

**CIVIL-MILITARY COOPERATION IN DISASTER PREPAREDNESS:  
INFORMATION SHARING AND SUPPORT IN LITHUANIA**

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**Abstract.** The purpose of civil-military cooperation is to exchange resources and information to effectively manage different types of disasters. In this regard, civil-military cooperation in disaster preparedness should increase coherence in the area of information sharing and mutual support. The purpose of this study is to examine how cooperation between municipal institutions and the same nation's military meets these requirements. The results presented in the article show that cooperation between municipal institutions and military personnel of the same nation is similar to civilian and military cooperation in international missions or disaster relief. This cooperation is based on a mutual understanding of the value of cooperation; willingness to cooperate and mutual support. At the same time, there are objective obstacles to the effectiveness of cooperation in disaster preparedness between municipal institutions and the military, mainly related to legal regulation, bureaucracy and hierarchy, often impeding the dissemination of information and undermining mutual trust between institutions. The study found that simplification of existing legislation, detailed planning process, information sharing during joint exercises and other joined activities would be important factors in improving civil (municipal)-military cooperation in disaster preparedness.

**Keywords:** civil-military cooperation; disaster management; disaster preparedness; municipal, military; information sharing

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## 1. Introduction

Referring the patterns of disasters and its impact there has been a conceptual shift in disaster preparedness over lasts few decades. Extreme events generate secondary catastrophic events of strong impact on society and infrastructure (Kelman, 2018), therefore the preparation for new type of these cascading disasters requires effective inter-institutional cooperation. Globalization and climate change is followed by violent conflicts (Brzoska & Fröhlich, 2016) where disruptive and game changing technologies creates new risks (Kosal, 2020). In this context civil-military cooperation is becoming more relevant than ever.

Civil-military cooperation is intended to achieve an exchange of resources and knowledge to handle different kinds of disasters efficiently (Kaneberg, Hertz, & Jensen, 2016). An intention for exchange of resources and knowledge is of higher importance when disaster occurs. With regard to his, it is argued that civil-military cooperation in disaster preparedness has to increase coherence (Ankersen, 2008) to overcome duplication and inefficient use on human and other resources.

This topic is clearly apparent in a definition of disaster preparedness by the UNDP (United Nations International Strategy for Disaster Reduction, 2009) where preparedness is “the knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions” (p. 21). In this regard, the issue of cohesion in cooperation is of great concern. According to UNDP (United Nations International Strategy for Disaster Reduction, 2009), referred by scholars and practitioners who follow UN approach, disaster is “a serious disruption <...> which exceeds the ability of the affected community or society to cope using its own resources” (p.9). Accordingly, it is not enough to delegate disaster preparedness for local communities and local authorities. As disasters pose an extreme test for public actors, disaster preparedness requires integration of actions and resources into a “functioning response system” (Kapucu, 2009). Multilevel civil-military cooperation that interlinks national, regional and local levels is required for contemporary disaster preparedness especially in the face of hybrid threats (Cusumano & Corbe, 2017a; Cusumano & Corbe, 2017b). As the frequency and complexity of disasters is growing and probability of risks for disaster is increasing (Fang et al., 2019), disaster preparedness needs to include pre-disaster planning and exercising. Civil-military cooperation can be perceived not only in a traditional way where two distinct entities - civil and military bringing their impact while managing disaster, but in a more broader sense where, according to Spence (2002), civil-military cooperation is perceived as an environment where actors are placing military and civil contribution, balancing political, economic, social and military objectives.

Military’s participation in local as well national disaster management is increasing. According to Madiwale and Virk (2011) it is grounded on two reasons. The first is based on public demand as perception on military is changing as humanitarian operations where military was participating in the last few decades shows its extraordinary competence in disaster management. The second is based on changing nature of conflicts when military has to “diversify their role and expertise” (Madiwale & Virk, 2011). Military participation in local disaster management cannot be understood as mere involvement of military forces. As Gourlay (1999) points out, “military” is not a monolithic concept, it represents a set of very diverse institutions. In some cases, these institutions are largely civilian in nature, and may be different in structure, size or capability. It depends on the nature of the disaster.

