



CONSULTANCY • TRAINING • SIMULATIES



Crisis and Disaster Management in the Netherlands

2014

A Description of Structures and Processes

Sanneke Kuipers and Arjen Boin

kuipers@crisisplan.nl

*Crisisplan BV
Leiden, The Netherlands
www.crisisplan.nl*

Version 1.0

Executive Summary¹

The Dutch have a long history of mitigating disasters. Due to the persistent threat of water, the Netherlands has always invested heavily in disaster prevention and matching response capacity to known risks. They have successfully applied this approach and extensive experience to other types of threats. While there have been man-made accidents in the past decades, the negative effects of natural disasters or high numbers of casualties or victims remain rare.

The constitutional and legal framework has fragmented responsibilities and authority for crisis and disaster management. This necessitates coordination and cooperation among the many involved agencies. The upside is that involvement of multiple parties increases legitimacy and support. Moreover, administrative authorities and operational agencies across the many disciplines and territories are relatively familiar with each other's way of working, which should enhance cooperation in crises. However, budgets are scattered, which makes establishing causal relations between costs and benefits nearly impossible. Efforts to promote efficiency are uncoordinated and the results are often unclear.

Citizens' trust in the government's crisis management capacity is relatively high, and surveys indicate that citizens judge the probability of ever getting involved in a major disaster as low to very low. Each crisis and large-scale incident is evaluated and investigated intensely and the civil protection system is subject to constant reform and adaptation. These evaluations suggest that operational response efforts are usually timely and effective. Furthermore, emergency officers appear to be well trained, highly experienced and well-connected, and tend to work around impending reorganizations, recently introduced tools and new protocols.

This paper describes and analyzes the Dutch system to prevent and respond to crises and disasters. It is a 'living document' and will be periodically updated.

¹ The study was conducted as part of an EU Commission-funded Research project within the EU's 7th Framework Program, and represents one of 22 country case studies compiled in the context of the Analysis of Civil Security Systems in Europe (ANVIL) Project. The ANVIL Project aims to map the variety and similarities in Europe's regional civil security structures, practices and cultures and investigate how variety affects the safety of Europe's citizens. The results give policy stakeholders a clear overview of civil security architectures and EU-added value to the debate concerning "not one security fits all". Read more at www.anvil-project.net.

About the Authors

Arjen Boin is senior partner at and co-founder of Crisisplan BV. In addition he is a professor in Public Administration at Utrecht University's School of Governance. Arjen has 15 years of experience in the field of crisis and disaster management. He has published widely on crisis and disaster management, is the editor of *Public Administration*, and is an expert in evaluating crisis management actions. In addition, he is engaged in a five-year Swedish-funded research project on safety and security developments in the European Union. Arjen produces state of the art scientific knowledge on crisis and disaster management. Moreover, he contributes his expertise by interfacing between technicians and end-users in European (FP7) projects, and does quality review and preparatory efforts for deliverables from Crisisplan BV.

Sanneke Kuipers has worked as senior researcher-advisor at Crisisplan BV since 2007. She combines this with her work as assistant professor at Utrecht University's School of Governance. Sanneke received her Ph.D. in 2004 from Leiden University, the Netherlands, where she taught in the Department of Public Administration. Her dissertation research on social security reform in the Netherlands and Belgium won two national prizes in 2005. Well-trained in research and writing, she designs scenarios for exercises, assesses crisis response tools, conducts policy evaluations and studies crisis response to assist public organizations in learning from their own crisis-related experiences. In addition, she conducts trainings and exercises and teaches courses to civil servants from various departments, regional authorities, district attorneys, and to university students. She has published on topics of crisis and disaster management, institutionalization and path dependency, accountability and blaming after crisis.

Crisisplan BV is a leading Dutch consultancy firm in the field of crisis management, including exercises, training, consultancy, and research. Crisisplan is highly experienced in national and international exercise planning and design. In addition, we have extensive experience in data gathering, validation methods and producing reports. Crisisplan employees are also experienced in organizing national and international conferences and events related to crisis management.

Contents

EXECUTIVE SUMMARY	2
ABOUT THE AUTHORS	3
ABBREVIATIONS	5
LIST OF TABLES AND FIGURES	6
1. INTRODUCTION	7
2. ANALYTICAL DIMENSIONS	9
2.1 CULTURAL AND HISTORICAL ASPECTS OF THE CIVIL SECURITY SYSTEM	9
2.1.1. <i>Administrative tradition</i>	9
2.1.2 <i>Government/social culture</i>	11
2.2 LEGAL/CONSTITUTIONAL ASPECTS OF THE CIVIL SECURITY SYSTEM	12
2.2.1 <i>Statutory basis</i>	12
2.2.2 <i>Political dimension</i>	13
2.2.3 <i>Operational dimension</i>	13
2.2.4 <i>External dimension</i>	15
2.3 THE RELATIONS BETWEEN THE CIVIL SECURITY SYSTEM AND CITIZENS	17
2.3.1. <i>Expectations</i>	17
2.3.2 <i>Information sharing</i>	19
2.3.3 <i>Education</i>	21
2.4 THE ROLE OF THE PRIVATE SECTOR IN MAINTAINING CIVIL SECURITY	22
2.4.1. <i>Role of societal/non-profit organizations/NGOs</i>	22
2.4.2 <i>Role for profit-oriented organizations</i>	24
3. QUALITY MEASURES	24
3.1. PERFORMANCE EVALUATION	24
3.1.1. <i>Assessment through Professional and Political Inquiries</i>	25
3.2. REFORM DRIVERS	28
3.2.1 <i>Costs</i>	28
3.2.2 <i>Innovation</i>	29
3.2.3 <i>Public debates</i>	29
3.2.4 <i>Incidents</i>	29
3.3. LEGITIMACY	30
3.3.1. <i>Political support</i>	30
3.3.2 <i>Legal Support</i>	30
3.3.3 <i>Popular Trust and Support</i>	31
4. DUTCH CIVIL SECURITY IN THE EU CONTEXT	32
5. CONCLUSIONS	34
REFERENCES	35
ANNEX I: LIST OF BILATERAL AND MULTILATERAL AGREEMENTS	39
ANNEX II: LIST OF INTERVIEW RESPONDENTS	41

ABBREVIATIONS

CdK	Commissaris van de Koning
CM	Crisis management
DCC	Departementaal Coördinatiecentrum Crisisbeheersing
EU	European Union
GRIP	Gecoördineerde Regionale Incidentbestrijdings Procedure
IOOV	Inspectie Openbare Orde en Veiligheid
KNRM	Koninklijke Nederlandse Redding Maatschappij
LCMS	Landelijk Crisismanagement Systeem
LOCC	Landelijke Operationeel Coördinatie Centrum
OCHA	Office for the Coordination of Human Affairs
MIC	Monitoring and Information Centre
NCC	Nationaal CrisisCentrum
NIFV	Nederlands Instituut Fysieke Veiligheid
NRA	National Risk Assessment
PPS	public-private partnerships
RIVM	Rijksinstituut voor Volksgezondheid en Milieu
SIGMA	Snel Inzetbare Groep ter Medische Assistentie
SNV	Stuurgroep Nationale Veiligheid
UNDAC	United Nations Disaster Assessment and Coordination
UNSARAG	International Search and Rescue Advisory Group
USAR	Urban Search and Rescue Team

LIST OF TABLES AND FIGURES

Tables

- Table 1. Crises in the Netherlands (2000-2012)
- Table 2. Dutch national culture analysis
- Table 3. World Values Survey
- Table 4. Expectations of government (civil protection preparation)
- Table 5. Trust in government (crisis communication)
- Table 6. Situations the Dutch fear
- Table 7. Trusted information sources
- Table 8. Selected crisis evaluations
- Table 9. MIC activations – the Netherlands

Figures

- Figure 1. Dutch civil security system – organizational chart
- Figure 2. Citizens' disaster preparedness

1. Introduction

Experience

The Netherlands has the most experience with large-scale accidents (fires, crashes and industrial accidents) or terrorist attacks (assassinations, crowd shooting). Infectious diseases or public health safety issues also occur regularly.

Dutch crises from 2000 to 2012 fall into the following categories: i) natural disasters and infectious diseases, ii) industrial/transportation accidents, iii) infrastructure failures, and iv) terrorism.²

Table 1. Crises in the Netherlands (2000-2012)

Year/ month	Crisis description	Crisis category	Damage		
			# of persons killed	# of persons injured	# of persons affected
2012 Apr	Train crash	II	1		117
2011 Apr	Shooting at mall	IV	6	17	
2011 Jan	Fire at chemical plant	II			?
2009 Apr	Start Influenza H1N1 pandemic	I	62		?
2009 Apr	Attack on Royal family	IV	8	10	
2009 Feb	Airplane crash near Schiphol	II	9	86	
2007 Oct	Electricity breakdown (2 days) due to helicopter crash	III			100.000
2005 Nov	Electricity breakdown (2 days)	III			25.000
2005 Apr	Fire at Schiphol airport	I	11		15
2004 Oct	Assassination Van Gogh	IV	1		
2001 May	Assassination Fortuyn	IV	1		
2001 Jan	Café fire on New Year's Eve	I	14		180
2000 May	Fireworks factory explosion in Enschede	II	22	1000	3000

Note: Extreme weather conditions such as winter storms and cold or heat waves listed for the Netherlands in Emdat, averaging roughly one event per year, are excluded from this list because generally, they do not require a specific response effort from the civil security system. Also, attacks by the Animal Liberation Front on private property (2011, 2009, 2008) and unclaimed attacks that have been prevented (explosives defused in time, or that did not go off: 2011, 2010, 2003) are not reported in this table (see Global Terrorism Database and TE-SAT/Europol 2012).

² Information is based on the Emdat list (<http://www.emdat.be/>), completed with crises from Vademecum list (http://ec.europa.eu/echo/civil_protection/civil/vademecum/nl/2-nl-6.html) and assassinations in 2001 and 2004.

Dominant Crisis Management approach

The Dutch all-hazards crisis management (CM) approach includes measures taken and provisions made by public authorities, in cooperation with other organizations, aimed at maintaining national safety and security. National safety and security are considered at risk if the vital interests of the state or society are at risk due to (the threat of) an actual, or potential, disruption. The government's National Manual on Decision Making in Crisis Situations discerns five categories of vital interests: territorial security, economic security, ecological security, physical security and social and political stability.³

The Law makes a formal distinction between 'crisis' and 'disaster' situations (Safety Regions Law, 2010 § 1, art. 1).

- Disaster: a major incident or accident which seriously threatens or damages the lives and wellbeing of citizens, environment or property, and that requires a coordinated deployment of multi-disciplinary services and organizations to counter the threat or mitigate the consequences.
- Crisis: a situation that violates, or threatens to violate, vital interests of society.

This distinction is highly relevant to the structure of the civil security system in the Netherlands. Disasters are the type of incidents that start locally and affect local communities, the wider region or even a cross-regional area. Primarily, CM authority rests with local authorities. If areas larger than municipalities are affected, CM command can 'upscale' to regional authority. By contrast, in a 'crisis', central command is executed by the Ministry, thus managed from the top. For instance, infectious diseases, nuclear accidents, or terrorist attacks are all types of crises requiring central command by the Ministry/Ministries involved. Municipal authorities remain primarily responsible for maintaining public order and safety, while at the local level, lower authorities execute ministerial instructions.

