Using volunteers in emergency response

Municipalities, civil society and emergency rescue services

Emil Thessén

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Center for Advanced Research in Emergency Response (CARER)

Department of Management and Engineering (IEI)

Linköping University
About CARER and the project effective rescue efforts on the accident site of tomorrow

Center for Advanced Research in Emergency Response (CARER) is a collaboration project between Linköping University and Sweden’s Civil Contingencies Agency (MSB). The center conducts research and education that deals with society’s response capacity in case of accidents. This includes everything from everyday accidents to extraordinary events at local, national and global level. Since operations are multidisciplinary and interdisciplinary CARER is gathering many different skills and interests.

One of CARER’s current projects focuses on the accident site of tomorrow, conducting research on how to best deal with accidents and emergency response in the future. In order to manage new challenges in the subject we need to know when, where and how accidents occur, who’s affected and what help they might need. We also need to know which ones to help and make sure that they have good methods and equipment. This requires the development of knowledge in many different areas and allowing a multidisciplinary approach is necessary.

Abstract

Swedish municipalities that experience the negative sides of urbanization in form of depopulation, declining growth and economic challenges are in need of long term adaption politics in order to uphold the welfare system for its inhabitants. This paper focusses on cooperation with civil society as an important tool for the municipalities emergency rescue services in order to tackle the problematic situation. In order to form a concept that is easily implemented as an effective adaptation measure, practical cases need to be studied. In this paper, interviews with officials from two active cooperation projects provide important and practical data to be analyzed against previous research in the subject. One project uses cooperation with civil society as a tool to help a countryside village in southern Sweden to increase the safety and protection in the area. The other project will operate in the southern suburbs of Stockholm as a cultural and social gap-closer in order to create a preventive force to stop car fires etc. and improve the flow of information. Both projects are currently, or plan to involve volunteers from the civil society as a central resource. Using previous research as an analytical framework for identifying important factors for an effective cooperation, this paper presents practical solutions. Despite the early stage of the projects analyzed in this paper, the results already shows examples of different solutions, strategies, challenges as well as reciprocal ones.

Keywords

Emergency response, cooperation, municipality, civil society, volunteers.

1 Center for Advanced Research in Emergency Response (CARER), Linköping University
1. Introduction .................................................................................................................................3
  1.1 Study aim and objectives ........................................................................................................4
2. Previous research ...........................................................................................................................4
  2.2. Definition of central terms ......................................................................................................4
  2.3. Cooperation with civil society as an international phenomenon ...........................................5
  2.4. Research conducted regarding cooperation in Sweden .........................................................6
  2.5. Municipalities in demographic decline ................................................................................7
  2.6. The resident needs in a municipality in demographic decline ...............................................9
3. Analytical framework .......................................................................................................................10
4. Methodology & data collection ......................................................................................................11
5. Data ..............................................................................................................................................11
  5.1. General summary ....................................................................................................................11
  5.2. Södertörn Firefighting Union ................................................................................................12
  5.3. The Fire and Rescue Service Syd .........................................................................................13
6. Results ..........................................................................................................................................15
  6.1. Table with overview of the results ........................................................................................17
7. Analysis .........................................................................................................................................18
8. Further research .............................................................................................................................19
9. References ....................................................................................................................................20
1. Introduction

In the 4th chapter §7 Act (2003: 778) on the Swedish protection against accidents law, it is explicitly stated that the municipalities are obliged to ensure that emergency rescue services are active in the municipality. Responsibility for emergency rescue services is therefore decentralized from the government to each municipality; this gives municipalities the ability to customize the emergency rescue services - and other welfare institutions - based on local needs and conditions. A local adaptation gives municipalities the opportunity to increase the efficiency and utility maximizing the resources that the emergency services performance requires. One fundamental function of an emergency rescue department is to respond to everyday accidents (fires, car accidents etc.) and events with imminent danger of accidents - to limit damage to people, property and/or the environment.