When analyzing civil-military cooperation, it is important to note that it follows the basic principles of inter-institutional cooperation. According to Vangen (2017), institutions collaborate across sectoral boundaries “to deal more effectively with complex, multifaceted issues and problems that are beyond individual organizations’ capabilities to tackle effectively on their own” (p.264). The differences between institutions create unique capabilities that include diverse areas of expertise, physical resources and etc. where all together a synergy is formed during collaborative activities. The paradox of cooperation lies in the facts that on one hand the more diverse the institutions are, the more complex their collaboration, and on other hand the diversity creates greater synergy. In this way, disasters create an inevitable need for cooperation, as institutions are no longer able to cope with losses using their own resources. The situation is completely different in a phase of disaster preparedness. There is no urgent need for cooperation. Institutions should therefore be encouraged to cooperate. The cooperation between military and public sector institutions occurs only if favourable circumstances occur: institutions operate under a common regulatory framework and they are united by common tasks and objectives (Jimenez Aguilar & Thoene, 2019; Kuprijanova, Volkova, & Agafonova, 2018). More specifically, Spence (2002) sets out seven conditions for effective civil-military cooperation: environment, common understanding, communication imperative, appropriate responsibilities, comprehensive approach, timely leadership and early engagement. In the phase of disaster preparedness communication imperative and appropriate responsibilities are of the greatest demand. As Palttala et al. (2012) points out, the main question of how to implement communication imperative and appropriate responsibilities when institutions are “from different organizational cultures and structures, which need to cooperate in managing a crisis” (p.5).

The answer to this question is not straightforward, since different paradigms assume different roles for collaborating institutions. Taking a classical disaster preparedness approach, civil authorities are partners of the military in defence of national security. The modern view states that military is a key supporter in civilian emer-

gency and terrorism response (Sylves, 2014). These two approaches reveal interdependencies that encourage cooperation in practice. It suggests that civilian-military cooperation in disaster preparedness is based on the inevitability when authorities find that working together the goals could be achieved more effectively. Despite the common objectives, the concepts on which civilians and military institutions rely in the face of disaster are different: the humanitarian principles on which independent civil society is based versus military doctrines, where civil defence involves an entire society (Kaneberg et al., 2016). Additionally, differences in civil and military culture embed lack of trust (Dubey et al., 2019). In this context, it can be argued that civil-military cooperation faces similar challenges as cooperation between different civic organizations: information and knowledge sharing is limited. (see Branten and Purju (2015). Consequently, of the one part, civil institutions and civil society are not aware of the military capacities needed to help civilians to function during a disaster (Kaneberg et al., 2016), of the other part, military is hidden from the knowledge of real capacity of civil society coordinated by civil authorities.

These issues are of critical importance for the countries seeking for balanced approach toward civilian “all-hazards approach” and military concept of “total defence” and where disaster preparedness involves both civil and military. The *purpose* of this study is to identify further opportunities for civil-military cooperation in disaster preparedness on the municipal-military level by stressing on information sharing and mutual support in this process. The case of Lithuania is chosen for this study as country faces challenges for national security as consequence of changing geopolitical environment as well as risks related with global climate changes and other natural and human-made disasters.

The study takes into consideration the views and insights from both sides of civil-military cooperation. Specifically, this study investigates the principles and forms of civil (municipal)-military cooperation in disaster preparedness, advantages and obstacles of this cooperation and finally, opportunities to enhance municipal-military cooperation in disaster preparedness. Thereafter the paper is structured as follows. Section 2 presents qualitative research methodology used for this study. Section 3 provides detailed information on research finding. Findings are commented in the light of literature, as literature was used in the process of research. Paper concludes on section 4 where main conclusions and discussion are given. The study is limited to municipal-military cooperation in the process of disaster preparedness and ignores their cooperation in other stages of disaster management as mitigation, disaster response and recovery. In this way it differs from previous research in the field and extends the body of knowledge on disaster preparedness.

## 2. Research methodology

*Research method and sampling.* A qualitative study was chosen for this research. Semi-structured interviews with representatives of military and municipal institutions were performed in a period of October-November in 2019. “Military” in this context is understood as the totality of the institutions of the national defence system, where term “armed forces” used in this research is understood as country’s military forces. This understanding is based on Gourlay’s (1999) interpretation of military concept where she notes drivers’ structure of military and includes military as well as civilian structures designated for national defence. The term “municipal” in this research stands for municipal institutions responsible for the implementation of the right to self-government.

