



Swedish Civil  
Contingencies  
Agency

# The MSB's work in relation to natural disasters



## Natural disaster

A natural disaster is a natural event that entails negative consequences for life, property and the environment.



## **The MSB's work in relation to natural disasters**

The MSB (Swedish Civil Contingencies Agency) is a government authority that enhances society's ability to prevent and deal with emergencies and crises. This work is performed both nationally and internationally and in conjunction with local councils, county administrative boards, other authorities and the private sector. When a serious emergency occurs, the MSB provides support to the stakeholders who are responsible for dealing with the incident. The MSB also ensures that society as a whole then subsequently learns from the emergency.

Because of climate change and societal vulnerabilities the assessment of various natural events is that they could become more widespread, occur more frequently and entail greater consequences. The term natural events refers, for example, to landslides, storms, heat waves, floods, and woodland and vegetation fires. To adapt society and reduce or avoid the negative consequences of changing climate, it is important to plan and implement preventive measures. The MSB coordinates, aligns and supports efforts to prevent and manage natural disasters so that all stakeholders can assume their responsibilities, both today and in the future.

## **Identifying threats and risks**

To anticipate and prevent threats and risks is essential for good safety and emergency preparedness. By identifying threats and risks, societal entities gain knowledge of the natural disasters that may occur. The MSB has produced an assessment of national risks and capabilities in order to understand the risks that exist in our country. It allows authorities and organizations to gain increased opportunities to both prevent and prepare for response to natural disasters.

## **We produce maps for areas at risk**

The MSB supports municipalities and county administrative boards in their work on identifying the natural disaster risks that exist in their geographic areas. This is achieved by producing maps of areas at risk from floods and landslides, and also for current fire risk forecasts. The maps can provide support for risk inventories, risk management and community planning.

### *Stability mapping*

These maps identify areas where there is a landslide risk. This is achieved identifying the populated areas that cannot be classed as stable. The intention is that the municipality or other relevant entities can then go on and perform detailed investigations and possibly take preventive measures in the identified areas.

### *Flood mapping*

These maps show areas along lakes and watercourses that are at risk of flooding when the water reaches certain levels. The hydraulic model of the watercourse that is produced developed in conjunction with the mapping can also be used during a flood. It is calibrated for the prevailing conditions and data on water levels, flows and forecasts is sent municipalities and county administrative boards.

As floods have become more common in Europe the EU has produced a requirement that all member states must identify and produce plans for the prevention and management of these risks. The MSB is responsible for mapping the areas around Sweden where the impact of flooding would be most severe.

### *Fire risk forecasts for forests and vegetation*

The overall risk situation for forest and vegetation fires is steered both by weather conditions and the vegetation itself. A fire risk forecast tool that can be used by anyone to gain an understanding of the current fire risk is available on the MSB website. The forecasts are also available in the app. "BRANDRISK Ute". Municipalities and county administrative boards can use the information for decisions regarding open air fire prohibitions or other fire safety measures. The general public and the private sector can also get guidance on the suitability of fires.

## **Reporting high water levels**

Due to snowmelt or heavy rainfall, high flows in watercourses and lakes occur. The MSB continually monitors developments nationwide by gathering data on the water flow situation from each county administrative board. This provides an overall picture and early knowledge of the need for measures, which is then reported back to the county administrative boards but also to the Ministry of Defence so that they also have up to date data on the high water level situation.

## **Forest fire watch from the air**

To be able to detect forest and vegetation fires at an early stage forest fire watch flights are carried out when there is a high fire risk. Forest fire watch flights are administered by the county administrative boards with financial support from the MSB.

## **Grant for preventive measures**

For municipalities that have identified risk areas for natural disasters in built-up areas there is the opportunity to apply for financial support for preventive measures.

Flood prevention measures may include, for example, protection in the form of dikes, pumps, or shut-off devices for water and sewage networks. Landslide prevention measures can include excavations, pressure embankments, erosion control, drainage or the enhancement of the ground with soil with lime-cement columns.

In some cases, the only method of preventing an incident is to move or demolish buildings at risk.



A topographic map of a city area, showing a river flowing through the center. The map uses various colors: red for urban areas, blue for water, and green/yellow for natural terrain. A network of roads and a railway line are also visible. A semi-transparent olive-green box is overlaid on the top left portion of the map.

## DinSäkerhet.se

The web site offers tips on how you can prevent accidents and injuries in the home and free time environments. But also tools for responding correctly when an accident or emergency occurs.

## Training and knowledge strengthen abilities

Everyone in society has a responsibility during emergencies and crises and should have the ability to limit and manage consequences when an incident occurs. The MSB's mission is to support all entities by supplying training and knowledge to improve abilities.