Decentralization of the responsibility is not as unproblematic as it may seem; Sweden’s municipalities does not face homogeneous circumstances, these are very different from each other on a micro level of analysis. There is a palpable problem regarding the situation in which the majority of the municipalities are in today, the problem is however more crucial in some municipalities than in others. Sweden’s geographical population redistribution is characterized of urbanization, not only on a national level but on a regional and municipal level as well. In the wake of urbanization we find municipalities and welfare systems that are adversely affected by the development, mainly in the form of younger people and businesses moving toward large cities. This makes the tax base of the rural/countryside municipality decrease; the municipality musters therefore fewer and fewer taxpayers the longer this trend continues. Thus range the capability of municipalities to fulfill their commitments, one of them being funding an emergency rescue department. In municipalities – and especially those with declining growth - decisions need to be well thought through and not implemented ad hoc as a last resort. In order to form long-term adaptation policies for the effected municipalities, cooperation with civil society is a favorable tool. Cooperation with civil society is not only a tool to support the welfare system, but also other challenges within the municipalities, examples include a social discomposure in vulnerable areas, including suburbs. Cooperation with civil society is however a broad term, in this papers the term will be defined and previous research in the area regarding implementation of volunteers in emergency rescue operations will serve as an analytical framework. The data collected is based on two separate projects involving civil volunteers in emergency rescue operations and preventive work, each in a relatively early stage of the start-up process.

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1.1 Study aim and objectives
The aim of this study is to process previous research in the subject of municipalities in demographical decline in order to clarify some aspects of the situation and possible adaption measures. By using the previous research to identify possible theoretical solutions, the aim is also to present the practical nature of such solutions. This has resulted in a closer look at municipal cooperation with civil society and what form it might take and how to theoretically improve both theory and practice. In order to do this, a literature overhaul of relevant research has been done regarding cooperation between emergency rescue service and civil volunteers to present clear theoretical criteria for such cooperation forms. Theoretical assumptions needs to but in relation with practical situations in order to bring the research forward.

This study constitutes – along with previous and current research - a knowledge foundation in order to solve one of the research fields’ long-term objectives; a well-supported concept for local adaption measures on the countryside.

2. Previous research
2.2. Definition of central terms
Cooperation as a concept is very broad and can come in many shapes. Therefore, a definition of the term cooperation and the related terms coordination and civil society is necessary. Sweden’s Civil Contingencies Agency (MSB) defines the terms as following:

**Cooperation**-“A feature that, per operator’s consensus, provides direction and coordination of available resources.”

**Coordination** is also a prominent concept closely connected to cooperation, MSB defines the term as following:

**Coordination**-“Adaptation of activities and milestones so that available resources are used to the maximum benefit. Coordination is about actors not being in the way of each other, and helping each other where possible. Coordination is an effect of the resources that manage social disruption.”

**Civil society** is a very broad term that includes a variety of actors and institutions. MSB defines the term as following:

**Civil society**- “Various NGO’s which has the task of being an additional resource when accidents and emergencies occur, the Red Cross, or voluntary resource groups. It can also involve various non-profit sports clubs, denominations and associations.”

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10 Strandh, V. Civilsamhällets respons vid kriser- Bistånd eller motstånd?(2016) Faktablad, Myndigheten för samhällsskydd och beredskap(MSB).
2.3. Cooperation with civil society as an international phenomenon

Cooperation with civil society is a phenomenon that does not solely occur in Sweden but also internationally as a measure to handle society's challenges, both in emergency response and other areas of the public sector. Cooperation is an effective way to meet societal expectations of citizens, challenges regarding climate change, rural problems, natural disasters and financial crises. Examples of cooperation between government agencies and the civil society involve preventive work in form of information campaigns and communication reforms. A lot of the research conducted is however based around extraordinary events such as natural disasters or other big catastrophic events. The community response after the hurricanes Katrina, Rita (2005) and Sandy (2012), the Kobe earthquake in Japan (1995) and the Queensland floods in Australia (2011) are all examples of events which aftermaths involved a large number of volunteers. Research results regarding implementation of volunteers in every day accidents is scarce, however, some studies argue that civil volunteers are more valuable in man-made incidents i.e. terrorist attacks- as a social resource, for example the terrorist attack on the World Trade Center (2001) as social support.

As this sentence is written, a terrorist attack in the city of Stockholm has just occurred involving a truck plowing through a crowd on the central street Drottninggatan. Covering reports through social media, I noticed the European Commission published the following statement by president Juncker, saluting the first responders.

“I would like to send my sincere condolences to the families of the victims and to salute the courageous work of the first responders who arrived so quickly on the scene.” – Jean-Claude Juncker, president of the European Commission 2017-04-07.

Also, as an clear example of volunteers as a social resource after a terrorist attack, residents of Stockholm gathered under the hashtag #openstockholm on social media to offer their homes as sanctuaries while the city-core was on lockdown.

