


Training volunteers, in protection and civil defense, through the training center for emergencies and disasters of the civil defense secretariat of Nova Iguaçu, between 2017 and 2023

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ABSTRACT

This scientific article presents the advantages of a tool created for the professional activity of training volunteers from the community in general, who will be supporting, after being trained, a Municipal Coordination of Protection and Civil Defense (COMPDEC) of Nova Iguaçu, characterized in the research, by the Municipal Secretariat of Civil Defense of Nova Iguaçu (SMDC-NI), acting in prevention, preparedness and response, when in risk reduction and accident and disaster management. The work was aimed at presenting the advantages of the existence of the Training Center for Emergency and Disaster (CETRED) in the qualification of volunteers. Thus, we sought to study the role of volunteering in civil protection and defense in Brazil. An attempt was made to verify the type of disaster with the greatest relevance in the municipality studied, Nova Iguaçu, which presented the greatest importance, in terms of damages and losses, the forest fires. And then, it was followed by the analysis of the planning and performance and development of the so-called Training Center for Emergencies and Disasters (CETRED), when focused on professional education in the training of volunteer agents in civil protection and defense. The research methodology was qualitative, through a bibliographic, documental and descriptive research, with researchers exploring in loco the actions and activities listed, from where they obtained data, from the courses and practical actions, involving the target audience; whose results were discussed, were scored for use, as a standard, to the other Municipal Coordination of Protection and Civil Defense, at the national level. Concluding positively to the importance of the tool created, even though there are difficulties to be observed and overcome in its implementation and implementation.

Keywords: Voluntary, Emergency and Disaster Training Center, Civil Protection and Defense.

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INTRODUCTION

PROBLEMATIZATION

What is the importance of the Training Center for Emergency and Disasters (CETRED) in the training of volunteers in civil protection and defense in Nova Iguaçu?

CETRED DESCRIPTION

The Training Center for Emergencies and Disasters (CETRED) is a tool used in the Department of the Municipal Secretariat of Civil Defense of Nova Iguaçu, according to Brasil (2022) and CETRED (2023), created to inform, train, and train people, such as: community leaders, volunteers, representatives of various institutions, and public agents. CETRED proposes courses and seminars, which are offered free of charge, which in addition to training in the various areas related to emergencies and disasters, promotes integration between the various sectors of society and the Government, involving the entire community in the purpose of reducing the risks of disasters in the municipality of Nova Iguaçu.

It should be noted that the period cut for the research took place between the years 2017 and 2023, having as legal foundations: the Law 12.608 of 10 April 2012, Brazil (2012) Federal Law 14.750 of 12 December 2023, Brazil (2023) and the State Decree of RJ No. 46,935/20, in Art. 4 XIV and Art. 8 I, Art. 14 VIII, Rio de Janeiro (2020), when CETRED was created and where they are located its guidelines for the participation of civil society and the prioritization of preventive actions related to disaster minimization.

As an administrative tool for the implementation of some objectives of the National Policy for Civil Protection and Defense (PNPDEC) according to (Brazil 2012 and 2023), CETRED carries out the continuous promotion of civil protection and defense actions, providing guidance to communities in adopting appropriate behavior of prevention and response in disaster situations and self-protection.

It is the responsibility of the municipality to execute the PNPDEC at the local level, being assigned, among others, to the mobilization and training of radio amateurs to: act in the occurrence of disasters; execution of simulated exercises on a continuous basis and following the Civil Protection and Defense Contingency Plan; encourage the participation of private entities, volunteer associations, service clubs, non-governmental organizations and class and community associations in SINPDEC actions and promote the training of volunteer associations for joint action with the supported communities (BRASIL 2012).

Having as a common competence the Union, States and Municipalities, the following stand out, among others: developing a national culture of disaster prevention, aimed at developing national awareness about disaster risks in the country; encourage prevention behaviors capable of avoiding or minimizing the occurrence of disasters; establish preventive disaster safety measures in schools and



hospitals located in risk areas; offer training of human resources for civil protection and defense actions (RIO DE JANEIRO 2020).

