

Governance forms regarding municipal services in crisis management

A transaction cost approach



Governance forms regarding municipal services in crisis management

A transaction cost approach

Master's thesis Public Administration 2015/2016

University of Twente

Student: Sander Verheij

Student number: s1535404

Master's program: Public Administration - Public Safety

First supervisor: dr. A.J.J. Meershoek

Second supervisor: dr. P.J. Klok

External supervisor: drs. J.J.M. de Brouwer

External organization: municipality of Oost Gelre

Date: 09-12-2015

Summary

The Safety Regions Act is the statutory basis which describes responsibilities of organizations involved in crisis management in the Netherlands. The Safety Regions Decision is an elaboration of the Safety Regions Act and sets quality requirements for those organizations. Municipalities are responsible for informing the population, the provision of shelter and care, the provision of aftercare, victim registration, and damage registration during or after a disaster or crisis. How to perform these municipal services in crisis management is up to municipalities.

The research for this thesis was commissioned and facilitated by the municipality of Oost Gelre. The main research question in this thesis reads 'which governance forms are suitable for the municipality of Oost Gelre to perform municipal services in crisis management, taking into consideration its position within the Security Region Noord- en Oost-Gelderland?' In the theoretical framework three main governance forms are distinguished which determine how products or services are produced or delivered. Market governance essentially means buying products or services from a seller. In hierarchical governance, products or services are produced or performed by an organization itself, in this case a municipality. Finally, network governance basically refers to producing or performing services in cooperation with (multiple) other organizations. According to transaction cost theory, which governance form is the most suitable depends on conditions of asset specificity, uncertainty, and frequency. In addition to these three variables, resources and the concept of public transaction are included.

Five interviews with public safety officials including municipal public safety officials and a regional crisis communications expert were conducted to assess conditions regarding municipal services in crisis management. Results indicate that crisis communication involves high levels of asset specificity and uncertainty. While frequency can be considered to be quite low, crisis communication must be activated within half an hour after a disaster or crisis. Therefore, preparedness is necessary. A network governance approach enables municipalities to share resources, expertise and experiences, and facilitates learning. The provision of shelter and care does not involve a high level of asset specificity or a high level of uncertainty regarding tasks. Uncertainty is present in the sense that the provision of shelter and care is time-sensitive, dependent on the population, and should be close by. To provide shelter and care, municipalities should create relational contracts or framework agreements regarding possible shelter locations to reduce uncertainty. The provision of aftercare is completely customized to a municipality and a particular disaster or crisis. Specialized resources are necessary and tasks are difficult to specify beforehand. A network governance solution enables municipalities to share specialized resources (i.e. trained professionals) regionally and learn from each other's experiences. Besides, external parties which are likely to be involved can be incorporated in network governance as a governance form. Damage registration is considered a part of aftercare and fits well into a network governance approach. Victim registration – in which the emphasis is on informing relatives or acquaintances of victims – is carried out by external organizations, while responsibility still lies with municipalities. A nationwide system covering victim registration has been developed after a ministerial decision. For municipalities it is important to maintain a good line of communication with the organizations involved in the nationwide system, to make sure the system performs well. A network governance approach is most suitable to achieve this, as well as possible changes or customizations to the system.

This thesis serves as a confirmation of how municipal services in crisis management are currently performed within the Security Region Noord- en Oost-Gelderland. Resource pools have been created to share resources on a supralocal and regional level. For the municipality of Oost Gelre, this has decreased the number of crisis positions and therefore the demands in terms of resources. Municipal services in crisis management could theoretically be regionalized further, but this would arguably be a political challenge.

Preface

This master's thesis marks the end of my time of a student. After obtaining an HBO degree I decided that I wanted to continue studying to develop myself further. A master's program in Public Administration was the most obvious yet my preferred choice following my previous education. Looking back, I am really happy with the choice I made. I achieved what I set out to do and that gives me great satisfaction.

Of course I need to thank several people for supporting me. First of all I want to thank Arjan de Brouwer for giving me the opportunity to write my master's thesis for the municipality of Oost Gelre. Also, I want to thank my supervisors from the University of Twente – dr. Guus Meershoek and dr. Pieter-Jan Klok – for their constructive feedback and their flexibility in supervising my master's thesis. Finally, I want to thank my parents for supporting me regardless of my choice of studies.

Sander Verheij

Nijverdal, December 9, 2015

TABLE OF CONTENTS

| | |
|---|----|
| 1. Introduction | 6 |
| 1.1 Background information | 6 |
| 1.2 Research question and sub-questions | 7 |
| 1.3 Objective | 8 |
| 1.4 Conclusion | 8 |
| 2. Theoretical framework | 9 |
| 2.1 Governance forms | 9 |
| 2.2 Operationalization..... | 12 |
| 2.3 Conclusion | 15 |
| 3. Research design | 16 |
| 3.1 Methodology | 16 |
| 3.2 Conclusion | 17 |
| 4. Crisis management | 18 |
| 4.1 Crisis management in the Netherlands | 18 |
| 4.2 Municipal services in crisis management | 19 |
| 4.3 Responsibilities and organizations | 20 |
| 4.4 Conclusion | 22 |
| 5. Municipal services in crisis management | 23 |
| 5.1. A closer look at the services | 23 |
| 5.1.1. Informing the population..... | 23 |
| 5.1.2. Provision of shelter and care | 24 |
| 5.1.3. Provision of aftercare..... | 24 |
| 5.1.4. Victim registration | 24 |
| 5.1.5. Damage registration | 25 |
| 5.2. Different levels and organizations..... | 26 |
| 5.3. Positions in municipal services in crisis management..... | 27 |
| 5.4. Resource pools | 27 |
| 5.5 Conclusion | 28 |
| 6. Conditions regarding municipal services in crisis management | 29 |
| 6.1 Municipality of Oost Gelre | 29 |
| 6.2 Crisis communication | 29 |
| 6.3 Providing the population with shelter and care | 31 |
| 6.4 Providing the population with aftercare | 32 |

| | |
|---|----|
| 6.5 Victim registration | 33 |
| 6.6 Conclusion | 34 |
| 7. Governance forms for municipal services in crisis management | 35 |
| 7.1 Municipal services in crisis management for Oost Gelre | 35 |
| 7.1.1. Crisis communication | 35 |
| 7.1.2. Providing the population with shelter and care | 36 |
| 7.1.3. Providing the population with aftercare..... | 36 |
| 7.1.4. Victim registration | 36 |
| 7.2 Positioning within the Security Region Noord- en Oost-Gelderland..... | 37 |
| Bibliography..... | 39 |
| Appendix: interview questions..... | 41 |

1. INTRODUCTION

This introductory chapter provides background information on the thesis, research questions, and objective for this thesis.

1.1 BACKGROUND INFORMATION

The Safety Regions Act which entered into force on 1 October 2010 is the statutory basis for disaster and crisis management in the Netherlands. It describes responsibilities and duties of parties involved in crisis management. The Safety Regions Decision is based on the Safety Regions Act and sets quality requirements for the organizations in the security regions (Ministry of Security and Justice, 2013). In case of a disaster or crisis, municipalities are responsible for what is called 'bevolkingzorg' in Dutch. In English, I refer to municipal services in crisis management. According to section 2.1.3 of the Safety Regions Decision, those municipal services in crisis management consist of the following six tasks:

- informing the population
- providing the population with shelter and care
- providing the population with aftercare
- victim registration
- damage registration
- advising the 'regional operational team' (ROT)

The Dutch government (n.d.) on its website describes municipal services in crisis management as:

Behind the scenes, several municipal services play an important role in disaster response, especially when it comes to the after-effects. If whole streets or neighbourhoods have to be evacuated, for instance, the municipality is responsible for the residents' immediate welfare. Municipal services will assist in other practical ways, such as providing food and temporary shelter; they may also offer psychological care. In addition, the municipality will register the victims and may help them with uninsured damage.

While duties and responsibilities are laid down in primarily the Safety Regions Act and the Safety Regions Decision, there are no formal directives or requirements on (how to organize and perform) municipal services in crisis management. Over the years there have been informal guidelines which have shaped municipal services in crisis management policy. Evaluations have shown that the provided services have not always been adequate (Veiligheidsberaad, 2014). Furthermore, there are questions about what constitutes adequate municipal services during disasters or crises.

Over the last two years, a committee consisting of professionals and scientists has been involved in formulating guiding performance requirements for municipal services in crisis management. Also, recommendations have been made to adapt them to today's society and its needs (Veiligheidsberaad, 2014). While the 'how' question is only discussed very briefly, one of the considerations is that municipalities do not necessarily need to perform all services or processes themselves, even though they are politically responsible. If other parties are better equipped, they should be considered. In other words, with the ongoing developments in municipal services in crisis management, now is a good time to reflect on the way in which they are performed and by whom. To do this I will draw on the concept of governance forms and transaction cost theory.

This thesis has been written following an external research assignment facilitated by the municipality of Oost Gelre. Oost Gelre is a municipality located in the eastern part of the Netherlands with some 30.000 inhabitants. It is a part of the 'Achterhoek' region in the province of Gelderland. With regard to municipal services in crisis management and other public safety matters, the municipality of Oost Gelre is a participant in the Security Region Noord- en Oost-Gelderland, which consists of 22 municipalities.

1.2 RESEARCH QUESTION AND SUB-QUESTIONS

The main research question follows from the problem introduction and description above. It features the core issue and the geographical and administrative context in which the research project is conducted. Based on the main research question, four sub-questions have been formulated that necessarily need to be answered to eventually be able to answer the main research question. The main research question reads as follows:

Which governance forms are suitable for the municipality of Oost Gelre to perform municipal services in crisis management, taking into consideration its position within the Security Region Noord- en Oost-Gelderland?

Sub-questions include:

- What are the tasks, responsibilities and required resources of municipal services in crisis management?

This first sub-question deals with municipal services in crisis management. They are examined in terms of the tasks they entail, the resources that are required and the responsibilities that come with municipal services in crisis management.

- What kind of governance forms are there and which conditions favor one over another?

While this sub-question refers to theoretical concepts and academic literature, it is explicitly included. The multiple governance forms that are distinguished in the academic literature are described and compared.

- Under which conditions are municipal services in crisis management performed within the Security Region Noord- en Oost-Gelderland?

This sub-question is used to empirically assess the conditions surrounding municipal services in crisis management. The academic literature discussed in the theoretical framework provides variables to measure conditions under which certain governance forms are more suitable than others. In order to establish which governance form is most suitable, those conditions need to be measured empirically.

- Which governance forms are suitable for the municipality of Oost Gelre to perform municipal services in crisis management?

This last sub-question concerns a conclusion and a recommendation simultaneously. They follow from the insights gathered in answering the previous sub-questions. Recommendations are aimed at the municipality of Oost Gelre, but may be relevant to other municipalities and organizations as well.