References:

13 Clukey, L. Transformative experiences for Hurricanes Katrina and Rita disaster volunteers(2010). Disasters, Volume 34, Issue 3 July 2010
19 European Commission. STATEMENT/17/918 2017-04-07
2.4. Research conducted regarding cooperation in Sweden

Swedish emergency rescue services have historically involved voluntary civilians as first person responders in rescue operations; this phenomenon can be described as a practical development of the theoretical concept of *we-government* which means that non-traditional actors are involved in public authority actions. A number of cooperation projects have been conducted in Sweden involving municipalities, counties, NGO’s, semi-professionals and civil volunteers. A project called *Förräkta medmänniska* (Enhanced neighbor) initiated by the emergency services in the county of Medelpad. In this project, volunteers were involved in rescue operations during a period of just over a year- researchers then evaluated the efforts of the volunteers from different perspectives. This project was a natural extension of earlier and parallel projects on dynamic rescue service and resource management (DYRK and DRH) as well as an important foundation for future studies. The emergency services in the county trained volunteer civilians who were residents of villages where distance and thus the response time for the traditional emergency services have been problematic. The approximately 150 participants were residents of six villages in three municipalities located inside of the county. The volunteers were trained in basic CPR, first aid and firefighting to act as the first person responders and support emergency services. Dispatching was done by SMS-lists and some of the volunteers were fitted with RAKEL* terminals for more accurate positioning. The alarm received was a simulated single accident, and once in place the volunteer’s actions and performance was recorded with audio and video. The exercise was analyzed immediately after concluding with a so-called “*After Action Review*” and participants and observers evaluated the event together afterwards. Along with interviews, future workshops, the exercise explained above and the After Action Review - researchers published a relatively comprehensive study about the integration of voluntary participants in the dynamic resource management in emergency response. The results of that study will partly serve as the analytical framework in this paper, see chapter 3, analytical framework.

*RAKEL is the system used by the Swedish rescue services to communicate with the rescue station.*

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2.5. Municipalities in demographic decline

Half of Sweden’s municipalities are in demographic decline\(^{26}\) and research about local adaption measures are not found in abundance; the reason might be that it is not the simplest task to undertake. Even if the funding is granted the local politicians is indeed PR-conscious and knows the value of a good municipality reputation. Research on development and growth in demographically strong areas is on the other hand more frequent. Researchers at Centre for Municipality Studies (CKS) at Linköping University is one of the institutions that partly focuses on this subject regarding strategies for shrinking municipalities and has published interesting findings; partly regarding in what way a local adaption could be implemented through politics. A study shows that central issue is not that these municipalities refuse to adapt or make necessary changes – but that they tend do it in a problematic way. Necessary measures are often implemented in a late stage, they are event-driven, costly and risks being suboptimal.

To make a deeper understanding easier, the definition of local adaptation policies can be divided into two concepts. Adaption which focuses on the measures taken by the municipality to adapt to, for example a shrinking population and politics that clarifies the separation of the three spheres of business, politics and civil society since the study was conducted from a municipal-official perspective. This also means that the study is rooted in visions and ideas from politically controlled institutions\(^{27}\). However, interviews in the study presented a reality where both municipal officials and politicians agreed upon that the local politicians avoid talking publicly about adaption politics since it is coupled with cuts in the budget and have a negative connotation\(^{28}\). This means that the work regarding the formation of adaption measures is done primarily by municipal officials and the interviews also shines light on a democratic issue where the citizens are neglected information and a fair chance to shape their society – but that’s for another study. Figure 1 presents suggestions of local adaption measures based on documents, interviews and focus group discussions in five shrinking municipalities in Sweden.


In 2016, a report was published that connected theoretically to the relevant adaption element. The data was based on 23 interviews with emergency rescue coordinators from all of Sweden’s 21 counties. Given the question “What do you see as the greatest challenge for your county on the basis of the term incident site, today?” the emergency coordinators presented a picture of the situation which was characterized by the need for personnel, expertise, cooperation and resources. These results were representative of the overall picture of the situation in all of the counties. However, local priority differences exists in relation to the distance, response time and road networks inside the mainly countryside counties and municipalities. These are classified as a more imminent and greater challenge than in urban areas.

