

Contribution 52 in session “Forest operations: environmental concerns and natural hazards“

**Method of investigation towards better forest fires risk management due to the improved forest biomass utilization**

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Forest fires are a serious concern for the present day forestry, especially for the South European countries. Climate changes are more obvious than ever, summers are getting dryer and the dead wood in the stands more often reaches low level of humidity. Logging residue that is left unused in the stand undoubtedly influences the occurrence and the spreading of the forest fires too. All those factors lead to higher risk of forest fires ignition. This paper tends to present the method that will be used in order to quantify the impact of logging residue and other dead wood on the forest fires occurrences, spreading and intensity. Since the dead wood material is not the only factor that influences characteristics of forest fires, other factors are taken into account as well. The final goal of this research is to justify potentially higher price for the forest biomass as raw material by the fact that its utilization may decrease the risk of forest fire damage to the forest. The research is conducted in Serbia where a number of recent large forest fires were examined. The aim is to offer any costumer/forest land owner Decision Support Tool (DST) which is able to react on actual situation and offer better management with respect to both forest fires prevention and improved forest biomass utilization, respectively. DST is based on analyzes of many factors which if they are staying alone nothing might happen but if they work corporately might create conditions suitable for forest fire ignition and further spreading. Such a tool covers all three pillars i.e. environmental, social and economical.