

# REGIONAL RISK AND VULNERABILITY ANALYSIS

CRISIS PREPAREDNESS IN KRONOBERG COUNTY 2018



LÄNSSTYRELSEN  
I KRONOBERGS LÄN

## INTRODUCTION

The regional risk and vulnerability analysis describes the risks and threats faced by Kronoberg County as well as the capability of managing crises which might arise. The analysis is an important basis for those who work with crisis preparedness.

Authorities and organisations have an important role in preventing and managing crises but the inhabitants of Kronoberg County can also increase their crisis readiness in various ways. By providing a brief description

of the vulnerabilities and threats faced by Kronoberg, we want to give an insight into the circumstances of the County and increase awareness of what risks exist, what situations might arise and how it is possible to prepare for them. Knowledge about the risks that exist can mean that people are better prepared if a crisis happens.

## ABOUT KRONOBERG COUNTY IN 2018

- Kronoberg County covers an area of 9,400 km<sup>2</sup> which is dominated by forest. 73% of the land is used for forestry and approximately one tenth of the area of the County is comprised of lakes.
- There are eight municipalities in the county; Alvesta, Lessebo, Ljungby, Markaryd, Tingsryd, Upplöv, Växjö and Älmhult.
- A total of approximately 198,000 people live in Kronoberg. Växjö is the municipality in the county with the largest population, followed by Ljungby and Alvesta. 78% of the inhabitants of Kronoberg live in urban areas. The County has a population density of approximately 20 people per square kilometre.
- In 2017 the population of the county increased by 1.5%.
- Two railway networks pass through Kronoberg, the Southern Main Line (Södra stambanan) and the Coast-to-Coast Line (Kust till kust-banan). The E4 and National Roads 23 and 25 also pass through the County. Växjö Småland Airport is located in Kronoberg with both domestic and international flights servicing approximately 180,000 passengers per year.
- Alvesta marshalling yard is the largest and most important railway junction in the County. Over 45,000 passenger and freight trains stop at or pass through Alvesta every year and a large number of people begin, continue or end their journeys there each day.
- Some of the main private employers in the County are Nibe Industrier AB, IKEA AB, Södra Skogsägarna, Ikea of Sweden AB and Vida AB.



*Kronoberg County.*

## COOPERATION WITHIN THE FIELD OF CRISIS PREPAREDNESS

Participants in the Swedish crisis management system all have different roles. None of the organisations has the mandate to assume the areas of responsibility of another and no participant is able to manage a serious incident or crisis alone. This means that the ability to cooperate is at a premium.

The "Krissamverkan Kronoberg" network includes representatives from the municipalities and their emergency services, the County Council, the Police Force, Region Kronoberg, SOS Alarm and the Swedish Armed Forces, to name but a few. The voluntary sector, the University, and trade and industry also collaborate in various ways.

Krissamverkan Kronoberg conducts collaboration before, during and after a crisis. This means that the network works to reduce vulnerability or to increase preparedness to manage different events in advance, as much as when the crisis actually takes place. An important aspect is also knowledge exchange between the organisations as is the joint learning after a crisis.

The County Council has what are known as "regional geographical area responsibilities" and is the organisation which binds together crisis preparedness activities and works for coordination and common direction in the measures which need to be taken. The County Council also has to function as a bridge between the local and national level. If the level of preparedness is raised or war breaks out the County Council must lead and coordinate all civil operations in the County and be the contact point for military operations. When major rescue operations are enacted the County Council may also take over control of the work of the municipal emergency services in one or more municipalities.



## WHAT IS IT THAT NEEDS TO BE PROTECTED?

A risk and vulnerability analysis is based on there being things which need to be protected. They might be, for example, healthcare facilities, water supply or the electricity grid. A joint name for what shall be protected is key civil activities and infrastructures. The Swedish Civil Contingencies Agency (Myndigheten för samhällsskydd och beredskap) defines key civil activities and infrastructures as having to meet at least one of the following criteria:

- A shortage or as severe disturbance in the activity may individually or together with equivalent events in other activities rapidly lead to a serious civil crisis arising.
- The activity or infrastructures is necessary or very important in the management of a civil crisis which has already arisen so that damage and harm done are as limited as possible.