2.6. The resident needs in a municipality in demographic decline

The results of the study Trygghetsskapande åtgärder för landsbygden, TÅLA (Safety-building measures for the countryside) shows a situation where some rural villages do not reach the critical population mass needed to maintain a functioning welfare system. In practice, this has led to a parallel welfare system where the individual at best health had the greatest responsibility of the village residents according to a respondent from National Pensioners organization (PRO). The perceived security is based more on local collaboration in the village than in the municipal emergency response staff’s ability. Residents, however, showed good and important awareness regarding the expectations of the police and ambulance current response times and local knowledge etc. Other studies points out that rural or in other ways isolated villages have the beneficial variable of high social capital within the community. In practice, this means that the residents have strong social networks and a comprehensive understanding of the community’s inner workings. Residents in rural areas have the same need for security and protection as those living in urban areas but have other solutions within areas where the traditional welfare state does not achieve the desired results to a certain limit. The TÅLA project showed a higher accident rate per capita referring to developed fires, traffic accidents and medical care-days in rural areas in comparison with urban areas, this is a quantitative argument to push for more resources and points to a real need. In summary, researchers believe that enabling a symbiosis between the traditional blue-light organizations and local security/protection structures is important. In practice this means that existing structures that exists among both residents and various organizations are used to greatest benefit. This includes the local knowledge, the resources and the commitment that exists.

3. Analytical framework

The analytical framework implemented in this study is based on research findings regarding different factors that contribute to an effective cooperation between municipal emergency rescue services and civil volunteers. Based on relevant research findings, a valuable knowledge base is available to implement when conducting research regarding cooperation in the subject of cooperation criteria regarding central problems. The following framework is intended to highlight the crucial factors regarding cooperation organization and the volunteer’s basic requirements to become an effective resource. The sub-parts of the framework are partly integrated with each other but the separation in the following presentation contributes to the depth of the analysis 34,35.

- Long-term thinking should characterize the formation of the cooperation structure. This takes the practical form of working with measures to build trust and a deep understanding of the cooperation among the different actors. The cooperation benefits greatly from the identification and involvement of enthusiasts and key-individuals in both actors’ organizations. A good relation between the enthusiasts and key-individuals in both actors’ organizations is desirable.

- Initial education of volunteers before they are included as a dispatching unit is of great importance. Education and training should play a central role throughout the cooperation process - not only initially, but regular exercises and feedback on them is paramount.

- Volunteers need access to basic and practical equipment. This includes defibrillators, first aid materials, reflective jackets, blankets, fire extinguishers, means for squelching of road accidents and mark and a checklist of tasks description and other instructions.

- Clarifying the volunteers’ mission is among the most important criterion for a successful implementation. This means ensuring that all actors know both what to do, what not to do and also what is expected of them on the accident site. The mission statement needs to be all-encompassing; dispatching, acknowledging alarms, actions at the accident scene and how to evaluate the events should be as clear as possible.

- The cooperation form must be compatible with the laws and regulations in the field. Operators must also have protection in the form of insurance at the scene. An overview of this should characterize the decisions taken in the establishment of the cooperation.

- IT-solutions are fundamental for the cooperation to run smoothly. This needs to be implemented and gradually developed to fit the users. By using smartphones, relevant features can be implemented; this means a number of crucial and useful tools. Volunteers need to be located, dispatched, and recalled if necessary in a simple and effective way, in addition to these primary functions there should be functions for communication, information, and checklists. As presented before, volunteers should be able to evaluate

Using volunteers in emergency response – Municipalities, civil society and emergency rescue services

The rescue effort afterwards, this function could also be implemented in what researchers recommend would be a smartphone app.

- Feedback is also paramount after real accidents for mainly three reasons. The feedback given after each alarm that volunteers are dispatched on is fundamental for the development and improvement of the cooperation organization (1) and to gradually clarify the mission (2), as well as for the volunteers the possible need to process the event (3).

- As an overall approach, any implementation, development, or planning should be based on the users’ perspective.

4. Methodology & data collection

This study is based on the principles of a case study[^36] regarding the research method since previous research results forms the analytical framework that is then applied on two separate cases. Two semi structured group interviews[^37] were conducted, one with officials from Södertörn Firefighting Union which operates in the southern municipalities of Stockholm and one with officials from The Fire and Rescue Service Syd which operates in the municipalities of Burlöv, Eslöv, Kävlinge, Lund and Malmö in the south of Sweden. Each case will be presented separately starting with Södertörn Firefighting Union. A core focus when compiling the results is on the relation between the previous research results that is the analytical framework to its real-life context using a descriptive approach to the data collected[^38].

5. Data

5.1. General summary

The environment and context in which the two cases operate in differ in many ways; Södertörn Firefighting Union directs the focus of their project on the southern suburbs of Stockholm which by no means can be categorized as countryside or a rural area. However, cooperation with civil society serves an important purpose; the cultural- and social distance between the civil society and the emergency rescue service is sufficiently noticeable for action to be taken. By involving prominent members of the local societies (cultural, religious etc.) in the emergency rescue services work, Södertörn Firefighting Union strives to build positive long-term relations with the locals. This hopefully serves a preventative purpose to stop car fires etc. to be lit in the first place but also as a mean for improved communication and information flow. A case in point that reflects the situation presented by previous research is found in southern Sweden. In the municipality of Eslöv the Fire and Rescue Service Syd is conducting a cooperation project with civil society to raise the level of protection and safety on the countryside. By evolving current relations with the societies in rural villages the Fire and Rescue Service Syd plans to dispatch volunteers as first person responders on every day accidents. Apart from these differences, both projects face similar challenges regarding cooperation organization, IT-solutions, education and training etc.