The dominant CM approach is civilian, as the Dutch do not have a strong military heritage and tend to eschew military dominance in executing government tasks. However, there are civil-military cooperation programs to support authorities in their tasks to increase, maintain or restore public safety. Occasionally, the military has provided such support by evacuating communities, piling up sandbags, or rolling out temporary infrastructures or equipment. A local or regional authority can request such military support through the Minister of Security and Justice, who formally asks the Minister of Defence for assistance. The national operational coordination centre (LOCC) coordinates such efforts. Urgent requests can be made directly to the national operational coordination centre, and formally covered by politically responsible authorities at the central government level later.

³ National Manual on Decision Making in Crisis Situations, Ministry of Security and Justice, 2013, p.11.

2. Analytical Dimensions

2.1 Cultural and Historical Aspects of the Civil Security System

2.1.1. Administrative tradition

Central-level governance

The Netherlands is a monarchy with King Willem-Alexander as Head of State. The Parliament is comprised of an indirectly elected First Chamber (Senate) and a directly elected Second Chamber (House of Representatives), the former being empowered only to approve or reject bills, but not to propose or amend legislation. It is a unitary state, centrally governed from the residential city of The Hague. The Netherlands has been characterized as a consociational democracy by Lijphart (1999): coalition cabinets, proportional representation, mutual vetoes, rigid constitution, and equality between cabinet ministers and the prime minister.

Regional-level governance

The Netherlands is divided into 12 provinces. These are governed by directly elected representatives, and their decisions are politically executed by Deputies (appointed by the representatives) and the crown-appointed Commissioner of the King (CdK - a governor). Their main tasks include environmental protection, country planning and oversight of the municipalities and water boards in their territory. The provincial representatives elect the Senate members.

The Netherlands is divided into 25 so-called 'Safety Regions' (*veiligheidsregio's*), a decentralized level of government, which are in charge of the fire brigade and the emergency medical care for their territory. The safety regions represent the governmental and operational link between the local civil protection organizations and the national governmental institutions. They are managed on a daily basis by a director, but politically headed by the mayors and the councils of the municipalities in the region. The mayor of the largest city is the chairperson of that region. If a crisis affects several municipalities in a safety region, the chairperson/mayor is ultimately responsible for crisis response and decision making. In the aftermath, the chair is only fully accountable to his/her own municipality for managing the crisis, not to the councils of the other municipalities in the region. However the law requires that the chair does fully inform the councils of the other municipalities affected within the region, also in the crisis aftermath.

The safety regions closely cooperate with the regional police units (10 in total). Effective 1 January 2013, the regional police structure was reorganized into a national, centrally directed, police force.

Local-level governance

The Netherlands is currently divided into 408 municipalities. They are governed by directly elected representatives and their decisions are politically executed by Aldermen (appointed by the representatives) and the appointed mayor. The size of the council and the number of Aldermen vary with the size of the municipality (between 1,000-800,000 inhabitants).

CM structure and the administrative levels

Authority and responsibility for public order and safety, and disaster preparation and response rest at the local level, but ascend when a crisis cuts across local communities and/or overwhelms local capacity. The mayor is the commander for incidents that occur on municipal territory. There is a protocol (*GRIP*) for up-scaling authority if the crisis affects more than one municipality. In such cases, the safety region takes the lead. The mayor of the largest city in the safety region is then in charge of the crisis response. If several regions are affected, they either follow an established protocol (some regions within a single province, or within an area with a common threat or interest, have already convened on protocols for up-scaling and coordination in case of cross-regional emergencies), or they respond to the crisis in bilateral or multilateral ad hoc agreement. Regions can also decide to ask the national government (the Minister of Security and Justice) to assist (with resources and supplies) or intervene (and overrule). The national government can also decide to do so unsolicited (see *National Manual on Decision Making in Crisis Situations – The Netherlands, 2013 – English version*).

Each Minister and Department is responsible for CM in its own sector. Sector-specific CM is often centralized, with the department giving directions to decentralized functional authorities. Central ministries execute authority and responsibility for crisis preparation and response in their specific domain (e.g. fighting infectious diseases or preventing floods) and delegate tasks/mandates to local/regional authorities when customized implementation is required. Local authorities remain responsible for securing generic law and order, and policing locally.

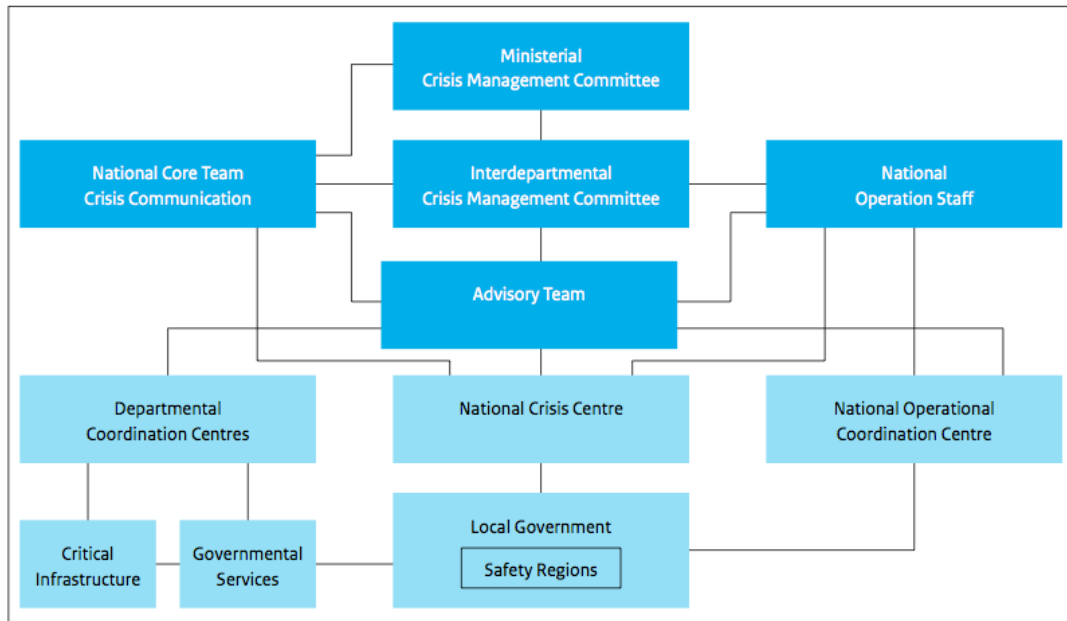
When CM requires interdepartmental coordination and cooperation, the advisory team of representatives of the Ministries involved convenes to exchange information and arrive at a common operational picture and coordinated CM approach. The Interdepartmental Crisis Management Committee (consisting of departmental directors and director-generals of the sectors involved) decides upon issues prepared by the advisory team. Political strategic decisions are taken unilaterally or bilaterally by the respective Ministers or by the Ministerial Crisis Management Committee (consisting of the Minister of Security and Justice [chair] and the Ministers of the sectors involved). The Minister of Security and Justice is chair of the Ministerial Crisis Management Committee unless the Prime Minister takes the lead. The Netherlands does not have a Disaster Declaration (settling, for instance, reimbursement of damage). In extraordinary circumstances, governments can exercise powers beyond their normal authority. For example, specific sector legislation stipulates the emergency powers of authorities in case of a mass evacuation, a pandemic outbreak, etc. In most cases, authorities do not need prior consent from the House of Representatives or the council.

The National Crisis Centre (NCC) is the coordinating agency where crisis teams convene. It serves as an information hub, with a 24/7 front office that alerts all government officials involved when incidents occur. In the preparation phase, the NCC is tasked with early warning, awareness raising, providing crisis communication, and CM training and advice.

Each Ministry has its own Departmental Crisis (Coordination) Centre (DCC) in charge of early warning, training and preparation in the ‘cold phase,’ and information processing and sectoral coordination in the ‘hot phase’ of CM.

For preparation and risk reduction, the National Steering Committee for National Safety and Security (SNV) was established, which consists of director-generals of all national ministries. The SNV promotes coherence in national security and CM policy. Further, the SNV advises the cabinet on disaster risk reduction, and reports on National Risk Assessment and activities to strengthen capabilities and coherence.⁴

Figure 1. Dutch civil security system – organizational chart



Source: National Manual on Decision Making in Crisis Situations, 2013

2.1.2 Government/social culture

Impact of culture on CM system

The Dutch civil security system has been greatly affected by the omnipresence of water and flood potential. The 1953 flood was a strong impetus for the development of a civil security system. During the Cold War, legislation and policy had a binary focus for CM: either a crisis occurred or not. In recent decades, policy makers came to realize that creeping crises, in-between situations and transboundary incidents require a more differentiated approach. The 1992 Bijlmer air crash instigated civil security system reforms and increased the awareness of threats to mobile, densely populated, urban societies. The list of incidents between 2000 and 2012 (Table 1) indicates the great variety of crises that affected Dutch society.

The Dutch score relatively high on both self-expression values and rational-secular values (WVS, Inglehart and Welzel, 2005). The culture of the Netherlands indicated by value surveys is reflected in

⁴ See for statutory basis: http://wetten.overheid.nl/BWBR0027277/geldigheidsdatum_18-01-2013

the civil security system in many ways.⁵ Individualism and egalitarianism instruct the Dutch to manage crises at the local level. Strong hierarchical relations and military involvement are alien to Dutch civil security practice. Citizens' expectations from government in terms of crisis communication demand transparency and openness, empathy, participation and a constant flow of information. Uncertainty avoidance and short-term orientation denote a lack of relativism, and a strong adherence to norms, punctuality and precision. An example is the detailed standardization of response time by formal law (see Safety Regions Law art 13 and 14, and Report IOOV, 2012, p. 19). The progressive liberal and secular values make the Dutch engaged citizens, critical of their government, also during crises.

2.2 Legal/constitutional aspects of the civil security system

2.2.1 Statutory basis

In the Netherlands, crisis responsibilities are legally institutionalized. The following acts provide the administrative and operational framework for the physical aspects of civil protection.

The Safety Region's Act (2010) replaces the Disaster and Heavy Accidents Act, the Act on Medical Assistance in Times of Disaster and the Fire Service Act of 1985. Since the 1980s, there is no 'formal disaster declaration' equivalent to that in other countries. Municipal and regional decision makers assess each situation to determine whether extraordinary authority, according to the mandates in the Safety Region Act and other laws, is necessary for drastic intervention or response.

The Safety Region's Act includes quality requirements for fire and rescue services, emergency medical services and training and preparation efforts within the safety regions. In the preparation phase, the CdK can give instructions to safety regions when the Inspection for Public Order and Safety (IOOV) assessment indicates a lack of preparedness.

Medical assistance in times of disaster is an integral part of disaster management and is designed to provide the best possible treatment to as many victims as possible. In the event of major incidents and disasters, the director of the regional public health service is in charge of the organization, coordination and management of medical assistance.

In extraordinary circumstances, a variety of other emergency laws can also be applied, such as the Coordination of Exceptional Situations Act, the Extraordinary Competences of Civil Authority Act, the Evacuation Act and the War Act. These Acts will be applied by Royal Decree at the request of the Prime Minister. According to Art. 103 of the Constitution, deviation from constitutional regulations and certain human rights is possible during an emergency.

Due to the Safety Region Act of 2010, Safety Regions replace the role of the province during

⁵ This interpretation is by no means the result of thorough research on the impact of culture on the civil security system. It is the author's private interpretation, and should be seen as an insider's sketch of the Dutch civil security world.

emergencies, but the governor (CdK) of the province still can give specific directions in cases ‘of a more than local significance’ on cooperation and coordination among authorities within a region. The Minister can also request that the governor give municipal and regional authorities specific directions, a request which must be performed immediately.⁶

The overall responsibility for safety in the Netherlands rests with the Ministry of Security and Justice (former Justice Department, with additional tasks and authority). The Ministry is comprised of five directorates: Threats (risk management and reduction), Resilience (response and relief), Interests (protection of critical infrastructures), Cybersecurity and Strategy & Management.