The informants were selected on the basis of their formal functions that involve disaster preparedness and civil-military cooperation on national or local levels in Lithuania. Additionally, snow-ball technique was used to identify informant highly relevant for this study. Informants from municipalities were selected on this basis. Data saturation was reached after 14 interviews. The characteristics of informants are presented in Table 1. Participation in the interviews was voluntary and responses were anonymised to protect participants’ identities by coding.

**Table 1.** Characteristics of informants

Sector	Number of interviews	Codes
Representatives of military	2	F1, F2
Representatives of municipal institutions: persons in managerial positions of municipal administrations	6	S1, S2, S3, S4, S5, S6
Representatives of municipal institutions: civil servants responsible for disaster preparedness	6	J1, J2, J3, J4, J5, J6

*Research instrument.* The interview questions were based on theory (Ankersen, 2008; Bruneau, Croissant, & ed, 2019; Cusumano & Corbe, 2017a; Cusumano & Corbe, 2017b; Madiwale & Virk, 2011; Spence, 2002) and previous research instruments (Cusumano & Corbe, 2017b; Essens, de Vries, Lucius, & Rietjens, 2016; Lee, 2016) on civil-military cooperation in disaster preparedness. A semi-structured interview guide provided main themes and follow-up questions as it is recommended by interview methodologists (Kallio, Pietilä, Johnson, & Kangasniemi, 2016). The main themes explored: what are the cooperating institutions in this field in Lithuania, conditions and forms of municipal-military cooperation in disaster preparedness, advantages and obstacles of this cooperation and finally, opportunities to enhance this type of cooperation in disaster preparedness.

*Data collection and analysis.* All interviews were audio recorded and transcribed. Data analysis followed standard qualitative methodology: data was coded following main themes and hierarchical framework of sub-themes was developed according to data categorisation. We used data analysis triangulation by combining two methods for the same data set (Renz, Carrington, & Badger, 2018): qualitative text analysis and quantitative method. For qualitative analysis we used conventional content analysis, while for quantitative analysis we counted semantic repetitions.

### 3. Research findings

#### 3.1. Cooperating institutions

The first thematic area analysed in this study covered institutions that collaborate in disaster preparedness. Legal regulation does not strictly define with whom and how municipalities and military should cooperate in ensuring assigned functions to act in the event of a disaster. Accordingly, the first theme was designed to find out the collaboration aspects of such institutions: (1) municipal institutions (2) military (as it was mentioned in research methodology this term includes institutions of the national defence system).

The informants indicated that municipal institutions are cooperating with many institutions. “We cooperate with anyone that is legally possible and foreseen” (S5). “The municipality probably cooperates with all on demand; it is open to various forms of cooperation” (J5). Informants mainly referred such institutions as the Police, the Fire and Rescue Service and other public sector institutions.

The informants stressed on cooperation with the Armed Forces (4 repetitions). “The Police, the Food and Veterinary Service, the Fire and Rescue Service and the Armed Forces” (S1). “Mostly the Police, the Armed Forces, Hospitals, the Environmental Protection Department” (S2). Individual informants identified cooperation with such institutions of military as the Lithuanian Riflemen’s Union and *Mobilisation and Civil Resistance Department* under Ministry of National Defence (see Table 2).

**Table 2.** Institutions and organizations which municipal institutions cooperate

Category	Subcategory	Informants
Institutions of interior sector and other public sector institutions	Police	S1; S2; S4; J1; J2
	Fire and Rescue Service	S1; S4; J1; J2
	State Food and Veterinary Service	S1; J1
	Environmental Protection Department	S2; J1
	medical institutions	S2; J2
	other public sector institutions	S3; S4; J2; J4
Military	the Armed Forces	S1; S2; S4; J1
	Lithuanian Riflemen's Union	S1; J2
	Mobilisation and Civil Resistance Department	S6; J3
Non-governmental organizations	Lithuanian Red Cross Society	S1; J1
	The Order of Malta	S1; J1
	other non-governmental organizations	S3; S4; J4

Thus, it can be stated that the informants distinguish three institutions of military with which the municipal institutions cooperate. It is stated that the municipal institutions mainly cooperate with the Armed Forces, also have common interests with the Lithuanian Riflemen's Union and the *Mobilisation and Civil Resistance Department* under Ministry of National Defence. Other institutions of the Armed Forces were not mentioned.