1.3 OBJECTIVE

The objective of the thesis is to provide the municipality of Oost Gelre with an academically solid report on governance forms regarding municipal services in crisis management. The thesis will feature recommendations following the research results. Since other municipalities and the Security Region Noord- en Oost-Gelderland are involved in the research process, the final report is likely to be relevant for those organizations as well.

1.4 CONCLUSION

In this first chapter background information on this thesis has been provided, as well as the main research question, which reads 'which governance forms are suitable for the municipality of Oost Gelre to perform municipal services in crisis management, taking into consideration its position within the Security Region Noord- en Oost-Gelderland?' Furthermore, sub-questions have been formulated and an objective has been given. In the next chapter the theoretical framework for this thesis is presented.

2. THEORETICAL FRAMEWORK

In this chapter the theoretical framework is outlined with a discussion of governance forms and transaction cost economics, resulting in a comparative framework for assessing different governance forms. Thus, the sub-question 'what kind of governance forms are there and which conditions favor one over another?' is answered. Subsequently, the operationalization of variables is explained.

2.1 GOVERNANCE FORMS

In the academic literature on (economic) organization, generally three governance forms or modes of governance are distinguished. These governance forms are market governance, hierarchical governance and network governance (Powell, 1990; Van Kersbergen & Van Waarden, 2004). Such governance forms refer to the coordination mechanisms relating to the way in which products are produced or services are delivered. Market governance relies on exchange of products or services for money, based on contracts or deals between buyers and sellers. Furthermore, market governance features the elements of competition and non-fixed relations between buyers and sellers. Hierarchical governance refers to decision making about what to produce and how to allocate resources within a firm or organization. Hierarchical forms of coordination include the state, but an organization as such – whether governmental or commercial – is an example of hierarchy. An organization - or firm - is essentially a group of people working together to achieve certain goals or represent certain interests. Responsibilities are divided between departments or employees, while there is usually a management or at least a manager that makes decisions about what to do, when and how. Within organizations, there is a relationship between employee(s) and boss or management. In the case of the state as an example of hierarchy as a governance form, there is a relationship between the state/government and citizens. The third mode of governance is that of network governance. Network governance refers to autonomous actors (e.g. organizations) developing stable, durable relations between each other to be able to cooperate on a certain topic or issue. Coordination in networks takes place through negotiation and consensus building. Networks can comprise of public organizations, private organizations or a mix of them (Van Kersbergen & Van Waarden, 2004). Important elements of network governance – and networks as such – are the exchange (or pooling) of resources and mutual benefits for network members. Network governance is particularly suitable for information sharing, learning and the exchange of goods or services whose value is not easily measured like technical knowledge or skills (Powell, 1990). Without disregarding the complexities involved, market governance basically refers to the purchase of goods or services, hierarchical governance refers to producing products or services in an organization, and network governance refers to cooperation in production or service delivery. In other words, buy, make or cooperate.

Powell (1990) provides some key differences between market governance, hierarchical governance, and network governance. In market governance, contracts are the normative basis, while in hierarchical governance activities or transactions are based upon employment relationships. In network governance, transactions are based upon complementary strengths, mutual interests and relationships. The main means of communication are prices, routines and relational aspects respectively. Conflict resolution in market governance is done through negotiation and ultimately court action. In hierarchical governance there is administrative fiat and supervision, while in network governance reciprocity and reputational concerns guide conflict resolution. Finally, in market governance the degree of flexibility is high due to the possibility to switch partners. In hierarchical governance such flexibility is considered low, while the degree of flexibility in network governance is considered medium.

Building on institutional legal theory, Ruiters (2005) examines transaction cost economics with regard to governance forms. He usefully distinguishes between contract and transaction. Some contracts are actually transactions, while other contracts are actually relations. A typical transaction is when the expression of mutual assent and the act of exchanging meet, for example when buying petrol at a petrol station. This is an 'on the spot'-exchange. Other contracts are actually relational contracts referring to long-standing relationships between businesses or between suppliers and customers. Here, mutual assent is separate from subsequent exchanges (Ruiters, 2005). The legal perspective emphasizes and clarifies the distinctive features of market governance and hierarchical governance, with hybrid forms being situated in between. A transaction in market governance is a discrete, momentary exchange, while relational contracts in hybrid governance forms create what Ruiters (2005) calls 'enduring exchange regimes'. From a legal point of view, there is no real exchange or transaction in hierarchical governance. Rather, hierarchical governance is based on employment relations, authority and property rights. Ruiters (2005) therefore replaces contract by assignment and exchange by production in hierarchical governance.

The distinction between governance forms raises the question which of the three is most suitable or efficient in certain situations or under certain conditions. This is where transaction cost economics comes into play. Transaction cost economics - developed by academics like Ronald Coase and Oliver Williamson - provides a comparative framework for assessing alternative governance forms (Jones, Hesterly, & Borgatti, 1997). Transaction costs refer to the costs involved in transacting and safeguarding exchanges. They include, for example, search and information costs, which are related to establishing whether a product or service is available on the market, whether it meets certain requirements and for what price. Other kinds of transaction costs include bargaining costs required to negotiate a price and draw up a contract and policing, and enforcement costs required to make sure that the other party holds up its end of the deal. The central claim of transaction cost theory is that transactions or exchanges will be handled in such a way as to minimize the costs involved (David & Han, 2004). Transaction cost theory provides three factors which determine which governance form is most efficient: uncertainty, asset specificity and transaction frequency (Geyskens, Steenkamp, & Kumar, 2006; Jones, Hesterly, & Borgatti, 1997). For Jones, Hesterly, and Borgatti (1997), uncertainty refers to environmental uncertainty in an economic sense. Uncertainty may force organizations to adapt to changing circumstances with regard to demand and supply or regulations. Geyskens, Steenkamp, and Kumar (2006) define environmental uncertainty as a situation in which the relevant contingencies surrounding a transaction are too unpredictable to be specified *ex ante* (i.e. in advance) in a contract. Geyskens, Steenkamp, and Kumar (2006) furthermore distinguish behavioral uncertainty, which refers to a transaction where performance cannot easily be verified *ex post* (i.e. afterwards). Environmental uncertainty increases transaction costs due to difficulties with adjusting agreements or contracts. Behavioral uncertainty makes it difficult to evaluate whether contractual obligations or performances have been met. Asset specificity refers to the notion that transaction-specific investments, products or services cannot be redeployed easily outside of a particular exchange relationship. This creates dependency between parties and requires coordination or safeguarding of exchanges. (Jones, Hesterly, & Borgatti, 1997). Several dimensions of asset specificity can be distinguished, including human asset specificity (e.g. customized education) and physical asset specificity (e.g. customized equipment).

While transaction frequency is part of the transaction cost framework, it has received limited attention in the empirical literature, especially compared to asset specificity and uncertainty (Geyskens, Steenkamp, & Kumar, 2006; Jones, Hesterly, & Borgatti, 1997). The main reasoning with regard to transaction frequency is that frequent exchanges favor hierarchical governance because they enable the costs of hierarchy to be recovered. Therefore, the benefits of the governance form exceed the costs.

The assumption in transaction cost theory is that, theoretically, market governance is more efficient than hierarchical governance, mainly because of competition effects. However, there are circumstances under which hierarchical governance is more preferable than market governance.

Both Geyskens, Steenkamp, and Kumar (2006) and Powell (1990) refer to the work of Williamson, who argued that transactions that involve uncertainty, occur frequently and require substantial transaction-specific investments are more likely to take place in hierarchically organized firms, as compared to markets. As noted by Jones, Hesterly, and Borgatti (1997), a high level of asset specificity creates dependency between parties. With opportunistic behavior, market competition - i.e. other parties - can benefit from this dependency (Geyskens, Steenkamp, & Kumar, 2006). Hierarchical governance is therefore preferable to safeguard the transaction because of hierarchical control procedures and authority relationships (Geyskens, Steenkamp, and Kumar, 2006). Furthermore, uncertainty - both environmental and behavioral - leads to issues with contracts or agreements, which in turn raise transaction costs. Hierarchical governance is considered to be better equipped to tackle these issues because of a greater degree of control and evaluation possibilities. As mentioned before, high transaction frequency favors hierarchical governance because it enables the high costs to be recovered.

Initially, transaction cost theory focused on the distinction between market governance and hierarchical governance, with some hybrid forms situated in between those extremes. Powell (1990) introduced network governance as a distinctive, alternative governance form to market governance and hierarchical governance. Network governance - in comparison to market governance and hierarchical governance - is preferable for transactions involving a high level of asset specificity and a high level of uncertainty as well as a high level of transaction frequency. Network governance facilitates and safeguards customized exchanges, enables parties to react quickly to circumstances of uncertainty, and frequent exchanges enable parties to develop sustainable relations essential for networks. Market governance is inefficient in dealing with high asset specificity, while hierarchical governance is less efficient in dealing with a high level of uncertainty. In other words, under conditions of high asset specificity and high uncertainty, transaction costs are lowest in network governance.

If applied, the transaction cost framework specifies different governance choices depending on the uncertainty and asset specificity of a transaction. The preferable choice of governance mode is displayed in the table below with regard to low and high levels of the variables uncertainty and asset specificity.

| | Uncertainty | |
|--------------------------|--------------------|---------------------|
| Asset specificity | High | Low |
| High | Network | Hierarchy |
| Low | Market | Market or hierarchy |

Table 2.1. Preferable governance forms in relation to low and high levels of asset specificity and uncertainty, based on Geyskens, Steenkamp, and Kumar (2006), Jones, Hesterly, and Borgatti (1997), and Powell (1990).

Transaction cost economics was originally aimed at governance forms or structures in the private sphere. It was later extended to the public sphere by the work of Williamson (1999) on foreign affairs (Ruiters, 2005). Ruiters (2005) examines the applicability of transaction cost economics to public governance. Following Williamson, he discusses a fourth attribute - in addition to asset specificity, uncertainty, and frequency - of transactions in the public sphere: probity. Probity refers to the loyalty and rectitude involved in public transactions.

Public (sovereign) transactions requiring probity differ from other transactions in the sense that the government organizes such transactions not because it is cheaper or more efficient, but because the government embodies the public's authority (Ruiters, 2005). Moreover, probity determines vertical relations of a public agency with the political leadership, horizontal relations with counterpart agencies and internal relations within the agency.

While Williamson's (1999) extensive analysis focuses on sovereign transactions by the US State Department as a public agency, he distinguishes 5 other types of public sector transactions. One of them is infrastructure transactions, which - according to Williamson (1999) - includes topics like the administration of police, fire and emergency services. He remarks that such topics are mainly a matter for state and local government and are increasingly coming under scrutiny from a TCE perspective. Municipal services in crisis management fit into this category.