In the event of river floods and earthquakes, and other disasters as defined in the Safety Region Act, the Disaster Compensation Act issues damage compensation. The Minister decides by Royal Decree whether a situation qualifies for this compensation.

2.2.2 Political dimension

Executive responsibility

The Ministry of Security and Justice usually formulates civil security policy at the national level, while the Parliament adopts, amends, and eventually decides to enact it. At the regional level, safety regions develop and implement local civil protection policy, in cooperation with the municipalities. A so-called ‘accountability deficit’ occurs when a disaster situation requires the region to take over central command. This chairperson of the region is also the mayor of another city. In some cases—such as Chemie-Pack (described in Section 2.2.3)—the incident occurs in a small town, and the mayor of the nearby city takes over because he/she chairs the safety region, even though the disaster has not affected his or her own city. When dust has settled, the mayor is fully accountable to his own city council, and is only obliged to fully inform the council of the small town where the crisis occurred. But the council of the small town has no authority over this mayor, and cannot apply political sanctions. Also, the region is responsible for preparation and training of the regional emergency services, but the small town suffers the consequences in case of ill performance.

2.2.3 Operational dimension

Implementation agency/ies

Safety regions (including the fire service and the emergency medical services) and police units implement policy at the local and regional level. The Safety Regions are responsible for planning, logistics, and monitoring of generic crisis management preparation and preparedness in their jurisdiction. They recruit qualified personnel, train, exercise and implement safety regulation and prevention policies, operate a 112 call center, respond to incidents and provide basic relief. Municipalities are in charge of local crisis communication and of enabling emergency shelters, listing

⁶ See Royal decree of 1994 on governor’s duties:
http://wetten.overheid.nl/BWBR0006728/geldigheidsdatum_29-01-2013

missing persons and providing long-term aftercare.

In the ‘cold phase’ (no crisis or incident occurring; only prevention and preparation required), the safety regions are responsible for policy implementation within their region. The joint commission of mayors in the region reviews their work. In the ‘hot phase’ (crisis), the mayor of the municipality where the crisis occurred is ultimately responsible for the local crisis response, while the chair of the safety region (mayor of the largest city) is ultimately responsible when multiple municipalities are affected.

At the national level, the Ministry of Security and Justice implements national security policy. Other departments implement CM policies specific to their sector and legislation. The National Operational Centre receives requests for operational support when the capacity of a region or municipality is overwhelmed, or when specific resources are needed (such as special police forces, military aid, or advanced technological equipment or expertise). Also, several networks of specialized national services exist, such as for environmental incidents or for health risks. Such networks have a 24/7 operational front office to respond to requests for special measurements or laboratory research.

Signature crisis: Chemie-Pack

A huge blaze at a chemical plant dispatched a toxic cloud over the Netherlands on January 5, 2011.⁷ The enormous fire raged much of the day at Chemie-Pack, a company that processed and packaged 2,600 different substances, many of which are extremely toxic. The site stored ten 23,500-litre tanks of chemicals. The fire, which started around half past two in the afternoon, was so fierce that the intensity of the blaze injected the black cloud high into the sky, allowing it to be dispersed more easily.⁸ Uncertainty on the substance of the chemical cloud that polluted the air upset local communities, emergency workers and people in the wider affected region in the days and weeks after the fire. It took more than 30 hours to stop the fire.

The fire service set off the local alarm devices and drove vehicles equipped with loudspeakers around town informing people to stay inside their homes with the doors and windows closed. Both the regional emergency telephone number and the national website were unreachable for long periods of time due to overwhelming demand.

The incident location was a chemical storage and processing plant in a large industrial complex in Moerdijk, south of Rotterdam, situated on the border of two regions: the region where the fire took place, and the region affected by the chemical cloud (the wind drove the cloud North). Moerdijk is a relatively small municipality in terms of numbers of inhabitants and local government capacity. Authorities were soon overwhelmed by the complexity of the crisis, the public communication effort required and the extent and intensity of media attention.

Operational response shifted immediately into regional hands (due to regionalization of the fire

⁷ See for English media reports at the time, the Radio Netherlands Worldwide website at <http://www.rnw.nl/english/article/press-review-thursday-6-january-2011> and <http://www.rnw.nl/english/bulletin/dutch-chemical-company-flaunted-regulations> , information retrieved November 19, 2012.

⁸ Fortunately, in the end the health effects were insignificant for local communities and for the wider region.

service), but Moerdijk authorities long held on to their local political-executive mandate as commander in chief. It took a full day before the chair of the Safety Region (the mayor of the town of Breda) took over central command. Coordination among authorities, as well as uniformity of communication to their citizens proved time-consuming and difficult. The expertise of the neighboring Rotterdam region remained under-used. Confusion and insecurity on the potential hazards and consequences reigned among local citizens. Citizens and the media created their own reality in the days after the incident, also using social media to report their private footage and interpretation of the incident, the response and the hazards.

The Chemie-Pack crisis revealed the Achilles heel of the Dutch civil security system, in that it pointed at the coordination difficulties among regions, at the ill-defined role of the central government when a crisis starts at the local level, and at the difficulties involved in modern crisis communication under conditions of uncertainty. A government commission has been set up (with representatives from both the Ministry of Security and Justice, and from the Safety Regions) to overcome these coordination problems.⁹

2.2.4 External dimension

Bilateral cooperation, assistance requests and decision making

The formal contact point for all civil protection assistance requests is the National Crisis Center (NCC), housed within the Department of Security and Justice. Official requests for assistance in a foreign country are formally decided upon by the Ministry of Foreign Affairs. Foreign Affairs also pays the bill post hoc. First, Foreign Affairs consults the Ministry of Security and Justice, and other departments involved, on operational feasibility and available capacity for the requested assistance (NIFV, 2012: 45-46). Most common reasons for international cooperation and assistance are (1) cross-border threats, incidents and disasters, (2) humanitarian aid, (3) scarcity of professional specializations and equipment.

Foreign emergency missions: UNDAC and USAR

The Dutch have been member of the international emergency response system for sudden-onset emergencies (UNDAC – United Nations Disaster Assessment and Coordination) since 1993. Experienced Dutch emergency managers are made available for UNDAC missions by their respective government organizations. The Dutch have provided assistance to the Office for the Coordination of Human Affairs' (OCHA) missions in 18 foreign emergency situations since 2000.¹⁰

Since 2003, the Netherlands has had an Urban Search and Rescue Team (USAR.NL), that has been classified as 'heavy team' by the International Search and Rescue Advisory Group (INSARAG) since

⁹ See government report *Eenheid in Verscheidenheid: Uitwerking Bestuurlijke Werkgroep Bovenregionale Samenwerking*, March 2013.

¹⁰ <http://ochanet.unocha.org/p/Documents/LATEST%20UNDAC%20Missions%20Table.pdf>

2007.¹¹ The USAR team can be deployed domestically and, upon request by foreign state authorities, abroad.

Multilateral and bilateral operational assistance agreements

The Netherlands takes part in both multilateral and bilateral EU agreements (with Benelux, Belgium and Germany) on operational assistance. All agreements (in Dutch) are listed in ANNEX III and explained in the LOCC Handbook Operational Assistance, 2010, part 2 ‘International Assistance’, pp. 13-22. The statutory base for operational assistance in EU context can be found in the EU Civil Protection Mechanism (June 2010: 2010/481/EU), and its financial instrument (March 2007: 2007/162/EC) (LOCC 2010: 13).

Regional and/or multilateral provisions

Many agreements (*convenanten*) were created in anticipation of the new Safety Region Act of 2010 and during the 2008 policy trajectory ‘Waterramp’ (water disaster), which coincided with the nationwide exercise Waterproof in the same year. Regions bordering the same water realized that they had to make joint provisions on the response to incidents at sea or in their coastal territory. Below are two examples of regional and/or multilateral agreements and partnerships, with a civil security dimension:

- SAMIJ: Six safety regions around the ‘IJsselmeer’ (major inland lake), six water boards, the coast guard, the police, the Directorate-General of Public Works and Water Management and the rescue services;
- WADDEX: Two safety regions and water boards bordering the Waddenzee, (sea at the North coast), the coast guard, the police, the Directorate-General of Public Works and Water Management and the rescue services.

Such agreements include procedures for activating regional and/or multilateral agreements for assistance or cooperation (requesting and offering assistance) during a crisis. Typical for incidents on the water is the fact that localization of the incident within a specific jurisdiction is difficult/impossible, and the scene of the crisis (a capsized boat, for instance) may literally drift from one region to another. In case the location is unclear, one region has been designated in the agreement as the coordinating region. In other cases, the region in whose jurisdiction the water incident first occurred takes the lead. The agreements specify that the first region to take on coordination remains the coordinating region. Only small incidents have triggered activation of these agreements; no major incidents on water have happened since their induction.

Reasons for collaboration

The Netherlands’ regional collaboration agreements primarily focus on who is in charge in case of cross-regional incidents or incidents on the water in between two or more regions. The agreements specify the roles and responsibilities of all partners involved, and the participants of the agreement exercise together with crisis scenarios that test the functionality of the agreement.

¹¹ <http://insarag.org/en/iec/iec-leftmenu.html>

2.3 The Relations Between the Civil Security System and Citizens

2.3.1. Expectations

State-to-citizen expectations (citizens' obligations)

The legislation does not specify many formal obligations and responsibilities of citizens in protecting his/her life and property within the broader framework of civil security. The Safety Regions Law of 2010 stipulates that citizens are obliged to provide government with all technical security-related information that may be essential to adequate CM preparation (WVR art 48, 1). When a crisis or disaster occurs, citizens are obliged to inform the local government of the affected area as soon as possible (WVR art 50, 1).

The national government launched a major communication campaign in 2007 to raise awareness among citizens about risks and their own responsibilities in terms of risk reduction and coping with crisis situations.

Citizen-to-state expectations

Based on the Disaster Compensation Law of 1998, citizens are entitled to some compensation from the national government for incurred damage by natural disasters (floods, earthquake) or major emergencies if their insurance does not cover the costs or if no one can be held accountable.

Dutch citizens have high expectations of their government when it comes to civil protection preparation. Citizens seem more skeptical, though, on crisis communication. The following tables show how much the Dutch trust their government in times of disaster in terms of civil protection preparation and crisis communication.

Table 4. Expectations of government (civil protection preparation)

Civil protection preparation	Not at all prepared	Limited preparation	Reasonably prepared	Well prepared
Jun 2012	3%	14%	55%	28%

Source: *Risico en Crisisbarometer 2012* (annual opinion poll on risk and crisis perception conducted by the Ministry of Security and Justice)

Table 5. Trust in government (crisis communication)

Crisis communication	No trust	Limited trust	Reasonable trust	Much trust
Jun 2012	7%	32%	55%	6%

Source: *Risico en Crisisbarometer 2012*

Those who do not trust government to inform the public think: 'government does not want to tell' (28%); 'government is unable to inform clearly' (15%); 'government does not tell us enough' (14%), or 'government informs us too late' (13%) (Figures poll, June 2012). The polls also reveal that citizens have much more trust in media and Internet information than in the special emergency website

provided by the national government (www.crisis.nl).

When asked who they would trust most to inform them on possible disasters, citizens responded they would mostly trust information by scientists (61%), government (38%), journalists (29%), European institutions (21%), NGOs (18%) and family, friends or colleagues (8%) (Source: Special Eurobarometer 328/2009).