It is noted that the military representatives provided similar answers. They said that military institutions are cooperating with all sixty municipalities, as well as with non-governmental organizations. The representatives of military stressed that in disaster management it is very important to cooperate with municipal institutions. "On crisis in peace time we are working with non-governmental organizations and all sixty municipalities" (F1). "Cooperation with municipal authorities is important simply because municipalities are responsible for the safety of the citizens" (F2). Cooperation with all ministries and other government bodies was also mentioned (see Table 3).

**Table 3.** Institutions and organizations which the military cooperate

Category	Subcategory	Informants
State institutions	all ministries	F1; F2
	other government bodies	F1; F2
Municipal institutions	60 municipalities	F1; F2
Non-governmental organizations	not specified	F1; F2

This data reveals that municipal institutions and military cooperate with a wide range of institutions, from institutions of national and local government to non-governmental organizations. The nature of most existing collaborations confirms theoretical framework (see (Cusumano & Corbe, 2017a; Cusumano & Corbe, 2017b), where civil-military cooperation is emphasized both at national and as well as international level.

### 3.2. Conditions of cooperation

Further efforts were made to clarify the conditions of cooperation between military and municipal institutions in disaster preparedness. On the bases on the informants' responses, six key conditions of cooperation were identified (see Table 4). The first condition concerns legal regulation where the exercise of a delegated function is impossible without cooperation (6 repetitions). "The framework for cooperation is regulated by law" (J3). The second distinguished condition of cooperation is the finding of solutions (4 repetitions). "We always find solutions" (S1). "Probably we always try to find a common language. We are constantly exchanging information" (J1). The third condition is that the cooperation maintains a positive relationship (3 repetitions). "This is

the most direct positive relationship” (S1). “I am glad that the cooperation is in progress” (S5). According to the informants’ answers, another distinguished condition is benevolent cooperation (3 repetitions). “So maybe benevolent cooperation. If there is any question, we will boldly turn to each other and decide” (J5). The fifth condition is the mutual benefit of cooperation (2 iterations). “There are benefits for both the municipality and the national defence” (J2). The sixth condition highlighted by the informants is cooperation when needed. “It’s just a matter of asking for help” (S2).

**Table 4.** The conditions of cooperation between military and municipal institutions

Category	Subcategory	Informants
Cooperation conditions	cooperation by delegated functions	S2; S3; S4; J3 F1; F2
	solutions are always found	S1; J1; F2; S5
	positive relationship	S1; S5; J5
	benevolence	S4; S5; J5
	mutual benefit	S3; J2
	cooperation by needs	S2

Following this data on the conditions of cooperation between military and municipal institutions, it can be stated that cooperation is conditioned by legal acts and defined functions. It can also be argued that cooperation is organized with mutual desire and interest, common solutions finding common solutions and building positive relationships. The identified conditions are generally consistent with those reported by (Spence, (2002), especially those related to environment (most comprising legal environment), and common understanding. The study also revealed the relevance of the intensity of cooperation. The informants’ responses were similar and complementary. Most of them stated that cooperation was continuous (7 repetitions). “Work and information exchange are constantly going on” (J1). “Cooperation should be continuous in preparation for disasters” (S6). Despite the positive aspects of collaboration, some informants stated that there was no intensive close cooperation (2 repetitions). “The scope of cooperation is narrow” (J4). Individual informants expressed the view that cooperation is rare (S2) or that there is no cooperation at all (S4). “We don’t have much ‘business’ together because they have their jobs and we our own” (S2). “It’s like I said we don’t cooperate” (S4). Thus, it can be argued that most of the cooperation takes place on an ongoing basis and that the municipal institutions maintain regular contact with the military. However, there are exceptions, where for some reasons inter-institutional cooperation is rare or non-existent. These different answers could be explained by the fact that although the legal framework of Lithuania (Law of the Republic of Lithuania on the Basics of National Security, 1997; Law of the Republic of Lithuania on the State of Emergency, 2002) provides the preconditions for cooperation between military and municipal institutions in case of disaster, however, more broadly, these provisions are not developed in inter-institutional agreements or disaster preparedness plans.

