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All Division 4 (Forest Assessment, Modelling and Management) Meeting

Forest information for bioeconomy outlooks – a joint session of the European National Forest Inventory

KG I - 1010 (Uni Freiburg)

IUFRO17-2799 **The use of National Forest Inventory data for the conservation status assessment of Natura 2000 forest habitats in Europe**

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Abstract: The European Union (EU) Directive on the conservation of natural habitats (Habitats Directive) is, together with the Directive on the conservation of wild birds (Birds Directive), one of the most relevant transnational legal tools for nature protection in Europe. However, there are differences across member states on the application of common definitions and guidelines used to assess conservation status and priorities. National Forest Inventories (NFIs) are valuable sources of information on forest habitat types (FHTs) and NFIs data are used in many countries to report on conservation status of FHTs.

In the frame of the H2020 DIABOLO project, an enquiry was carried out regarding the use on NFIs data, at the country level, to report on FHTs within the commitments of the Habitat Directive. The survey covered European countries accounting more than 55% of FHTs area in Europe. The enquiry was focused on the possibility to assess the structural and functional indicators through NFIs data.

The results of the survey highlight the differences and similarities concerning national definition of FHTs, the methods and data used for the assessment of conservation status indicators and the level at which NFIs data contribute to them.

DIABOLO, indicators, forest habitat, bioregion

KG I - 1010 (Uni Freiburg)

IUFRO17-2265 **Fire probability estimated by National Forest Inventories in Iberian Peninsula**

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Abstract: In the Iberian Peninsula there are about 280000ha of burned area each year. Although quite different in size of territory and population, Portugal and Spain share the same land, environmental conditions and fire propensity.

The relationship between fire and fuel variables, in particular the ones that measure vertical structure has gained increase attention in fuel models. In this study, the hypothesis of which are the most import fuel variables to predict the absence/existence of fire, after controlling for other factors such as climate and topographic variables, is explored. These relationships were estimated by data collected from the Portuguese and Spain National Forest Inventories, from 106 weather stations across Iberian Peninsula, from the Digital Elevation Model developed by the United States Geological Survey and using a dataset of wildfire recorded in Portugal and Spain.

A set of variables are selected to be include in a binomial logistic regression that predicts the probability of fire occurrence. The results corroborate previous studies, which coniferous stands are more vulnerable to fire, and low and open stands have a higher potential for fire. On the other hand, tall stands are related to reducing crown fire hazard. Vertical structure proves to be crucial to fire models.

fire probability, vertical structure, NFI

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IUFRO17-1847 **Development of national LULUCF GHG projection system: the implications for forest and land use policy in Lithuania**

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Abstract: The role of land use change and forestry in the aim to improve the balance of carbon emissions in Lithuania is considered to be highly important. Current operational GHG accounting and reporting system for Land Use, Land Use Change and Forestry sector is focused mainly on monitoring, however, the importance of related political and management decisions are increasing. Such decisions are usually followed with risks and uncertainties concerning acceleration of anthropogenic climate change, complex dynamics of evolving rural and forest governance, developing ownership structures and land-use patterns. The presentation would introduce methodological framework for projecting national carbon balance trends. The role of modern decision supporting tools, incorporating scenario modeling and behavior of involved actors, facilitating the recommendations for new coherent policy instruments and management strategies, will be discussed. The system of forestry and land-use scenario development is a part of Lithuanian National Forest Inventory by sampling method. It is built on a basic matrix structure defining a number of fixed states and modeling the transitions of the states over time. The discussion is concentrated around the potential dynamics of forest reference level, forest and land-use policy implications and sustainable development challenges at national level under different future alternatives. The study will be elaborated in the frames of two EU Horizon 2020 projects DIABOLO and ALTERFOR as well as national project FORESTRESS.

matrix method, scenario modeling, reference level