Table 6. Situations the Dutch fear

	Jun '12	Nov '11	Jun '11	Nov '10	Jun '10
Economic crisis	78%	79%	58%	62%	63%
International crisis	49%	49%	45%	41%	44%
Mass upheaval	45%	45%	45%	44%	51%
Terrorist attack	44%	43%	45%	50%	46%
Chemical incident	43%	47%	52%	41%	44%
Pandemic	41%	43%	59%	38%	41%
Transportation accident	40%	42%	38%	39%	41%
Large scale fire	37%	33%	45%	34%	38%
Extreme weather	33%	38%	38%	34%	30%
Utilities outage	31%	31%	31%	31%	31%
Nuclear incident	27%	31%	36%	27%	25%
Flood	26%	29%	29%	30%	28%

Source: *Risico en Crisisbarometer 2012*

According to special Eurobarometer 371, 2011, terrorism is regarded as a slightly more serious threat to citizens' security than economic crisis (26% /22%). The *Risico en Crisisbarometer 2012* survey indicates that 75% of citizens see the probability they will ever get involved in a major disaster as low to very low (another 21% is neutral). Compared to their fellow Europeans, the Dutch seemed to be more (than average) concerned about natural and man-made disasters and less (than average) concerned about terrorist attacks and armed conflicts in their country (source: Special Eurobarometer 383, 2012).

Dutch citizens are willing to actively assist in an emergency, according to a study among emergency response workers about their experiences with citizen assistance (Tonnaer 2008: pp. 47-48). Citizens are directly engaged in CM preparation and response through volunteerism in some civil rescue and relief organizations. The fire service, the rescue brigades and the Dutch Red Cross are all examples of organizations with a dominant civil security mission combined with volunteer staff. See for more

information sections 2.3.3 and 2.4.

2.3.2 Information sharing

Preparedness information

The NCC and the crisis communication cells of the ministries use their regular websites, brochures, and mailings to inform citizens on what they can expect from their government and what they need to do to prepare for a crisis or disaster situation.

Government informs citizens on threat levels in several ways. The National Coordinator for Counterterrorism and Security informs citizens daily on the threat level (*actueel dreigingsniveau*: ranging from minimal – limited – substantial - critical) with codes on the organization's website (<http://www.nctv.nl/>). Sector specific threat level categorizations are in place as well to alert citizens on cyber threats, impending pandemics, or veterinary diseases.

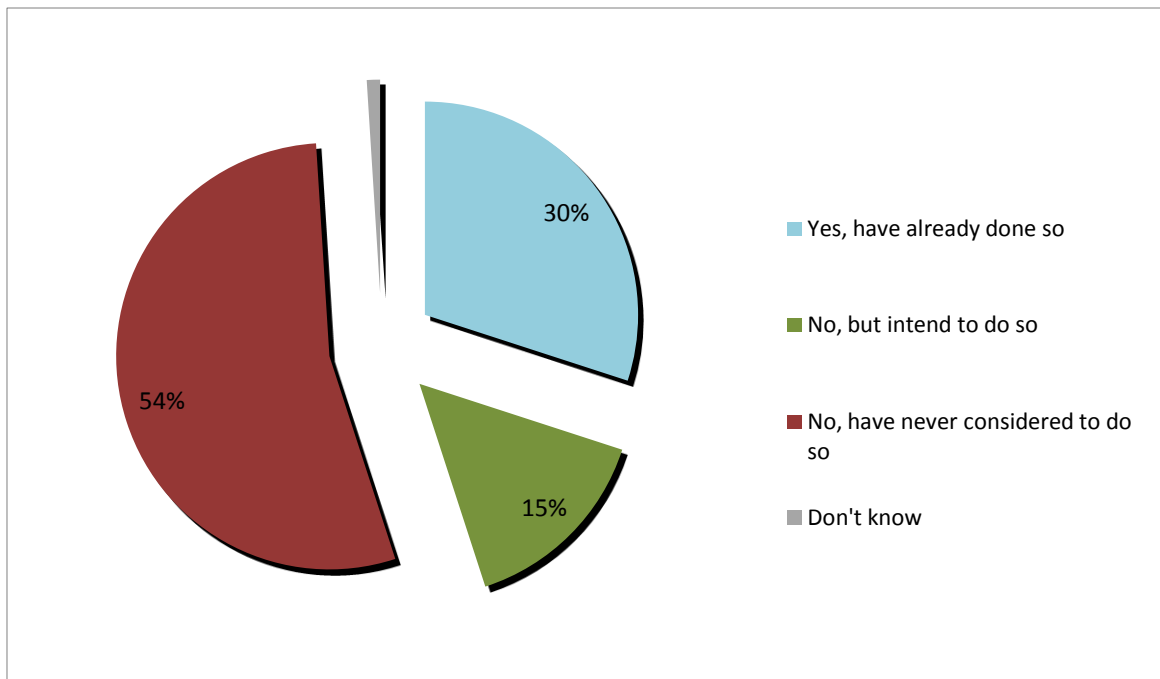
Since 2007, the Dutch government promotes a holistic approach to risk management through the Netherlands National Safety and Security Strategy. They use a National Risk Assessment (NRA) to define priority risks for civil security preparation and planning. The assessment permits the determination of capabilities needed for each type of risk and contributes to the development of resilience capacities and preparedness.¹²

At the national level, the NCC (part of the organization of the National Coordinator for Counterterrorism and Security) has a special expertise team for crisis communication. They develop national model handbooks (for regions to customize), they advise other government agencies and regions in crisis situations on communication issues, and they provide tools such as the national crisis website (www.crisis.nl) and telephone service upon request.

According to Special Eurobarometer on Internal Security 371/2011, in the Netherlands, most citizens think government is doing enough to fight terrorism (71%), and to manage natural and man-made disasters (64%). Generally, Dutch citizens do not feel very well informed on crisis preparedness in the Netherlands (Special Eurobarometer on Civil Protection 328/2009). The majority (70%) of Dutch citizens did not prepare for a disaster (such as purchasing a first aid kit, buying a torch, etc.), but 15% intends to do so (see graph below). Compared to the average EU 27, the Dutch are relatively disaster-prepared European citizens (Eurobarometer on Civil Protection 328/2009).

Figure 2. Citizens' disaster preparedness

¹² See for more information: <http://www.rijksoverheid.nl/documenten-en-publicaties/rapporten/2012/08/15/nationale-risicobeoordeling-2011.html>



Source: Special Eurobarometer on Civil Protection 328/2009.

Response information

The Dutch national government informs citizens in a variety of ways on immediate crises. The optimal means to inform citizens vary, depending on the type of crisis and the urgency of the matter. Local government uses similar means and sends police officers to the affected area to inform citizens on site. With the local crisis response teams (including fire service and medics), police are responsible for the operational, on-site crisis communication. The municipality, under command of the mayor, is responsible for strategic crisis communication.

Tools

A few tools that are specifically used for more immediate crisis communication purposes are worth mentioning here.

- *Ad hoc telephone team for FAQs:* The telephone number 0800-1351 is opened 24/7 when a crisis occurs and government decides that citizens need information. The authority that requests the telephone service feeds the telephone team with answers to FAQ.
- *Website www.crisis.nl:* A special website can be launched with extra server capacity to inform citizens on crisis situations. It can be requested for any type of crisis by the government authority responsible for the crisis response (local, regional or national). This authority feeds the website with information.
- *Cell broadcasting NL Alert:* Cell broadcasting notifies citizens of a threat in a specific area on their gsm. Cell Broadcast is a one-to-many geographically focused messaging service.
- *Disaster broadcasting (Rampenzender):* The local television and radio station have a role in broadcasting government provided information during emergencies. Citizens are informed that they have to tune in on the local radio channel when the alarms sound.
- *Local Alarm system (WAS sirens):* Every municipality has an alarm system ('the sirens'). In recent years, crisis communication experts advocated more specific ways of communicating.

Only 50% of Dutch citizens feel informed on crisis response, while 48% do not ([Special Eurobarometer on Civil Protection 328/2009](#)). Ultimately, political actors are responsible for crisis communication in their organization.

What information channels do citizens prefer?

Citizens (N=801) indicated their trust in the following information sources during a crisis:

Table 7. Trusted information sources (N=801)

Source	No trust at all	Not so much trust	Considerable trust	Much trust
Crisis.nl website	3%	5%	25%	12%
TV	2%	9%	57%	29%
Radio	2%	7%	56%	32%
News paper	5%	21%	49%	17%
Twitter	17%	23%	15%	5%
News sites on Internet	2%	11%	54%	19%

Source: *Risico en Crisisbarometer 2012* (categories ‘no opinion’ and ‘don’t know’ are not included)

When citizens search for information during a crisis or disaster, the majority look for information through the Internet (68%), television (50%), radio (40%), telephone (12%), newspapers (8%), friends (6%) and twitter (1%) (source: *Risico en Crisisbarometer 2012*).

2.3.3 Education

Education and awareness

Citizens are personally responsible for knowing what to do when disaster strikes. Government distributes campaign brochures, TV and radio commercials and printed instructions to raise awareness among citizens. In 2009, the campaign had reached 79% of the target population, while between 60% and 80% of the population actually understood the message (i.e. could reproduce what the campaign intended to convey) (*Jaar Evaluatie Postbus 51 campagnes, 2009, p.85-86*).

As a consequence of Directive 89/391/EEC, of 12 June 1989, Dutch Parliament amended the Occupational Safety legislation to include the provision that every private and public organization should appoint ‘Emergency Response Officers’: employees responsible for safety at the workplace in case of an emergency. These Emergency Response Officers should receive certified training according to ISO 17024:2003 norms.¹³

¹³ Because the companies have to arrange for their own emergency response officers, and certified trainings can be obtained from many suppliers, it was impossible to find any total numbers of trained people annually. The Occupational Safety Inspection or the Ministry of Social Affairs did not publish this information.

The Dutch Red Cross and many other non-governmental and private organizations offer first aid training to citizens on a voluntary basis. According to the Dutch Red Cross, only 3.2% of the population has demonstrable first aid skills (compared to over 80% in Germany and Austria), which is a reason for concern (Red Cross, Annual Report, 2011, p. 25).

Some vital emergency response services such as the Dutch Royal rescue service and the Rescue brigades train their volunteers with their own facilities; the trainings comply with the norms of the International Life Saving Federation (ILS) and the Education and Professional training regulation (KNRM, annual report 2011, p. 19 and 51).

Fire brigades (31,000 people staff in total) in the Netherlands are to a considerable extent manned by volunteers (70% of the total – over 80% of the repressive, operational staff). They have to follow the same training and education program as professional fire guards with similar responsibilities and duties. The law stipulates that it should not matter to citizens whether they are rescued by a volunteer fireguard or a professional one in terms of the quality of service delivered. The Safety Regions legislation of 2010 details the quality criteria and certifications for all fire brigade staff. The National Institute for Physical Safety (NIFV) includes a national training centre for firefighters. The Dutch fire service has a relatively high percentage of volunteers when compared to neighboring countries such as Belgium and the UK; a similar percentage as in France; and a bit less than Germany (Wijkhuis et al, 2012: 20). Wijkhuis et al conclude that the fire department volunteers in the Netherlands are relatively highly educated and professionally trained when compared to firefighters in neighboring countries and that in terms of efficiency, the Dutch could maybe even do with a little less professional education. The same can be said for the level of training and exercising of ambulance personnel (Wijkhuis et al, 2012: 51).