### 3.3. Forms of cooperation

One future finding concerns forms of cooperation. There were three forms of cooperation identified used by municipal institutions and military in disaster preparedness: work in the Emergency Management Commission, counselling and joint exercises (see Table 5). Informants in this study highlight collaborative work in natural or man-made emergency management commissions, counselling and seminars, and joint exercises. “Our representatives participate in the Emergency Commission, we conduct joint exercises, exchange information and have consultations” (J4). “Advises on implementation of legislation, and how to ensure national security strategy” (S3). “Cooperation takes place in such directions as seminars, trainings” (F1). “Various joint training, joint exercises, military involvement in community activities” (S5). More specifically, cooperation in disaster preparedness is linked to the plans for emergency response and mobilization that would be deployed in the event of a threat to constitutional order or public peace. Accordingly, informants emphasize the importance of these plans: “Making plans is the key. Preparedness checks are carried out. Training is also underway” (F2). “We combine a variety of plans and possible actions” (S3). According to the informants, there may be cooperation in the exchange of official documents, professionals or information. “Mutual assistance agreements are

being drawn up...mobilization plans are being prepared” (J6). “Collaboration is ongoing through consultations, seminars and exchanging of information by telephone or email” (S6). “There is a constant exchange of information with both the Lithuanian Armed Forces and the National Defence Volunteer Forces” (S1). “Meetings with heads of institutions are organized” (S6). “We have specialists in charge of activities in these fields. These are the representatives. These specialists work with the civil servants of the national defence system” (S3). See Table 5.

**Table 5.** Forms of military and municipal institutions’ cooperation

Category	Subcategory	Informants
Forms of cooperation	work on the Emergency Management Commission	S2; S4; J2; J4
	counselling	S3; S6; J1; J4; J5
	joint exercises	S1; S3; S5; S6; F2
	making plans	S1; S3; F1
	training	S3; S5; F1; F2
	work in accordance with official documents	S3; J3; J6
	exchange of information	S6; J1; J2
	work through professionals	S3; S6; F1

In brief, the forms of military and municipal institutions’ cooperation, it can be stated that most of the cooperation time is spent on joint exercises, consulting each other on various issues and working together in the Emergency Management Commission. Also working together on joint plans and training. These findings go in line with previous works on this area. For example, Martínez & Durán (2017) have drawn attention on the importance of civil-military joint training to reach interoperability and shared rules of engagement. The author has analysed the environment of international missions and it can be stated that the results of this study suggest that the forms of cooperation are similar in the national and international context. Thus, there are many forms of cooperation in preparing for disaster response.

### 3.4. Advantages and obstacles for cooperation

The most common advantage of cooperation is that military and municipal authorities see each other as a source of assistance (see Table 6). Most importantly, institutions have different capacities, the pooling of which is mutually beneficial. As municipal representatives point out, “the armed forces operate quickly, is rich in resources, both human and technical, and can help very quickly” (S2), it will become especially important when “in the event of a disaster, there would be a serious shortage of financial and human resources, so the help would be greatly needed” (J6). Accordingly, it is very important that disaster preparedness would be based on “beautiful cooperation, mutual understanding, close relationships and total work” (S5).

According to the informants, the advantages can be defined as concreteness and benevolence. Informants point out that “the military is very specific. Addressing them gives concrete answers” (J1) and that “the cooperation between us is benevolent. If you need help, call and agree” (J5). As well as the advantages, the informants indicated a good public image and support of integral national defence system. “One of the benefits of military and municipality cooperation is being visible through various cultural events” (J2). As well as the benefits of collaboration was placed on advance planning and always finding a common solution. “We always find solutions through our direct work” (S1). “We can plan in advance what kind of help we may need” (J1). In addition to the advantages to the institutions, the advantage to the State is noted: “main advantage - maintaining a unified defence system” (J3).

