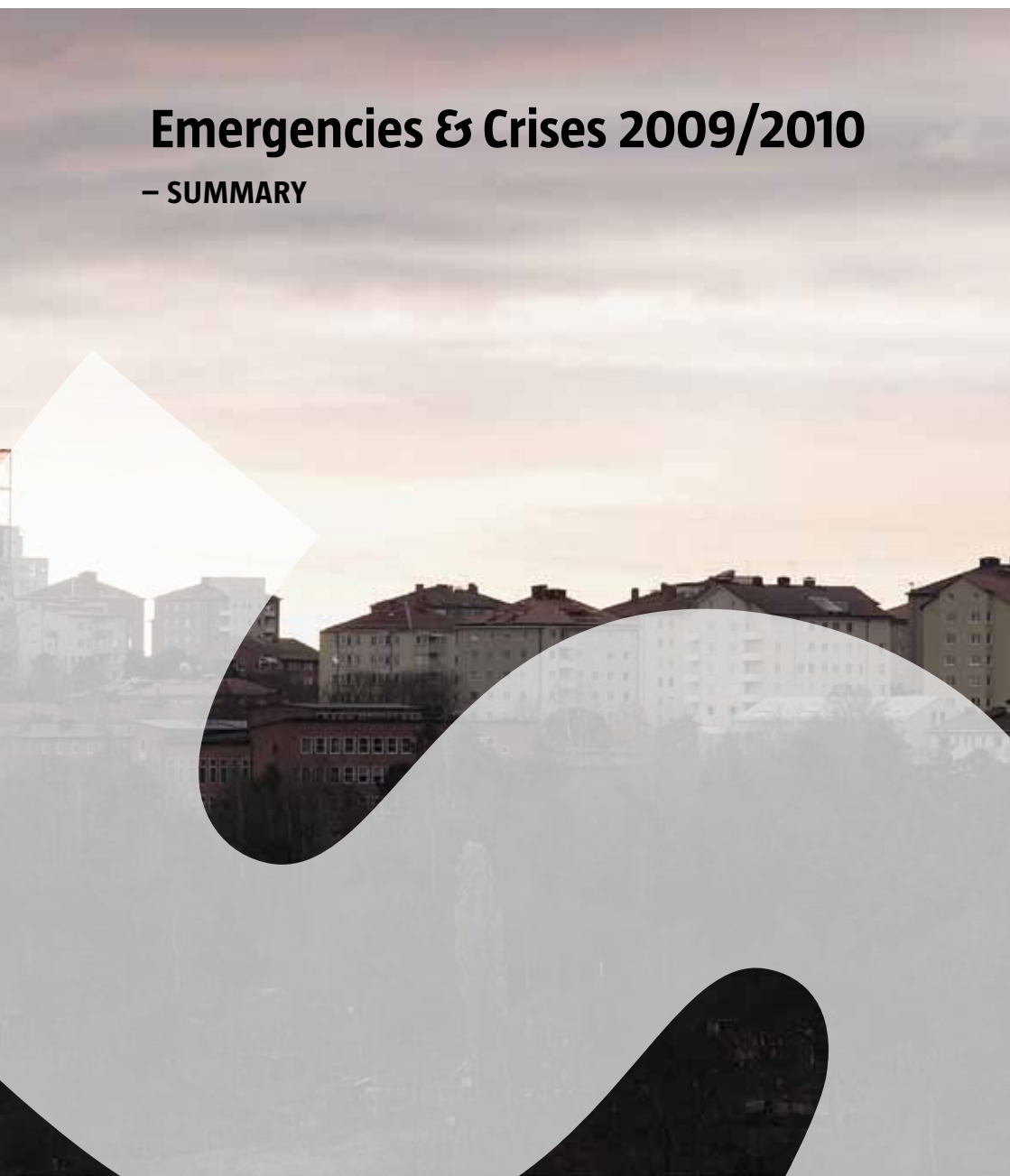




Swedish Civil
Contingencies
Agency

Emergencies & Crises 2009/2010

– SUMMARY





This document is a summary of the report Emergencies & Crises 2009/2010. The report is the first of its type in Sweden and provides a collated assessment of societal threats, risks and vulnerabilities with the aim being to illustrate the entire scale of risks and threats.

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Holistic perspective in safety and security work

Societal protection and emergency preparedness is an area of considerable breadth. The threat and risk scale extends from everyday risks to individuals to emergencies with the potential to harm society at large. Potential consequences might involve physical injury to individuals, damage to property, infrastructure or the environment, but there may also be implications for society or democracy, such as insecurity or a lack of confidence in societal institutions.

Extensive specialisation in society has led to many actors having an in-depth knowledge within their own area of responsibility. At the same time, knowledge of the overall situation and awareness of the opportunities for comparing and contrasting different risks is more limited. Consequently, it is essential to maintain a holistic perspective and integrate the entire threat and risk scale into the daily work of maintaining and enhancing safety, to as great a degree as possible. Safety work is about safeguarding critical societal functions, essential not only to our well being, but to our way of life. It also concerns strengthening societal and individual capacity to prevent and handle accidents and emergencies.