2.4 The Role of the Private Sector in Maintaining Civil Security

2.4.1. Role of societal/non-profit organizations/NGOs

The Dutch civil protection system seems to include a considerable level of voluntarism and institutionalized societal involvement. The large number of volunteers (70-80%) working in the fire service has been mentioned already. The police force includes relatively few volunteers (4%), that can be employed as extra security during festive events, in traffic circulation and so on (Wijkhuis et al, 2012: 21). In terms of prevention, people assisting the regional water boards help protect the dikes and dams. These aides receive compensation for their employment. Other examples are the Dutch Rescue Service, or the Dutch Red Cross, which are voluntary, non-profit societal organizations with important tasks relating to the civil protection responsibilities of government. Both organizations recruit, train, certify and deploy volunteers to provide protection and/or relief to citizens in the Netherlands and abroad. In return, they receive government subsidies, complemented by private donations. Another type of agency that usually plays a role in the aftermath of a crisis are those providing psychological support for victims.

While Dutch civil protection services depend on the work of volunteers, their duties, qualifications and compensation are carefully detailed in formal agreements. Firefighters have to

meet the same training and exercise qualifications as professionals, and their emergency response needs to be highly reliable, so they stick to precise schedules and routines. Contracts with water boards specify the duties and compensation of their volunteers.

A special category of volunteer organizations is the water rescue services, which can be deployed to assist the government in case of floods: the Rescue Brigade on inland waters, and the Royal Dutch Rescue Service at sea. An agreement between the Ministry of Security and Justice and the Rescue Brigade stipulates that the Brigades will assist in emergency situations, and that it can mobilize 84 units and 1,680 volunteers. The government provided the brigades with 90 fully-equipped lifeboats, specially designed to steer through flooded residential areas and to evacuate people. The Dutch Rescue Brigades actively collaborate with the Safety Regions to prepare for disaster response situations (<http://www.reddingsbrigade.nl/rvr>). At sea, the Rescue Services are coordinated by the National Coastguard (receiving the emergency requests from ships), and the response is conducted in close cooperation with fire and police services.

The Dutch Red Cross

The Royal Decree ‘Red Cross’ of 1988, stipulates the cooperation with and assistance by the Dutch Red Cross in case of emergencies (including war) and disasters. The organization has a number of core tasks to support the professional emergency response in case of disasters. Its volunteers also participate in crisis response exercises to train and exercise with emergency professionals and local authorities. Red Cross services include:

1. **Provide medical assistance at the incident location by sending in a Quick Response Medical Assistance Team.** Within one hour, the Red Cross can mobilize 1,200 volunteers at any given time, 24/7. Teams include eight volunteers that form a medical unit with professional first responders on site: a unit consists of two ambulances, a mobile medical team, a rapid deployment medical assistance group (*Snel Inzetbare Groep ter Medische Assistentie – SIGMA*) and an emergency medical officer.
2. **Support municipal government to provide shelter and relief for the evacuated population.** The Dutch Red Cross can mobilize 3,000 trained volunteers to assist municipalities in providing shelter and relief.
3. **Support municipal government in registering and tracing missing persons** and restoring contact with their relatives. The Red Cross can also provide a telephone team to assist in the registration of missing persons. The Red Cross has trained 600 volunteers to assist in this task.

In addition, the Dutch Red Cross provides:

- a logistical service to supply bandages, mattresses, blankets, etc.;
- a connection service to timely and efficiently contact all Red Cross volunteers, even when regular communication lines (such as telephones, cell phones, internet) fail.

The Red Cross aligns with the 25 safety regions in the Netherlands. It falls under the command of Regional Emergency Aid Coordinators, whose task is to fortify the contact networks of those safety regions. The Dutch Red Cross is made up of 500 paid employees (plus a staff of 46 professionals abroad). Emergency aid is ensured by 13,700 volunteers. Of these, 2,000 are responsible for reception and care (R&C), which includes actions such as offering assistance in setting up reception centres or helping with relief for evacuated people. Another 600 are dedicated to facilitating contact among relatives during emergency situations. Furthermore, rapid deployment medical assistance

groups (SIGMA) are formed by a total of 1,100 volunteers, and 10,000 others are available to provide event support (such as first aid posts during marathons and other large events).

2.4.2 Role for profit-oriented organizations

The role for profit-oriented organizations in civil security does not so much stem from delegation or outsourcing of tasks to the private sector, but mainly from the fact that 80% of the critical infrastructures in the Netherlands are private property, owned by companies. Companies own the electricity grids, internet cables and servers, pipelines and transportation networks and hubs. By definition, they have both a major stake and a major role in securing these infrastructures and in providing continuous service. Government, for instance the Ministry of Economic Affairs or the Minister of Infrastructure and Environment, plays a coordinating rather than directive role in many cases of crisis response in those sectors. In terms of crisis preparation, sectors vary widely in their cooperation with government. In some sectors, government actors and private actors barely know (of) each other, while in other sectors, joint exercises are organized. Companies have their own incentives to primarily prepare and practice internally, because they like to keep the government at a distance as much as possible, even when an incident occurs (source: interviews). Interviews revealed that private Dutch companies seem to demonstrate increasing awareness or concern for the added value of crisis preparation and training.

Historically, the Dutch government has worked closely with salvage companies for salvaging ships or shipwrecks after incidents at sea (with multi-year contracts that enable government to order immediate salvage operations when necessary). Other specific water-related equipment or services cannot be left to the market because there is limited demand. Such resources are also deployed in terms of operational assistance elsewhere in the EU upon request.

Public-private partnerships (PPS) are also employed during disasters, for example, within the medical emergency sector. Hospitals provide medical emergency service, and ambulances are partly in private hands. Local authorities and company fire services, for example, also have PPS agreements. These are all individual, local agreements, and they do not reflect national policy. There is no indication of a trend towards private fire services operating instead of the public ones or employing private security firms in traditional policing. However, private companies do play a major role in providing security for big events.

3. Quality measures

3.1. Performance evaluation

3.1.1. Assessment through Professional and Political Inquiries

General assessment

In general, the performance of the Dutch crisis management response system is thoroughly evaluated. Interview respondents (and a literature review) indicate a high density of disaster-related investigations in the Netherlands. Both routine inspections and reports, and ad hoc investigations are conducted frequently, by a multitude of authorities.¹⁴ Wijkhuis et al even call it 'evaluation overkill' (2012, p.50). With respect to generic civil protection, the IOOV has an investigation program on 'the state of affairs' in all safety regions (Reports in 2011, 2010, 2009 and 2008). Its findings and conclusions will be included in this assessment.

Inspectors (on Public Safety, the Environment, Occupational Safety, and so on) conduct investigations on the causes of consequences of accidents and on disaster response when relevant to their mandate. They publish their own reports on their organizations' websites, and provide copies upon request to citizens and media. The independent Dutch Safety Board (*Onderzoeksraad voor de Veiligheid*) has a strong legislative mandate to conduct an investigation on any crisis it selects as important and relevant for learning from accidents. It can overrule the inspection and the district attorney in confiscating material as evidence for accident investigation. Similar to the Inspectors, the Council publishes reports on its website, presents them in the media and provides copies upon request to citizens and media.

The State of Affairs Investigation (Report 2011) assess whether the Safety Regions have effectively implemented their tasks. The inspection assesses:

- Planning and risk assessment;
- Information exchange during crises and exercises;
- Mobilization;
- Crisis communication, registration, relief and shelter.

Incident evaluation

Because of the multitude of severe incidents and a strong professional investigation culture in the Netherlands, five recent incidents have been selected for the inquiry assessment.

Turkish Airlines crash

On February 25, 2009, a Turkish airlines plane crashes near the runway of Schiphol airport, with 128 passengers and seven staff members on board. The plane breaks in two pieces but does not catch fire. The accident takes the lives of five passengers and four cabin crew members. The media

¹⁴ See National Law for the Dutch Safety Board (*Onderzoeksraad voor de Veiligheid*) http://wetten.overheid.nl/BWBR0017613/geldigheidsdatum_15-04-2013 for their responsibility and authority to instigate investigations after incidents. Some Inspectors, such as for Public Health, and for Environmental Protection, have a statutory basis, while others base their authority on policy documents developed by the Ministry in charge (*Inspection of Security and Justice*).

reporting and evaluation by the IOOV are predominantly positive. The inspection praised the first response by police, fire brigade and medical emergency units, as well as the support by citizens, airport staff and municipal civil service teams. Communication to the media was timely, accurate and welcome. The inspection also concludes that interdisciplinary exercises between the various teams were advantageous in this incident response (IOOV report Poldercrash, 2009, p.9-10). Required improvements were (p.11):

- The information exchange between the emergency response teams partly failed;
- Triage and first treatment of victims lacked accuracy;
- The emergency call centre (for 112 calls) should improve its role as information hub;
- Registration of victims revealed shortcomings and slowness;
- Shelter and reception of relatives should be improved.

Assault on the royal family in Apeldoorn

On Queen's Day (national celebration of the queen's birthday), 30 April, 2009, a disturbed man committed suicide by driving his car through the crowd towards the royal family, causing eight casualties among bystanders along the way. The IOOV positively appraised the emergency response to the incident. Because of the preparation for and operation of the festive event, first responders arrived at the scene of the incident almost immediately. Much went according to plan (IOOV report Apeldoorn, 2009, p.37).

Some pivotal aspects of the emergency response require improvement: the information exchange on the first assessment of the incident, and the up-scaling of the operational response. Protocols were in place for assessing and organizing the proper (proportionate) response to an incident, but confusion reigned over the appropriate level of response for this event. Communication tools did not function smoothly. The debriefing and transfer of the case from the regional police to the national criminal investigation detectives should have been more timely and more accurate. Registration and identification of victims (and consequently, informing relatives) fell short (IOOV report Apeldoorn, 2009, pp.38-42).

Fire at Chemie-Pack

A fire at a chemical plant in Moerdijk on 5 January 2011, causes no casualties, but requires a massive operational response from the fire services, severely pollutes the environment (water, soil) and generates a chemical cloud that drifts over two adjacent regions and upsets local communities in a large area.

The IOOV inspection concluded that the municipality of Moerdijk had too little strategic CM capacity to cope with potential incidents in its large chemical industry (p.11). Furthermore, its disaster plans were outdated, and its fire service had too little (specialist) response capacity and training. These conclusions also implicate the larger region (Midden- en West Brabant) which includes Moerdijk (IOOV-report Chemie Pack, 2011, p.11-12).

According to the IOOV report, the operational response to the first emergency call was rapid, but largely unstructured and uncoordinated. The upscaling protocol was not followed: it took too long before the strategic level of command took over. The response to the complex situation lacked decisive and unambiguous leadership. A common operational picture of the situation between the

operational teams and the strategic levels involved was lacking, and subsequently affected the communication between teams and towards citizens and media in a negative way (pp.15-18).

Strabrechtse Heide (heather/bush fires)

On the warm summer evening of 2 July 2010, part of the *Strabrechtse Heide* (heather) catches fire. It takes the effort of more than 3,000 emergency workers in the following week to put out the fire.

The inspection is positive about the operational command and the rapid division and implementation of tasks in the first hours. Coordination and cooperation among professional services were exemplary. Operational partners in this crisis seemed to know each other and collaborate smoothly, and the bilateral information exchange worked efficiently.

The report details required improvements regarding the cooperation and coordination of municipalities. The three affected municipalities varied in their up-scaling and response; this lack of uniformity hindered collaboration among municipalities and confused citizens as well as the agencies involved. Strategic decisions and crisis communication were hindered by the lack of a common operational picture of the situation (IOOV report *Strabrechtse Heide*, 2011: pp.18-19).

