

Forest fires in Hungary

2011.

(Reported by: National Food Chain Safety Office, Forestry Directorate)



Fire danger in 2011 fire season in Hungary

FWI values were reported throughout the vegetation period. In 2011, the annual rainfall was significantly fewer than in the previous years.

In April, the fire danger started to rise but it did not reach the “very high” level during all the year. There were only some short periods (days) when the FWI values reached the “very high” level. Total fire ban was ordered two times by the Forestry Directorate last year when lighting any fire was prohibited outdoors.

Although the fire dangerous period was forecasted from April, there were lots of fire events in the north part of Hungary from the beginning of March.

Fire occurrences and affected surfaces

Year	Number of wildfires	Forest fires in Hungary		Fires in other land
		Number of fires	Total burned area (ha)	Number of fires
2007	6691	603	4.636	6088
2008	6639	502	2.404	6137
2009	8658	608	6.463	8050
2010	3120	109	878	3011
2011*	8436	2021	8.055	6415

*Database linking between Forestry Directorate and Fire Service

Although the years shown by the above chart were different, the number of fires was not much less than in 2007 and 2009 when the weather was dry. The chart above shows that 15-20 % of the vegetation fires are forest fires in annual average in Hungary.

Fire databases between Forestry Directorate and Fire Service were linked in 2010. Thus Forestry Directorate could receive day-to-day fire reports. Data of forest fires are prepared by GIS analyses using fire data from linked database, so we could detect more forest fires than in the previous years.

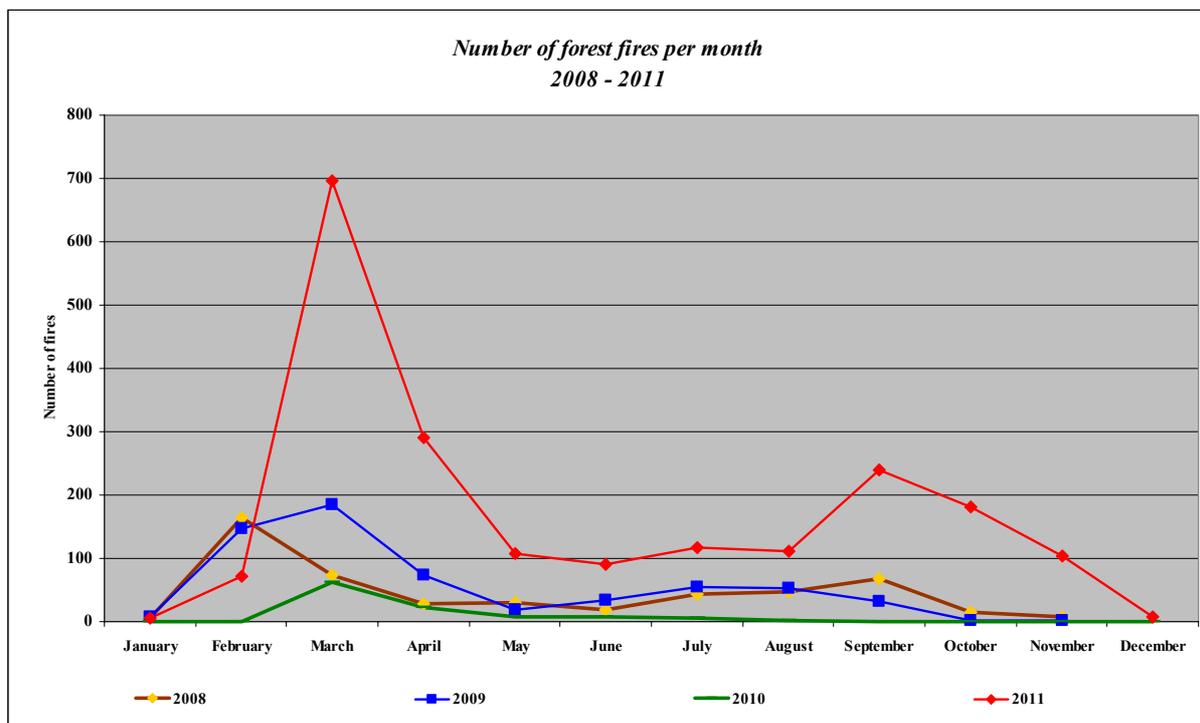
Two-thirds of the burned areas are short grass vegetations burned by the forest fire, as shown in the table below. The numbers of forest fires are in close connection with vegetation fires in agricultural areas. The causes of fire are often the -poorly handled wasteland or grass fires spreading to the forest, or the bad handling during the slash burning in the intensively handled forests.

Burnt fuel types in forest fires	Total burnt area (ha)
Forested land	1.189
Other wooded land	1.721
Other land	5.146

Total:	8.055
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Burnt areas

The data of 2011 demonstrate the trend that there are two separated forest fire dangerous intervals in Hungary. Between 2002 and 2011, the most forest fire occurred in February-April and July-August. In 2011, the interval between March and May was the most critical. 54% of fires started in this part of the year.