Threats, risks and vulnerabilities

The report is divided into several levels for the purpose of illustrating the whole. Threats against the individual as well as society are divided into *unintentional threats* and *intentional threats*. Next, a division is made between *society's vulnerability or resilience to threats*, and *individual vulnerability or resilience to threats*. Consequences that may result from threats being realised are divided into three different categories:

- The lives and health of the population, i.e. direct and indirect effects concerning life and health, i.e. number of deaths, sick and injured persons.
- Consequences regarding critical societal functions, i.e. the ability of critical infrastructure organisations to deliver critical products and services that sustain normal, everyday life.
- Fundamental values, i.e. the ability of societal institutions to uphold values such as, for example, democracy, legal security and human rights and liberties.

Statistics must be gathered, within the area of accidents, in order for us to be able to comment on the accident and emergency development in society. However, there are no statistics on emergencies as these are infrequent. It is therefore difficult to comment on the future development of emergencies in society. All we can measure in terms of emergencies is the number of injuries, measured as the rate of fatalities per year for major disasters such as, for example, Estonia in 1994 or the 2004 tsunami, when more than 500 Swedish citizens were killed during each respective event. With regard to critical societal functions, it will be essential in the future to compile and analyse statistics, for example, in the areas of electricity supply and telecommunications.





Global changes

It is not only vital to ensure individual protection and safety. Sustaining societal functions and fundamental values is equally important. Societal trends is distinguished by, for example, demographic and socio-economic changes, rapid technological advances, lifestyle changes, climate change and globalisation. While these trends may in combination with each other lead to the emergence of previously unknown risks, new opportunities for increased security and safety may also come to light.

Increased complexity also makes it more difficult to gain an overview of the threats, risks and vulnerabilities in society, which in turn increases the uncertainty of the analyses. Overall, the societal trends may be described as constituting and reflecting a rapidly changing situation with largely unknown consequences in combination with numerous and complex threats. Consequently, it will become more difficult to predict the future development of accidents and especially emergencies and the implications for society. By and large, the conditions for Swedish societal safety and emergency preparedness may change quickly, which also places high demands on the actors involved to take appropriate and effective measures.

Events 2009

Describing in brief all the events in the field of societal safety and emergency preparedness that occur over the course of one year would certainly be a challenge. Therefore, MSB has chosen to give an account of a number of events as examples of the types of accidents and emergencies that may occur in society during a year. On a national level in 2009, considerable focus was placed on the financial crisis and recession as well as the spread of the new strain of H1N1 influenza virus.

In terms of accidents, there were two large residential fires and a number of school fires. It must be mentioned that thousands of accidents occur each year which are not acknowledged, but have grave

consequences for individual victims and their families. In the case of disruptions within critical societal infrastructure, there were, for example, a number of major electrical supply and telecommunication disruptions in 2009.

Emergency risks

With regard to consequences to human life and the health of the population, the dominant threat or risk to an individual is being involved in an accident. Statistics have shown over time that only one per cent of accident fatalities occur in connection with emergencies or extraordinary events. The overwhelming burden of injury comes from the more mundane, everyday incidents, particularly in home and leisure environments.

Injuries caused by accidents in 2008 accounted for approximately three per cent of the total mortality rate and is thus one of the major causes of death in Sweden. The long term trend of accident fatalities since the 1970s has been downward, but since the mid-1990s it has bottomed out and grown. Each year about 3 000 (33.3 per 100 000 inhabitants) people are killed in accidents, 100 000 (1 100 per 100 000 inhabitants) people are admitted to hospital after being injured in accidents and about 700 000 (7 800 per 100 000 inhabitants) people visit a hospital A&E department for injuries sustained in an accident. However, the number of major accidents, i.e. in which five or more persons are killed, has gradually declined over time both in number and scope.

Types of accidents that have increased most over time result from accidental falls and poisoning, while transport accidents and occupational accidents have decreased in recent decades. Falls currently account for more than 50 per cent of the accident mortality rate, followed by road traffic accidents at around 13 per cent or about 400 (4.4 per 100 000 inhabitants) deaths per year and poisoning (acute cases of alcohol and drug-related poisoning cases) at around 11 per cent or about 300 (3.3 per 100 000 inhabitants) deaths per year.





If instead we divide the proportion of accidents based on the environment in which they occur, it may be noted that the home and leisure sector dominates statistics (about 78 per cent of the total number of accidents).

Several factors may explain the risk to an individual of being involved in an accident. These are primarily associated with age, sex, alcohol and other drug use, environments such as housing, recreational activities, transport, socio-economic conditions and geographical differences. With regard to age and gender factors, the risk of being involved in an accident is highest for children, adolescents, young adults and the elderly. The risk of serious injury and fatality due to accidents increases with age for both sexes. Men are over-represented in almost all types of accidents and about two-thirds of those who die from injuries are men. There is also a considerable over-representation among the elderly who die from injuries sustained, for example, in fall accidents.