### Research and development

In our work for a safer society knowledge development plays an important role. The research and development that is funded by the MSB in the field of natural disasters should, for example, contribute to better prevention, as well as support for the fire & rescue service and crisis management.

### Training and exercises

The MSB trains and tests people, organizations and authorities both nationally and internationally. We do this so that societal entities will have sufficient ability to limit and manage the consequences of an emergency. They should be able to lead and make decisions within their field of responsibility, and to coordinate their actions with other entities. The MSB also provides specialized training in the field of natural disasters.

## If an emergency occurs

The MSB maintains preparedness to assist in the management of serious emergencies, crises and disasters both in Sweden and overseas. Our mission is to assist and provide support to coordination between Swedish authorities during crisis situations and to assist EU and UN organizations during events outside Sweden.

### Duty Officer Service

The MSB's Duty Officer Service is available 24/7. It continuously monitors developments both in Sweden and internationally to identify situations that may lead to serious emergencies, disasters or crises. The Duty Officer Service mediates requests for resources and/or expertise in support of national and international operations.





## Climate Adaptation Portal

[www.klimatanpassning.se](http://www.klimatanpassning.se) provides information and support for people working in a municipality or county administrative board with societal adaptations for climate change.



## **Cooperation in the event of incidents**

Every week the MSB holds cooperation conferences at the national level, which include, inter alia, the coming week's weather forecast. The aim is to create a forum for exchanges of information for a national status report. In the event of an emergency, meetings are held to coordinate decisions and information, to provide comprehensive situational awareness and coordinate resources.

## **Maps of affected areas**

In order to identify and assess the extent of the damage caused by certain events, for example, forest fires or floods, the MSB offers support to the fire & rescue service, municipalities, county administrative boards and other entities by delivering a service that provides access to maps based on satellite imagery. These maps show the current status of the affected area.

## **When home resources are not sufficient**

When a municipality's and a region's own resources are not sufficient, the MSB maintains extra resources for combating oil pollution, forest fires, hazardous substances and flooding. The MSB is also responsible for Snam (Swedish National Air Medevac). If even more resources are needed help can be gained via the MSB from the EU and Nato.

## **Reimbursement for emergency response costs**

A municipality that incurs significant costs for an emergency response operation is entitled to reimbursement from the state for that portion of the cost that exceeds the municipality's excess. The purpose of reimbursement is to protect municipalities from costs that may be a result of large and protracted emergency response operations.

## Cooperation for the exchange of experience

For exchanging experience and developing prevention work and the management of natural disasters, the MSB works closely with other entities nationally and internationally. This includes participation in a number of delegations, networks, expert groups and cooperation forums. Comprehensive UN work on the Hyogo Framework for Action (HFA), is under way to prevent natural disasters and minimize their effects. To support cooperation between European countries signed up to the HFA there is the European Forum for Disaster Risk Reduction. The MSB is the national contact point for the Hyogo Declaration and the HFA.

## National cooperation for disaster risk reduction

In Sweden there is, in accordance with a UN agreement, a national platform for disaster risk reduction on which authorities organizations interact nationally. The platform works towards preventing and mitigating the effects of natural disasters. The MSB is responsible for coordination, communication and administration of the platform.

## Campaign to reduce urban vulnerability

”Making Cities Resilient” is a global campaign initiated by the United Nations. The work should promote the capacity of municipalities to reduce vulnerabilities for natural disasters. The MSB supports the exchanges of knowledge between participating municipalities, nationally and internationally.

## Our expertise is in demand internationally

The MSB’s resources for international operations are sought after by the EU, the UN and authorities in other countries. The MSB interact entities in other countries to support humanitarian responses to crises and disasters in order to save lives and reduce suffering. Many of these missions are related to natural disasters.

The disaster risk reduction missions are implemented in several ways, by long-term projects to strengthen national and local capacities for disaster prevention and management, and through the sustainable reconstruction of infrastructure and buildings to avoid future disasters.

A photograph of a forest landscape. In the foreground, a tall, dark utility pole stands on the left side, with several white cables or wires running down its length. The ground is covered with a mix of green grass and dry, yellowish-brown vegetation. In the middle ground, there are several fallen tree trunks and branches scattered across the forest floor. The background is filled with a dense forest of tall, thin evergreen trees under a pale, overcast sky. A semi-transparent yellow rectangular box is overlaid on the top left corner of the image, containing text.

## Krisinformation.se

On [Krisinformation.se](https://www.krisinformation.se) you can find information from authorities in the event of emergencies and crises. [Krisinformation.se](https://www.krisinformation.se) also communicates with the public via social media.



Swedish Civil Contingencies Agency (MSB)

SE-651 81 Karlstad Phone +46 (0)771-240 240 [www.msb.se/en](http://www.msb.se/en)

Order No. MSB719 – June 2014