Shooting in Alphen aan de Rijn

On 9 April 2011, a 24-year old citizen of the Dutch town Alphen aan de Rijn (73,000 inhabitants) walked into a shopping plaza and fired at the crowd. After he killed six people and wounded 16 more, he took his own life on the spot. In his house, the police found a letter indicating that the killer placed three bombs in nearby shopping centres (which turned out to be a hoax). This was the first mass shooting in the Netherlands since WWII.

The inspection concludes that emergency responders arrived quickly, helping victims and clearing the incident scene. A lack of multidisciplinary contact in the first hour hampered information exchange and caused the medical teams to be uninformed of remaining threats on the incident scene. The municipal response in terms of registering, contacting and sheltering victims and relatives was deemed adequate and effective. The use of the LCMS (*Landelijk Crisis Management Systeem*) network information exchange platform among response agencies was also problematic.

The inspection praises the decisive operations on scene and rapid information exchange between the mayor and his team, and the on-site commander. The mayor of Alphen aan de Rijn was in charge of the overall crisis management response. Public communication on the incident and threats was a major priority, and this effort resulted in balanced and informative communication (IOOV report *Alphen*, 2011, pp.7-20).

Findings performance

In some cases, investigations explicitly point at the shortcomings in the crisis response that allowed the situation to deteriorate, and may have even cost lives. Notable examples are the investigation report by the Dutch Safety Board (*Onderzoeksraad voor de Veiligheid*) on the fire at the detention center of Schiphol. The presentation of the report was accompanied by a suggestive video animation of the chain of events and concluded by stating that the victims would be alive if the preparation and response had been better. The IOOV reports are usually milder in tone, but still very critical when it

comes to rapid deployment of response teams, command and coordination, and the exchange of information.¹⁵ These are the most recurrent issues in the reports. The culprits of any alleged wrongdoings are never named personally, but their organizations are. Another process of CM that receives criticism is communication to citizens. Government agencies seem to find it difficult to catch up with modern technology and the use of social media. CM teams at all government levels tend to lock themselves in a room until they have sorted out the crisis, before they go public with a message. The Chemie-Pack incident made painfully clear that in the outside world, information goes around and rumors spread, and that government loses credibility if it lags behind in its communicative effort. Investigations are always concluded by practical recommendations. Incidents typically lead to adjustments, they do not directly lead to reforms. Usually, after a severe incident, a government commission is created whose recommendations lead to reform.

3.2. Reform drivers

3.2.1 Costs

The Dutch civil security system seems to change continuously in response to nationally initiated reform efforts. The safety regions legislation was implemented recently, the police regions are being restructured, and in the meantime national authority on CM shifted from the Ministry of Interior to the Ministry of Security and Justice (former Ministry of Justice). Internally, within the Ministry of Security and Justice, the former Counterterrorism Coordinator and his bureau now head the Security directorate-general, which absorbed the former directorate for civil protection. Local and regional initiatives to arrive at a more uniform, standardized approach are manifold.

It is unclear whether efficiency considerations are the main driver of reforms because most proposals do not refer explicitly to cost-saving motivations. Even though the political sensitivity of the security theme instructs policy makers not to cast their policy initiatives in this domain in terms of costs and benefits, this does not mean such motivations do not exist. The Ministry of Security and Justice, however, does mention efficiency as one of the reasons for reforming the police in its annual budget report over 2011 (Annual report National Budget 2011, Ministry of Security and Justice, article 23, p.1).

According to interview respondents from the Ministry of Security and Justice, the current reorganization of the police costs more than the previous situation and no cost saving is to be expected there. Also, the upcoming merger of the Emergency Health Services with the regional public health agencies is driven by considerations on effectiveness rather than efficiency. The regionalization of the fire departments does include a (partial) cost saving ambition, but this was not the primary motive for reform (and it is as of yet unclear if any savings will result from the entire regionalization). The same goes for the current merger of the emergency call rooms (operating 112

¹⁵ One of the interview respondents notes that there is conspicuous difference between the IOOV reports commissioned by the municipalities (such as Apeldoorn, Poldercrash) and the ones commissioned by the central government (such as Moerdijk): the latter are much more critical in tone. It was beyond the scope of this research to further investigate this assumption.

calls).

3.2.2 Innovation

Investments have been made in recent years in several new technological systems. There is no special budget for innovation, although several departments have funding for replacing and maintaining equipment. Cost benefit analyses do play a role, mainly in the bidding process. Usually these innovations are very costly, for instance, the C2000 communication technology, the LCMS 2.0 network information exchange system, the equipment of the integrated emergency control rooms (112 call centres), and furthermore, they are often met with skepticism in their early years.

3.2.3 Public debates

The regionalization of the fire service has been a source of dispute in recent years. The fire service used to be locally organized, the responsibility of municipalities. As mentioned, the majority of firefighters are volunteers. Fire services are currently challenged by a decrease in numbers of volunteers, and by rising costs of professional staff. Economics of scale and professionalism would be enhanced by regionalization of the fire service, which was planned as part of the Safety Regions legislation. Municipalities and local fire brigades contested these plans because the reorganization would increase local dependency on regional services (see the website of the Association of Dutch Fire Service volunteers at <http://www.brandweervrijwilligers.nl/dossiers-regionalisering/>).

Also, the Safety Regions legislation stipulates that the first emergency response unit from the fire service should arrive on site within 18 minutes from the emergency call. In some sparsely populated areas, this norm is infeasible. Fire service executives argue that it would be unwise to invest a disproportionate share of the scarce means in increasing capacity to meet the norm for rural areas, when chances of saving lives are low anyway. In the current household, with modern isolation and electric wires, fires can be lethal within five minutes. The 18-minute norm is outdated, according to the fire services, and resources should preferably be invested in prevention and increasing resilience (Amsterdam commander Van de Wiel, representing the National Association of Fire Services, in *NRC* August 6, 2011).

3.2.4 Incidents

Enschede 2000, Volendam 2001 – Safety Regions legislation

The evaluations of the fireworks factory explosion in 2000 and the fire in a bar in Volendam in 2001 gave a strong impetus for reform. Investigations concluded that the organization and scale of the disaster response had been too limited and had lacked professionalism in meeting the challenges of the disasters at hand. A national committee concluded that many municipalities lacked the skills and capacity to respond to any type of disaster (Commissie-Brouwer, VNG, 2002). The commission strongly recommended cooperation and an increase of scale. The result was the Safety Regions Law,

enacted on 1 October 2010 (*Brochure Wet Veiligheidsregio's, deel 1, aanleiding, p.8*).

Terrorist incidents 2000-2004 – Reorganization of the Directorate General

Assassinations in 2001 and 2004, and the terrorist attacks on 9/11 instigated important reform in the Dutch domain of counterterrorism. The government decided in 2004 to create the National Coordinator for Security and Counterterrorism. The organization is a directorate-general of the Ministry of Security and Justice. Its main duties became modernization of the safety and security system; processing of information on threats and risks; and coordination of safety and security issues with other departments and agencies, local authorities and the regional police forces.

Fire at Chemie-Pack Moerdijk 2011 – Cross-regional cooperation and coordination

This crisis revealed some gaps in the legislation and in the protocols for when transboundary crises occur because it affected several regions. The regions had to cooperate, and the national level supported the regional efforts, but the situation made clear that much could be improved. A bilateral commission was established (with representatives from the regions and the central government) to reach agreements to smooth future regional cooperation and coordination, and specify when the central government plays a role (see also letter of the Minister of Security and Justice to Parliament, 3 July 2012).

3.3. Legitimacy

3.3.1. Political support

The civil security system seems to be subject to constant reform, and receives continuous attention from Parliament (as a consequence of lobbying efforts by regions and local authorities to influence reforms, and as a consequence of incidents, media attention for crises and investigation reports). This country study does not find indications of declining legal support, overly severe criticism, or legitimacy deficits regarding the civil security system.

Although Ministers are formally and ultimately responsible for failures of civil service in their department and agencies, Ministers in the Netherlands seldom resign as a consequence of crises or failing management thereof. A notable exception was the resignation in 2006 of the Minister of Justice and the Minister of Housing in reaction to a highly critical report on the fire in an airport detention centre that caused the death of 11 asylum applicants who were temporarily detained in the facility. The two ministers (Housing and Justice) had to step down because the consequences of government failure had been so severe (with no personal culpability for the ministers involved) that resignation would be the only (and most drastic) appropriate political gesture an executive could make to Parliament.

3.3.2 Legal Support

In order to study the effect of Ombudsman cases on crisis preparation/response laws and/or actions, this study included an examination of the Ombudsman Annual reports of 2011, 2010, and 2009 to see whether the Ombudsman presents any aspects of the civil security system as an issue that warrants concern. Two issues surfaced:

- **Q-fever.** Q-fever victims complained to the Ombudsman that government had compensated goat farmers (the infectious source of Q-fever were goats) for their loss of herd, but infected patients were not compensated for loss of income or other incurred costs. The Ombudsman investigated the matter and recommended that the government compensate the victims (source: TK 2011–2012, 33 172, nr.2). The national government decided to provide 10 million euros for a Q-fever victim support center (providing advice, research, coaching), but denied responsibility for direct financial compensating for the victims (NRC, 11 April 2013).
- **Police.** The Ombudsman annual reports present a great number of individual complaints on policing, but these complaints do not seem to relate to recent reform initiatives such as the reorganization of the national police (Ombudsman Annual reports, 2009, 2010, 2011). The Ombudsman instead praises the professionalism of the police (Ombudsman Annual report 2009, p.16), in contrast and in reaction to earlier reports (Van den Brink, 2007, Ministry of Interior, 2006; Adang et al, 2009) that discerned a depravation trend in the relationship between police and citizens. The Ombudsman pays a lot of attention in its report to this issue and doubts whether this trend reveals an actual pattern of deterioration, or the fact that both citizens and police expect too much of each other. Therefore the ombudsman increasingly registers complaints that do not reflect an actual increase of the number and severity of incidents (p.16-24).

Most legal cases regarding the civil protection system in the Netherlands pertain to incidents with casualties among first responders. For instance, there have been three diver incidents (Urk, 2007, Utrecht, 2001 and Terneuzen, 2008) where fire service volunteers have died because of improper training, procedure or equipment. The incidents with the fire service divers motivated many smaller municipal fire services to quit operating a diving team as a specific skill because they could no longer uphold the safety requirements in terms of training and equipping the staff. With the regionalization of the fire services, economy of scale will help to overcome this problem.

3.3.3 Popular Trust and Support

Popular perceptions – general

Citizens in the Netherlands feel relatively safe/secure. The most recent Dutch poll (*Risico en Crisis Barometer*, June 2012) reveals that the 75% of the Dutch do not worry about the probability that they ever get involved in a major disaster (with another 21% of the respondents reacting neutrally). Special Eurobarometer 383/2012 indicates that the Dutch worry slightly more than average (=EU27) about natural disasters and manmade accidents than about terrorism and conflict crises. See also Section 2.3.1 of this study. The majority of citizens think their government is doing enough to fight terrorism (71%) and disasters (64%) (Special Eurobarometer 371/2011). Incidents do indeed seem to

affect popular perception and trust in the short run, but confidence returns in due time (in the absence of new incidents). It is impossible to relate electoral results directly to Dutch crises and crisis management in general.

In Eurobarometer 328, on ‘The Need for the EU to Support Member States in Times of Crisis’, only 17% of the Dutch indicate that their government might not have sufficient national means to face a major disaster (compared to 20% average of the EU 27).