Probity - as Williamson (1999) describes it - has a political nature and refers to the responsiveness to (political) leadership and the use of procedural integrity. It is applicable to public transactions which are politically sensitive. To a certain extent, public safety and general and municipal services in crisis management can be considered politically sensitive. Public safety is one of the main traditional government domains. Thus, some transactions (tasks) regarding municipal services in crisis management may preferably be performed by the government itself to retain total (administrative and political) control. Moreover, some public transactions cannot conceivably take place in market governance. Ruiters (2005) disagrees with Williamson's (1999) interpretation of probity, arguing that some transactions are simply not possible in market governance due to the relational nature of public transactions, rather than the attribute of probity. The important point here is that public transactions differ from private transactions.

In addition to transaction cost theory, resource dependence theory is frequently used in the academic literature to explain cooperation between nonprofit organizations (Guo & Acar, 2005; Provan & Milward, 1995). The connection between transaction costs and resources - although in this case the resource-based view of the firm - is also discussed by McIvor (2009), who argues that transaction costs and resources should both be taken into account in studies concerning governance forms. The main line of reasoning in resource dependence theory is that organizations consider interorganizational cooperation to gain resources and power (Provan & Milward, 1995). Small organizations with resource scarcity might be more inclined to cooperate than large organizations with resource sufficiency (Guo & Acar, 2005). For example the pooling of resources in networks creates complete sets of resources to perform certain activities that one particular organization cannot perform on its own. Thus, resources may play an important role in the decision for interorganizational cooperation. The resource dependency perspective allows for resources to be taken into account in the study of municipal services in crisis management.

2.2 OPERATIONALIZATION

Variables discussed in the theoretical framework need to be operationalized so they can be usefully applied in data collection and analysis. Thankfully, the academic literature provides some direction here as well. Four main variables are identified, defined and described in this section.

The first important variable is that of asset specificity, which is defined as 'the degree to which the assets that support a given transaction are tailored to it and cannot be redeployed easily outside of a particular exchange relationship. Includes investments in buildings equipment, learning, and/or brand name capital that are specific to a particular relationship.' (Geyskens, Steenkamp, & Kumar, 2006, p. 525).

In municipal services in crisis management asset specificity is likely to be present in the form of human asset specificity, e.g. specialized knowledge, specific working relationships, education and training in crisis management, and experience through learning by doing.

The second variable is that of uncertainty, which is defined here as 'the inability to accurately forecast the technical requirements in a relationship' (Geyskens, Steenkamp, & Kumar, 2006, p. 525). While a disaster or crisis usually has some general characteristics in common, each one of them is unique in a sense. Therefore the required response is dependent on the situation at hand and its characteristics.

In terms of response, an incident in a residential area is very different to an incident in a rural area or an incident without persons involved. Furthermore, it is practically impossible to plan or predict a disaster or crisis. This relates to the notion of uncertainty in transaction cost economics. Organizations are forced to adapt to changing circumstances, which makes it difficult to forecast the technical requirements in a transaction or relationship. These changing circumstances can be caused by a change in regulations, but also by a crisis situation itself. In relation to transaction cost economics, such uncertainty leads to issues with (adjusting) contracts and thus increased transaction costs.

The third variable relates to the concept of public transaction, which is defined as a transaction that is either inconceivable in market governance because of its relational nature (Ruiter, 2005) and/or undesirable in market governance because of its core governmental nature (Williamson, 1999). Crisis management - or even safety in general - is not a product one can easily buy. Sure, there are safety and security-related products and services on the market, but public safety in particular is not a commercial product. However, this does not mean that market governance is irrelevant. For certain aspects of (municipal services in) crisis management market solutions might be suitable or even preferable. One practical example is the training of public safety officials, which is often carried out by commercial parties. As Ruiter (2005) argues, market governance at the one extreme involves an 'on the spot'-exchange. In between market governance and hierarchical governance are some hybrid governance forms in which transactions are based upon relational contracts and create lasting relationships. This is for example the case when two organizations decide to work together on a certain issue for a given period of time, while there is no momentary discrete exchange but rather a lasting relationship. From the perspective of a municipality, a relational contract is arguably more likely than a momentary, discrete exchange. That is, if a momentary, discrete exchange in market governance is even possible at all.

There is a second important aspect regarding public transactions. Some transactions or exchanges are considered undesirable in market governance. From the perspective of the government, transactions or activities regarding public safety might preferably be performed by government agencies themselves because of issues of legitimacy, integrity, or political sensitivity. Since public safety can be considered a core governmental task and responsibility, there may be strong incentives to perform associated exchanges or activities in-house.

Finally, there is the variable derived from the resource dependence perspective. Resources are defined here as assets that are required for municipal services in crisis management. They may include human assets, physical assets, expertise, but also political power or authority. The resource dependence perspective is included to capture issues and considerations regarding resources in municipal services in crisis management.

The majority of municipalities within the Security Region Noord- en Oost-Gelderland are relatively small municipalities in terms of organizational size and inhabitants, but at the same time cover a relatively large geographical area. This may have implications for both the required resources for municipal services in crisis management and the actual resources of the several municipalities. As stated in the theoretical framework, organizations - especially small ones - consider interorganizational cooperation to gain resources.

Following the description of the four main variables, indicators and relevant conditions are displayed in the table below

| Variable | Indicators and conditions |
|--------------------|--|
| Asset specificity | <ul style="list-style-type: none"> ● Specialized knowledge ● Specific working relationships ● Education and training in crisis management ● Experience through learning by doing |
| Uncertainty | <ul style="list-style-type: none"> ● Unpredictable and changing circumstances ● Changing regulations ● Changing political preferences |
| Public transaction | <ul style="list-style-type: none"> ● Market governance is inconceivable ● Market governance is undesirable <ul style="list-style-type: none"> ○ legitimacy ○ integrity ○ political sensitivity |
| Resource | <ul style="list-style-type: none"> ● Human resources ● Physical resources ● Expertise ● Political power/authority |

Table 2.2. Main variables and their indicators.

While asset specificity and uncertainty could theoretically be measured quantitatively, they are measured qualitatively here. This is in line with transaction cost theory in which theoretical reasoning eventually leads to conclusions about asset specificity, uncertainty, and transaction costs. Here, theoretical reasoning is supported by empirical data. Asset specificity and uncertainty are measured at ordinal measurement level, with values ranging from low to medium and high. The variables regarding public transactions and resources are measured at nominal measurement level.

2.3 CONCLUSION

In this chapter the theoretical framework has been explained, answering the sub-question 'what kind of governance forms are there and which conditions favor one over another?' The main theoretical concept in this thesis is the concept of governance forms. Three different governance forms are distinguished, with transaction cost economics enabling a comparison between them. Conditions of asset specificity, uncertainty, and frequency determine which governance form is considered most efficient. Thus, asset specificity, uncertainty, and frequency are the main variables. In addition, the concept of public transaction and resources are taken into account. The next chapter deals with the research design for this thesis.

3. RESEARCH DESIGN

This third chapter features the research design for this thesis, including methodological considerations and the choice of research method.

3.1 METHODOLOGY

For the main research question to be answered, data need to be collected. The theoretical framework provides variables that - theoretically - determine which governance form is suitable under certain conditions. Thus, one needs to empirically measure the conditions regarding municipal services in crisis management to determine which governance forms are suitable to perform them. While municipal services and responsibilities in crisis management are specified primarily in the Safety Regions Act and Safety Regions Decision, actual tasks vary depending on the crisis situation. Therefore, the conditions surrounding municipal services in crisis management cannot be readily assessed without context-specific information. In other words, the tasks 'on paper' are too broad and require further interpretation. Moreover, municipal services in crisis management are not daily activities, but are required during relatively rare situations or incidents, which makes interpretation and experiences important.

In order to empirically measure the conditions regarding municipal services in crisis management, interviews were conducted. Interviews are suitable to collect the necessary information including context-specific interpretation. The theoretical framework provides direction regarding the variables involved, while interviews enable the researcher to adapt those variables to the several tasks involved in municipal services in crisis management. This is where operationalization becomes important; it is essential to 'translate' theoretical concepts into variables with indicators and that can be measured using interviews.

The tasks involved in municipal services in crisis management are the units of analysis in this study. Their features determine which governance forms are suitable. Looking at the main research question, municipal services in crisis management are the independent variables, with governance forms being the dependent variables. In terms of sampling this study involves a type of non-probability sampling, specifically purposive sampling. The main objective is not to generalize to a population. Rather, purposive sampling enables the researcher to best answer the research question, which is aimed at municipal services in crisis management, a specialistic domain in government. Respondents include public safety officials employed by municipalities within the Security Region Noord- en Oost-Gelderland. For them, municipal services in crisis management are part of their professional responsibilities. Therefore, they possess knowledge and experience relevant to this study.

Following the operationalization of variables, a first draft of interview questions was formulated. This first draft was used for a try-out interview with my external supervisor, whose position is comparable to that of the majority of respondents. The try-out interview resulted in revised questions and useful insights about how to respond to a respondent's initial answers and how to ask follow-up questions. For the final set of interview questions, see appendix. The questions are in Dutch since all interviews were conducted in Dutch. The set of interview questions includes all the main variables, but is generic as to the processes distinguished in municipal services in crisis management. It was adapted to the specific respondent or process central to the interview in question. Dependent on the respondent's position and expertise, interviews focused on one or two processes specifically or all five of them. Naturally, the set of interview questions developed and changed over time. As Babbie (2010) explains, qualitative interviewing is a continuous iterative process, which essentially means that every interview contributes to a better understanding of the subject and a possible redesign of questioning.

A total of five interviews were conducted in order to collect data for this thesis. Respondents included municipal public safety officials from both relatively small as well as relatively large municipalities, and experts on crisis communication and aftercare. Interviews were recorded to ensure accurate processing of information. Interview reports were presented to the respondents, giving them the opportunity to clarify matters or correct mistakes, and confirm the results.

3.2 CONCLUSION

The research design for this thesis has been laid out in this chapter. It features a qualitative approach with interviews being the method of data collection. The next chapter focuses on the crisis management system in the Netherlands and includes an introduction to municipal services in crisis management.

4. CRISIS MANAGEMENT

In this chapter, the Dutch crisis management system is explained followed by a description of municipal services in crisis management, their development, legal basis, and the role of the security region.

4.1 CRISIS MANAGEMENT IN THE NETHERLANDS

First of all, it is important to emphasize the difference between monodisciplinary crisis management and multidisciplinary crisis management. Monodisciplinary crisis management essentially refers to crisis management in which a single discipline is involved or central. Multidisciplinary crisis management refers to crisis management in which multiple disciplines are involved. In this context, discipline refers to a certain emergency service or (semi-)governmental organization and associated knowledge and practices. The focus here is on municipal services in crisis management, which is a monodisciplinary subject if the Dutch system of crisis management is considered as a whole. To get a basic understanding of the crisis management system, the distinction between monodisciplinary and multidisciplinary crisis management is essential.