5.2. **Södertörn Firefighting Union**

Officials from Södertörn Firefighting Union sees a need to shorten the cultural and social distance to some of the citizens in their area of operation; the response time or a need of resource efficiency is not the key issues. This will be done by strengthening and involving local prominent individuals, such as religious leaders, sports coaches or other individuals who are judged to be role models. Their mission was clear; they will act as first responders and perform preventive work. They will serve an important role as a link between the emergency rescue service and the society, and also facilitate communication. Given the question "*Are there any actions that these volunteers should not initiate?*" the answer was clear; there are no actions that these volunteers can not initiate if there is no risk of explosions or need for special protective gear (chemical leakage etc.). The training and exercise will give the volunteers the courage to act and perform the action correctly. Volunteers will receive training in how to handle fire extinguishers, procedures on how to put out car fires, drowning accidents, CPR and cardiac arrests. An important approach for all actors is humility and mutual respect towards each other; both parties have things to learn from each other to optimize the education as a whole. The education is thereby important for both the volunteers and the emergency rescue service. Figures regarding the number of volunteers per training opportunity mentioned were 8-12. Response exercises in the local neighborhoods are desirable from the rescue service. Education and training is highlighted as the most important factor for an effective and secure cooperation.

After the training and exercises, the volunteers need to be equipped with relevant gear and provided technology solutions in order to be able to be dispatched to an incident. A backpack-kit containing basic emergency equipment will be designed and funded by Södertörn Firefighting Union and provided to the volunteers. In order to identify these volunteers at an accident site they will wear alert vests. Regarding means of dispatching and communication; Södertörn Firefighting Union is currently internally using a privately owned app as well as the Trygve app, which is also privately owned, which means that there is a greater cost for purchasing a user license. The challenge is to make the selected app easily accessible and user-friendly while providing a range of necessary features. If there is a car fire within a specific area, all volunteers within the area will be alerted with information and location of the emergency site. The rescue service will not be selective regarding which persons are dispatched in addition to geographical location. In theory, individuals with different education should be able to be alerted and dispatched to different events - this is something that has proved difficult in practice. One problem is that the information from the caller is too unreliable - meaning that it is very difficult to determine the magnitude of the event. A serious responsibility issue will emerge if the event turns out to be significantly worse than first assessed. A recall function of volunteers was deemed desirable if an emergency site develops into a situation in which they should not be present. Södertörn Firefighting Union will work according to the principle one size fits all regarding education and exercises. A key need from the emergency services side to ensure efficient deployment is that SOS Alarm redraws the area maps currently used. GPS triangulation of the damage site is highly desirable for effective dispatching of volunteers.

Södertörn Firefighting Union is aware of that evaluation of everyday accidents and small fires have to be standardized, currently only major events are evaluated. New information may include measurement of used quenching water at car fires for an environmental point of view since the water is contaminated and flows straight into both nature and local wells. The report and evaluation systems need to be improved in order to create more specified and quantifiable data such as number of fires or response times. However, qualitative data must not be forgotten, the idea of the project is
partly to create better relations with the citizens of the suburbs, which must be evaluated. The meeting between residents and the emergency rescue service must be done in a good way that results in mutual respect to build trust and commitment. This requires standardized processes and procedures regarding how the rescue personnel act around and greet for example religious leaders, elders or children and adolescents – without impairing the outcome of the operation. Criticism against the new recruitment forms is evident; it appears that the firemen’s trade union only wishes to see recruitment of personnel from the SMO-program\textsuperscript{39}. However, the civilians involved will not be employed in any way but will only be involved on a voluntary basis. A legislative amendment may be necessary to ensure that the form of cooperation does not contravene the Act on Protection against Accidents. Important to remember is that the success of rescue efforts does not depend on the actions of volunteers, but the cooperation is designed to facilitate the emergency rescue service and to conduct preventive work.