**Table 6.** The advantages of cooperation between military and municipal institutions

Category	Subcategory	Informants
Advantages of cooperation	source of help	S2; S3; S6; J2; J5; J6; F1
	positive relationship	S1; S3; S5; J5
	advance planning	J1; J6; F1; F2
	concreteness	J1; J4; F2
	benevolence	S5; J2; J5
	good image in society	J2; J4
	supporting of integral national defence system	J3; F1
	always found solution	S1

Not only advantages but also of cooperation need to be identified in order to gain a comprehensive insight into collaborative environment. Legal regulation and bureaucracy were named as the main obstacles for effective inter-institutional cooperation between military and municipal institutions (see Table 7). For example, the informants commented: “the law should clearly regulate who, when, where, at what time is responsible, and what are the limits of responsibility. Now, it is usually the municipal institutions that are responsible for everything” (S5); “some legal provisions do not reflect current reality” (F2); “the obstacle is that we cannot, for example, directly contact the military unit of our city if we need a help. Various documents need to be completed” (J1); “a problem is an excessive compliance with bureaucratic rules. The institutions only deal with their own affairs, which makes it difficult to establish cooperation” (J6). As obstacle for cooperation informants also distinguished hierarchical orders and certificates of secrecy: “if specialists do not receive support from senior management, then it is more difficult for them to anticipate actions, to obtain information from other institutions” (F2). All municipal representatives stressed on lack of access to information: “... military secrets. We would like to know more, but we cannot” (S5); “the obstacle is that we cannot apply directly to any armed forces unit. We turn to the army headquarters and they assign us some forces” (S1).

Informants also pointed out that one of the obstacles is inactivity of employees (2 repetitions). “The major obstacle is probably one. That there are employees who do not pay all their attention, energy, and time to make disaster management plans properly” (F2). Obstacles also include employee rotation, citizen dissatisfaction and problems of coordination of different interests. A very specific example is given by on informant: “Suppose the director of the municipal administration has changed. He has some expertise. The way he mobilized the whole team is where everything starts” (F1). Accordingly, the transfer of knowledge interrupts knowledge transfer and leads to a major information gap.-

**Table 7.** The obstacles of cooperation between military and municipal institutions

Category	Subcategory	Informants
Obstacles of cooperation	legal regulation	S3; S5; S6; J2; J4; J5; J6; F2
	bureaucracy	S2; S3; S5; J2; J4; J5; J6
	hierarchical system	S1; J1; J5; F2
	military secrecy	S5; J4; J5
	employee inactivity	J1; F2
	staff rotation	F1
	citizen dissatisfaction	J2
	different interests	S2

Thus, the data of the study show that both municipal institutions and the military are aware of the benefits and obstacles of inter-institutional cooperation, that are named in the previous research (Kaneberg et al., 2016; Madiwale & Virk, 2011; Vangen, 2017). The main advantages are mutual assistance and comprehensive understanding of the value of integrity in the face of risks of disaster. It goes in line with previous studies from other fields of cooperation where support and information sharing is perceived as mutual enrichment (see Zeibote, Volkova et al. (2019).



Meantime, the obstacles for cooperation are strict legal regulation and the military bureaucracy. This results not only in the inaccessibility of important information but also in creating distrust between the parties involved.

### 3.5. Opportunities to enhance cooperation

There are several opportunities to enhance cooperation between municipal institutions and military in disaster preparedness. Following the informants, seven ways to improve inter-institutional cooperation were identified (see Table 8). The first is legislative change or simplification (6 repetitions). According to the informants, “we would like to have a normal, long-term, reasonably crafted legislative framework” (S5), that would allow more flexibility, for example, “either they need to be simplified somehow or some instructions need to be put in place so that, in the event of a disaster, the military squad could be used just with the order of the battalion commander”(S2). Also, to improve inter-institutional cooperation an access to restricted information should be reviewed (3 replications). The second, informants suggest that comprehensive planning may improve inter-institutional cooperation in disaster management. Nevertheless, bodies that carry out the tasks and actions are identified in the plans, more detailed planning is needed as “detailed steps of collaboration” (S3). The informants also suggested improving the cooperation by implementing joint disaster management (2 replicates). The informant suggests imagining the following situation: “Now, in one area did the disaster strike and institutions of that area have a problem. Resources becomes be channelled so that the consequences can be eliminated as quickly as possible”(J5). For this or similar cases detailed planning and cooperation agreements would help to solve the problems more effectively. The third opportunity to enhance cooperation lies in joint training and exercising as well as learning at the seminars to ensure the dissemination of information and to build a trust between institutions. As an informant points out, “mutual understanding and joint problem solving are essential” (J6).