4. Dutch civil security in the EU context

The Netherlands made several contributions to disaster response and relief, predominantly to non-EU countries through coordination by the EU’s Monitoring and Information Centre (MIC). Since the creation of the EU’s MIC, the Netherlands has only once requested (and received) assistance from the other member states. During the severe winter weather of 2010, unprecedented snowfall and prolonged winter conditions caused a sudden shortage of road salt. The Dutch requested road salt supplies through the MIC and received offers for up to 1 million tons of salt from Austria, Belgium, Denmark, Estonia, France, Greece, Ireland, Italy, Norway and Poland.

Over time, the Netherlands made several contributions to disaster response and relief through the MIC, predominantly outside the EU (see table below).

Table 9. MIC activations – the Netherlands

Assistance period (including pre-alert)	Crisis type and country affected	Request/Contribution by the Netherlands
24.08 – 05.09.2007	Forest fires in Greece	Contribution: 2 Cougar helicopters
13.05 – 17.06.2008	Earthquake in China	Contribution: in-kind assistance
30.09 – 09.10.2009	Earthquake in Indonesia	Contribution: MIC assessment and coordination team deployed on site
07.01 – 21.01.2010	Floods in Albania	Contribution: MIC assessment and coordination team deployed on site
11.01 – 25.01.2010	Snowfall in the Netherlands	Request: 80-100 million kg of salt for roads
12.01. – 06.04.2010	Earthquake in Haiti	Contribution: 1 Urban Search and Rescue team
29.04 – 23.08.2010	Gulf of Mexico oil spill (United States of America)	Contribution: 3 Koseq Rigid sweeping arms, 1 ocean buster, 2 current busters
17.05 – 25.06.2010	Floods in Poland	Contribution: 1 team, 1 pump
25.05 – 01.07.2010	Floods in Hungary	Contribution: 100,000 sandbags
11.03 – 11.05.2011	Earthquake in Japan	Contribution: 2,000 mattresses

20.06 – 29.07.2011	Volcano eruption in Argentina	Contribution: toxicology, European Civil Protection team
13.10 – 19.10.2011	Floods in Southeast Asia	Contribution: experts
24.10 – 22.11.2011	Earthquake in Turkey	Contribution: tents and non-food items

Source: European Community Civil Protection Mechanism; Activations overview, 2012

The Dutch policy position on international agreements and political discussions on the matter of international assistance is that priority should be given to (financing of) enhancing local capacity and regional assistance. Sending teams and equipment across the continent or across the globe may be attractive from a public relations point of view (the perfect photo opportunities), but is seldom the most effective or efficient form of support. Within the EU, the Dutch prefer the current situation (every member state is responsible for organizing their national capacity in relation to their national risk assessment – member states provide each other assistance upon request) to the new proposals to pool or organize operational response capacity at the EU level.

The Netherlands is actively contributing to civil protection initiatives and activities throughout the EU. The Netherlands participates selectively in the EU exchange of experts programme, in the EU civil protection mechanisms training programme and EU-led civil protection simulations. The Dutch seek to contribute according to their specializations (defining what expertise and equipment they can contribute) and needs in terms of risk assessment and national exercise schedules (defining which exercises and trainings could best be joined at the EU level).

The survey measuring Dutch citizens' awareness of the EU as coordinator of civil protection indicates limited awareness of EU crisis management policy and capacity. Special Eurobarometer 383/2012 shows that when asked whether they were aware of the EU coordinating civil protection both inside and outside its borders, 38% of the respondents answered positively, while another 57% were not familiar with this task. Nevertheless, a large majority of the Dutch population (79%) are confident that in the event of a disaster, coordinated EU action is more effective than countries acting individually. As many as 92% of citizens believe that not all states possess sufficient national means to deal with major disasters, and they support EU coordination in light of their agreement (91%) that such events can have cross-border effects. The same source depicts that only 16% of the Dutch population consider themselves fairly informed about civil protection activities of the EU, alongside 54% who indicate not being very well informed, and 29% who indicate they are not at all informed on the same matter.

5. Conclusions

The Dutch have a long history of mitigating disasters. Due to the persistent threat of water, the Netherlands has always invested heavily in disaster prevention and matching response capacity to known risks. They have successfully applied this approach and extensive experience to other types of threats. While there have been man-made accidents in the past decades, the negative effects of natural disasters or high numbers of casualties or victims remain rare.

The constitutional and legal framework has fragmented responsibilities and authority for crisis and disaster management. This necessitates coordination and cooperation among the many involved agencies. The upside is that involvement of multiple parties increases legitimacy and support. Moreover, administrative authorities and operational agencies across the many disciplines and territories are relatively familiar with each other's way of working, which should enhance cooperation in crises. However, budgets are scattered, which makes establishing causal relations between costs and benefits nearly impossible. Efforts to promote efficiency are uncoordinated and the results are often unclear.

Citizens' trust in the government's crisis management capacity is relatively high, and surveys indicate that citizens judge the probability of ever getting involved in a major disaster as low to very low. Each crisis and large-scale incident is evaluated and investigated intensely and the civil protection system is subject to constant reform and adaptation. These evaluations suggest that operational response efforts are usually timely and effective. Furthermore, emergency officers appear to be well trained, highly experienced and well-connected, and tend to work around impending reorganizations, recently introduced tools and new protocols.

This paper describes and analyzes the Dutch system to prevent and respond to crises and disasters. It is a 'living document' and will be periodically updated.

References

- Association of Dutch Fireservice volunteers, at <http://www.brandweervrijwilligers.nl/dossiers-regionalisering/>
- Berenschot, 2011. Evaluatie Aanpak Nieuwe Influenza A (H1N1). [online] Available at <http://www.rijksoverheid.nl/documenten-en-publicaties/kamerstukken/2011/03/14/kamerbrief-evaluatie-nieuwe-influenza-a-h1n1---de-mexicaanse-griep.html> [Accessed on 14.12.2012].
- Brainich, E., 2009. Het Systeem van Crisisbeheersing in Hoofdlijnen: Bevoegdheden en Verplichtingen in de Responsfase, In: Muller et al (eds.) Crisisbeheersing op Hoofdlijnen Belicht, Wolters Kluwer.
- Commissie Alders, 2001. Commissie Onderzoek Cafebrand Nieuwjaarsnacht 2001, Eindrapport, see <http://www.nbdc.nl/cms/show/id=520891>
- Commissie Brouwer, 2002. Krachten Bundelen voor Veiligheid: Regionaal Denke, Lokaal Doen. Vereniging Nederlandse Gemeenten (VNG).
- Commissie Noordanus, 2012. Advies Bestuurlijke Werkgroep Bovenregionale Samenwerking, see <http://www.veiligheidsberaad.nl/pdf/Rapport%20bestuurlijke%20werkgroep%20bovenregionale%20samenwerking%20VenJ%20en%20VB%2014%20juni%202012.pdf>
- Commissie Oosting, 2000. Commissie Onderzoek Vuurwerkramp, Eindrapport, 2000.
- Commissie-Brouwer, 2002. Krachten Bundelen voor Veiligheid, VNG 2002.
- Dutch Rescue Brigades (*Reddingsbrigades*) [online] Available at: <http://www.reddingsbrigade.nl/rvr> [Accessed on: 30.10.2012]. See also on this website: Eindrapport Pilot Regionale Voorziening Reddingsbrigades [pdf], November 2009.
- EM-DAT: The OFDA/CRED International Disaster Database[online] – www.emdat.be – Université catholique de Louvain – Brussels – Belgium.
- European Commission, 2009. *Special Eurobarometer 328*. [pdf] Available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_328_en.pdf [Accessed on 03.10.2012].
- European Commission, 2011. *Special Eurobarometer 371*. [pdf] Available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_371_en.pdf [Accessed on 03.10.2012].
- European Commission, 2012. European Community Civil Protection Mechanism: Activations overview 01.01.2007-31.12.2011. [pdf] Available at: http://ec.europa.eu/echo/files/policies/disaster_response/EUCPM_activations_since_0101007.pdf [Accessed on 03.10.2012].
- European Commission, 2012. *Special Eurobarometer 383*. [pdf] Available at: http://ec.europa.eu/public_opinion/archives/ebs/ebs_383_en.pdf [Accessed on 03.10.2012].
- European Commission. *Vademecum*. [online] Available at: http://ec.europa.eu/echo/civil_protection/civil/vademecum/index.html [Accessed on 12.09.2012]
- Europol, 2012. *EU Terrorism Situation and Trend Report*. [online] Available at: <https://www.europol.europa.eu/sites/default/files/publications/europoltsat.pdf> [Accessed on 24.09.2012].
- Hofstede, G., 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*. Second Edition. Thousand Oaks CA: Sage Publications.

- Hofstede, G., Hofstede, G., J., Minkov, M., 2010. *Cultures and Organizations: Software of the Mind*. 3rd Edition. New York: McGraw-Hill USA.
- Inglehart, R., Welzel, C., 2005. *Modernization, Cultural Change and Democracy*. New York: Cambridge University Press.
- Inspectie Openbare Orde en Veiligheid, 2009. *Rapport: Koninginnedag 2009 Apeldoorn*. [online] Available at: <http://www.ivenj.nl/actueel/inspectierapporten/rapport-koninginnedag-2009-apeldoorn.aspx> [Accessed on 06.12.2012].
- Inspectie Openbare Orde en Veiligheid, 2009. *Rapport: Poldercrash 25 februari 2009*. [online] Available at: <http://www.ivenj.nl/actueel/inspectierapporten/rapport-poldercrash-25-februari-2009.aspx> [Accessed on 06.12.2012].
- Inspectie Openbare Orde en Veiligheid, 2011. *Rapport: Brand Chemie-Pack Moerdijk*. [online] Available at: <http://www.ivenj.nl/actueel/inspectierapporten/rapport-brand-chemie-pack-moerdijk.aspx?cp=131&cs=64514> [Accessed on 06.12.2012].
- Inspectie Openbare Orde en Veiligheid, 2011. *Rapport: Brand Strabrechtse Heide*. [online] Available at: <http://www.ivenj.nl/actueel/inspectierapporten/rapport-brand-strabrechtse-heide.aspx> [Accessed on 07.12.2012].
- Inspectie Openbare Orde en Veiligheid, 2011. *Rapport: Schietincident in 'De Ridderhof' Alphen aan den Rijn*. [online] Available at: <http://www.ivenj.nl/actueel/inspectierapporten/rapport-schietincident-in-de-ridderhof-alphen-aan-den-rijn.aspx> [Accessed on 07.12.2012].
- International Search and Rescue Advisory Group (INSARAG). *INSARAG External Classification*. [online] Available at: <http://insarag.org/en/iec/iec-leftmenu.html> [Accessed on 25.09.2012].
- Ministry of Defence, 2011. [online], Annual report National Budget, article 24, http://www.rijksbegroting.nl/2011/verantwoording/jaarverslag,kst169986_11.html
- Ministry of Defence, 2011, Annual report National Budget, article 24, http://www.rijksbegroting.nl/2011/verantwoording/jaarverslag,kst169986_11.html
- Ministry of General Affairs/ Prime Minister's Cabinet (*Ministerie van Algemene Zaken*), 2009. *Jaarevaluatie Postbus 51-campagnes 2009*. [pdf] Available at: <http://www.rijksoverheid.nl/documenten-en-publicaties/rapporten/2010/06/11/jaarevaluatie-postbus-51-campagnes-2009.html> [Accessed on 24.10.2012].
- Ministry of Interior, 2011. Annual report National Budget, [online] article 23, http://www.rijksbegroting.nl/2010/voorbereiding/begroting,kst132823b_8.html
- Ministry of Public Health (*Ministerie van Volksgezondheid, Welzijn en Sport*), 2012. *Kamerbrief over Commissie Aanschaf Vaccins Nieuwe Influenza (H1N1)*. [online] Available at: <http://www.rijksoverheid.nl/documenten-en-publicaties/kamerstukken/2012/10/24/kamerbrief-over-commissie-aanschaf-vaccins-nieuwe-influenza-h1n1.html> [Accessed on 14.12.2012].
- Ministry of Security and Justice, 2010. *Brochure Wet Veiligheidsregio's, deel 1, aanleiding*, The Hague: SDU.
- Ministry of Security and Justice, 2010. *Risico- en Crisisbarometer*. [pdf] Available at: <http://www.nctv.nl/onderwerpen/a-z/risico-en-crisisbarometer.aspx> [Accessed on 03.10.2012].
- Ministry of Security and Justice, 2011, [online] Annual report National Budget, http://www.rijksbegroting.nl/2011/verantwoording/jaarverslag,kst169969_13.html