Crisis management in the Netherlands is organized around the principle of GRIP. GRIP - which is the abbreviation of 'Gecoördineerde Regionale Incidentbestrijdings Procedure' - refers to the system that is used in disaster and crisis response. GRIP basically consists of five GRIP-levels which correspond to the magnitude of the crisis and the required operational, tactical and strategic response, as well as the coordination between multiple emergency services.

The first GRIP-level - GRIP 1 - is activated when coordination between multiple emergency response services - fire, police, medical, and municipal - is required. The response primarily involves combating the source of the incident. GRIP 2 is activated when an incident has (possible) effects on its surroundings that need attention, as well as the source of the incident. In a GRIP 3-situation, the well-being of (a large portion of) the municipal population is under threat. GRIP 4 is intended for situations that cross municipal borders, or in which basic human needs are threatened. GRIP 4 is activated when multiple security regions are affected. Finally, GRIP Rijk refers to situations in which national security or other national vital interests are under threat and require response from the national level of government, ministries et cetera. In addition to the reasoning above, there might be other reasons for emergency services to 'scale up' in terms of GRIP. This is the case for example when certain additional or specialized resources are required by one or more of the emergency services or when strategic coordination is required.

In a GRIP 1 situation and upwards, the municipal duty officer - 'Officier van Dienst Bevolkingszorg' - is required to participate in the crisis management proceedings. He or she acts as a representative from the municipality alongside representatives from emergency services. Thus, the municipality is involved in multidisciplinary crisis management from the start.

4.2 MUNICIPAL SERVICES IN CRISIS MANAGEMENT

To be completely clear; this section deals with municipal services in crisis management, that is, monodisciplinary crisis management from a municipal perspective. According to section 2.1.3 of the Safety Regions Decision, municipal services in crisis management consist of the following six tasks:

- informing the population
- providing the population with shelter and care
- providing the population with aftercare
- victim registration
- damage registration
- advising the 'regional operational team' (ROT)

The last task in the list above is not included in the remaining part of this thesis since it is rather a procedural matter relating to the GRIP-system. Municipal services in crisis management have recently had growing attention owing to the 'Bevolkingszorg op orde' (BZOO) committee. In short, this committee has reviewed current municipal services in crisis management and has made recommendations to improve them. Their findings and recommendations have been published in two successive reports professionally known as 'Bevolkingszorg op orde' (BZOO) and Bevolkingszorg op orde 2.0 (BZOO 2.0). In the BZOO publications, a new division of municipal services in crisis management is introduced. First, crisis communication, which is essentially about informing the population what is going on and what they should or should not do. The second process that is distinguished can be translated as immediate municipal services in crisis management and includes providing shelter for those affected, informing relatives of those affected and registering victims. The third process concerns tasks that are required for the situation to return to normal - the recovery phase. They may include funeral and collective mourning arrangements, damage registration, and investigations. Based on previous experiences, crisis communication deserves its own category (Veiligheidsberaad 2012, 2014). The main distinction between the two other processes is to be found in the 'immediate' and 'after' nature of the processes respectively.

The current organization of municipal services in crisis management can be traced back to the 1980s (Veiligheidsberaad, 2014). At that time, services in crisis management were appointed to municipalities based on the idea that they could best be performed at a local level. Furthermore, they shared similarities with regular municipal tasks and responsibilities. Disaster and crisis management in general was based on the notion that the government should provide society with a maximum level of care at all times. Since that time, policies have been developed and implemented by municipalities, based on the notion of maximum care. The main line of reasoning in the BZOO publications is that society has changed considerably since the establishment of municipal services in crisis management in the 1980s. Based on both experiences with crises and research, this change is illustrated by three findings or observations. The first finding is that the majority of people affected by a crisis act rationally and are able to rescue themselves. This finding refers to the Dutch term 'zelfredzaamheid'. In other words, the majority of those affected by a crisis are self-reliant. The second finding concerns the aid or care that is given to those in need during and after a crisis by self-reliant persons or bystanders. Such aid is often spontaneous and is given in absence of emergency services. The third and last finding concerns public officials, resilience, and improvisation. Resilience and improvisation form an essential part of crisis management, not just for society, but also for public officials. Both parties have shown that they can rely on resilience and improvisation. Generally, the need for improvisation increases with the uncertainty of the situation. In addition, improvisation is needed if tasks for public officials in times of crisis do not correspond to their regular tasks.

The new 'vision' is supported by four so-called 'vision elements' that provide the reasoning behind it. The first element pertains to the responsibility of society. The responsibility of citizens, organizations and institutions for their wellbeing in daily life also applies to crisis situations. The first two research findings described earlier indicate that people do indeed take action themselves during crisis situations. This is important since emergency services have limited resources. The second element specifies that municipal services in crisis management should be accommodated to the level of self-reliance in society. This implies that government actions need to be aimed at those persons or victims most vulnerable and in need of help, usually children, disabled persons, and the elderly. Self-reliance should be encouraged and facilitated by the government, so efforts and resources can be aimed at less self-reliant people. The third element holds that the government should take into account and utilize spontaneous and specialistic help from citizens. The fourth and last element concerns the level of preparedness of municipal services in crisis management. They should be realistically and reasonably prepared and aimed mainly at less self-reliant and vulnerable groups. If a crisis demands more attention, care or services than prepared for, then this should be realized through improvisation. Finally, the level of municipal services in crisis management should match the magnitude of the crisis and people involved. This implies that not all processes or tasks are of equal importance - or even necessary - in certain situations.

Municipal services in crisis management have traditionally not been subject to formal directives or legal requirements. Responsibilities are laid down primarily in the Safety Regions Act and the Safety Regions Decision, but policies have been shaped by informal guidelines (Veiligheidsberaad, 2014). Organization of municipal services in crisis management is up to municipalities and security regions. Evaluations have shown that municipal services in crisis management have not always been adequate. Furthermore, it is unclear what is to be understood as adequate municipal services in crisis management. This was the main reason behind the BZOO project. Consequently, the performance requirements in the BZOO publications specify what constitutes adequate municipal services in crisis management. They are both quantitative and qualitative. For example there are quantitative requirements in terms of response time, but also qualitative requirements concerning how to engage with citizens. The performance requirements constitute a minimum level of what should be performed or provided. They are output-oriented, rather than process-oriented.

4.3 RESPONSIBILITIES AND ORGANIZATIONS

Based on the Safety Regions Act, responsibility for disaster and crisis management lies with municipal executives, i.e. the mayor and aldermen. Moreover, the mayor is responsible for public order and is in command in case of crisis or disaster response. From an operational point of view, municipalities are charged with specific tasks referred to here as municipal services in crisis management. The Safety Regions Act instructs the municipal executive to appoint a 'team Bevolkingszorg' which is responsible for those tasks. In case of a disaster or crisis, a municipality effectively turns into a crisis organization. Many municipal public officials have specific tasks and responsibilities in such situations, which differ from their daily tasks and responsibilities. This requires public officials to be trained and qualified in their so-called crisis tasks. Those tasks range from for example crisis communication to administrative duties or assisting in providing temporary shelter. Thus, a system of additional crisis positions is activated.

There is, however, also a regional approach to crisis management. This is embodied in the security region. A security region is essentially a public body established by municipalities - or their executives - in a certain region through joint regulations (Ministry of Security and Justice, 2013). This makes disaster and crisis management (including training, preparation, and response) a regional affair, while (political) responsibility still lies with the municipal executives.

The municipality of Oost Gelre is involved in the Security Region Noord- en Oost-Gelderland (VNOG), which is established by the municipalities of Aalten, Apeldoorn, Berkelland, Bronckhorst, Brummen, Doetinchem, Elburg, Epe, Ermelo, Harderwijk, Hattem, Heerde, Lochem, Montferland, Nunspeet, Oldebroek, Oost Gelre, Oude IJsselstreek, Putten, Voorst, Winterswijk, and Zutphen. Below is an image displaying the 22 municipalities geographically.



Figure 4.1. Municipalities in the Security Region Noord- en Oost-Gelderland (Veiligheidsregio Noord- en Oost-Gelderland, n.d.).

Within the VNOG, emergency services are organized in six clusters. These six clusters and their boundaries are displayed by the different colors and black lines in the image above respectively.

The security region is governed by a board consisting of the 22 mayors from the municipalities. The ‘coördinerend functionaris gemeente’ (CFG) is charged with coordination of the measures municipalities (collectively) take regarding several aspects of disaster and crisis management, including municipal services in crisis management. Furthermore, he or she advises the board of the security region on this matter.

In principle, every municipality within the Security Region Noord- en Oost-Gelderland employs at least one public official who is responsible for public safety matters in that municipality. Public safety officials from all municipalities meet regularly to deliberate and coordinate their actions. Their meeting is called the 'Regionaal Overleg ambtenaren Openbare orde en Veiligheid' (ROOV). Municipal clerks have similar meetings which are called 'cluster secretarissen overleg' (CSO). Finally, the 'platform crisiscommunicatie' is a multidisciplinary group of communication professionals that meets regularly to discuss policy and coordinate issues regarding crisis communication.

In the Security Region Noord- en Oost-Gelderland the organization of municipal services in crisis management is based on several principles. First, it should comply with requirements set in the Safety Regions Act, Safety Regions Decision and by the national inspection agency. Second, municipal services in crisis management are a matter of cooperation and coordination between municipalities, security region and other organizations involved. This is emphasized since no organization in this domain can function properly on its own. Third, municipal services in crisis management require local knowledge, but municipalities are often not sufficiently equipped to deal with a substantial emergency in terms of resources. Therefore, cooperation between municipalities is not just desirable, but also necessary. The level at which cooperation should take place is an important issue, especially considering the geographical size of the region and the required response times. Finally, developments regarding municipal services in the Security Region Noord- en Oost-Gelderland should follow national developments and directives.

4.4 CONCLUSION

This chapter has dealt with the Dutch crisis management system, municipal services in crisis management, and the role of the security region. In the following chapter municipal services in crisis management are treated in further detail.

5. MUNICIPAL SERVICES IN CRISIS MANAGEMENT

Following the description of municipal services in crisis management in the previous chapter, this chapter deals with municipal services in crisis management in further detail, as well as specific tasks, positions, and organizational levels. The sub-question that is central to this chapter reads 'what are the tasks, responsibilities and required resources of municipal services in crisis management?' Note that the division of services applied here is based on statutory responsibilities and differs from the division applied in the BZOO 2.0 report.

5.1. A CLOSER LOOK AT THE SERVICES

5.1.1. INFORMING THE POPULATION

Crisis communication is an essential part of crisis response. A distinction can be made between risk communication and crisis communication (Helsloot & Jong, 2005). Risk communication broadly concerns communication about risks that are present in certain neighborhoods or settings. Therefore, risk communication is about what could happen and how citizens can be prepared for disasters or crises. Crisis communication refers to communication relating to an imminent or actual crisis. Crisis communication consists of three elements (Veiligheidsberaad, 2014). First, there is factual information. Those involved in or affected by a crisis should be informed with respect to what is happening. The majority of citizens - those who are self-reliant - will then be able to make decisions and act rationally on the information that is provided. If factual information is deemed unsatisfactory, the government should provide guidelines on how to (re)act. Clear instructions should be given cautiously and only if necessary. If given appropriate information, the majority of citizens is able to decide for themselves what is best. Such crisis communication encourages self-reliance. Finally, crisis communication entails 'interpretation' of the crisis by representatives of the government, usually the mayor and/or other public officials. Their reaction should be proportional considering the circumstances and should encourage people to be self-reliant and helpful towards fellow citizens. It should also - to a certain extent - make sense of the events.

