Nuclear Defense elements, and Field Hospital elements (Prado; Lima, 2021). A summary table regarding the history of humanitarian aid exercises in Santa Catarina is found below.

Table 1. History of humanitarian aid exercises in Santa Catarina

Humanitarian Aid Exercise	Period	Place
1st	Nov. 27 to 30, 2017	Rio do Sul (SC)
2nd	May 13 to 18, 2018	Blumenau (SC) / Pomerode (SC) Gaspar (SC) / Itajaí (SC)
3rd	Aug. 5 to 8, 2019	Taió (SC) / Indaial (SC)
4th	Sep. 28 to Oct. 2, 2020	Tubarão (SC)
5th	July 9 to 14, 2021	Blumenau (SC)
6th	July 4 to 8, 2022	São Francisco do Sul (SC)
7th	July 24 to 28, 2023	Santo Amaro da Imperatriz (SC) / Palhoça (SC) / Águas Mornas (SC)

Sources: Prepared by the authors from Brasil (2023a, 2023b, 2023c) and Radiopagina2 (2023).

5 ANALYSIS OF THE SIXTH HUMANITARIAN AID EXERCISE IN SANTA CATARINA

According to Yin (2001, p. 89), “the protocol is a major way of increasing the reliability of case study research and is intended to guide the investigator in carrying out the data collection from a single case.” Thus, the table below presents the steps of the protocol for studying the sixth humanitarian aid exercise, held in São Francisco do Sul, Santa Catarina, in July 2022:

Table 2. Steps of the research protocol for the sixth humanitarian aid exercise

Steps	Research protocol
1 st	Analyses of the main pieces of news linked to the sixth humanitarian aid exercise, on web pages.
2 nd	Direct observation to assist in the analysis of the results, carried out at the Command of the 14 th Motorized Infantry Brigade and at CIGERD, in the city of Florianópolis, Santa Catarina, where the exercise was organized.
3 rd	Preparation of the script for the interview with the Operations Officer, who conducted the exercise, covering the following decision factors ¹ for the operation of a Humanitarian Aid Force of the Brazilian Army: (a) Mission; (b) Terrain and Weather Conditions; (c) Resources; (d) Weather; (e) Civilian Considerations.
4 th	The information was transcribed, and a content analysis was carried out, through data triangulation with the bibliographic review.

Source: Prepared by the authors from Yin (2001, p. 89).

The sixth humanitarian aid exercise in Santa Catarina included, in addition to the resources of the Brazilian Army and the Civil Defense Office of Santa Catarina, the participation of members and resources of: Federal Police (PF); Federal Highway Police (PRF); Military Fire Department (CBMSC); Military Police (PMSC); Civil Police (PCSC); Scientific Police; State Secretariat for Infrastructure and Mobility (SIE); Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA); Santa Catarina Environmental Institute (IMA); Port Authority of Santa Catarina; Águas de São Francisco do Sul; SCPAR Porto de São Francisco do

¹ The decision factors are the parts that compound the study of an Armed Forces employment situation, which for a better detailing of a given issue, are organized according to a Cartesian division as follows: mission, enemy, terrain and weather conditions, and resources and time available (Brasil, 2015). The Brazilian Army also takes civilian considerations as one of the decision-making factors (Brasil, 2017). In this study, due to the topic, one of the decision-making factors—the enemy—was disregarded.

Sul, the mixed economy company of the state of Santa Catarina, and Centrais Elétricas de Santa Catarina S.A. (CELESC) (NDMais, 2022).

It can be seen, therefore, that the Santa Catarina's 14th Motorized Infantry Brigade and the Civil Defense Office, in partnership, sought to create an exercise with the participation of different bodies, so that they could also train their procedural protocols in the event of natural disasters. As discussed by Heaslip, the bodies' and the Brazilian Army's agendas, operational styles and functions are different. Accordingly, conducting an exercise at this complexity level facilitates inter-body relations in the state.

Performing a tabletop exercise at CIGERD, in the city of Florianópolis (SC), prior to the practical part in the city of São Francisco do Sul (SC), helped each of the bodies show their capabilities, in light of the humanitarian disaster scenario created for the exercise. This meeting represents the work of the regional Coordinated Action Group (GRAC), headquartered in the state capital. Likewise, a local GRAC was set up in São Francisco do Sul during the practical exercise².

According to Wize, this measure reinforces the importance of creating a joint inter-body coordination group, in addition to the importance of establishing communications between organizations before disasters occur, as noted by Kapucu.