OBJECTIVES

MAIN OBJECTIVE

To present the advantages of the existence of the CETRED tool, in the training of volunteers, who support a Municipal Coordination of Protection and Civil Defense, acting in the reduction of risks and in actions related to accidents and disasters.

SPECIFIC OBJECTIVES

- Study the role of volunteering in civil protection and defence.
- Verify the most relevant type of disasters in the Municipality, for which volunteers can be trained.
- Analyze the importance of the Disaster and Emergency Training Center (CETRED) in the training of volunteers.

METHODOLOGY

The methodology used for the writing of this article is based on a qualitative research, from the Type: Bibliographic, documentary and descriptive; where the researchers inserted with the community, more specifically with the Civil Protection and Defense Centers (NUPDECs) of the Municipality, where in an exploratory way, they collected data to be analyzed and discussed, in order to present results that answer the problem question of the research, involving a target audience, represented by individuals and legal entities of the community, as well as achieve the main objective of the research, in a universe of a Municipal Coordination of Protection and Civil Defense (CRESWEL, 2007; LAKATOS AND MARCONI, 2013).

VOLUNTEERING IN CIVIL PROTECTION AND DEFENSE

In order to understand what volunteering in civil protection and defense is, it is interesting to start from the general to the specific. In this sense, Reis (2020), based on Law 9.608/98, according to BRASIL (1998), which offers a definition of "voluntary service", as being unpaid activities, where an individual disposes of or employs his or her workforce for altruistic purposes, also restricting this service in favor of a legal entity of public or private law, if it is not for profit. Reis (2020) also emphasizes the very personal nature of the motivation to provide voluntary service.

Also, if there is often the use of volunteers from a legal entity other than the Civil Defense, which coordinates the use of volunteers, the legal bond is personal between the individual and the



legal entity under public or private law. In the case of voluntary service provided in support of civil protection and defense agencies, this can be provided directly or indirectly. Indirectly, the volunteer is linked to the civil protection and defense agency, through an institution, of Public or Private Law, which manages and mediates between the volunteer and the Civil Defense. It is the Civil Defense, the body that holds the volunteer's core activity, so the link between the two is a direct link.

The fastest growing form of bond between volunteers and Civil Defense has been the Civil Protection and Defense Centers (NUPDEC). The genesis of these Nuclei takes place in two legal diplomas that are no longer in force, and which, however, are quite clear about the intention of the legislator. They are: Decree 5,376/2005 and Resolution No. 2, of December 12, 1994, of the National Civil Defense Council, which establishes the National Civil Defense Policy. The following National Policy for Civil Protection and Defense (BRASIL, 2012) does not expressly mention the term "NUPDEC", however, it does mention volunteer associations when it assigns competences to municipalities to encourage participation and promote the training of volunteer associations (Law 12.608 of April 10, 2012. Art. 8, XV).

As a rule, the training of NUPDECs volunteers includes, among others: basic notions of civil protection and defense; basics of risk analysis of susceptible threats in their localities; creation of contingency plans; and training for self-protection in the response phase, such as basic life support and prevention and fighting of incipient fires. Nothing, however, prevents the volunteers of a NUPDEC from having other training aimed at actions that better suit their realities. An example of this is the training of volunteers on topics related to vegetation fires.

In addition to the components of the NUPDECs, there may also be volunteers directly linked to the Civil Defense (whether municipal, state or federal) and those who are attached to private non-profit organizations (such as the Red Cross and the Animal Rescue Group in Disasters). In the first case, the volunteering agreement is signed directly with the public institution and the training and activation take place on behalf of the Civil Defenses. In the case of volunteers linked to private law institutions, the volunteering term is signed between individuals and private legal entities. The training takes place on behalf of these institutions, and the employment of volunteers occurs at their determination. Although it is one of the best practices to have integrated and coordinated action between Civil Defense and private law institutions, the use of volunteers is independent of the state agency. However, independent actions can run into questions of authority over the disaster scene.