The performance requirements for crisis communication provide output-oriented instructions. With regard to factual information the government should encourage citizens affected by a crisis to inform themselves and each other, both before and during a crisis situation. Moreover, factual information should be provided to those affected within 30 minutes from the 'start' of a crisis situation, in order for them to be able to act self-reliantly. Within one hour, a government representative - usually but not exclusively the mayor - should give a reaction involving interpretation or sensemaking of the event(s) and call for self-reliance if appropriate. For people who are considered less self-reliant, instructions are more advanced. For them, factual information should be provided every 30 minutes via (social) media, taking into account their possible special needs. Guidelines and instructions on how to (re)act should be provided if necessary. The government's reaction should address the local impact of the situation and possible questions among the population. Finally - dependent on the situation at hand - a government representative should interpret the situation every next two hours.

In terms of tasks, crisis communication involves gathering information about the crisis situation and distributing (part of) that information - possibly along with instructions - to the public and the press. The medium through which communication takes place depends on the target audience and can range from press release to newsletter, and social media. With any major crisis, a press conference involving the mayor is likely. As well as public and press communication, information needs to be distributed within the organizations involved in the crisis response, whether municipalities, emergency services or other. Another task is to monitor public opinions, views and media outlets. Finally, a communication professional may be required at shelters or for particular groups of victims.

5.1.2. PROVISION OF SHELTER AND CARE

The provision of shelter and care is another of the municipal services in crisis management. International research has shown that the majority of people affected by a crisis utilize their social network to find a place to stay and recover (Veiligheidsberaad, 2014). Thus they can be considered self-reliant. Those who do not have a place to stay can stay in temporary shelters, arranged by either citizens or the municipality. Following the BZOO recommendations, municipalities should encourage and support initiatives by citizens to arrange shelter(s). The performance requirements specify that temporary shelters should be able to accommodate 10% of the total of persons affected by a crisis, with a maximum of up to 200 persons (Veiligheidsberaad, 2014). Moreover, suitable shelter and care should be provided to those in need within three hours. This should include basic needs like food, water, sanitation facilities, first aid and a place to sleep if necessary. If temporary housing is needed it should be provided within 48 hours. Finally, municipalities should enable (self-reliant) citizens to contribute to the provision of shelter and care. If further measures are needed, they should be realized based on improvisation.

Tasks regarding the provision of shelter and care concern setting up or arranging shelter(s) or facilitating and supporting citizens' initiatives. At actual shelters, staff is required to provide basic needs like food, water, sanitation, beds and first aid. Furthermore, a public official needs to be in charge to coordinate activities in shelters and report back to his or her superiors.

5.1.3. PROVISION OF AFTERCARE

The provision of aftercare concerns activities and services that are required to return to a normal situation. This may include insurance matters, investigations, and funeral arrangements. Obviously the tasks vary with the type and magnitude of crisis situation. The performance requirements specify that citizens are - just like in ordinary situations - primarily responsible for arranging any kind of personal aid or assistance - psychosocial, medical or any other kind - themselves. Municipalities should act in a facilitative manner.

To be able to recover from a crisis situation, municipalities should create an 'action plan' about how aftercare will be organized, both internally and externally. Internally refers to the municipal, administrative organization and its employees, while externally refers to matters of collective mourning, communication, and evaluation. The action plan has to be created even before the immediate response phase has finished, to ensure a smooth transition to the recovery phase.

A disaster or crisis may have an effect in terms of public safety, but may also disrupt the local economy or affect the (digital) infrastructure. Moreover, a disaster or crisis may influence people's feelings of safety (i.e. subjective safety) or cause social unrest. It is safe to say that the effects can be diverse. Therefore, what is required to recover is dependent on the type and size of the crisis or disaster at hand. Actual tasks in aftercare are therefore difficult to specify. Aftercare may involve infrastructural recovery, specialized funeral arrangements or investigations and political issues. Aftercare is likely to be organized on a project basis, originating in the action plan created during a crisis.

5.1.4. VICTIM REGISTRATION

Registration of victims and providing information to their relatives or acquaintances are important tasks regarding municipal services in crisis management. Since informing relatives or acquaintances is the main objective here, victim registration may not be an appropriate term (Veiligheidsberaad, 2012). During and after crisis situations, people want to know whether a relative or acquaintance of them is affected.

To be able to inform relatives or acquaintances about those affected, several sub-processes that have to be executed can be distinguished (Veiligheidsberaad, 2012). First of all, information has to be gathered about victims and their relatives or acquaintances.

This is basically victim registration: there is 'supply' (i.e. victims) and 'demand' (i.e. relatives or acquaintances requesting information). Subsequently, the registered data need to be analyzed, combined, and verified in order to create a clear, verified list. Finally, relatives or acquaintances can actually be informed that their relative or acquaintance has become a victim. After nearly every disaster or crisis involving deadly casualties, victim registration and subsequent provision of information is deemed insufficient or inadequate (Veiligheidsberaad, 2012). Lists of victims are often released (too) late and often prove to be incomplete. After two incidents in 2009 - the Turkish Airlines plane crash near Schiphol and the attack on Queen's Day in Apeldoorn - the Minister of the Interior and Kingdom Relations in 2010 launched a national initiative to develop what is called a 'slachtofferinformatiesystematiek' (SIS), a system to make sure that relatives and acquaintances of victims are adequately informed. The associated performance requirements are in line with this system.

Slightly injured or non-injured persons are usually able to contact their relatives or acquaintances themselves. Thus, they are considered self-reliant. The aim is to make this group as large as possible by facilitating and encouraging self-reliant persons to inform others about their involvement and possible injuries. Something similar is the case for relatives or acquaintances requesting information. They actively 'search' different information channels looking for information. This should also be facilitated by the government and its agencies.

In the new 'slachtofferinformatiesystematiek' (SIS), relatives or acquaintances of badly injured or less self-reliant victims are informed by either the police, 'national team of forensic specialists (Landelijk Team Forensische Opsporing), medical emergency services (Geneeskundige Hulpverleningsorganisatie in de Regio) or hospitals. SIS is a national service, with its frontoffice operated by the emergency department of the Royal Dutch Touring Club ANWB and its backoffice run by forensic specialists from the 'Landelijk Team Forensische Opsporing' (LTFO). While ANWB is originally a touring club, it is also a private party offering several kinds of assistance. LTFO is a collaboration between the National Police Services Agency (KLPD), the Ministry of Defence, and the Netherlands Forensic Institute (NFI). LTFO can therefore be considered a public (government) agency.

From the perspective of municipalities, SIS is an example of outsourcing. Both ANWB and LTFO are specialistic service providers, performing tasks for which municipalities are legally and politically responsible.

5.1.5. DAMAGE REGISTRATION

Municipalities are responsible for the registration of damage as a consequence of crisis situations. This task is important for several reasons (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2007). First, it helps municipalities and other parties involved in setting priorities for recovery. It can be seen as the first step in recovery from a crisis situation. Second, damage registration is important for determining liability and possible criminal conduct. Finally, damages are relevant with regard to possible recovery allowances or other kinds of support from municipalities or national government. Several types or kinds of damage can be distinguished. These may include damage to (municipal) properties, public goods or public services, but also environmental damage or damage to residential or recreational areas.

Damage registration is crucial in order to steer the recovery phase of a disaster or crisis. It is considered a part of the recovery phase in the new division of processes proposed by BZOO 2.0, rather than a separate process. Therefore, it will be treated as such in the empirical part of this thesis.

5.2. DIFFERENT LEVELS AND ORGANIZATIONS

With regard to crisis management, several (governmental) organizational levels can be distinguished. First, there is the national level which - in this case - is relevant in as far as the national government setting standards and formulating guidelines for crisis management. Furthermore, organizations involved in crisis management may be organized at the national level, for example the police force.

Second, there is the regional level at which (again) police services operate, as well as the security region and fire services. In the case of the municipality of Oost Gelre, one can also speak of a supralocal level at which municipalities cooperate in providing municipal services in crisis management. As mentioned before, the security region consists of six clusters of municipalities. The lowest level at which municipal cooperation is present is that of a single cluster of municipalities. Oost Gelre is part of a cluster that consists of the municipalities of Aalten, Berkelland, Oost Gelre, and Winterswijk. For the provision of municipal services in crisis management the level of 'double clusters' is relevant. To illustrate, the double cluster 'Achterhoek' of which the municipality of Oost Gelre is a member covers a population of over 250.000 people.

Currently, the provision of municipal services in crisis management is divided over (double) clusters, and regional arrangements. The table below displays at which level municipal services in crisis management are performed.

| Process | Level |
|----------------------|----------------|
| Crisis communication | double cluster |
| Shelter provision | double cluster |
| Aftercare provision | double cluster |
| Victim registration | regional |
| Damage registration | regional |

Table 5.1 Division of municipal services in crisis management over organizations.

The table above implies that - in principle - the majority of services take place at the level of double clusters. For the municipality of Oost Gelre this means that it cooperates with seven other municipalities for those services. Dependent upon where municipal services in crisis management are needed, those eight municipalities comprise the lowest cooperation level. The (double) clusters enable municipalities to share tasks, responsibilities, and resources. For example the task of municipal duty officer is shared - or pooled - by municipalities in a single cluster. A single public safety official acts as a municipal duty officer for all four municipalities within the cluster for one week. Subsequently, another public safety official is on duty for a week, et cetera.

5.3. POSITIONS IN MUNICIPAL SERVICES IN CRISIS MANAGEMENT

To explore what is required to perform the actual tasks that relate to municipal services in crisis management, the 'Handboek Bevolkingszorg' is a good place to start. This handbook contains so-called task cards for every task and position in municipal services in crisis management. Thus, it gives a representation of the human assets that are required. The number of positions that are distinguished does however not give a representation of the *number* of human assets that are required, for there can be multiple public officials filling the same (hierarchical) position. The table on the next page displays the number of positions that are distinguished for the several services. Note that the services distinguished in the table differ from the ones distinguished in this thesis. At the time of writing, the handbook is being updated to accommodate the new division of processes proposed in BZOO 2.0. The purpose here is to illustrate the amount of different positions involved in municipal services in crisis management.

| Process | Number of positions distinguished |
|--------------------|-----------------------------------|
| Communication | 20 |
| Public care | 6 |
| Environmental care | 5 |
| Information | 4 |
| Support | 3 |
| Total | 38 |

Table 5.2 Number of positions distinguished in the handbook, based upon Veiligheidsregio Noord- en Oost-Gelderland (2014).