There are key civil activities and infrastructures in Kronoberg County in the following areas:

- Energy supply
- Financial services
- Trade and industry
- Health care and other care services
- Information and communication

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- Foodstuffs
- Public administration
- Social insurance
- Social insurance
- Transport

In order for key civil activities and infrastructures to function they are in turn dependent on a variety of other activities and infrastructures. It could be that food needs to be transported to hospital, that fuel is needed for lorries to be able to deliver their cargoes and that there is a supply of staff to drive those lorries. By clarifying what risks, vulnerabilities and dependencies exist it becomes possible to develop work to make the key civil infrastructures more resilient. This is a task that participants in Civil Contingency Preparedness work with constantly.

## REGIONAL RISK PROFILE

A crisis might occur in one or more municipalities, across the whole county or on a national scale. The regional risk profile describes what might happen and what the consequences might be. The analysis is used as a basis for planning for, for example the County Council and Krissamverkan Kronoberg.

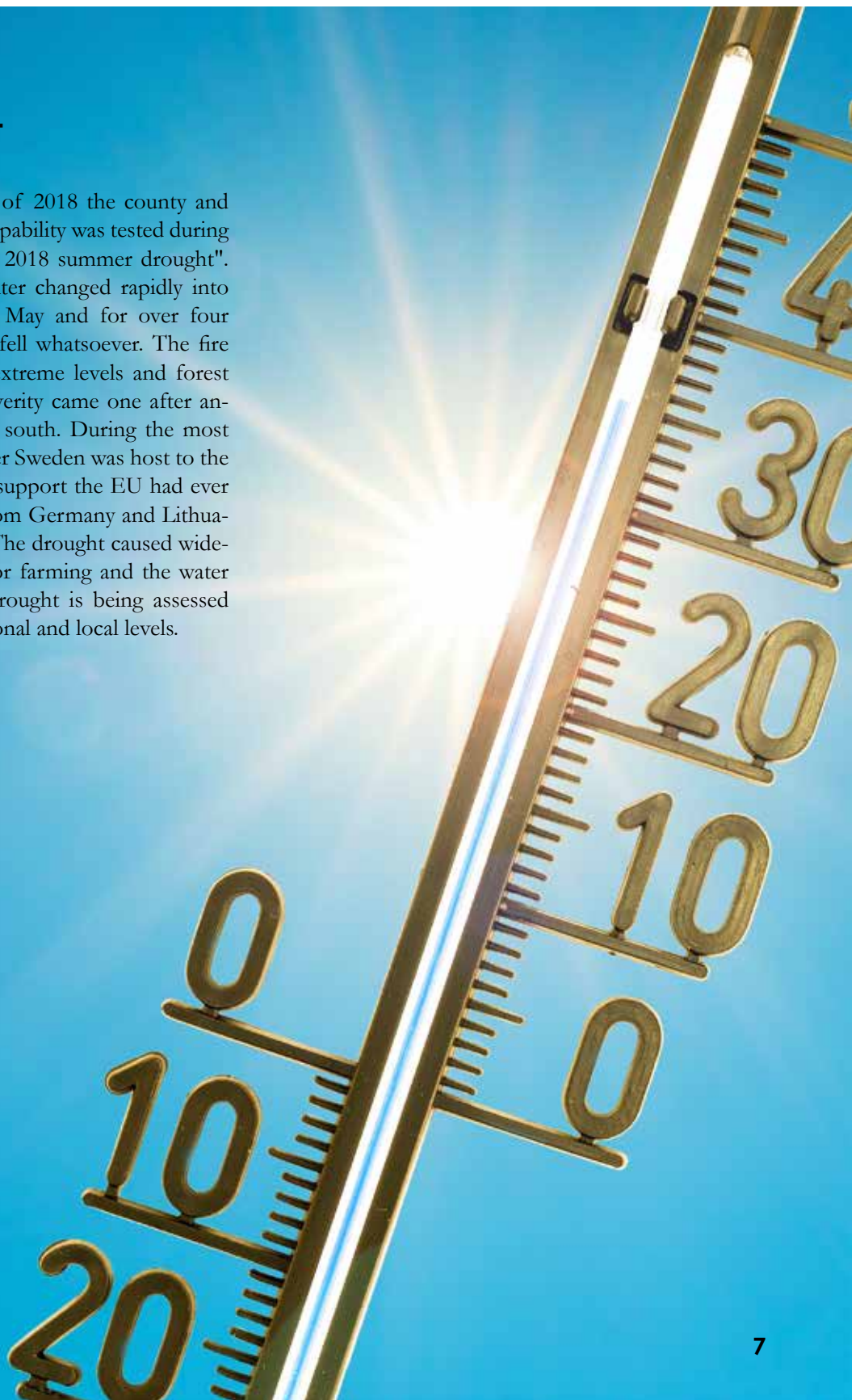
## IN FOREST LAND

Forestry is an important asset for many people in Kronoberg. In addition to forest fires, storms and insect attacks are two threats which might lead to extensive damage and financial loss. Natural events such as forest fires and storms might also mean that people evacuate their homes because there is no electricity or heating or because buildings have been destroyed or cut off.

Kronoberg County has considerable experience of damage and disruption caused by storms, for example Gudrun and Per. As the climate becomes warmer forest fires also pose an increasingly substantial risk. A forest fire might be started by a bolt of lightning or by human action, for example as a result of sparks created during tree felling. The area beside the railway line is also possible risk area due to sparks from trains.