Risk for disruptions to societal functions

Societal demand for functioning critical infrastructure continues to increase, as do vulnerabilities and interdependency among different organisations. Critical societal functions includes, above all, maintenance and production of the electricity supply, electronic communications, certain types of IT support, certain parts of transport systems and of municipal technical supplies, such as drinking water and district heating. At the same time, there has been a trend towards increased privatisation and corporatisation of critical societal functions.

One event that could produce a large spillover effect and therefore have serious social consequences is long-term electricity and telecommunications disruption affecting a larger area or several organisations simultaneously. The serious implications of such an event stem from the fact that almost all critical activity is dependent on access to electricity and telecommunications while, at the same time, our means of compensating for the loss of these facilities is still relatively limited. Insufficient robustness is particularly serious in the electricity supply

and electronic communications sectors. In addition, operations such as the drinking water supply and transportation of food supplies, for example, should be sufficiently robust and have adequate margins.

The serious unintentional disruptions and incidents that affect societal functions and safety, as described in the report, concern electricity and telecommunications distribution, the food and drinking water supply, transport and the payment transaction systems. The report also describes electromagnetic disturbances and solar flares, and the widespread discharge or emission of hazardous substances. In the case of threats from intentional disruptions and events, i.e. mainly antagonistic actions, the report describes threats related to terrorism, intentional electromagnetic interference (known as EMP and HEMP), cyber attacks, violent riots and bribes, threats and harassment from, for example, organised crime.

Shortcomings in societal emergency prevention measures

Swedish accident prevention efforts are considered to have maintained high quality in the fields of occupational health and traffic. In addition, Swedish research efforts on safety for children are highly ranked in international comparisons. However, preventative efforts have not been as successful in reducing the number of accidents occurring in the home and leisure environments. With regard to the safety of the elderly (65 years and older), Sweden has not shown any progress in the last decade. One explanation for this could be the lack of clear responsibilities, targets and strategies for prevention work in these fields. Overarching responsibility and a clear strategy for preventive security has long been lacking, for example, in the case of elderly persons involved in falling accidents, the most rapidly increasing accident type.



Shortcomings in societal emergency preparedness measures

Developments in the field of Swedish emergency preparedness have steadily progressed over the past few years, but deficiencies still remain. Significant progress has been made, for example, in terms of institutionalising, structuring and organising Swedish emergency preparedness at national, regional and local levels of society. Cooperation and coordination at the national level has greatly improved, although further development is needed in order to make cooperation more effective, clarify roles and responsibilities and coordinate joint efforts. Important observations and experiences of cooperation have been collected within the framework of collaboration exercises conducted in 2007 and 2008. With regard to emergency preparedness capabilities, a number of shortcomings have been identified in recent years, such as inadequate ability to collaborate across sectors, the lack of supporting resources and reduced margins and robustness in daily operations.

European and global cooperation

EU membership constitutes an opportunity as well as a constraint for Swedish emergency preparedness and has an impact on the national threat situation. By and large, however, the recent changes at EU level may lead to a significant increase in the number of new initiatives and proposals for EU cooperation, which will require cross-sector preparation and implementation at the national level. New forms of cooperation in the field of societal safety have also emerged involving other actors, such as the USA. Meanwhile, the need for more development in civil emergency preparedness during recent years has arisen in the context of, for example, the NATO Partnership for Peace cooperation programme, NATO / PfP.

Facts about Sweden

Area	450,000 km ² (174,000 sq. mi.), 3rd largest country in Western Europe
Urban and industrial land	3%
Forest	53%
Bare rocks and mountains	12%
Agricultural land	8%
Lakes and rivers	9%
Marshland	9%
Grassland	7%
Longest north-south distance	1,574 km (978 mi.)
Longest east-west distance	499 km (310 mi.)
Capital	Stockholm
Population	9,33 million inhabitants (about 0.14% of the world's population)
Foreign-born inhabitants	13.8%
Languages	Swedish. Recognized minority languages: Sami (Lapp), Finnish, Meänkieli (Tornedalen Finnish), Yiddish, Romani Chib
Form of government	Constitutional monarchy, parliamentary democracy
Parliament	The Riksdag with 349 members in one chamber
Religion	82% belong to the Evangelical Lutheran Church of Sweden
Average life expectancy	Men 79 years, women 83 years
Labour force participation	Men 74.0%, women 68.3%
Most important export goods	Machinery and transport equipment, industrial machinery, chemicals and rubber products, electronics and telecommunications equipment, wood and paper products, minerals, road vehicles, pharmaceuticals
Most important import goods	Electronics and telecommunication, chemicals and rubber products, industrial machinery, foodstuffs, road vehicles, minerals

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