Another aspect that deserves mention, however little explored, is the legal accountability in the actions of volunteers. After all, *"They consider themselves agents of civil protection and defense... Volunteer agents, linked to private entities or voluntary service providers who exercise, on a supplementary basis, services related to Civil Protection and Defense"* (BRAZIL, 2012). This equivalence of the volunteer in the service of civil protection and defense, to a public agent, brings to



their conduct the same consequences as the actions of a public servant. Thus, these behaviors start to have, *a priori*, strict civil liability.

In addition, incidents that cause serious injuries or the death of the volunteer may give rise to the institution to which he or she is linked the obligation to pay compensation. In any case, it is advisable for the volunteer to have insurance against serious injury and death.

Still, the trained volunteer can be an excellent workforce in all civil protection and defense actions. Its supplementary actions are increasingly important, from the assessment and inventory of local risks to relief, assistance and reestablishment actions.

Therefore, it is in this legal and professional context that the Municipality of Nova Iguaçu has been acting in relation to individuals and legal entities that volunteer to support the Municipal Secretariat of Civil Defense, which represents the Municipal Coordination of Protection and Civil Defense, within the National System of Protection and Civil Defense, according to Brasil (2012) and who are registered through the Municipal Network of Servers, Volunteers and Friends of the Community (REDE BRAVO/SVAC, 2010).

FOREST FIRES IN NOVA IGUAÇU

In view of the performance of volunteers in prevention, preparedness and response actions, the researchers analyzed the typology of disasters that occur with the highest frequency in the Municipality of Nova Iguaçu, which even being of low risk, in the national scenario, forest fires in the municipal context studied, were of high risk and listed as the main disaster, in terms of destruction, damage, and occurrence in Nova Iguaçu, as justified as follows (BRASIL, 2021).

Inserted in the State of Rio de Janeiro, the City of Nova Iguaçu has its entire territory in the Atlantic Forest Biome, with a conserved and preserved vegetation cover of approximately 43% forest and 36% pasture. This significant representation of vegetation in proportion to the municipal territory, among others, encouraged the government to create protected areas (MAPBIOMAS, 2024).

In accordance with Law No. 9,985 of July 18, 2000 (Brasil, 2000) which establishes the National System of Nature Conservation Units (SNUC) in the creation of protected territorial spaces, the Municipality of Nova Iguaçu has 14 Conservation Units (UC), of which: 8 Municipal Environmental Protection Areas (APA); 3 State Environmental Protection Areas (APA); 1 Municipal Natural Park (PNM); 1 State Park and 1 Federal Biological Reserve. Their legal acts of creation can be seen in Chart 1.

Table 1 – Conservation Units in the City of Nova Iguaçu / RJ

Conservation Unit	Esfera administrativa	Legal Act of Creation
Parque Natural Municipal de Nova Iguaçu	Municipal	Decree 6001 of June 5, 1998
Área de Proteção Ambiental Jaceruba	Municipal	Law 3592 of 7 July 2004
Área de Proteção Ambiental Rio D'ouro	Municipal	Law 3588 of 7 July 2004
Área de Proteção Ambiental Tinguá	Municipal	Law 3587 of 7 July 2004
Área de Proteção Ambiental Guandu-Açu	Municipal	Law 3591 of 7 July 2004
Área de Proteção Ambiental Morro Agudo	Municipal	Law 3594 of 7 July 2004
Área de Proteção Ambiental Retiro	Municipal	Law 3593 of 7 July 2004
Área de Proteção Ambiental Posse-Guarita	Municipal	Law 4172 of 04 May 2012
Área de Proteção Ambiental Tinguazinho	Municipal	Law 3586 of 7 July 2004
Área de Proteção Ambiental Gericinó-Mendanha	State	Decree 38183 of September 5, 2005
Área de Proteção Ambiental Alto Iguaçu	State	Decree 44032 of 15 January 2013
Área de Proteção Ambiental Rio Guandu	State	Decree 40670 of 22 March 2007
Parque Estadual do Mendanha	State	Decree 44342 2 2 August 2013
Reserva Biológica do Tinguá	Federal	Decree 97780 of 23 May 1989

SOURCE: Prepared by the authors based on research in the Official Gazette and information requested from the Municipal Department of Agriculture and Environment of Nova Iguaçu.

