



Belarus – Preparedness for the Fire Season 2010

Prevention and control of forest fires is one of the priorities of the Ministry of Forestry, which was ready in early 2010 for preparing the upcoming fire season. With this objective, the industry created a network of fire observation towers and masts, fire- chemical stations, a fleet of fire trucks and other equipment. Every year the works on fire fighting arrangement of forests are implemented, a system of ground and air patrols of the forest estate is organized, as well as the duty of the state forest protection during the fire season. The interaction with the Ministry of Emergency Situations (MOE) and its regional bodies, local executive and regulatory power is arranged constantly. Annually training of ground and aerial forest fire forces is implemented using modern firefighting equipment. All this allows to control the fire situation in forests.

Over the last decade an increase in amplitude and frequency of weather conditions variability in the fire season is registered. There are recurrent anomalous dry periods in the territory of the Republic, which complicates the forest fire situation.

The year 2009 was characterized by high and extreme fire danger. At the beginning of the fire season the general fire danger in Belarus was high, and extreme (emergency state) in some regions. An upsurge of forest fires as compared with average figures was experienced (see Table 1 in which the statistics of 2004-2008 are compared with the data of 2009. At the peak of the spring fire season some there were days during which up to 100 wildfires were recorded.

The major forest fires occurred in the Gomelski state forest enterprise. Total for season there were 1485 fire incidents in the forests with the total area of 1,709.5 hectares, including in the forests of Ministry of Forestry – 1244 cases (84%) with the total area of 1,566 hectares (92%). Damage to the organizations of the Ministry of Forestry by forest and peat fires, including the costs of response, was 873 million rubles.



Figures 1 and 2. Aerial views of surface and crown fires in Scotch pine (*Pinus sylvestris*) stands in Belarus during the 2009 fire season. Photos: *Bellesavia*.

An analysis of the causes of fires shows that 50% are caused by the fault of the population because of the violation of fire safety in forests, 33% – by unknown reasons, 16% – from agriculture burnings, 1% – caused by logging companies and other organizations. The state forest guard issued 368 protocols of administrative responsibility; 232 offenders paid 12 million rubles of penalties for violation of fire safety rules in the forests.

Table 1. Forest fire statistics for Belarus 2004-2009. Average fire data for the five-years period 2004-2008 are compared with the year 2009. Source: Bellesavia.

Year	March		April		May		June		July		August		September		October		Total		Average are burned per fire (ha)
	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	No. of fires	Area burned (ha)	
2004			282	237.3	238	104.9	258	101.2	89	35.3	86	16	64	10.4			1017	505.1	0.50
2005			83	19.34	58	81.7	91	14.8	273	51.5	110	20.4	238	52.9	184	50	1037	290.4	0.28
2006			711	384.7	1338	1306	149	94.4	614	316.4	20	11.2	30	22.5			2862	2135	0.75
2007	30	10.1	250	96.3	108	214.2	194	55.8	42	37.1	181	70.3	97	32.6	28	6.2	930	522.6	0.56
2008	8	6.82	104	68.44	56	19.8	208	93.7	90	30.96	162	177.5	24	2.58			652	399.8	0.61
5-year average	7.6	3.38	286	161.2	360	345.3	180	72	222	94.25	112	59.07	91	24.2	42	11	1300	770.6	0.60
2009			828	1398	418	193.1	20	4.99	25	5.22	53	12.23	44	8.914	4	0.5	1392	1623	1.16

According to the estimate based on the results of long-term observations (Table 1), a high fire danger was expected for 2010 for the forests of Belarus. In order to ensure a timely preparation for the fire season the Ministry of Forestry issued an order, which approved the Plan of Fire Prevention in 2010. Similar orders were issued in other forestry organizations.

Together with the Research Institute of Fire and Emergency problems of MOE the "Rules of fire safety in the forests of the Republic of Belarus" were drafted. *Belgiproles* elaborated a general plan of forest fire prevention for the 10-year period for Brest and Grodno forestry enterprises, similar to the plans of 2008 for Gomel and Mogilev.



Figures 3 and 4. Aerial views of an extreme crown fire and of a surface fire encroaching peat bogs. Photos: *Bellesavia*.

The stocktaking of forces and means of departmental systems of protection of forests from fires was implemented. The united system of ground-based detection of forest fires has 482 fire observation towers (11 of them installed in 2009) and 66 poles. 242 fire-chemical stations are functioning and 668 fire depots, which have on standby 470 fire engines, 63 forest fire modules, 369 barrels, 554 water tanks, 1042 tillage devices, 931 pumps, 237 km of water hoses, 7473 knapsack sprayers, 763 chainsaws, etc. For an efficient organization of detection and extinguishing of wildfires, the forest protection organization has 3261 radios for communication with aerial resources (fixed wing and helicopters).

For 2010 the plan of fire protection activities has foreseen the establishment arrangement of 73 thousand kilometers of mineralized strips, taking care of 148 square kilometers of previously established stripes, cutting of 74 km of fire breaks, installation of 9177 banners and billboards on fire themes, 5586 swing gates on the roads passing through forest areas. Aviation forest protection will be implemented by 15 aircraft operated by *Bellesavia*.

References

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