Södertörn Firefighting Union has partially solved the insurance question for the volunteers in the form of accident insurance through the fire protection association. A liability insurance solution needs a deeper analysis. The cost of these shall not be paid by the volunteers without the rescue service or the municipality is responsible for this. The municipalities’ position on the project at present is unclear regarding funding; Södertörn Firefighting Union however, expects the municipality to support the project when it is more established. The costs that Södertörn Firefighting Union expects to pay do not constitute a financial strain. These costs consist primarily of materials and insurance premiums and are estimated to be small sums against what the cooperation form provides.

5.3. The Fire and Rescue Service Syd
The Fire and Rescue Service Syd have a tradition of cooperation with the village called Billinge where the response time for the fire and rescue service is around 20 minutes. The fire and rescue service perceived a need from the residents in Billinge and surrounding villages to get more help which led to a project called \textit{Utbilda en hel by} (Educate a whole village) and is now a annually recurring event. The focus is on the meeting with local residents and informing them regarding fire safety and preventive work. During the span of a few days each year, the fire and rescue service has contact with around 400-500 individuals in the village and dedicating some days to only focus on elders or children etc. This project, which has been undergoing for about seven years and has performed allegedly 70,000 meetings in total since the education form has spread to other areas. The project serves as a fundamental platform to evolve and expand the cooperation with civil society. The potential for further forms of cooperation is therefore very good according to The Fire and Rescue Service Syd. In addition, according to The Fire and Rescue Service Syd, the residents of Billinge want people to move there, the collaborative form may affect this positively as safety in general is likely to be strengthened.

\begin{flushright}
\textsuperscript{39} Myndigheten för samhällsskydd och beredskap (MSB). \textit{Skydd mot olyckor och arbeta med räddning och säkerhet} (2014). Publication-ID: MSB 0003-09
\end{flushright}
The Fire and Rescue Service Syd has educated and trained 22 enthusiastic volunteers in a further developing step from the foundation project *Utbilda en hel by* in fire extinguishing and CPR, the next step will be to educate these in how to use defibrillators. The education should ensure that volunteers do not harm themselves, dare to act and respond to alarms. At present, there is no way for The Fire and Rescue Service Syd to implement these volunteers in rescue efforts within or around Billinge since tools of dispatching the volunteers is non-existent. The broadening of the cooperation form is dependent on that such a function is being developed and implemented. The technical solution for dispatching the volunteers is currently largely affected by SOS Alarm's attitude to the cooperation form; more pressure is needed from the emergency rescue service to drive the developing process forward. Statistics from other evaluations and reports can be used as a decision base in this process. Regarding education form, it is clear that the emergency rescue services desires to both go out to the volunteers for training and exercise as well as that the volunteers visits the station in order to provide deeper knowledge, understanding and hopefully build positive relations. The rescue service is aware that there are other social structures in rural areas than in urban areas, cooperation already has a more prominent role on the countryside. Cooperation facilitates residents' ability to influence their own security situation and strengthens the local social structures as well as the willingness of individuals to, for example, save their house to the best of their ability. Regarding equipment, The Fire and Rescue Service Syd has bought a fire locker and filled it with the necessary equipment, a cost of which The Fire and Rescue Service Syd decided to pay. This locker is placed in a suitable location in the village. It is very important that there are quantitative data to evaluate regarding the results of the cooperation, if the results are positive they can function as the basis of information in the discussion for financial support from municipalities or county councils.

A volunteer fire department has existed in the area but was terminated due to economic reasons. The Fire and Rescue Service Syd is aware that there is a risk that the cooperation form can be interpreted by the villagers as they are being abandoned by the rescue service - this must not occur as it may negatively affect the form of cooperation. The rescue service is also open to involving people who focus only on specific target groups, for example, with elderly or involving people who have the desired language skills for communication purposes. The Fire and Rescue Service Syd also points out a problem that exists regarding the handling of accident site when the emergency service has arrived. According to the education given to the Sweden’s Civil Contingencies Agency’s (MSB) SMO-program, the scene of the accident is locked off after the rescue service has taken over and commenced its standardized work. This proved to be problematic for instance at the mosque fire in Malmö 2003 where a large number of people wanted to help. However, it is all defended by the rescue service being professionals and potential volunteers risking their own and others' safety as well as being in the way of the rescue service. A standardized policy needs to be reworked and implemented regarding this subject, for everybody’s best.
6. Results
Despite that the two cases having different purposes with the cooperation forms with civil society the results shows that the approaches are indeed similar and the interviews showed similar needs, questions and solutions from the emergency rescue service. While the situation in Stockholm is in need of gap-closer regarding social and cultural distance, the cooperation in Billinge a solution to the response time affecting the safety on the countryside. Apart from these differences, the challenges are the same regarding the emergency rescue service cooperating with civil society. Looking back at the analytical framework it is clear that the core problematic and questions are identified correctly by previous research. To structure the analysis, each part of the framework will be analyzed separately to provide clear presentations on how they were- or were not- met.