With a high annual incidence of forest fires caused by human activities, the Municipality of Nova Iguaçu, through the Municipal Environmental Guard and the Municipal Civil Defense, has undertaken efforts in actions to prevent and respond to these disasters.

Forest fires are listed as natural disasters by the Brazilian Classification and Codification of Disasters, adopted by the National Secretariat for Civil Protection and Defense, according to Ordinance No. 260 of February 2, 2022 of the Ministry of Regional Development (BRASIL, 2022).

In the period from 2018 to 2023, a cumulative total of 721.70 hectares with burn scars were recorded in the territory of the Municipality of Nova Iguaçu (Image 1), mainly affecting the Conservation Units of the Gericinó-Mendanha State Environmental Protection Area, Nova Iguaçu Municipal Natural Park and Guandu-Açu Environmental Protection Area.

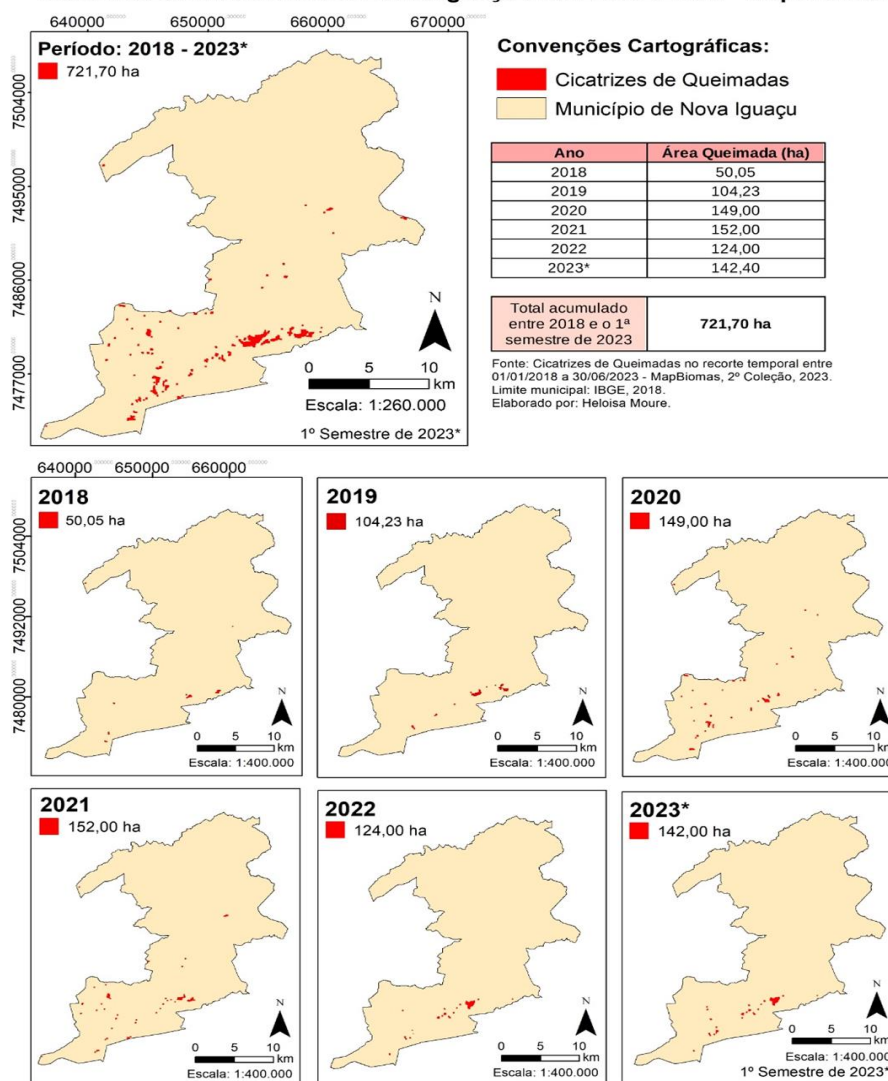
The Municipal Environmental Guard (GMANI), an organ of the direct administration of the Municipality of Nova Iguaçu, linked to the Municipal Secretariat of Agriculture and Environment (SEMAM), is the body responsible for the inspection, as well as for the prevention, preparation and response actions to forest fires that occur within the municipal Conservation Units (UC) (NOVA IGUAÇU, 2013).