In total there are 38 different positions, not including regular positions like that of mayor, alderman, and municipal clerk, which are involved in crisis management from a strategic perspective. The number of distinguished positions gives an impression of the size of a municipal crisis organization, but also has implications for other aspects of municipal services in crisis management including education and training.

5.4. RESOURCE POOLS

The double cluster the municipality of Oost Gelre is a member of is named 'Achterhoek', after the region. The eight municipalities in this double cluster have collectively created resource pools staffed with some 160 public officials trained and certified in municipal services in crisis management. In other words, human assets in municipal services in crisis management are shared across eight municipalities. For every position in the crisis organization several public officials from different municipalities are available. Contact information and other relevant information like task cards is available on a dedicated and secured website, only accessible to public safety officials involved in crisis management. This website also provides a personalized interface about education, training and certification. It is used in both preparation and actual crisis response phases, referred to in jargon as the 'cold' and the 'warm' phase.

The vast majority of municipal officials involved in municipal services in crisis management do not have to be available all the time. In other words, most positions are not filled by a duty officer in a rotating position. Rather, municipal public officials should be - and are - aware that they can be called upon in case of a disaster or crisis.

5.5 CONCLUSION

In this chapter, a closer look at municipal services in crisis management, associated tasks, positions, and organizational levels has been provided. Based on the Safety Regions Decision, five processes or services can be distinguished. Quite recently, performance requirements have been specified for four of them - damage registration is considered as a part of aftercare - in the BZOO 2.0 report. While every municipality is responsible for its municipal services in crisis management, cooperation is present between municipalities at a supralocal level, as well as in regional arrangements. Human resources are shared accordingly. In the next chapter results from the interviews are presented concerning the conditions surrounding municipal services in crisis management.

6. CONDITIONS REGARDING MUNICIPAL SERVICES IN CRISIS MANAGEMENT

In this chapter the conditions regarding municipal services in crisis management are presented and discussed. This discussion starts with some observations on municipal services in crisis management for the municipality of Oost Gelre, before examining the services separately. The sub-question that is central to this chapter reads 'under which conditions are municipal services in crisis management performed within the Security Region Noord- en Oost-Gelderland?'

6.1 MUNICIPALITY OF OOST GELRE

For the municipality of Oost Gelre the system of additional crisis positions is made up of roughly 20 municipal public officials. As a result of the introduction of resource pools within the Security Region Noord- en Oost-Gelderland, the number of additional crisis positions in every single municipality has decreased in recent years. Thus, it has become less of a demand from an organizational and financial point of view. The developments surrounding BZOO 2.0 have prompted municipalities within the Security Region Noord- en Oost-Gelderland to explore opportunities to perform municipal services in crisis management more efficiently and compactly. This is in line with a wider trend in disaster and crisis management reported by respondents. This trend is that - contrary to recent years - less emphasis is placed on official structures and procedures in disaster and crisis management. Rather, disaster and crisis management is expected to be more flexible, customized, and based on regular activities as much as possible.

In other words, the system of additional crisis positions should be made as small as realistically possible, thereby decreasing asset-specific investments and therefore financial demands. A big step in this direction has already been made with the introduction of resource pools.

Recent experience with accommodation of a group of refugees has proved that the municipality of Oost Gelre is capable of handling a crisis situation. It has also proved that such situations demand a lot in terms of effort and human resources, especially if they last several days or even weeks. There is a limit to what a small municipality can deliver without it affecting day-to-day activities and responsibilities. Public safety officials are well aware of this. While municipalities will most likely try to handle crisis situations themselves, they seem to be prepared to help out other municipalities if necessary. Both legal and administrative frameworks to facilitate cooperation are in place. The Safety Regions Act which entered into force in 2010 is the statutory basis which facilitates cooperation between municipalities. Multiple respondents indicate that the number of municipal public officials who fill a crisis position in a single municipality has more than halved since the establishment of the security region and subsequently the introduction of resource pools.

6.2 CRISIS COMMUNICATION

First of all, for the sake of clarity, it is important to re-emphasize the distinction between risk communication and crisis communication, as this distinction came up in the interviews as well. Risk communication is basically communication about safety or security risks in society or in a particular area. One can think of the risk of forest fires during drought or the risk of power outages as examples. Crisis communication is communication that is related to a particular event, disaster or crisis. It often involves guidelines on what to do for the people affected. The advice to close doors and windows in an area affected by an industrial fire is an example of crisis communication. Both risk and crisis communication are important matters for municipalities and emergency services, but crisis communication is more relevant to municipal services in crisis management, mainly because of its specific relation to a particular disaster or crisis and its urgent nature.

In chapter five, a short discussion of the number of positions distinguished in the handbook indicated that crisis communication involves a lot of different positions and therefore human assets. This indication is supported by the interviews conducted. In recent years, crisis communication has become more and more important in municipal services in crisis management. It is arguably the most important process. At the very least, it is present in nearly all activities or tasks. It is also the most prominent process in terms of required knowledge or expertise, education, training, and experience.

Basically every municipality nowadays has a communications or PR-department. Within the Security Region Noord- en Oost-Gelderland every municipality has at least one communications advisor who specializes in crisis communication. If an incident is scaled up to GRIP 2-phase, two additional communications advisors are picked - from a resource pool of 7 - to be part of and assist the 'regional operational team' (ROT), which is tasked with assessing regional effects and coordinating the response to them. If an incident is scaled up further to GRIP 3 or GRIP 4 even more communications advisors become involved.

From the interviews it is clear that crisis communication requires up-to-date knowledge, continuous education and training, extensive knowledge of the crisis management system, and experience. From the regional perspective of the Security Region Noord- en Oost-Gelderland, a list has been created of communications advisors who have experience or expertise - or both - relevant to a certain type of disaster or crisis. If deemed useful or necessary, they can be contacted and subsequently involved regardless of procedures or arrangements. From a regional perspective, that is, basically 22 crisis communications advisors and a regional public official, a lot of information, expertise, and experiences are shared.

Crisis communication is strictly a municipal responsibility. With a mayor being the most important and influential communicator, crisis communication is a politically sensitive topic. Generally, a mayor prefers his 'own' (crisis) communications advisor advising him or her on what and how to communicate. Underlined by four out of five respondents, this tendency seems to be applicable to municipal services in crisis management within the Security Region Noord- en Oost-Gelderland in general; municipalities will deploy their own (human) resources before asking for help or accepting help from other municipalities or the security region. This may have to do with a sense of duty, but also most definitely with local knowledge. There may well be benefits from regionalization of crisis communication; one respondent explained the possibility for further specialization through regionalization of crisis communication. However, crisis communication being defined as a municipal responsibility may hinder such a development. Furthermore, the unique geographical characteristics of the Security Region Noord- en Oost-Gelderland - meaning relatively large distances between municipalities within the security region - make regional specialization and cooperation more difficult, especially during the important first few hours of a disaster or crisis.

Crisis communication as a service in municipal services in crisis management is heavily dependent on the type of crisis and its circumstances. What information can and should be communicated, and what not? Municipalities should make sure the information they share is correct, suitable, and clear to the recipients. Furthermore, they should consider the target audience and choose their medium accordingly. A retirement home or nursing home that needs to be evacuated following a large fire demands a different approach in terms of crisis communication and media compared to a student housing area. Not only would the communication medium possibly be different, students may well be more self-reliant and mobile in terms of having a place to stay, which has implications for what information and instructions to communicate. This is where specialized crisis communication professionals are essential.

While actual crisis communication from municipalities may be relatively rare, municipalities are expected to start crisis communication within half an hour after a disaster or crisis. Crisis communication generally involves a substantial level of asset specificity, but some aspects of crisis communication can be applied in regular communication processes as well. For example software tools to monitor the reactions to a disaster or crisis can also be used to monitor people's reactions to a decision from the municipal council in a regular meeting.

According to a crisis communications professional, outsourcing crisis communication to another (market) party is both inconceivable and undesirable. The reasoning behind this finding is that crisis communication is a very important and strictly municipal responsibility. Furthermore, it is a core governmental task in which the mayor is basically the main spokesperson. For crisis communication, it is critical that the information comes straight from 'the government', in this case a municipality. In terms of the theoretical framework of this thesis, crisis communication can be interpreted as a public transaction. Sufficient expertise and specialization are available within the municipalities and the security region.

6.3 PROVIDING THE POPULATION WITH SHELTER AND CARE

The provision of shelter and care - for example for people who have been evacuated - does generally not require many specific assets, that is, a high level of asset specificity. For example the recent experience with a group of refugees coming to the municipality of Oost Gelre has learned that arranging shelter and care demands a lot in terms of human resources for a small municipality, but it does not require a high level of asset specificity in terms of education, training or experience. The main thing is to find a suitable physical space (physical asset) and provide basic needs. Municipal public officials can perform a variety of functions in providing shelter and care.

With regard to providing shelter and care during and after a disaster or crisis, it is uncertain when it will be required, as a disaster or crisis is mostly unpredictable. However - and more importantly in this context - tasks and activities as well as required resources are relatively straightforward and simple: provide basic needs like food, water, sleeping and sanitation facilities.

Multiple respondents indicate that they may have a shortlist of locations for shelter and care, but a decision will be made at the moment when it becomes clear that shelter is needed and for whom. Preferably, a shelter location is close to the affected area, but further requirements are limited. Similar to a market transaction, it is a case of demand and supply, with very limited additional requirements. All respondents point to the Netherlands Red Cross assisting in staffing shelters and providing care. This could be considered an example of outsourcing, with municipalities contracting out the process of providing shelter and care. Such contracting out is based on a relational contract rather than a discrete exchange. With regard to regionalization and possible economies of scale, one respondent points out that municipalities individually have contracts with the Netherlands Red Cross. It was planned to make these contracts a regional matter, but that has not materialized yet.

Another interesting observation came from a municipality close to a Royal Netherlands Army base. Its facilities could be considered if a large group of people were to be accommodated. While it was just a consideration, it would be a creative solution, with the armed forces becoming - or at least trying to become - more involved in disaster and crisis response and management.

All in all, providing shelter and care does not require a high level of asset specificity. Uncertainty is present in the sense that shelter locations should be made available quickly, should be suitable, and should preferably be close by. To reduce this kind of uncertainty, all three municipal public safety officials interviewed for this thesis indicate that they have a shortlist of possible shelter locations in their municipality.

They keep in contact with the owners or managers and have made framework agreements. Tasks, activities, and resources regarding shelter and care are quite straightforward and simple.