- **Long term thinking**
The individual volunteer that has been, or plans to be involved in the cooperation are all prominent and/or enthusiastic members of the local society or has a strong drive to improve the situation. This connects to the frameworks criterion for long-term thinking along with the emergency rescue departments wish to not only train and educate the volunteers on site in the local areas but also to bring them to the station- hopefully resulting in a relation-building experience.

- **Education and training**
The education and training was presented by both emergency rescue services as fundamental for the cooperation’s success. While one project had already started the education and training of the 22 volunteers, the other one had not- but showed an important understanding of its value and suggested groups of 8-12 individuals to be educated at the same time. In both cases the education and training will include fire extinguishing, CPR and cardiac arrest. Södertörn Firefighting Union also plans to include education and training for the volunteers to handle drowning accidents.

- **Equipment and funding**
Both Södertörn Firefighting Union and The Fire and Rescue Service Syd have taken upon themselves to fund the equipment for the volunteers but have somewhat different solutions. Södertörn Firefighting Union is planning on putting together a backpack-kit for each individual volunteer while The Fire and Rescue Service Syd has decided to fill a fire locker with the essential equipment and placed it on a suitable location inside of the village. All of the volunteers have access to the equipment inside.

- **Clarification of the volunteers’ mission**
Regarding the clarification of the volunteers’ mission, Södertörn Firefighting Union made it clear that the volunteers will act as first responders and perform preventive work. The volunteers will be able to be dispatched to any non-extraordinary kind of emergency that is under the jurisdiction of the emergency rescue service. Further clarification of the actors’ mission is needed regarding standardized processes on the accident site since every actor should have a clear understanding of what they can and can’t do as well as an understanding of the other actors responsibilities are. Since The Fire and Rescue Service Syd aren’t dispatching any volunteers at present, there has been no clarification regarding their mission.
or responsibilities yet. In general however, the volunteers will function as first responders and will not replace the emergency rescue personnel in any way.

- **Law and insurance**
  The Swedish Act on Protection against Accidents is an important factor in forming any cooperation regarding emergency rescue operations. None of the separate projects has yet ensured that the cooperation form is consistent with this regulation act which means that adjustments might have to be implemented. Criticism of the cooperation form has been heard from the firemen's trade union, it remains to see if it has any legal weight to it or is pure dissatisfaction. The volunteers also need insurance on the accident site, The Fire and Rescue Service Syd has not yet come to the point in the implementation process where the insurance question is of central importance. Södertörn Firefighting Union has partially solved the insurance question for the volunteers in the form of accident insurance through the fire protection association. A liability insurance solution needs a deeper analysis.

- **IT-solutions and means of dispatching**
  None of the projects currently have an active way of dispatching the volunteers; Södertörn Firefighting Union is however prepared to invest in additional software licenses in order to be able to use well established ways of communication already in use internally within the organization. Further research regarding the development of smartphone applications will be highly beneficial for an effective solution. The Fire and Rescue Service Syd experience an organizational resistance from SOS Alarm regarding dispatching of volunteers to an accident site.

- **Means of feedback and evaluation**
  Officials from both departments showed a clear understanding of the value and importance that feedback from the volunteers well as quantitative evaluation results potentially has. At present, continuous evaluations are not done on everyday accidents which mean that a system needs to be developed to handle this information. Furthermore, since no real-life dispatching of volunteers has been done, no proper data has yet been produced.
6.1. Table with overview of the results