**Table 8.** Factors for improving cooperation between military and municipal institutions

Category	Subcategory	Informants
The factors of cooperation improvement	modification / simplification of legislation	S2; S5; J2; J3; J4; J5; J6
	detailed planning	S1; S3; S6; F1; F2
	grant access to documents that are not publicly accessible	S5; J4; J5
	joint disaster management	S6; J5; F1
	conducting of seminars, training and exercises	F1; F2
	information dissemination	F1; F2
	mutual trust	S6; J6

Here, simplification of key existing legislation may improve civil (municipal)-military cooperation in disaster preparedness. It basically confirms the statements of researches (Jimenez Aguilar & Thoene, 2019; Kaneberg et al., 2016; Kuprijanova et al., 2018) who emphasize the importance of proper legal regulation. Two other ways to improve inter-institutional cooperation are related to information sharing in detailed planning process and information sharing during joint exercises and other activities. With regard to the effect of information sharing, Kalkman & de Waard (2017) note that lack of information creates uncertainties about what potential partners will do, as well as creates mistrust. Very similar insights are provided in the studies of very different types of cooperation in civil sector (Bublienė, Vinogradova, Tvaronavičienė, & Monni, 2019; Prause, 2015) To sum up, information sharing creates mutual trust which is highly important for effective disaster preparedness.

## 4. Conclusions

The results presented in the article show that the cooperation between municipal institutions and military personnel of the same nations is similar to that of civilians and soldiers in international missions or disaster relief: cooperation; mutual understanding of the value of cooperation; willingness to cooperate and mutual support. At the same time, there are objective obstacles to the effectiveness of cooperation in disaster preparedness. These barriers are linked to the ineffective exchange of information, leading to the rigidity of the entire disaster management system.

This research did reveal that military as well as municipal institutions identify each other as a partner among other institutions they cooperate with in disaster preparedness. However, cooperation does not come from an internal initiative. More specifically, cooperation is conditioned by legal acts and legally defined functions. Mutual benefit is also perceived, but it is a secondary factor in communication. Both sides agree that working together creates mutual benefits where there are common interests, common solutions and positive relationships. There are some interesting findings related to intersection of legal requirements and mutually indicated cooperation. Cases when inter-institutional co-operation is not strictly regulated by the legal framework, co-operation can be extended and long-lasting or fragmented and rare. It depends on whether the parties find common understanding and have a comprehensive approach. This can be explained by the paradox of inter-institutional cooperation, where cooperation between diverse institutions cause challenges and, at the same time, creates synergy. Depending on which attitude (challenge or synergy) the parties follow, intensity of cooperation depends.

One further finding related to the forms of civil (municipal)-military cooperation in disaster preparedness. Just as disasters are diverse, forms of cooperation in preparing for disaster response are diverse likewise. In preparation for threats to national security, where are guided by the military concept, the cooperating parties use their knowledge and experience in the emergency management where civilian attitudes and civilian governance paradigms are used.

Evidence suggests that while cooperating municipalities and military face with favourable as well as with interfering conditions for cooperation in disaster preparedness. Mutual assistance and exchange of information, positive relations and benevolence are faced with bureaucracy, hierarchical systems and inaccessibility of information due to military security. These features are leveraging civil (municipal)-military cooperation in disaster preparedness. Thus, the main way to improve cooperation is to simplify the legal framework for cooperation and introduce certain exceptions.

Thus, this study explored some of the issues of civil (municipal) and military cooperation in disaster preparedness. The findings demonstrate the existence of a mutual understanding of the value of such cooperation. However, cooperation at this level has a number of limitations, the removal of which would allow for better disaster preparedness and disaster response.

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