## THE 2018 DROUGHT

During the summer months of 2018 the county and national crisis management capability was tested during what became known as "the 2018 summer drought". The late yet very snowy winter changed rapidly into high summer full bloom in May and for over four months in principle no rain fell whatsoever. The fire risk in many areas reached extreme levels and forest fires of varying sizes and severity came one after another from the north to the south. During the most intense periods of the summer Sweden was host to the largest collective firefighting support the EU had ever seen and three helicopters from Germany and Lithuania were stationed in Växjö. The drought caused widespread problems including for farming and the water supply. The 2018 summer drought is being assessed currently at the national, regional and local levels.



## WATER IN TAPS, STREAMS AND LAKES

Compared with other parts of the country a large proportion of people in Kronoberg get their drinking water from private wells. The main problem with water quality linked to private wells is acidification.

In recent years the groundwater levels have been low and many inhabitants of Kronoberg have had problems with access to drinking water from private wells. In the eastern parts of the county there is a lack of access to groundwater - conditions and access are better in the west. Farming and road traffic are two other factors which negatively impact on drinking water in Kronoberg in the form of, for example, nutrients, pesticides and road salt.

There are a total of approximately 65 municipal water supply sources in the county, of which approximately 50

have water protection areas. Bolmen lake in Ljungby municipality supplies drinking water to a large proportion of the population of Skåne through the Bolmen tunnel. Most of the water supply sources are groundwater sources or groundwater with reinforced infiltration of surface water. For these water supply sources the greatest risks are polluted surrounding areas such as, for example, old glass factory tips, environmentally hazardous activities and roads.

Urban areas in Kronoberg county are often located close to water. Adjacent to Mörrumsån, Helgeån and Lagan there are areas where watercourses sometimes overflow causing serious flooding with an impact on nearby buildings, infrastructure and industry. Large amounts of rain may also impact on the quality of the drinking water.