Seeking to promote environmental education and civil protection and defense actions with the participation of civil society, the latter, one of the guidelines for the community's action with the National System of Protection and Civil Defense, in this case, by individual means or through a NUPDEC, according to Brasil (2012), a professional partnership relationship with the Municipal Civil Defense was consolidated, through CETRED.

Following the objectives of the PNPDEC, among others, to guide communities to adopt appropriate prevention and response behaviors in disaster situations and to promote preparedness and self-protection (BRASIL, 2012), CETRED has been offering since 2023 Training in Forest Fire Prevention and Response Actions (Nova Iguaçu City Hall, 2023).

The training is carried out by GMANI agents with a day of theoretical and practical training, where volunteers learn important information involving the prevention, preparedness and response to forest fires, followed by a day of practical training.

Image 1 – Scars from fires in Nova Iguaçu between 2018 and 2023
Cicatrizes de Queimadas em Nova Iguaçu entre 2018 e 2023 - MapBiomias



SOURCE: Adapted from the Municipal Department of Agriculture and Environment of Nova Iguaçu. Prepared using the MAPBIOMAS tool.



DATA COLLECTION ON THE TRAINING OF VOLUNTEERS

The data were obtained by the Bravo Network platform, created in 2010, the Municipal Network of Servers, Volunteers and Friends of the Community, according to the BRAVO/SVAC Network (2010), which allows integration with government institutions and organized civil society. This Network favors and strengthens citizen participation in planned or adverse actions that take place in the municipality, with actions for disaster risk reduction and crisis management, respectively.

In this sense, the BRAVO/SVAC NETWORK has about 12,368 registered volunteers, including NUPDECs and Non-Governmental Organizations (NGOs). The NETWORK is articulated and administered by the Undersecretary for Community Protection (SUPC), through the BRAVO/SVAC Network Department. People registered in the network actively participate in events (projects, courses, training and seminars) promoted by CETRED; In addition to acting with great efficiency and effectiveness in various protection, relief and assistance actions in the municipality, such as: simulated exercises for industrial emergencies and for the evacuation of areas of high hydrogeological risk, it is also one of the tools for organizing and collecting data on volunteers and agencies, gathers information on the competencies of each one, generating a number of people registered in the network.

Dissemination of courses

It takes place through the city hall website and Instagram, groups of volunteers trained in previous courses, participate in lectures in the communities, publicizing and making available the agenda of the courses and making new volunteer registrations.

Training and registration of volunteers

During the execution of the Civil Defense Secretariat's action plan, in the communities or in social action or in the courses, people with a leadership profile or people who wish to be volunteers are identified. In some cases, the citizen's desire to participate as a volunteer occurs because he was directly or indirectly affected by the accident or disaster or knows someone who has suffered some damage or loss and feels encouraged to help his community, whether he is linked to an institution or an independent volunteer in order to add to the response actions.

Training and certification of volunteers

CETRED offers a wide range of courses, with broad and relevant topics for acting in defense and civil protection, offered free of charge by the Civil Defense Secretariat of Nova Iguaçu and partner institutions, which, in addition to training in the various areas related to emergencies and



disasters, promotes integration between the various sectors of society and the Government, involving the entire community in the purpose of reducing risks and disaster management in the municipality.