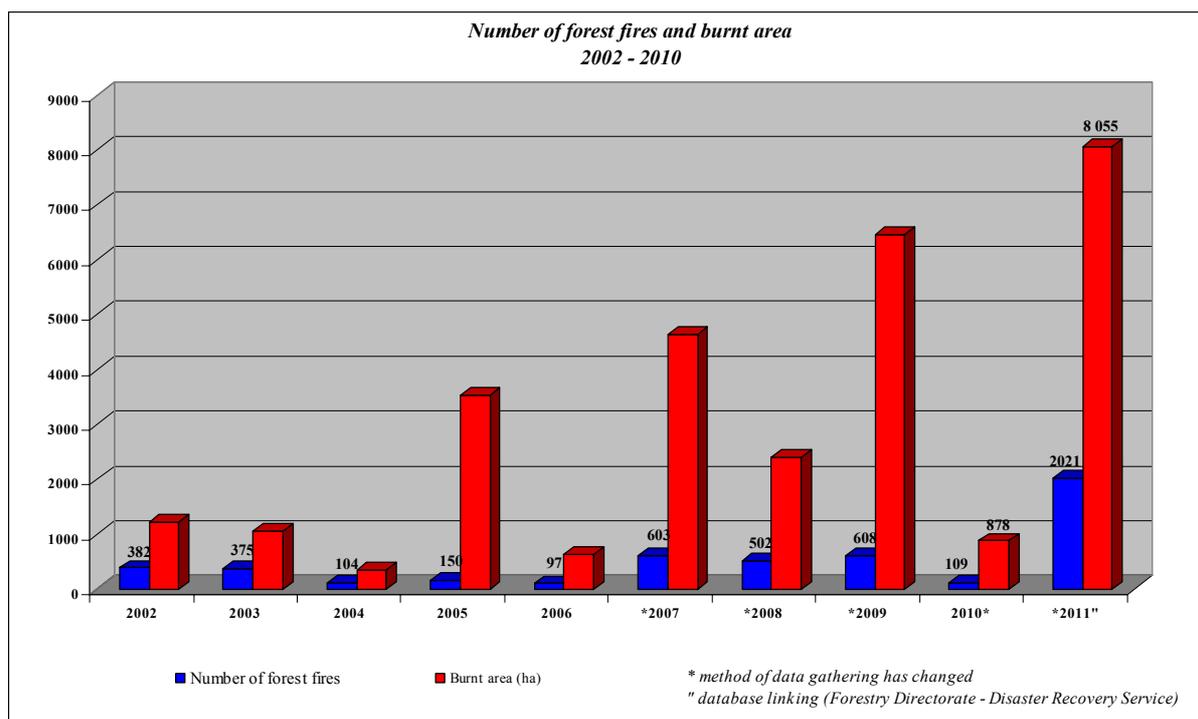


The most fire events in spring started in Northern Hungary. The number of non-forest fires is very high, also. One third of vegetation fires start in this region.

A total of 1.189 hectares of forest was burned or affected by fire during 2011. Further, more than 1721 hectares of grass vegetation and more than 5100 hectares of bush vegetation were destroyed in forest fires.

Fires in Hungary can be classified in two categories. Fires smaller than 5 hectares (fires in afforestation, surface fires) are in the first category, while crown fires and bigger surface fires are in the second one. The sizes of forest fires in 2011, excluding some special fire events, were not bigger than 2-5 hectares and two-thirds of fires were smaller than one hectare.

The fires are detected early so that the fire service can start the fire-fight quickly. These are usually low-intensity surface fires where dry grass and small branches are burning.



Nearly 95% of fires are between 1-50 hectares. The cause of human-induced fires is usually negligence. Fires above 100 hectares occur very rarely in Hungary. There were only 27 cases of such fire in 2011.

Ground fires are not significant. 97% of forest fires registered in 2011 was surface fires. This is the most common type of fires in Hungarian forests. This means more than 90 % of the affected area.

There were only 15 crown fires which affected 125 hectares forest stands.

95 % of fires are human-induced. Most fires are induced by (adults' and infants') negligence, and only a small proportion of fires are caused by arsonists. Typical forest fire causes are the incorrectly extinguished fires of hikers, and the illicit agricultural fires. Natural cause is not relevant in Hungarian forest stands. Most part of the total burned area was resulted by incorrectly extinguished fires.

There are a lot of fires with unknown causes. The cause of the fire is not verifiable directly in many cases. The Hungarian fire investigators register them as "unknown" if the circumstances of the forest fires are undetermined.

Fire fighting

In average, fires were extinguished less than an hour after alarming. Fire service arrived to fire in 30 minutes in average. Small fires are extinguished in half an hour.

There were no casualties among fire fighter and civilian during fire fighting in 2011. Fire service equipment was not heavily damaged. Death or personal injury did not happen during fire fighting in 2011.

Fire prevention activities and fire campaign

Cooperation agreement was renewed between the authorities about fire prevention activities. In the framework of the new agreement, special forest maps were developed for fire fighters and some new rules has come into force for fire prevention system.

The use of FWI was integrated in the fire ban system in 2011. Its values were taken into consideration during the whole fire season.

Fire prevention and fire fighting activities were presented very well by spokesmen of Fire Service and forest authority and by media in the frame of awareness-raising campaigns in the last fire season. Media events such as a press conferences, short reports and announcements in newspapers and on the radio and TV were organised accordingly. Supplying data from fire database is daily task to forest owners, managers and to media.

Expert presentation and demonstration about forest fire prevention and suppression were organised by FD for fire management and forest managers. The webpage of Forestry Directorate is continuously updated with fire prevention information. There was a flyer issued about fire prevention activities for managers and fire fighters, which can be downloaded from webpage of FD.

The forest authority and Disaster Recovery Directorates jointly controlled the forest areas where the forest managers had to make forest fire protection plans in 2011.