There are a number of hydroelectric dams in Kronoberg county. The largest dams are located within the watershed of the Lagan in Markaryd municipality and Ljungby municipality and also in the Mörrumsån watershed in Tingsryd municipality. There is also a risk that Kronoberg might be hit if dams in Jönköping County burst.



## ENVIRONMENTALLY HAZARDOUS ACTIVITIES

There are about 100 environmentally hazardous activities in the county and a number of activities which are classed as hazardous under the law regarding protection against accidents. These include, for example, manufacturing industry, gas production plants/depots/terminals, damn sites and airports.

Sites which have the potential to cause accidents with serious consequences also include large-scale cooling plants, petrol stations, agriculture with large amounts of fuel and waste plants with large amounts of plastic or waste which cannot be recycled or incinerated.

Large quantities of hazardous substances are transported through the County's towns and cities, both by road and by rail. The majority of this transport consists of flammable liquids and toxic substances though explosive substances, gases and radioactive substances are also taken through.

The consequences of a leakage of radioactive waste would be very serious. In addition to consequences such as exposure to radiation, there would also be indirect consequences such as people not being able to live on or farm their land.

## ON THE ROADS

Several major roads, the E4 and National Roads 23 and 25, pass through Kronoberg County. An accident with hazardous goods near to a water supply could have devastating consequences. Stretches of road with dense traffic increase the risk of road accidents and many of the roads in the county are particularly vulnerable to accidents with wild animals.

The need of and dependency on transport is great in Kronoberg. This also applies to key civil activities and infrastructures. Health and medical care, for example, is dependent on well-functioning daily transport for sterile products, consumables and medical technology equipment. Another activity that could be hit by transport disruption is care of the elderly.