After the opening of the academic year by the Municipality of Nova Iguaçu (PMNI), which usually takes place in April, an agenda is released with the courses to be offered in that year. Until the year 2023, all courses offered by CETRED were 100% face-to-face. To participate in the courses offered, the interested party must belong to the network of volunteers of the Municipal Civil Defense and only with the general volunteer registration (RGV) will he have access to the registration of the courses. Interested parties can register through the link: <https://sistemica.info/redebravo> (REDEBRAVO/SVAC, 2010).

Until 2023, the courses were held at the headquarters of the partner institutions. In this way, aiming at improving logistics, the Municipal Civil Defense established an instruction room, which can be used during the courses offered. All courses taken generate a certificate for students, as long as they have an attendance higher than 75% and that they perform satisfactorily in the assessments. Lecturers also receive a certificate for the classes taught. All frequencies and certificates issued are accounted for and archived, allowing the issuance of a duplicate and the verification of veracity by others.

Or CETRED is an essential initiative for the promotion of a culture of prevention and disaster risk reduction in Nova Iguaçu. The continuous offer of free and quality courses, throughout the years 2017 to 2023, CETRED promoted training through more than 40 courses.

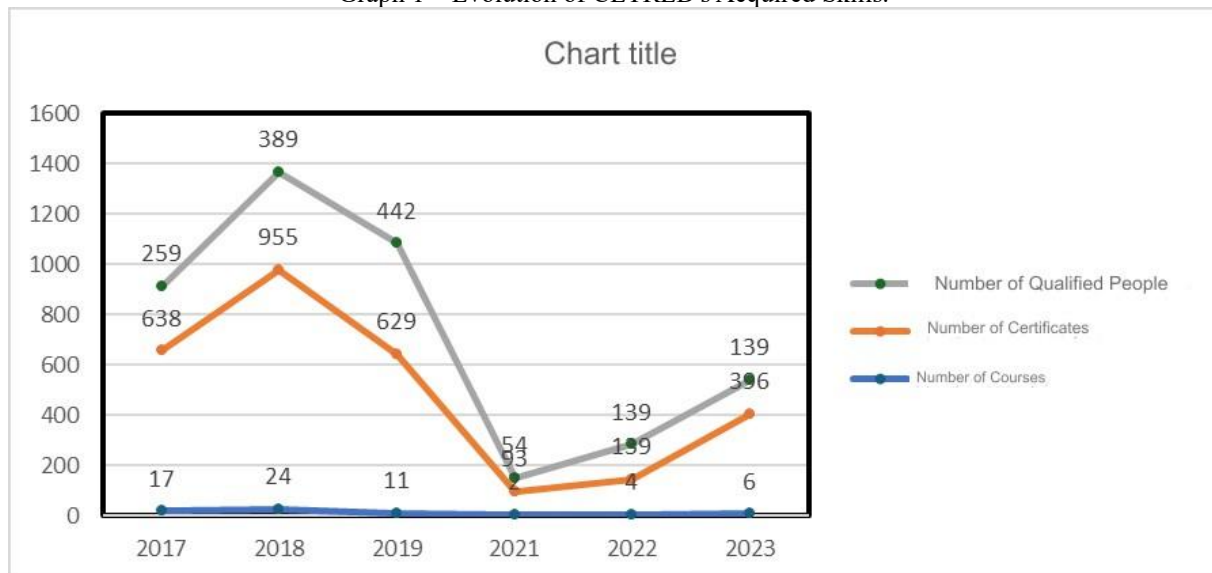
There are exclusive courses held by CETRED, courses that are not offered by other institutions, such as courses in meteorology and on the Municipal System of Protection and Civil Defense linked to Civil Defense, are part of CETRED's differential.

And, finally, the decentralization of information and knowledge is promoted, as CETRED allows the training of partner agencies of the Municipal Secretariat of Civil Defense of Nova Iguaçu and of volunteers registered in the BRAVO/SVAC Network, decentralizing information and knowledge

RESULTS

In order to analyze the role of the Disaster and Emergency Training Center (CETRED) in the training of volunteers, according to the data collected on its achievements between the years 2017 and 2023, as a result of the research, Graph 1 was prepared by the researchers.