- Ministry of Security and Justice, 2011. *Nationale Risicobeoordeling*. [pdf] Available at: <http://www.rijksoverheid.nl/documenten-en-publicaties/rapporten/2012/08/15/nationale-risicobeoordeling-2011.html> [Accessed on 24.10.2012].
- Ministry of Security and Justice, 2011. *Risico- en Crisisbarometer*. [pdf] Available at: <http://www.nctv.nl/onderwerpen/a-z/risico-en-crisisbarometer.aspx> [Accessed on 03.10.2012].
- Ministry of Security and Justice, 2012. *Risico- en Crisisbarometer*. [pdf] Available at: <http://www.nctv.nl/onderwerpen/a-z/risico-en-crisisbarometer.aspx> [Accessed on 03.10.2012].
- Ministry of Security and Justice, campaign website “What do you do”, informs about risks, response efforts and options to enhance their own resilience, see <http://www.watdoeje.nl/>.
- Ministry of Security and Justice, National Coordinator for Counterterrorism and Security at www.nctv.nl
- National Consortium for the Study of Terrorism and Responses to Terrorism (START), 2012. Global Terrorism Database [Data file]. Available at: <http://www.start.umd.edu/gtd>.
- National Coordinator for Security and Counterterrorism (2013) National Manual on Decision Making in Crisis Situation, english version.
- National Operational Coordination Centre (*Landelijk Operationeel Coördinatie Centrum, LOCC*). [online] Available at: <http://www.hetlocc.nl/> [Accessed on 24.09.2012].
- Netherlands Institute for Safety (NIFV). [online] Available at: <http://www.nifv.nl/web/show/id=129534> [Accessed on 24.09.2012].
- NRC Handelsblad (2011) ‘De Doe-het-Zelf-Brandweer’, August 6, 2011.
- PreventionWeb. *Netherlands, the National Platform*. [online] Available at: <http://www.preventionweb.net/english/hyogo/national/list/v.php?id=122> [Accessed 12.09.2012].
- Radio Netherlands Worldwide, 2011. *Dutch chemical company "flaunted regulations"*. [online] (12 January 2011) Available at: <http://www.rnw.nl/english/bulletin/dutch-chemical-company-flaunted-regulations> [Accessed on 19 November 2012].
- RAND Europe, Evaluation On National Risk Assessment in the Netherlands, commissioned by the Ministry of Security and Justice, see for english report and summary: <http://wodc.nl/onderzoeksdatabase/preferentieprofielen.aspx?cp=44&cs=6796>
- Recht en Nieuws (2008) Regionale Brandweer Almere Aansprakelijk Voor Duikongeval, see <http://rechtennieuws.nl/20484/regionale-brandweer-en-gemeente-almere-aansprakelijk-voor-verdrinkingsongeval.html>).
- Red Cross, the Netherlands, 2011. *Annual Report 2011*. [online] Available at: <http://www.rodekruis.nl/resultaten/jaarverslagen/jaarverslag-2011/paginas/annual-report-2011.aspx> [Accessed on 30.10.2012].
- Research Council for Safety, 2008. Press release ‘Organisatie Brandweerduiken Schiet Tekort’ <http://www.onderzoeksraad.nl/index.php/pers/persbericht-crisis-duikongeval-terneuzen/>
- Royal Dutch Rescue Service (KNRM) [online], Annual Report, 2011 <http://www.knrm.nl/wat-wij-doen/jaarverslag/> [Accessed on: 30.10.2012].
- RTL news, poll by Maurice de Hond on January 15, 2011, <http://www.nu.nl/binnenland/2423952/overheid-snel-sussend-moerdijk.html>
- Stichting Impact, independent agency created by government to provide victim support in the aftermath of crises and disasters, see <http://www.impact-kenniscentrum.nl>.

- Tonnaer, C., 2008. Burgerparticipatie bij Rampen: Op waarde geschat? *Tijdschrift voor Veiligheid* 2008 (7) 2, pp.42-53
- Tonnaer, C. et al., 2012. *Ontwikkelingen in internationale rampenbestrijding: Nederland en de Europese Unie*, Netherlands Institute for Safety (NIFV)
- United Nations Disaster Assessment & Coordination (UNDAC), 2011. *Emergency Response Missions*. [pdf] Available at: <http://ochanet.unocha.org/p/Documents/LATEST%20UNDAC%20Missions%20Table.pdf> [Accessed on 25.09.2012].
- United Nations Office for the Coordination of Humanitarian Affairs (OCHA). *UNDAC*. [online] Available at: <http://www.unocha.org/what-we-do/coordination-tools/undac/overview> [Accessed on 25.09.2012].
- Urban Search and Rescue Team (USAR). [online] Available at: <http://www.usar.nl/> [Accessed on 24.09.2012].
- Wijkhuis, V., Van Duin, M. et al., 2012. *Crisisbeheersing in Europa: Een vergelijking van Nederland met België, Duitsland, Frankrijk, het Verenigd Koninkrijk en Zweden*, Netherlands Institute for Safety (NIFV)
- Wilcox, M., 2011. Press Review Thursday 6 January 2011. *Radio Netherlands Worldwide*, [online] Available at: <http://www.rnw.nl/english/article/press-review-thursday-6-january-2011> [Accessed on 19 November 2012].

ANNEX I: List of bilateral and multilateral agreements

(source: LOCC Handbook Operational Assistance, 2010, part 2 'International Assistance', pp.13-22)

Specific agreements preceding the EU civil protection mechanism are:

- *Besluit van de Europese Raad inzake de intensivering van de grensoverschrijdende Samenwerking*, 23 juni 2008.
- *Beslissing van de Europese Commissie ten aanzien van de verbeterde samenwerking van speciale interventieteams van de verschillende lidstaten in crisissituaties*, 6 december 2006 (15437/06).
- European Council, *Kaderovereenkomst inzake grensoverschrijdende samenwerking tussen territoriale gemeenschappen of autoriteiten*, signed by the Netherlands, Belgium, Denmark, France, Germany, Spain, Greece, Luxembourg, Ireland, Italy, Portugal, Austria, Finland, Sweden, Great Britain en Northern-Ireland, Madrid, 21 May 1980.
- *Verdrag in het kader van de intensivering van de grensoverschrijdende samenwerking, in het bijzonder ter bestrijding van het terrorisme, de grensoverschrijdende criminaliteit en de illegale migratie*, Prüm, 27 May 2005 signed by the Netherlands, Belgium, France, Germany, Luxembourg, Great Britain, Austria and Spain.

Bilateral Germany

- *Overeenkomst tussen Nederland en Duitsland inzake wederzijdse bijstandsverlening bij het bestrijden van rampen, zware ongevallen daaronder begrepen*, Bonn: 1988
- *Overeenkomst tussen Nederland en Duitsland inzake grensoverschrijdend politieoptreden en de samenwerking in strafrechtelijke aangelegenheden*, Enschede 2006.
- *Euregioonaal rampenplan voor de Euregio Maas-Rijn-Noord*.
- *Afspraken met betrekking tot grensoverschrijdende geneeskundige, brandweer-, technische en specialistische hulpverlening in de Euregio Maas-Rijn*.
- *Grensoverschrijdend samenwerkingsplan bij rampen en zware ongelukken tussen de regio's Noord- en Oost Gelderland, Twente, Grafschaft Bentheim ("Landkreis") en het district Borken ("Kreis")*
- *Grensoverschrijdend bijstandsplan van de Technisches Hilfswerke, Landesverband Nordrhein-Westfalen, voor inzet in Nederland bij de dagelijkse hulpverlening in de brandweerregio's Twente, Noord- en Oost-Gelderland, Gelderland Midden, Gelderland Zuid, Limburg-Noord en Zuid-Limburg*.
- *Grensoverschrijdend bijstandsplan van de Technisches Hilfswerk, Länderverband Bremen/Niedersachsen, voor inzet in Nederland bij de dagelijkse hulpverlening in de brandweerregio's Groningen, Drenthe, IJsselland en Twente*.

Bilateral Belgium

- *Overeenkomst tussen het Koninkrijk der Nederlanden en het Koninkrijk België inzake wederzijdse bijstandsverlening bij het bestrijden van rampen en ongevallen*, Den Haag: 1984
- *Bilaterale overeenkomst tussen de Provincies Luik (België) en Limburg (Nederland)*, 2004.
- *Bilaterale bijstandsovereenkomst tussen de provincies Noord-Brabant en Limburg (België)*, Den Bosch: 1992.

- *Rampenprotocol en handboek rampenprotocol Euregio Scheldemond* (provinces of Zeeland/NL, and Oost- en West Vlaanderen/B)

Multilateral Benelux

- *Memorandum van overeenstemming tussen Nederland, België en Luxemburg over samenwerking op gebied van crisissen met mogelijk grensoverschrijdende effecten*, Senningen: 1996
- *Verdrag tussen het Koninkrijk België, het Koninkrijk der Nederlanden en het Groothertogdom Luxemburg inzake grensoverschrijdend politieel optreden.*
- *Benelux, 2009, Beschikking van het Comité van de Benelux economische unie met betrekking tot het grensoverschrijdend spoedeisend ambulance vervoer – M(2009)8*

ANNEX II: List of interview respondents

1. Independent expert crisis management and emergency law, Interview on January 29, 2013.
2. Senior coordinating officer, National Crisis Centre, Ministry of Security and Justice, The Hague. Interview on January 25, 2013.
3. Former deputy Fire department of the Hague Safety Region, and former senior coordinating officer National Operational Crisis Centre. Currently independent crisis management advisor, The Hague. Interview on January 15, 2013
4. Senior coordinating officer, Ministry of Security and Justice, The Hague. Interview on January 15, 2013.
5. Senior Policy Advisor, Ministry of Security and Justice, The Hague. Interview on February 21, 2013.
6. Independent expert crisis management, Leiden. Interview on January 18, 2013.
7. Senior Crisis manager, Departmental Crisis Coordination Centre Infrastructure, Ministry of Infrastructure and Environment, The Hague. Interview on January 16, 2013.
8. Senior policy advisor, Staff Safety Regions Council (*Bureau Veiligheidsberaad*), Arnhem. Interview on January 23, 2013.
9. Senior advisor, National Crisis Centre, Ministry of Security and Justice, The Hague. Interview on January 25, 2013.
10. Senior civil servant national crisis coordination, National Crisis Centre, Ministry of Security and Justice, The Hague. Interview on January 14, 2013
11. Senior Policy Advisor, Ministry of Security and Justice, The Hague. Interview on February 21, 2013.