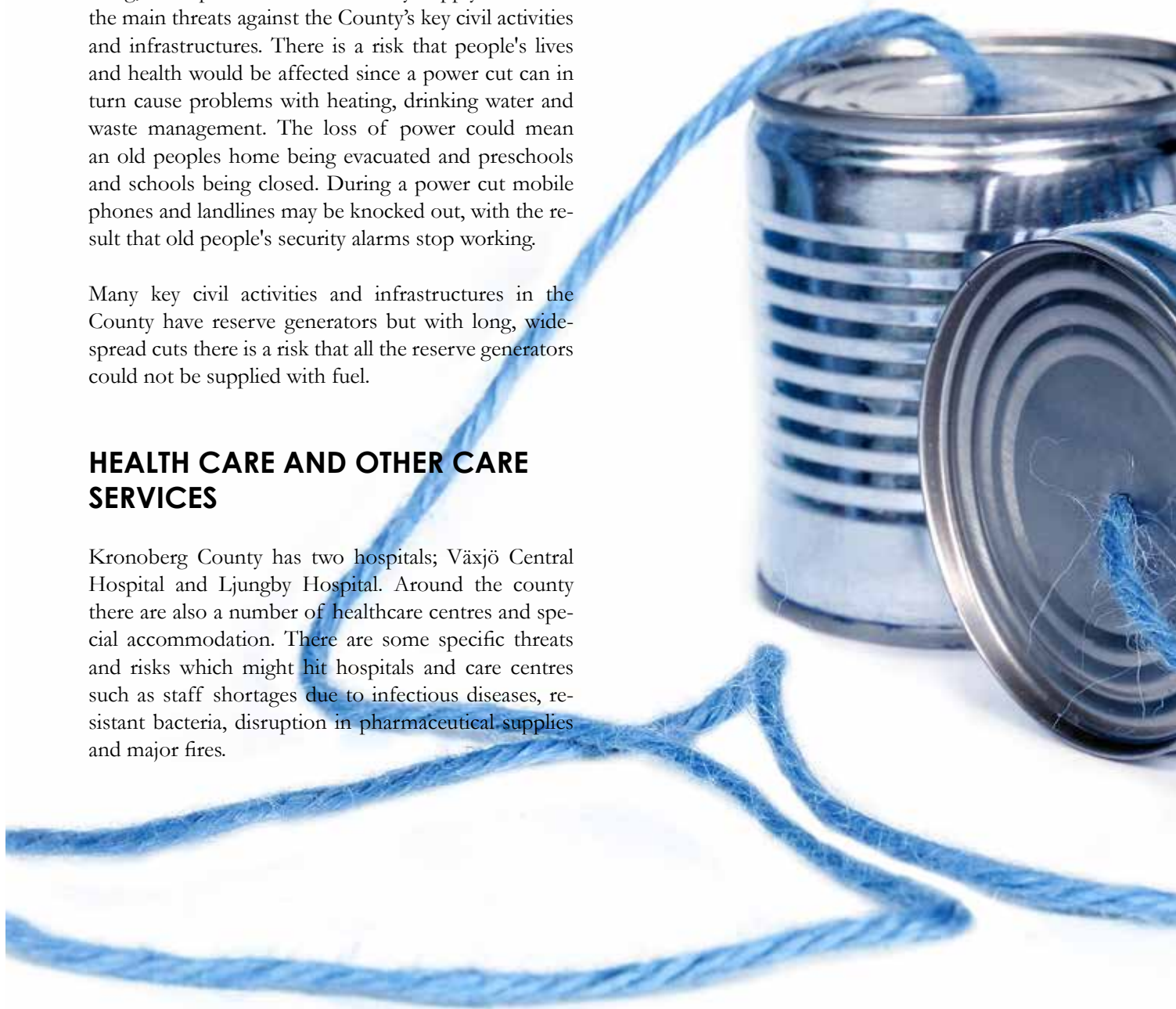
## FUNCTIONING ELECTRICITY AND TELEPHONES

Long, widespread cuts in electricity supply is one of the main threats against the County's key civil activities and infrastructures. There is a risk that people's lives and health would be affected since a power cut can in turn cause problems with heating, drinking water and waste management. The loss of power could mean an old peoples home being evacuated and preschools and schools being closed. During a power cut mobile phones and landlines may be knocked out, with the result that old people's security alarms stop working.

Many key civil activities and infrastructures in the County have reserve generators but with long, widespread cuts there is a risk that all the reserve generators could not be supplied with fuel.

## HEALTH CARE AND OTHER CARE SERVICES

Kronoberg County has two hospitals; Växjö Central Hospital and Ljungby Hospital. Around the county there are also a number of healthcare centres and special accommodation. There are some specific threats and risks which might hit hospitals and care centres such as staff shortages due to infectious diseases, resistant bacteria, disruption in pharmaceutical supplies and major fires.



## THE SECURITY POLICY SITUATION

During recent years the security policy situation in Europe and Sweden has deteriorated. There is currently no military threat against Sweden but due to changes in the world around us the whole country needs to plan at a high level of preparedness. Developments within military and information technology also mean that conflicts are increasingly being fought out at a distance, using different types of media. And the boundary between peace and war is becoming less clear.

Different types of influence campaigns can be carried out against Sweden, directly and indirectly. Deceptive or false information can be disseminated rapidly, for example, via social media and the importance of source criticism is thus fundamental. Each member of the population needs to be able to independently assess information in order not to be convinced by and spread false or deceptive information.

## SOCIAL UNREST AND TERRORISM

Social unrest can manifest itself in different ways in our society. It can, for example, mean threats or attacks against our institutions in the form of spontaneous protests, demonstrations or riots. There is also a risk of the formation of vigilante groups and of antagonism between people increasing.

In Kronoberg County there are segregated estates where unemployment, drug abuse and criminality are higher than in the rest of the County. Such conditions could mean that hostility and antagonism between different groups arise.

Violent extremism is a compound term for movements, ideologies or environments which do not accept the way in which a democratic society is organised and who use violence to further their ideas.

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The Security Forces constantly assess the level of terror threat based on what is known in the present time and based on possible future developments. External events may also be taken into account in the assessment. At present there is no particular risk in our county.



