Forest fires in Hungary

2010.

(Reported by: Central Agricultural Office, Forestry Directorate)

Fire danger in 2010 fire season

In 2010, the annual rainfall was significantly higher than in the previous years. The rain fell most of the vegetation period and – similar to the former practice – FWI values were reported throughout the summer.

In July, the fire danger started to rise but it did not reach the very high level until the end of summer. The number of fires was significantly less than in recent years, except for the endangered period in spring.

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	4636	6088
2008	6639	502	2404	6137
2009	8658	608	6463	8050
2010	3120	109	878	3011

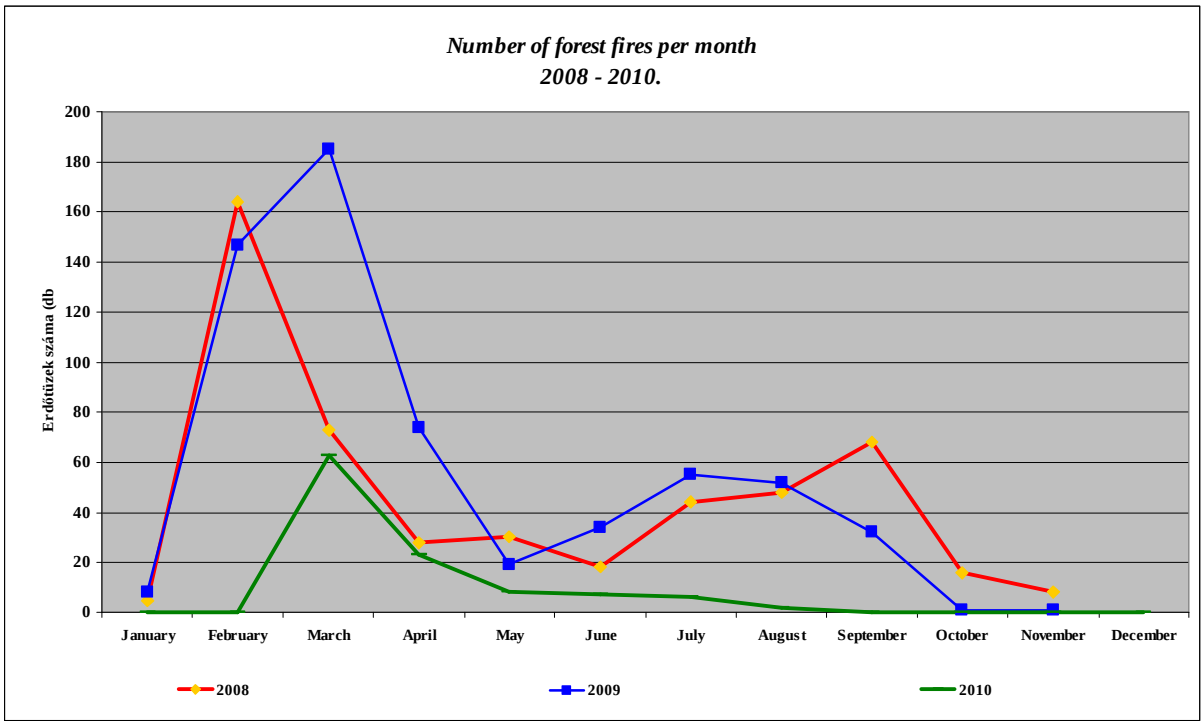
Although the years shown in the above chart were different, the number of fires, excluded the rainy 2010, was not much less then in 2007 and 2009 when the weather was dry. The chart above shows that only 9-10% of the vegetation fires are forest fires in annual average in Hungary.

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. 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	**251**
Other wooded land	**116**
Other land	**511**
Total:	**878**

