



ESTONIA

Forest fires in Estonia - A Review

The total forest area is 2.011 million ha in Estonia. Forests cover 48% of Estonia's territory. In the five-year period 1999 to 2003, 846 forest fires were registered covering a total area of 4137 ha. The average area of a forest fire was 4.9 ha. Fires that take place in bogs and other areas covered with vegetation are included among forest fires in Estonia.

Table 1. Forest fires in Estonia in 1999-2003

Year	Number of fires	Area burned (ha)	Average area burned (ha)
1999	130	1103.4	8.48
2000	158	683.6	4.33
2001	91	61.7	0.68
2002	356	2081.7	5.85
2003	111	206.6	1.86
Total	846	4137	4,9

The number and area of forest fires varies from year to year. The table shows that there were quite few forest fires in 2001 and the total area of fires was also small. In the next year (2002) 2081.7 ha of forest burned – the biggest area in the last 40 years (in the last extreme fire year 1963 the total area burned was 3755 ha).

Forest fires are caused by the following reasons: human negligence and carelessness – 51%; arson – 13%; natural factors – 1%; reasons unknown – 35%.

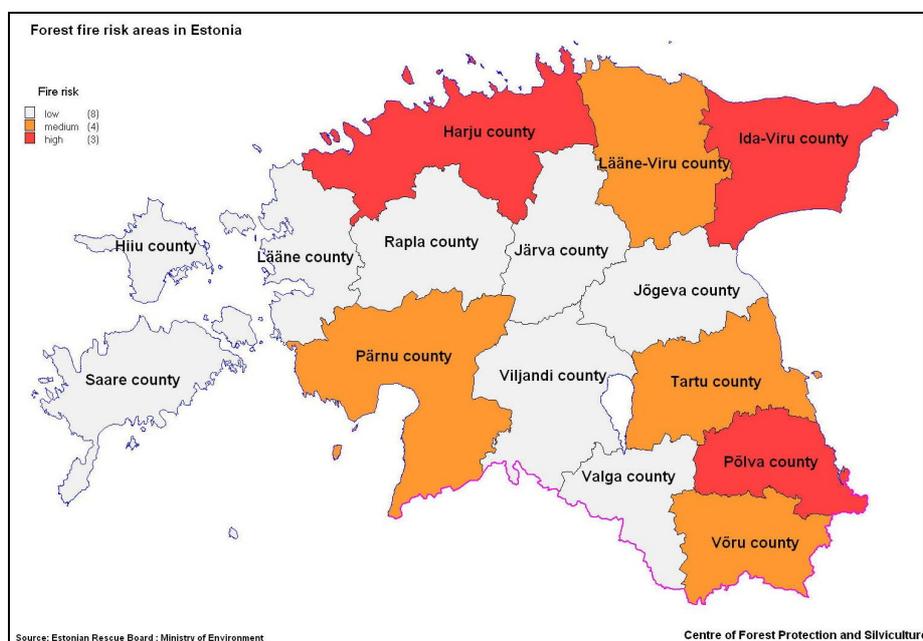


Figure 1. Fire risk map of Estonia

Public policy and the organisation of forest fire protection measures

Fire prevention is the task of the Ministry of the Environment and the Rescue Board under the jurisdiction of the Ministry of Internal Affairs. Pursuant to the Forest Act, the Ministry of the Environment shall monitor the forest fire situation and implement measures to prevent and suppress extensive and especially dangerous fires. Pursuant to "Estonian Forestry Development Programme until 2010" approved by the Parliament in 2002 the main attention in forest protection is paid to the prevention of damages. In state forests, forest fire protection systems are built and maintained by the manager of state forests. In private forests, the state supports forest owners in compliance with the All-Estonian Forest Fire Protection Plan – if there are sufficient funds available. Prospectively, national legislation will be harmonised with international norms on forest fire protection. County Rescue Services prepare forest fire suppression plans each spring.

Detection of forest fires

Forest fires are detected from fire towers and on special patrol flights (started at the third fire risk level). Keen observers also pay phone calls to officials and report of fires detected. Pursuant to the Forest Act, detection of forest fires from fire towers and on patrol flights is the task of State Forest Management Centre, a profit-making state agency.

Notification

Common emergency phone (phone number 112) was introduced. Now all the information on forest fires is received on the same phone. Positioning methods are used to localize fires.

Response Units

Pursuant to the Rescue Act, the suppression of forest fires is the task of the Rescue Board under the jurisdiction of the Ministry of Internal Affairs. The Estonian rescue services have 100 professional fire brigades ready to respond 24 hours a day. An agreement concerning response to emergencies has been concluded with the Defence League and a relevant Act provides for the inclusion of the Defence Forces. The subdivisions of the Rescue Board work to improve the technological basis for forest fire suppression; the aim is to create a mobile and rapidly applied water supply system reckoning with the location and density of Estonian lakes and rivers. Fire pumps of various capacities and hose lines of various diameters have been purchased for this purpose and will further be purchased. One helicopter (type MI-8) and 1 water container (2000 litre) in the possession of the Border Guard Aviation Group can be used for the suppression of forest fires.

Actual research and development projects

A development project aimed at increasing the fire resistance of forests in the Vihterpalu region (Harju County) was launched at the initiative of the Estonian Forestry Board. The final report contains instructions for forest owners (including the state) on dividing certain forest areas of high fire risk with fire protection belts, on digging water ponds and building fire protection roads, on tidying roadsides.

In connection with Estonia's integration into the European Union attention has been paid to compliance with European directives (Council Regulation [EEC] No. 2158/92 and No. 2152/2003) since 2000, and a number of development projects have been planned in this respect. The projects address the determination of fire risk levels and the compilation of fire protection plans. Research projects aimed at determining the reasons for forest fires and their backgrounds have been designed. The Ministry of the Environment orders the research and the projects.

A project aimed at preparing forest fire protection maps for all the rural municipalities was ordered by the Ministry of the Environment and launched in 2004.

Major shortcomings in the fight against forest fires

In the area of prevention, the awareness of the general public is insufficient.

Budgetary funds are insufficient, especially those earmarked for covering expenses related to forest fires.

The lack of human and technical resources can be witnessed when several major forest fires have to be suppressed simultaneously.



Figures 2 and 3. Use of traditional tools and methods of fire fighting in Estonia



Figures 4 and 5. Sufficient supply of water for suppression of fires in organic layers (e.g. in peat and bogs) is critical for successful intervention of the Estonian fire brigades.

Assistance required in case of extensive forest fires

It is our hope to receive fire suppression planes and helicopters equipped with water containers from our neighbouring countries when some extensive forest fire breaks out.

National interest in the regional co-operation of the Baltic States with other regions

Estonia considers the continued co-ordinated activities of the countries in the Baltic region in the sphere of forest fires a high priority.

Co-operation with Finland in what concerns the early detection of forest fires from satellites has been quite successful. We hope this project will be further developed.

Estonia has concluded mutual assistance agreements with the Republic of Finland, the Kingdom of Sweden and the Republic of Latvia in the area of rescue services. These agreements enable us to receive promptly technical assistance and counselling in case of necessity, applying procedures previously agreed upon. So far, we have not used this possibility and we hope there will be no need for it in the future, but the existence of these agreements certainly gives an important positive impact to bilateral co-operation in the area of rescue services in general.

Opening access to one's country for foreign specialists-observers would certainly be a positive development in case of extensive and long-lasting forest fires. The exchange of experience in case of actual disasters would be highly beneficial.

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