## 2018 ELECTIONS

On 9 September 2018 national, regional and local elections were held in Sweden. Leading up to the elections the Security Services and several other authorities were concerned that the elections might be influenced by foreign powers or extremist nationalist groups. The County Council did the same as a number of other authorities and carried out a special risk and vulnerability analysis before the elections. The Swedish electoral system is robust, decentralised and manual – and thus difficult to

influence. But there is always a risk during elections that attempts at influencing are made which aim to increase antagonism in society and which aim to weaken the democratic system of government. Just before the 2018 elections the Security Services adjudged that the attempts to damage confidence in the election process and the democratic system which had taken place fell well within the expectations of the Security Services and were not expected to present a risk to the election results.



## DISEASE AMONG ANIMALS AND HUMANS

There is always a risk that contagious diseases might reach Kronoberg County. The risk of major outbreaks of disease with consequences severe enough to effect the key civil activities and infrastructures is, however, significantly lower.

One challenge is the increased resistance to antibiotics. Resistant bacteria reduce the ability to treat serious infectious diseases effectively. In addition other types of healthcare are affected if antibiotics are not available during, for example, surgery or cancer treatment.

In Kronoberg County there are pig, beef and battery chicken plants. Diseases which can be spread among animals or from animals to humans include foot-and-mouth disease, swine fever and bird flu. Outbreaks of such diseases can have major consequences for the agriculture industry and society in general.





## KRONOBERG CITIZENS' CRISIS PREPAREDNESS

As a private citizen it is possible to increase one's crisis preparedness in various ways and ensure that in a crisis you have access to food, water, heat and information. It is important to have an insight into what crises might take place and what it is possible to do to prepare oneself and help other people nearby. For example, thinking through how an extended power cut would affect oneself and those nearby is already a first step in mental preparedness for a major crisis.

Having a prepared crisis box can ease the situation greatly. This might contain some extra preserved food and other food which can be stored at room temperature, a can for fetching water, small amounts of cash, extra medicines and a battery-operated radio. It's also important to follow crisis information for example, on Swedish Radio's Programme 4.

The authorities who manage major crises can give out general advice and recommendations but only individual citizens can know how they are affected and what should be done for them and those around them to get by as well as possible during the crisis.

## HELPING OUT AND COOPERATING

Events in Sweden and the world present us with major challenges. We all have a responsibility to help out and cooperate, depending on our circumstances and roles. Inhabitants of Kronoberg can keep themselves informed about the risks and threats which exist and ensure that they are well prepared at home. Public au-

thorities are responsible for cooperating with other groups before, during and after the crisis in order to ensure that the crisis is managed as effectively as possible. By being well prepared and helping each other we can survive difficult situations.



Would you like to know more about the County Council's work with risk and vulnerability analyses?

Visit our website [www.lansstyrelsen.se/kronoberg](http://www.lansstyrelsen.se/kronoberg)

## FOR FURTHER INFORMATION SEE:

Municipality websites:

[www.alvesta.se](http://www.alvesta.se)

[www.lessebo.se](http://www.lessebo.se)

[www.ljungby.se](http://www.ljungby.se)

[www.markaryd.se](http://www.markaryd.se)

[www.tingsryd.se](http://www.tingsryd.se)

[www.uppvidinge.se](http://www.uppvidinge.se)

[www.vaxjo.se](http://www.vaxjo.se)

[www.almhult.se](http://www.almhult.se)

County Council website [www.lansstyrelsen.se/kronoberg](http://www.lansstyrelsen.se/kronoberg)

Hesa Fredrik [www.hesafredrik.nu](http://www.hesafredrik.nu)

Crisis information [www.krisinformation.se](http://www.krisinformation.se)

Your safety [www.dinsakerhet.se](http://www.dinsakerhet.se)

The Swedish Civil Contingencies Agency, 2018  
*If crisis or war comes*