Graph 1 – Evolution of CETRED's Acquired Skills.



Source: Prepared by the authors.

DISCUSSION

In addition to the results pointed out in Graph 1, the researchers began to discuss and pointed out activities and actions carried out successfully, verified with the creation of the CETRED tool, for the training of volunteers in support of the Municipal Secretariat of Civil Defense, which can serve as a paradigm for the other COMPDEC in Brazil, as follows:

- Opening of the school year of training and qualification activities for disaster prevention and reduction, according to the Municipal Civil Protection and Defense System;
- notions about the implementation and operationalization of NUPDEC;
- basics of firefighting and panic control;
- notions of meteorology applied to civil protection and defense;
- notions about structural risk analysis;
- introduction to humanitarian logistics in civil protection and defense actions;
- drug reality in Brazil / prevention and treatment: possible paths; prevention of domestic and family violence against women;
- notions about endemic diseases and zoonoses in the post-disaster period;
- notions about the operation of a temporary shelter;
- notions about environmental education: protection, legislation and inspection;
- notions of hydrology applied to civil protection and defense actions;
- notions about psychology in disaster situations for primary, secondary and tertiary victims (grief);
- notions of first aid;
- notions of post-disaster chaplaincy;



- notions about the perception of geological risk;
- initiation to amateur radio and its applications in disaster emergencies; basic notions about geology, geodynamic processes and geological hazards with emphasis on gravitational mass movements; holding a seminar on a community alert and alarm system for rains and floods and using the Integrated Disaster Information System (S2ID);
- the holding of a municipal seminar for disaster risk reduction in the Municipality of Nova Iguaçu, similar to what was done in the City Emergency Plan -PEM (2019/2020), at the end of the school year.

CONCLUSIONS

The Municipal Civil Defense of Nova Iguaçu has developed several educational tools for the training and qualification of professionals in the area, among them, it established the Training Center for Emergencies and Disasters - CETRED, which through training courses, with a simple language, trains and qualifies ordinary people from civil society, as volunteer agents of protection and civil defense; which are provided with the necessary information to, in support of the municipal body, carry out actions of prevention, preparation and response to accidents and disasters, effective for the reduction of risks throughout the municipality, in this way the access to information naturally contributes to the increase of risk perception, reduction of social vulnerability and increase of resilience in the face of crises in the territory.

By strengthening ties with the agencies and investing in the training of volunteers, the Civil Defense of Nova Iguaçu has, in turn, at its fingertips, multipliers who establish new networks, taking information and guidance to the communities and from this, the volunteer can become a local leader thus being able to support directly and well prepared, in civil protection and defense actions and have greater power of action and response in the place they inhabit.

And those are the advantages of the existence of a tool such as CETRED, together with a municipal civil defense agency, where, through theoretical and practical courses, they will be able to act as an effective reserve of agents, trained professionals and knowledgeable of the territory, ready to act in the event of adverse incidents.

There are some difficulties, especially of a legal nature, because some points, as pointed out in item 3.1 of this study, as serious injuries or even the death of a volunteer can produce compensation processes to the public agency responsible for the use of the volunteer where legal subterfuges are advised to be adopted for the legal and personal safety of the volunteer of both, the volunteer and COMPDEC or another responsible sector.

Finally, among all the conclusions obtained through this article, the characterization of the use of civil society, either individually as an individual or through organized civil society as a legal entity,



is positive and, moreover, the regionality of the type of disasters is emphasized, taking as an example the experiences in Nova Iguaçu, Rio de Janeiro, A state that monitors, by the national risk assessment, a high degree for hydrogeological disasters, but exceptionally, in the municipality of Nova Iguaçu, because it is a municipality of rural characteristics, with many environmentally protected green areas, there is a high risk of disasters such as forest fires and for this, its volunteer agents are also trained, with excellence, in the prevention and combat of forest fires with priority.



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