6.4 PROVIDING THE POPULATION WITH AFTERCARE

In comparison to other services in municipal crisis management, the provision of aftercare is a bit of an odd one. It can also be seen as the recovery phase of a disaster or crisis. However, this recovery phase should not be underestimated. The difficulty is that the necessary tasks or activities for an adequate recovery are not easily defined or predicted. Aftercare may involve infrastructural recovery, for example after a natural disaster affecting residential areas. It may also involve environmental damage recovery after a harmful fluid spill. In case of a public order crisis or social unrest, it may involve meetings with people affected or arranging psychosocial care. Thus, aftercare may be very diverse and long term. Collective mourning and funeral arrangements may be necessary if there are many victims. However, aftercare may also involve evaluations, investigations, and legal matters. Therefore, uncertainty regarding aftercare is very much present in the sense that actual tasks and activities are diverse and can only be determined after the disaster or crisis.

A high level of uncertainty makes it difficult to determine the required resources and their nature. Some recovery tasks will be handled based on regular activities and proceedings - take for example infrastructural recovery projects. Other kinds of aftercare like psychosocial care most likely require specialized resources from outside the organization. Furthermore, experience with aftercare proceedings is limited within municipalities. Since aftercare will be completely customized to a particular disaster or crisis, its victims, and a particular municipality, the level of asset specificity can be considered quite high. Regardless of procedures, each municipality will make its own decisions about aftercare and act accordingly.

While the respondent specializing in aftercare was unable to provide exact numbers with regard to the frequency of the provision of aftercare, it is clear that disasters or crises which require substantial aftercare occur rarely. Nonetheless, public safety officials are well aware of the importance of the service.

The provision of aftercare within the Security Region Noord- en Oost-Gelderland is organized at a regional level. This effectively means that resources - which in this case will often be experience and expertise - for aftercare are shared regionally; not every municipality employs a professional who specializes in providing aftercare. One of the larger municipalities takes the lead in the provision of aftercare and provides trained professionals. Thus, municipalities are to some extent dependent upon one larger municipality for resources. Similarly, another one of the larger municipalities provides legal experts if necessary. So while aftercare is partly organized at a regional level, the respondent specializing in aftercare reckoned there are possible benefits from further regionalization in terms of sharing knowledge and expertise.

To deal with the high level of asset specificity and uncertainty in the provision of aftercare, municipalities within the Security Region Noord- en Oost-Gelderland have agreed to set up a project organization after a disaster or crisis. In addition to that, municipalities will rely on their regular activities and proceedings as much as possible. The project organization is led by a steering committee consisting of the mayor and a selection of aldermen, depending on their responsibilities. Heads of departments provide them with advice. The steering committee is responsible for making strategic and policy-related decisions regarding aftercare. A project team serves under the steering committee and is tasked with the execution of and coordination between several processes and projects. These include - but are not limited to - crisis communication, psychosocial care, material care, cleaning, and evaluation.

After a substantial disaster or crisis, a municipality sets up an information and advice center which functions as a single point of contact for citizens. It handles requests for information and all kinds of aftercare. This information and advice center is client-oriented, flexible, and has network characteristics within the municipality. Regarding the provision of aftercare it is also acknowledged there can be many potential external organizations involved, with topics ranging from financial to medical, and even philosophical.

Damage registration is considered an integral part of aftercare in the BZOO 2.0 report, but it is identified as a separate responsibility in the Safety Regions Decision. Damage as a result of a disaster or crisis comes in many different forms. For example material damage, but also loss of income due to temporary shutdown of businesses, or financial claims concerning individual or public health effects. It follows that the required resources to handle damage registration are mainly human resources with experience and specialistic knowledge in the specific domain of damage registration, insurance, and possibly legal affairs. To some extent, such resources are available in municipalities, but it is likely that the complexity of the situation demands more expertise or simply more resources than normally available. Such specialistic resources are shared across the security region, they are provided by one of the larger municipalities. The level of uncertainty regarding damage registration can be considered medium. The type of damage, type of claims, and type of legal affairs vary with the type of crisis, but at the same time there are structures and procedures in place to reduce the level of uncertainty.

With regard to frequency; large-scale damage registration is necessary only in relation to large disasters or crises which trigger or require a substantial recovery phase. Such disasters or crises - especially those with a substantial recovery phase - occur rarely. There is a regional resource pool consisting of roughly 20 trained professionals. Respondents indicate that that resource pool could possibly be made smaller or organized more efficiently, as large-scale damage registration is rarely necessary.

6.5 VICTIM REGISTRATION

Registration of victims is obviously important regarding disasters and crises. Recently, quite some changes have been made to the way in which this service is delivered. Nowadays the emphasis is put on providing relatives and acquaintances with information about victims or persons involved in a disaster or crisis. For crises with many (expected) victims and/or a nationwide impact, a dedicated system has been developed at a national level. This system - known as either 'slachtofferinformatiesystematiek' (SIS) formerly and professionally or 'Verwantencontact' publicly - can be activated by municipalities in case of a disaster or crisis. Subsequently, one national telephone number becomes available for all information requests about relatives or acquaintances possibly affected by the crisis. The frontoffice of this operation is staffed by specialists from the ANWB who handle emergency situations 24/7. Information requests are collected and passed on to the backoffice which is operated by a national team of forensic specialists. The backoffice creates lists of victims and lists of 'matches' between information requests and factual information from for example hospitals. Such information is regularly communicated to the municipality or municipalities involved. At some point, the municipal crisis organization can decide to end the operation, for example when all information requests are handled and no new information is to be expected.

In a way, activities regarding victim registration are outsourced to external parties. However, responsibility still lies with municipalities. The upside for municipalities is that victim registration does not require many municipal resources. Obviously there needs to be a line of communication between a municipality and the nationwide SIS-system. Preferably, it should not be communicated to the public that the frontoffice is operated by the ANWB, as people may have certain associations with that organization. More importantly, it should be made clear that it is a governmental service related to a specific disaster or crisis.

Victim registration can be considered involving a high level of asset specificity, demonstrated by the development of a dedicated nationwide system. This system was developed to improve victim registration and communication to relatives. It has been operational for a relatively short time, so experiences are limited. While uncertainty regarding the activities can be considered low to medium - actual tasks are quite clear and can be well-defined and the system is designed to be independent of the type of crisis - the decision has been made to rely on experts who deal with such situations and circumstances on a regular or even a daily basis.

Victim registration is a unique service in municipal crisis management in the sense that its activities are carried out by external parties at a national level, while municipalities are still responsible. The security region is located in between the national and municipal level. It is responsible for the implementation and coordination regarding victim registration. In case of a disaster or crisis with a limited impact and/or a limited expectation of victims, municipalities are expected to carry out victim registration themselves. In certain situations it may be sufficient to just register who is involved or affected by a disaster or crisis. To date, the relatively new system has been activated three times at a national level. It has not been activated within the Security Region Noord- en Oost-Gelderland yet.

6.6 CONCLUSION

In this chapter the conditions surrounding municipal services in crisis management have been presented. Municipal services in crisis management differ with regard to the levels of asset specificity and uncertainty. Municipalities set up separate crisis organizations staffed by specifically educated and trained municipal public officials. While these separate crisis organizations rarely become completely active – municipal services in crisis management are not frequently necessary - municipalities are expected to be prepared for disasters or crises. Within the Security Region Noord- en Oost-Gelderland, resource pools have been created to share trained municipal public officials, which decreases the demands for single municipalities in terms of municipal services in crisis management. Cooperation is present at supralocal as well as regional level. In the next chapter conclusions are presented and discussed.

7. GOVERNANCE FORMS FOR MUNICIPAL SERVICES IN CRISIS

MANAGEMENT

Building on the previous chapters, this final chapter offers answers to the last sub-question and the main research question. The former reads 'which governance forms are suitable for the municipality of Oost Gelre to perform municipal services in crisis management?' The latter reads 'which governance forms are suitable for the municipality of Oost Gelre to perform municipal services in crisis management, taking into consideration its position within the Security Region Noord- en Oost-Gelderland? The main difference, then, is the position of the municipality of Oost Gelre as a participant in the Security Region Noord- en Oost-Gelderland.

7.1 MUNICIPAL SERVICES IN CRISIS MANAGEMENT FOR OOST GELRE

As discussed in the previous chapter, municipal services in crisis management involve differing levels of asset specificity and uncertainty. Frequency concerning the services is quite low, but that is related to an important characteristic of municipal services in crisis management. That characteristic is that municipal services in crisis management must be ready and available at all times, as disasters and crises are - generally - unpredictable. Since municipal services in crisis management do not concern daily routines for municipalities, education, training, and practice are important in achieving a certain level of preparedness.

Any substantial disaster or crisis - especially if it lasts for several days - is likely to have a large impact on the municipality of Oost Gelre in terms of necessary resources. While it is difficult - and not the purpose of this thesis - to establish the exact quantity of necessary resources, there is certainly a limit to what the municipality of Oost Gelre can perform in case of a disaster or crisis without it affecting daily activities and responsibilities.

The municipality of Oost Gelre has set up a separate crisis organization in accordance with other municipalities within the Security Region Noord- en Oost-Gelderland. It is based on a system of additional crisis positions; municipal public officials fill a crisis position and perform accompanying tasks in case of a disaster or crisis. For a municipality like Oost Gelre, it is nearly impossible - or at least highly inefficient - to perform all municipal services in crisis management on its own, that is, in hierarchical governance. This would mean nearly all municipal public officials - some 180 in this case - would fill crisis positions or at least perform tasks related to a crisis. Thus, financial demands as a result of education, training, and practice would be extremely high and difficult to justify as municipal services in crisis management are rarely necessary. Therefore, a relatively small municipality like that of Oost Gelre is more or less forced to seek cooperation with other municipalities because of resource scarcity and efficiency concerns.

7.1.1. CRISIS COMMUNICATION

As explained in the previous chapter, crisis communication involves substantial levels of asset specificity and uncertainty. Every municipality is required to employ at least one crisis communications advisor who needs to be knowledgeable, trained, and experienced. While crisis communication is a municipal responsibility, network governance is the most suitable governance form to perform crisis communication, since it enables sharing information and resources as well as learning.

While information, expertise, and experiences concerning crisis communication are currently shared at a regional level, further regionalization of the service could have benefits in terms of specialization. However, with crisis communication being a strictly municipal responsibility and a politically sensitive topic, further regionalization may not be easy to realize.

7.1.2. PROVIDING THE POPULATION WITH SHELTER AND CARE

The provision of shelter and care does not involve a high level of asset specificity. Uncertainty is present in the sense that a shelter location should be available quickly, should be suitable, and should preferably be close by. The level of uncertainty in the context of the theoretical framework of this thesis is low, since tasks and responsibilities are clear and quite straightforward. These characteristics favor either market governance or hierarchical governance. In between the extremes of market governance and hierarchical governance a hybrid governance can be found: a relational contract with possible shelter locations provides an efficient solution which reduces uncertainty of availability while it does not require much in terms of effort or costs. Municipalities within the Security Region Noord- en Oost-Gelderland already apply such an approach: they are likely to have one or more framework agreements in place with providers of possible shelter locations. Provision of shelter and care based on market governance or hierarchical governance would involve a hotel or a building or space owned by the municipality respectively.