As for the mission, the use of troops in support for the Civil Defense Office to carry out a Humanitarian Aid Operation does not include actions typical of Guarantee of Law and Order Operations, and there is need of a presidential decree determining the use of troops for this purpose as well. With regard to the terrain and weather conditions, the troops to be used seek to recognize the access routes existing in the areas that would be affected by the adverse phenomenon, in order to identify the places where access by vehicles would be impeded and where the use of Army Aviation resources would be necessary³.

As for resources, the 14th Combat Engineering Company, based in the city of Tubarão (SC), performs special engineering reconnaissance, road clearing, searches, and rescues in aquatic environments. The 27th Logistics Battalion, located in the city of Curitiba (Paraná), performs water treatment and distribution, as well as supply, maintenance, storage, transportation of personnel and material, health support, and material salvage missions. Other resources that are part of the Brazilian Army and which are not present in the 14th Motorized Infantry Brigade can be requested to support the Civil Defense Office in a humanitarian aid operation. Among these, it is common to use Army Aviation, Chemical, Biological, Radiological, and Nuclear Defense elements, Field Hospitals, and Social Communication elements⁴.

Regarding time available, since this type of operation aims to preserve human lives that are at imminent risk of death and mitigate material damage that prevents the provision of essential

² Information provided by means of participant observation.

³ Information provided by Infantry Lieutenant Colonel Fernando Griep de Souza Franco, Operations Officer of the 14th Motorized Infantry Brigade in 2022 and coordinator of the exercise.

⁴ Information provided by Infantry Lieutenant Colonel Fernando Griep de Souza Franco, Operations Officer of the 14th Motorized Infantry Brigade in 2022 and exercise coordinator.

services, the time available for planning, preparation, and execution becomes quite limited. To mitigate the difficulties imposed by the time available in this type of operation, the 14th Motorized Infantry Brigade has conducted the exercise annually since 2017. Regarding civil considerations, it is necessary to analyze, within the area affected by the humanitarian disaster, places to be used as temporary areas for the people who were forced to leave their homes, and routes for them. In addition, it is necessary to identify culturally important areas, such as religious temples, and also high economic value areas, such as industries, to establish a priority for the work to be carried out in the recovery of the affected municipality. The existing structure in the city can also help support the population⁵.

The critical factors in response logistics, with regard to suppliers, donors, distribution centers and beneficiaries, listed by Scarpin and Silva, should also be observed. During the exercise, for example, the Humanitarian Aid Force was housed in a gymnasium in the city. It is important that the chosen location does not coincide with a shelter for the victims who left their homes, as provided for in the local Civil Defense Office disaster action plan⁶. Thus, the approach focused on preparing for humanitarian disasters, described by Leeuw, Vis and Jonkman, is corroborated by conducting exercises of this nature.

6. FINAL CONSIDERATIONS

Having concluded this research, it is possible to state that the actions of a Humanitarian Aid Force of the Brazilian Army, in cases where it supports civil defense in situations of humanitarian disaster, are essential to reduce human suffering. The actions of the troops are legitimized by complementary law and the human resources and resources available for a war are used, which have this dual use and which can collaborate with this support mission, on national territory.

Considering a humanitarian disaster scenario, the Brazilian Army prepares this Humanitarian Aid Force by conducting the humanitarian aid exercise, seeking, in accordance with the whole-of-government approach, to improve inter-body relations, in order to obtain better results in this type of operation. Moreover, the generation of the capacity to respond to disasters involving humanitarian calamities, by the Brazilian Army, is important both in times of peace and in situations of conflict.

As a result, this research found that the main factors to be considered for the operation of a Humanitarian Aid Force of the Brazilian Army, in national territory, in situations of support to Civil Defense, are:

1. The DRI's action, with the aim of gathering the means, resources, and capabilities necessary for the formation of the Humanitarian Aid Force, and also verify the terrain situation in the location.

⁵ Information provided by Infantry Lieutenant Colonel Fernando Griep de Souza Franco, Operations Officer of the 14th Motorized Infantry Brigade in 2022 and coordinator of the exercise.

⁶ Information provided through participant observation.

2. The importance of preparing this force, with the performance of annual exercises, aiming to reduce the reaction time for its operation.
3. The establishment of regional and local GRACs to coordinate the work of the several bodies.
4. Knowledge of the local civil defense plan and the prediction, in it, of the location of the Humanitarian Aid Force, to avoid conflicts in identifying the locations related to the other activities contained in the contingency plan.

In this sense, this research analyzed in depth the sixth Humanitarian Aid Exercise in Santa Catarina, extracting from this exercise the factors to be considered for the success of this type of operation. Regarding future studies, it is necessary to study the civil defense dynamic in other Brazilian states, normally affected by natural disasters, in order to identify Santa Catarina's best practices that can be used by these entities of the federation.

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