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<tr>
<th>Long term thinking</th>
<th>Education and training</th>
<th>Equipment and funding</th>
<th>Clarification of the volunteers’ mission</th>
<th>Law and insurance</th>
<th>IT-solutions and means of dispatching</th>
<th>Means of feedback and evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Södertörn Firefighting Union</strong></td>
<td>Plans to cooperate with prominent members of the local society. Good relations and mutual respect.</td>
<td>Plans to focus on reciprocally education and training. Groups of 8-12 individuals per session. Fire extinguishing, car fires, CPR, cardiac arrest, and drowning accidents.</td>
<td>A backpack-kit for each individual volunteer. Södertörn Firefighting Union will fund the equipment.</td>
<td>First responders and preventive work. Volunteers will be able to be dispatched to any kind of emergency. Further clarification is needed.</td>
<td>Need a deeper analysis of the laws and regulations. Accident insurance through the fire protection association. No liability insurance yet.</td>
<td>None active. Prepared to invest in additional software licenses or app-development. Showed a clear understanding of the value and importance. Routines and a system need to be developed to handle this information.</td>
</tr>
<tr>
<td><strong>The Fire and Rescue Service Syd</strong></td>
<td>Cooperation with enthusiastic members of the local society. Had a great network due to previous education. Currently educate and train 22 volunteers in fire-extinguishing, CPR and cardiac arrest.</td>
<td>Fills a fire locker with the essential equipment, placed inside the village. The Fire and Rescue Service Syd will fund the locker and equipment.</td>
<td>None. Further clarification is needed.</td>
<td>None. Need a deeper analysis of the laws and regulations. No insurance yet.</td>
<td>None active. Experiencing an organizational resistance from SOS Alarm. Showed a clear understanding of the value and importance. Routines and a system need to be developed to handle this information.</td>
<td></td>
</tr>
</tbody>
</table>
7. Analysis

While the general situation of the municipalities in demographical decline is not a simple challenge to undertake, it exist some practical manifestations of the theoretical solutions presented by previous research. One of these solutions is cooperation with civil society which also has potential to fill the needs of the emergency coordinators in Sweden’s counties (personnel, expertise, collaboration and resources). Interestingly, this study confirms the concerns that only officials conduct work with adaptation measures such as those in this study. However, these officials are not employed by the municipality as in the example in the previous research but the concept is the same – the municipalities’ political leadership is one step behind in the process of long-term adaptations. The analytical framework provides important factors to a cooperation success; however the definitions are broad in the sense that there are different ways to achieve them. This gives the actors within the projects space to solve them in their own way. These projects are very interesting as they provide more data regarding different variations and practical solutions to theoretical problem formulations. The projects are undoubtedly in an early start-up phase, which means that a lot of challenges still remain to be solved. The willingness to act and initiate cooperation with civil society is however great and the projects have clear goals and aims of the cooperation with civil society. Based on the results, we see that the projects in some cases share approaches, problems and solutions while in some cases they’re not. Regarding the education form, Södertörn Firefighting Union is planning a more comprehensive education, such as handling drowning accidents. This can theoretically prove very useful as a rescue effort at a traffic accident can be very different from other situations regarding setting up road blocks, handling other road users and fire hazards. Since the education and training will provide the volunteers with the knowledge and guts to act, the more throughout the education and training are the better, at least in theory. A difference between the two projects regarding how they will use the volunteers’ individual skills and preferences is palpable. While The Fire and Rescue Service Syd is open to look closer at the individual preferences of the volunteer regarding its involvement in the cooperation, Södertörn Firefighting Union will work according to the principle one size fits all. The Fire and Rescue Service Syd will accept a theoretical situation where some volunteers might only want to work with a specified group or function as a translator. Both emergency rescue services will pay or already have paid for the volunteers’ equipment, thus not relying on the municipality for extra funding at the initiation phase of the projects. However, both projects plan to approach the respective municipalities in order to obtain financial resources in the future. The Fire and Rescue Service Syd experience an organizational resistance from SOS Alarm regarding dispatching of volunteers to the accident site, however, this has not been any problem what so ever in the previous research conducted in Medelpad or for the current project in Stockholm, and further investigation is needed to pinpoint exactly why there is a resistance in this case. While there are a number of options of IT-systems for communication, dispatching and feedback- all of them need to be reworked and developed to fit the cooperation needs.
8. Further research

In order to form an efficient program for cooperation with civic society in emergency rescue operations, analysis of practical solutions is highly valuable for researchers. Despite the early stage of the projects analyzed in this paper, the results already show examples of different solutions, strategies, challenges as well as reciprocal ones. By following the evolution and progress of these projects (or similar ones), researchers can compare the different approaches and solutions and help the projects in situations where (if) they encounter serious problems, as the situation might already have been solved in another project. For instance The Fire and Rescue Service Syd’s situation with SOS Alarm regarding dispatching volunteers, this problem has not occurred in any other project – why is that and what are the differences? The general objective is to find efficient ways of cooperation that can easily be implemented in municipalities that do not have the resources to experiment themselves. Clarification needs to be done regarding the legal position that these cooperation forms operate within as well as a solution for liability insurance in order to protect the volunteers. In order to maximize the use of civil volunteers once they have been given the basic education and training, more research, education and training needs to be done that focus on specific situations e.g. traffic accidents - connecting to and elaborating previous research projects.
9. References


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Emil Thessén

Using volunteers in emergency response – Municipalties, civil society and emergency rescue services


**Figure**