7.1.3. PROVIDING THE POPULATION WITH AFTERCARE

The provision of aftercare involves both a high level of asset specificity and a high level of uncertainty. Resources, tasks, and decisions regarding aftercare are completely customized to a particular disaster or crisis and municipality. Furthermore, the tasks are dependent on the disaster or crisis in question. In general, municipalities do not have the expertise required for the adequate provision of aftercare. Within the Security Region Noord- en Oost-Gelderland, one of the larger municipalities provides trained professionals to organize and supervise the provision of aftercare following a substantial disaster or crisis. The same is the case for legal expertise. Since the provision of aftercare is rarely necessary, such a governance form based on network governance can be considered efficient. Furthermore, it is necessary because of the specialized resources involved. Within a municipality, a project organization is suitable to coordinate the tasks regarding aftercare and incorporate possible external organizations.

Especially in the provision of aftercare external organizations are likely to be involved, for example with regard to infrastructural recovery. Such involvement is based on an ordinary market transaction. Thus, there are different governance forms applicable simultaneously for the provision of aftercare. If an external organization needs to be involved in a series of meetings or procedures to provide customized services, it can be incorporated in the network structure.

As mentioned earlier, damage registration is a part of aftercare. Damage comes in many forms and large-scale damage registration is likely to require more (specialistic) resources than a municipality's regular resources. However, large-scale and complex damage registration is rarely needed. Therefore, a network governance approach which enables municipalities to share resources is an efficient governance form in this case. Within the Security Region Noord- en Oost-Gelderland, one of the larger municipalities currently provides damage registration experts if necessary.

7.1.4. VICTIM REGISTRATION

While victim registration is a municipal responsibility, it is largely carried out by external yet governmental organizations. This is the case for substantial disasters or crises, or disasters or crises with many expected victims or a national impact. This decision was made by the Minister of the Interior and Kingdom Relations in 2010 after dissatisfaction following some major disasters. Victim registration is now carried out by specialists who operate at a national level. In terms of the theoretical framework of this thesis, the high level of asset specificity has apparently been instrumental in the decision to develop a nationwide system covering victim registration. It therefore also serves as an example of specialization.

Victim registration is considered to be of such importance that it deserves a nationwide system and approach, despite the relatively low frequency of large-scale disasters or crises.

From the perspective of municipalities, this system can be considered as an example of network governance, since tasks are executed by external yet governmental organizations, but responsibility still lies with municipalities. Obviously there needs to be a good line of communication between the parties involved to make sure the system is well-prepared and actually functions if necessary.

7.2 POSITIONING WITHIN THE SECURITY REGION NOORD- EN OOST-GELDERLAND

The Security Region Noord- en Oost-Gelderland provides a framework for cooperation in disaster and crisis management. The municipality of Oost Gelre is one of the 22 municipalities which are both founders and participants of the security region. The security region enables municipalities to share resources, specialistic knowledge, information, and experience. While the security region is tasked with coordination between municipalities, actual tasks and resources still lie with municipalities themselves.

Resource pools have been created to share resources regarding municipal services in crisis management. Some are shared across the region, others at a supralocal level. In this system, the municipality of Oost Gelre provides some 20 municipal public officials to staff the pools. Thanks to the introduction of the security region and subsequently the current system of resource pools, the number of crisis positions and officials for single municipalities has decreased drastically, therewith lowering asset-specific investments. Procedures and guidelines are the same for all municipalities across the security region, which reduces uncertainty with regard to cooperation in the provision of municipal services in crisis management

The 'limiting factor' regarding the level at which municipal services in crisis management are performed within the Security Region Noord- en Oost-Gelderland concerns the relatively large geographical area and - therefore - large distances between municipalities. Since many aspects of municipal services in crisis management are time-sensitive, this creates a limitation in terms of the level of cooperation. However, for example for crisis communication, regionalization can have benefits in terms of specialization.

Another factor that may limit cooperation - or at least the level at which cooperation is organized - is the mere fact that we are talking about *municipal* services in crisis management. They are municipal responsibilities by law. Municipalities tend to respond to and handle a disaster or crisis using their own resources. There is also a political element to it. A mayor and aldermen want to stay in command and will not easily hand the situation over to others. However, if a disaster or crisis has a regional impact, they have to hand over command as prescribed by the GRIP-system.

Taking into account the limiting factors discussed above, this thesis indicates that the organization of municipal services in crisis management with regard to resource pools is currently nearly as efficient as possible. The developments surrounding BZOO 2.0 will lead to an even more compact crisis organization by removing and joining particular crisis positions. Efficiency in crisis organization is important since annual investments for municipalities are quite substantial while disasters or crises occur rarely. This is where the current system of resource pools - network governance - makes a large contribution.

If the approach in this thesis is reversed, the network governance approach to municipal services in crisis management taken by the municipalities within the Security Region Noord- en Oost-Gelderland can be explained using the theoretical framework of this thesis. It therefore also provides a confirmation for how municipal services in crisis management within the Security Region Noord- en Oost-Gelderland are currently organized and performed.

Theoretically, municipal services in crisis management could benefit from further regionalization – for example in terms of specialization – but there is an important political element to that. The question is whether municipalities are willing to further regionalize their tasks and responsibilities. For the 22 municipalities within the Security Region Noord- en Oost-Gelderland that might be quite a challenge.

BIBLIOGRAPHY

Babbie, E. R. (2010). *The Practice of Social Research*. Belmont, CA: Wadsworth.

David, R. J., & Han, S.-K. (2004). A systematic assessment of the empirical support for transaction cost economics. *Strategic Management Journal*, 25, 39-58.

Geyskens, I., Steenkamp, J.-B. E. M., & Kumar, N. (2006). Make, Buy or Ally: A Transaction Cost Theory Meta-Analysis. *The Academy of Management Journal*, 49(3), 519-543.

Government of the Netherlands. (n.d.). *Central government, provinces, municipalities and water authorities*. Retrieved May 6, 2015, from Government of the Netherlands:

<http://www.government.nl/issues/public-administration/central-government-provinces-municipalities-and-water-authorities>

Government of the Netherlands. (n.d.). *Who does what in a disaster*. Retrieved May 6, 2015, from Government of the Netherlands: <http://www.government.nl/issues/crisis-national-security-and-terrorism/who-does-what-in-a-disaster>

Guo, C., & Acar, M. (2005). Understanding Collaboration Among Nonprofit Organizations: Combining Resource Dependency, Institutional, and Network Perspectives. *Nonprofit and Voluntary Sector Quarterly*, 34(3), 340-361.

Helsloot, I., & Jong, W. (2005). *De acceptatie voorbij. Risico- en crisiscommunicatie met een mondige samenleving*. Den Haag: Expertisecentrum Risico- en Crisiscommunicatie, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties.

Jones, C., W.S. Hesterly and S.P. Borgatti (1997). A general theory of network governance: exchange conditions and social mechanisms. *Academy of Management Review*, 22(4), 911-945.

McIvor, R. (2009). How the transaction cost and resource-based theories of the firm inform outsourcing evaluation. *Journal of Operations Management*, 27(1), 45-63.

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2007). *Schaderegistratie na een ramp*. Den Haag: Ministerie van Binnenlandse Zaken en Koninkrijksrelaties.

Ministry of Security and Justice. (2013). *Safety Regions Act*. Den Haag : Ministry of Security and Justice.

Powell, W. W. (1990). Neither market nor hierarchy: Network forms of organization. *Research in organizational behavior*, 12, 295-336.

Provan, K. G., & Milward, H. B. (1995). A Preliminary Theory of Interorganizational Network Effectiveness: A Comparative Study of Four Community Mental Health Systems. *Administrative Science Quarterly*, 40(1), 1-33.

Ruiter, D.W.P. (2005). Is Transaction Cost Economics Applicable to Public Governance? *European Journal of Law and Economics*, 20(3), 287-303.

Van Kersbergen, K., & Van Waarden, F. (2004). Governance' as a bridge between disciplines: Cross-disciplinary inspiration regarding shifts in governance and problems of governability, accountability and legitimacy. *European Journal of Political Research*, 43(2), 143-171.

Veiligheidsberaad. (2012). *Bevolkingszorg op orde. De vrijblijvendheid voorbij*. Arnhem: Veiligheidsberaad.

Veiligheidsberaad. (2014). *Bevolkingszorg op orde 2.0. Eigentijdse bevolkingszorg, volgens afspraak*. Arnhem: Veiligheidsberaad.

Veiligheidsregio Noord- en Oost-Gelderland (2014). *Handboek Bevolkingszorg*. Apeldoorn: Veiligheidsregio Noord- en Oost Gelderland.

Williamson, O.E. (1999). Public and Private Bureaucracies: A Transaction Cost Economics Perspective. *Journal of Law, Economics, & Organization*, 15(1), 306-342.

APPENDIX: INTERVIEW QUESTIONS

Interviewvragen

05-10-2015

Algemeen: Introductie onderzoek(er), toestemming audio-opname, afspraken. Functie en organisatie respondent.

Vragen per proces (5x)

Uitvoering

V: Wie of welke organisatie voert in de huidige situatie de taak uit?

Frequentie

V: Hoe vaak is de taak uitgevoerd in de afgelopen vijf jaar?

Specifieke middelen

V: Welke middelen – in de breedste zin van het woord – zijn er vereist om de taak uit te voeren?

Steekwoorden: mensen, middelen, opleiding, training, kennis, ervaring.

V: In hoeverre zijn de benodigde middelen specifiek bedoeld voor of afgestemd op de taak of gemeente?

Steekwoorden: specialistische kennis, opleiding, training.

Onzekerheid

V: In hoeverre zijn de omstandigheden waarin de taak uitgevoerd moet worden onduidelijk, onvoorspelbaar of afhankelijk van de situatie?

Steekwoorden: afhankelijkheid (crisis)situatie, afhankelijkheid andere processen.

Uitbesteding

V: Is het mogelijk om de taak uit te besteden aan de markt of een specifieke externe organisatie?

Follow-up: Zo ja, acht u uitbesteding wenselijk?

Middelen i.r.t. gemeente(n)

V: Beschikt [desbetreffende gemeente] over adequate middelen om de taak in kwestie zelfstandig uit te voeren?

V: Vervult [desbetreffende gemeente/veiligheidsregio] bevolkingszorgtaken voor andere gemeenten?

Mening uitvoeringsniveau

V: Zou de taak volgens u (verder) geregionaliseerd kunnen worden?

Follow-up: Verwacht u schaalvoordelen bij uitvoering op grotere schaal?

Steekwoorden: kosten

Follow-up: Verwacht u specialisatievoordelen bij uitvoering op een grotere schaal?

Steekwoorden: specialiseren op een taak voor een regio

V: Op welk niveau zou de taak volgens u uitgevoerd moeten worden?