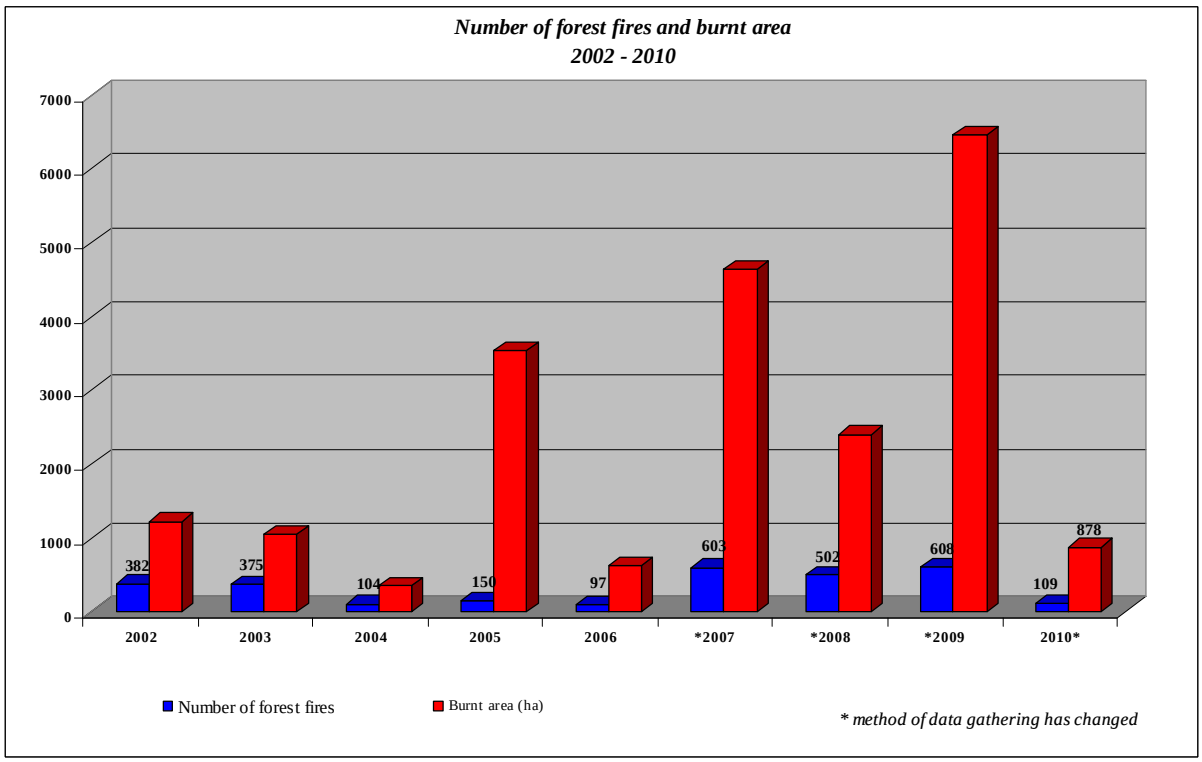
Burnt areas

The data of 2010 demonstrate the trend that there are two separated forest fire dangerous intervals in Hungary. Between 2002 and 2010, the most forest fire occured in February-April and July-August. In 2010, the interval between February and March was the most critical. 70% of fires were started in this part of the year.



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

During 2010 a total of 845 hectares of forest was burned down. Further, more than 516 hectares of grass vegetation and more than 110 hectares of bush vegetation were destroyed in forest fires.



The average burned area decreased in proportion to previous years. During the rainy summer, a smaller are burned than in previous years and there were no extended, long-term forest fires in 2010.

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 2010, excluding some special fire events, were not bigger than 2-5 hectares.

The proportion of fires smaller than 2 hectares is more than 40%. 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 was only one case of such fire in 2010.

Ground fires are not significant. 97% of forest fires registered in 2010 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 no crown fires, all fires were surface fires in forested area in 2010.

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 in 1-3 hours after alarming. Fire service arrived to fire in 30 minutes in average. Small fires are extinguished in one hour.

There were no casualties among fire fighter and civilian during fire fighting in 2010. Fire service equipment was not heavily damaged. Death or personal injury did not happen during fire fighting in 2010.

Fire prevention activities and fire campaign

The forest authority and Disaster Recovery Directorates jointly controlled the forest areas where the forest managers had to make forest fire protection plans in 2010.

The use of FWI was integrated in the fire ban system in 2010. Before issuing the fire ban, Central Agricultural Office (CAO) takes the JRC served FWI values into consideration.

Fire prevention and fire fighting activities were presented very well by spokesmen of disaster management and forest authority and by media in the frame of awareness-raising campaigns in the last fire season. Media events such as two 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.

The forest fire information system of forest authority was linked to the disaster management's system in autumn, 2010. CAO can immediately get information about fire events and can make GIS analyses using fire data from 2011. Expert presentation and demonstration about forest fire prevention and suppression were organised by CAO FD for fire management and forest managers. The webpage of CAO FD is continuously updated with fire prevention information.